## LOUISIANA STATE EMPLOYEES' RETIREMENT SYSTEM

JUNE 30, 2022

**ACTUARIAL VALUATION** 





September 29, 2022

Board of Trustees Louisiana State Employees' Retirement System Post Office Box 44213 Baton Rouge, Louisiana 70804-4213

Ladies and Gentlemen:

This report is prepared for the Louisiana State Employees' Retirement System (LASERS) Board of Trustees to present the results of the actuarial valuation of assets and liabilities, as well as funding requirements, as of June 30, 2022. The primary purpose of the report is to provide a measure of the plan's liability and funding levels and to determine the actuarially required contribution for fiscal year ending 2023 and the projected actuarially required contribution rate for fiscal year ending 2024. Section IV provides disclosures of the Fiduciary Net Position and Net Pension Liabilities required by the Governmental Accounting Standards Board Statements 67/68. Results of the funding valuation and GASB valuations should not be relied upon for other purposes.

In preparing this valuation, we have relied upon the information provided by the System regarding plan provisions, plan membership, plan assets and other matters as detailed in this report. In particular, we have relied upon the Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position as audited by Postlethwaite & Netterville, Certified Public Accountants. We did not audit the data or plan assets but reviewed for reasonableness and consistency with prior year data. Our review concluded that the data is reasonable and consistent with the prior year's data.

The liabilities and normal costs shown herein have been estimated on the basis of the actuarial cost methods as specified in Louisiana Revised Statutes Title 11 Section 22(6). All actuarial assumptions and methods have been approved by the Board of Trustees and are reasonable and appropriate for the purposes of this valuation. However, other sets of assumptions and methods could also be reasonable and could produce materially different results. Actual results may vary from the assumptions used to prepare the valuation.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. 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 and changes in plan provisions or applicable law. The scope of this report does not include an analysis of the range of such future measurements.

In performing the valuations, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding and accounting rules to generate the costs. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

This report has been prepared in accordance with actuarial standards of practice, and to the best of our knowledge, fairly reflects the actuarial present value of accrued benefits of the Louisiana State Employees' Retirement System.

Shelley is an Associate in the Society of Actuaries and Pat is a Fellow in the Society of Actuaries. Shelley and Pat are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

FOSTER & FOSTER INC.

Shelley R. Johnson

Shelley R. Johnson, ASA, MAAA

D. Patrick M Drold

D. Patrick McDonald, FSA, EA, MAAA, FCA

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# PRESENTATION OF VALUATION RESULTS

## SUMMARY OF VALUATION RESULTS

			Prior Y	ears
		June 30, 2022	June 30, 2021	June 30, 2020
I.	Membership Census			
	Retirees	49,747	49,535	49,341
	Actives	37,358	38,572	39,487
	DROP	1,199	1,311	1,367
	Terminated Vested	3,868	3,724	3,691
II.	Annual Benefits	\$1,395,718,166	\$1,364,477,409	\$1,328,286,600
III.	Total Payroll	2,008,311,596	2,004,062,861	1,999,414,595
IV.	Market Value of Assets	13,238,580,140	14,716,344,767	11,420,710,895
	Valuation Assets	13,824,312,747	13,347,462,993	12,617,189,040
V.	Experience Account	23,082,605	85,173,827	12,289,990
VI.	Investment Yield			
	Market Value (Total Assets)	-7.02%	33.03%	-3.98%
	Market Value (Excl. Self Directed, ORP)	-7.29%	34.58%	-4.32%
	Actuarial Value	7.05%	9.95%	3.94%
	DROP	6.55%	9.45%	3.44%
VII.	Total Normal Cost	225,224,285	218,244,525	208,142,784
	Total Normal Cost (% of Payroll)	11.21%	10.89%	10.41%
	Employer Normal Cost (% of Payroll)	3.11%	2.81%	2.35%
VIII.	Unfunded Actuarial Accrued Liability (UAAL)	6,974,009,198	6,872,857,541	7,074,189,759
	Funded Percentage	66.5%	66.0%	64.1%
	UAAL w/o discount rate/method changes $^{1}$	4,918,407,777	5,047,740,413	5,494,242,231
	Funding % w/o discount rate/method changes $^{1}$	73.8%	72.6%	69.7%
IX.	Funding Requirements (Mid-Year)			
	1) Discount Rate (Current Year) <sup>2</sup>	7.25%	7.40%	7.55%
	Discount Rate (Next Year) <sup>2</sup>	7.25%	7.25%	7.40%
	2) Employee Contribution	163,146,854	163,058,370	162,479,335
	Avg. Employee Contribution Rate	8.10%	8.08%	8.06%
	3) Restated Required Employer Contribution	844,193,312	818,701,523	793,572,215
	Aggregate Rate (Current Year) <sup>3</sup>	41.9%	40.6%	39.4%
	Restated Expected Contribution (Current Year)	825,805,064	811,255,752	818,444,293
	4) Projected Required Employer Contribution	848,965,875	835,703,090	817,898,542
	Proj. Aggregate Rate (Next Year) <sup>3</sup>	41.9%	41.0%	40.2%

<sup>1</sup> Approximate values if not for the discount rate changes from 8.25% and change to entry age normal cost method. Note: 2021 and 2020 estimated values have been restated using an improved estimation method.

<sup>2</sup> The discount rate is the long-term expected rate of return less 35 basis points to account for gain-sharing

<sup>3</sup> Aggregate employer contribution rate for all plans, net of special sub-plan direct UAL payments.

## PROJECTED CONTRIBUTION RATES BY PLAN

Act 1026 of the 2010 Legislative Session requires the employer contribution rate to be determined separately for each plan as shown in the table below. The normal cost portion of each plan's employer contribution rate varies based upon that plan's benefits, member demographics, actuarial assumptions, and the rate contributed by employees. The shared UAL contribution rate is determined in aggregate for all plans. The UAL established due to a specific plan or group of plans due to legislation will be allocated entirely to that plan or those plans. The Rank and File Employer Contribution Rate is applicable to Appellate Law Clerks, as determined by the Public Retirement Systems' Actuarial Committee (PRSAC) and was developed by including Appellate Law Clerk normal costs and payroll. The dollar amounts of the aggregate funding requirements for LASERS are shown in Section III.

Projected Cost for Fiscal Year 2023/2024								
		Total					Plan	Total
		Normal	Employee	Employer	Admin	Shared	Specific	Employer
	Plan	Cost %	NC %	NC %	Expense	UAL	UAL	Contribution
Plan	Status	(A)	(B)	(A)-(B)	%	%	%	%
Rank & File, App. Law Clerks	Open	10.3%	7.8%	2.5%	0.89%	37.92%	0.00%	41.3%
Judges and Court Officers	Closed	18.5%	11.5%	7.0%	0.89%	37.92%	0.00%	45.8%
Legislators	Closed	9.7%	11.5%	-1.8%	0.89%	37.92%	0.00%	37.0%
Special Legislative	Closed	9.7%	9.5%	0.2%	0.89%	37.92%	0.00%	39.0%
Corrections - Primary	Closed	9.1%	9.0%	0.1%	0.89%	37.92%	1.03%	39.9%
Corrections - Secondary	Closed	14.6%	9.0%	5.6%	0.89%	37.92%	0.23%	44.6%
Wildlife	Closed	23.7%	9.5%	14.2%	0.89%	37.92%	0.06%	53.1%
Peace Officers	Closed	13.1%	9.0%	4.1%	0.89%	37.92%	0.06%	43.0%
Alcohol Tobacco Control	Closed	12.8%	9.0%	3.8%	0.89%	37.92%	0.03%	42.6%
Bridge Police	Closed	9.8%	8.4%	1.4%	0.89%	37.92%	0.07%	40.3%
Judges (Act 992)	Open	18.9%	13.0%	5.9%	0.89%	37.92%	0.00%	44.7%
Hazardous Duty (Act 992)	Open	17.7%	9.5%	8.2%	0.89%	37.92%	0.02%	47.0%
Harbor Police Plan	Closed	17.4%	9.0%	8.4%	0.89%	37.92%	0.09%	47.3%
Aggregate LASERS Plans		11.2%	8.1%	3.1%	0.89%	37.92%	0.01%	41.9%

#### FUNDING REQUIREMENTS SPECIFIC TO INDIVIDUAL SUB-PLANS

- **Peace Officers -** Act 414 of 2007 increased the accrual rate for certain Peace Officers. The resulting UAL increase is funded with annual payments over 30 years from the Department of Public Safety Peace Officers' Fund.
- **Rank & File** Act 992 of 2010 changed the retirement eligibility for members hired on or after July 1, 2006. The increase in UAL is amortized over 30 years with level payments and paid only by employers of rank and file members.
- All Public Safety Plans –Act 224 of 2018 provides for a 100 percent survivor benefit for any member eligible for Hazardous Duty Plan membership, if killed in the line of duty by an intentional act of violence. The benefit increase resulted in a UAL increase for the following plans: Corrections Primary, Corrections Secondary, Wildlife, Peace Officers, Alcohol Tobacco Control, Bridge Police, Hazardous Duty, and Harbor Police. The UAL payment is amortized over 10 years with level payments and paid by employers of members in each applicable plan via the plan specific UAL payment.

Act 595 provides for a disability benefit equal to 100 percent of final average compensation for members of the Hazardous Duty, Corrections Primary and Secondary, Wildlife and Harbor Police plans

who are totally and permanently disabled in the line of duty by an intentional act of violence. The change is prospective for current members and retrospective for any eligible retirees. The UAL increase resulting from the prospective change was amortized with level payments beginning June 30, 2018. The UAL increase resulting from the retrospective change was amortized with level payments beginning June 30, 2019. Both are amortized over 10 years.

## CHANGES SINCE PRIOR VALUATION

The Board reduced the discount rate from 7.40% to 7.25%, effective July 1, 2022. This change was anticipated in the prior valuation when determining the projected contribution requirements for Fiscal Year 2022/2023 and is also used to determine the projected contribution requirements for Fiscal Year 2023/2024.

Act 656 of 2022 provided a one-time supplemental payment equal to the lesser of the retiree's or beneficiary's monthly benefit, or \$2,000. Eligibility is based on the current statutory COLA eligibility requirements. The increase in accrued liability includes the present value of the payment and is offset by funds disbursed from the Experience Account.

#### CHANGE IN FUNDING REQUIREMENTS

The aggregate employer contribution rate established by the Public Retirement Systems' Actuarial Committee for the 2022/23 plan year was 41.0%. The restated employer contribution rate determined by this valuation for the 2022/23 plan year is 41.9%. Therefore, an employer contribution deficit of 0.9% of payroll is expected next year.

Changes in the required contribution are generally the result of gains or losses resulting from actual experience differing from expected plan experience, expected changes in the UAL payment due to statutory requirements, and changes in actuarial assumptions or methods. Changes in the employer contribution rate are impacted by both the change in the total dollar required contribution and by the total aggregate payroll for active members.

The projected aggregate employer contribution rate increased from 41.0% for Fiscal Year 2022/2023 to 41.9% for Fiscal Year 2023/2024. The reasons for the change are detailed below. The total of the items contributing to the contribution rate change may not exactly equal the actual contribution rate change due to rounding and since the items impacting the rate are not additive and may overlap.

Normal Cost		0.01%
UAL Payment		
Investment Experience Loss	0.17%	
Other Experience Loss	0.32%	
Contribution Variance Payment Change	0.12%	
Change in Discount Rate from Prior Year Estimate	0.02%	
Total UAL Payment Change		0.63%
Payroll Change		0.24%
Administrative Expenses		0.02%
Total		0.90%
Actual Contribution Rate Change		0.90%

#### CHANGE IN UNFUNDED ACCRUED LIABILITY

Below is a reconciliation of the change in the plan's unfunded accrued liability (UAL).

Unfunded Accrued Liability - June 30, 2021		\$ 6,872,857,541
Interest on Unfunded Liability	\$ 508,591,458	
Amortization Payments	\$ (772,016,725)	
Legislative Acts Income (Act 170 of 2022)*	\$ (21,831,939)	
Investment Experience Loss	\$ 44,219,996	
Act 656 of 2022 (One-time Supp. Payment)	\$ 68,096,068	
Experience Account Disbursement	\$ (68,096,068)	
Other Experience Loss	\$ 81,350,507	
Employer Contribution Surplus	\$ (14,055,118)	
Discount Rate Change (from 7.40% to 7.25%)	\$ 274,893,478	
Total Change		\$ 101,151,657
Unfunded Accrued Liability - June 30, 2022		\$ 6,974,009,198

\* Includes \$2,577 in litter fines and \$21,829,362 in State surplus funds

#### PLAN EXPERIENCE

The actuarial assumptions represent the best estimate of future plan experience in order to properly fund benefits. The actuarial valuation results are dependent on the actuarial assumptions used to measure plan liabilities. These assumptions, which are adopted by the Board of Trustees, are detailed in Appendix E. A gain or loss occurs if the actual experience differs from assumed experience used to determine the prior year's projected plan measurements. The funding policy, in Appendix C, describes how investment and non-investment gains are amortized, or allocated for other purposes.

#### Demographic and Salary Experience

Demographic assumptions include rates of retirement/DROP, rates at which members become disabled, turnover rates, mortality rates, and several other assumptions. Salary assumptions anticipate future salary increases. During the 2021/22 plan year, the system incurred an experience loss of \$81,350,507 due to plan experience differing from that anticipated by the demographic and salary assumptions. The loss is amortized over 30 years with level payments.

A breakdown of the non-investment experience gain/(loss) is provided below:

	\$ Gain/(Loss)	% of Liability
Active Member Decrements	(\$27,426,871)	-0.13%
Active Member Salaries	(\$54,199,455)	-0.26%
Inactive Mortality	\$7,911,177	0.04%
Administrative Expenses	(\$976,887)	0.00%
Other	(\$6,658,471)	-0.03%
Total Experience Gain/(Loss)	(\$81,350,507)	-0.39%
Total Actuarial Liability	\$20,798,321,945	

#### Investment Experience

The market value of assets and actuarial value of assets include funds from the Optional Retirement Plan (ORP) and DROP accounts with member-directed investments. The rate of return on the actuarial value of assets is determined for trust assets net of these accounts, and in total, as shown below.

	Actuarial Value of	Directed DROP	Net Actuarial Value
	Assets	Accounts	of Assets
Beginning Assets	13,432,636,820	645,406,623	12,787,230,197
Contributions	1,038,753,162	65,120,140	973,633,022
Benefits Payments and Expenses	1,500,559,236	69,879,381	1,430,679,855
Investment Income	876,564,606	(8,068,116)	884,632,722
Ending Asset Value	13,847,395,352	632,579,266	13,214,816,086
Net AVA Rate of Return			7.05%

For the plan year ending June 30, 2022, the realized actuarial rate of return based upon the actuarial value of assets is 7.05%. Since this is less than the 7.40% discount rate, which was the assumed rate of return expected to fund regular plan benefits, the result is an investment experience loss of \$44,219,996, net of gains allocated to side funds or DROP Accounts. Investment experience losses are amortized over 30 years with level payments. Investment experience Account Allocation Base. The remaining gain is amortized over 30 years with level payments. One-half of the remaining gain is allocated to the experience account, up to the statutory cap and is amortized over ten years as a loss.

#### **Development of Investment Gain/(Loss)**

•	
A. Beginning Net Actuarial Value of Assets (AVA)	12,787,230,197
B. Total Contributions	973,633,022
C. Benefits Payments and Expenses	1,430,679,855
D. Ending Net Actuarial Value of Assets (AVA)	13,214,816,086
E. Investment Income $(D - A - B + C)$	884,632,722
Investment Rate of Return	7.05%
F. Expected Investment Income	928,852,718
Expected Rate of Return	7.40%
G. Investment Gain/(Loss) (E - F)	(44,219,996)
H. Gain Allocated to Side Funds or DROP Account	-
I. Net Investment Gain/(Loss) (G - H)	(44,219,996)
Current Threshold to OAB/EAAB	
J. \$100,000,000 Indexed by AVA Increase	121,022,374
	· · ·

The historical geometric average rates of return on the actuarial value of assets, net of investment expenses, for plan years ending June 30 are shown below. The discount rate reflects the expected return assumed to fund regular plan benefits. The historical returns below are analogous to the discount rate plus returns expected to be allocated to the experience account.

	Actuarial Rate of Return		Geometric Average
			Avelage
2017	7.62%	5 Year	6.71%
2018	7.52%	10 Year	8.43%
2019	5.18%	15 Year	6.45%
2020	3.94%	20 Year	6.85%
2021	9.95%	25 Year	6.86%
2022	7.05%	30 Year	7.46%

DROP accounts for members eligible for DROP prior to January 1, 2004 are credited with interest at the System's actuarial rate of return less a 0.5% expense adjustment, but not below zero. The DROP interest rate for the period July 1, 2021 through June 30, 2022 after the expense adjustment is 6.55%. DROP accounts for members eligible for DROP after January 1, 2004 are invested in self-directed accounts approved by the Board of Trustees.

The Harbor Police Retirement System Annual DROP Interest Rate is the three-year average (calculated as the compound average of 36 months) investment return of the plan assets for the period ending the June 30th immediately preceding that given date. The average rate so determined is to be reduced by a "contingency" adjustment of 0.5 percentage points, but not to below zero. The Harbor Police Retirement System Annual DROP Interest Rate for the period July 1, 2022 through June 30, 2023 after the "contingency" adjustment is 6.0586 percent. This number is provided by LASERS.

#### ACTUARIAL ASSETS/VALUATION ASSETS

The gross actuarial value of assets, developed in Section II, are determined based on the market value of assets, with gradual recognition of gains and losses relative to the discount rate over a five-year period in order to smooth the effects of short-term market volatility. Valuation assets are determined as the gross actuarial value of assets less the assets held in side-fund accounts. Valuation assets are used to determine the employer contribution rate (see Section III).

The side-fund accounts excluded from valuation assets are as follows:

<u>Employer Credit Account</u>: This account, established by Act 588 of 2004, accumulates the excess contributions based on the minimum employer contribution rate of 15.5%, over the actuarially determined employer contribution, as restated in the current valuation. The minimum rate is not currently applicable. The account continues to have a zero balance.

Experience Account: The account is used to fund permanent benefit increases for retirees. Fifty percent of any excess return above \$100,000,000 (indexed to increases in the actuarial value of assets, beginning June 30, 2016) will be credited to the Experience Account, subject to the restrictions provided in Act 399 of 2014, as described in the Summary of Plan Provisions (Appendix B). A total of \$68,096,068 was disbursed from the account to offset the increase in liability for a one-time supplemental benefit increase per Act 656 of 2022, which was paid on August 15, 2022. The fund currently has a balance of \$23,082,605.

## LEGISLATIVE/PLAN CHANGES

Act 170 of 2022 provided a supplemental appropriation of \$21,831,939 to LASERS, which includes State surplus funds and litter fines, to be applied to the IUAL, which is a component of the Original Amortization Base.

Act 656 of 2022 provided a one-time supplemental payment equal to the lesser of (1) the retiree's or beneficiary's monthly benefit, or (2) \$2,000. Eligibility is to be determined based on the current statutory COLA requirements based on the retiree's age, where applicable, as of June 30, 2022. Funds are to be paid from the Experience account not later than September 15, 2022.

The following provisions of Act 95 of 2016 will be implemented as certain triggers are met:

- The net remaining liability of the OAB and EAAB shall be re-amortized after application of the hurdle payments in Fiscal Year 2024/2025 and in every fifth year thereafter, until funded ratio reaches 80%.
- Changes the amortization period for most actuarial changes, gains, or losses from 30 years to 20 years once the funded ratio reaches 70%.

## ACCELERATED REDUCTION AND REAMORTIZATION OF OAB AND EAAB

Act 497 of 2009 established the OAB and EAAB and required the application of certain investment gains and contribution variance credits to these schedules. Act 399 of 2014 modified the provisions of Act 497 and specifies that until the System's funded ratio reaches 85%, the funds applied to these schedules will be used to pay off the schedules early, rather than to reduce employer contributions. Since 2009, \$224,670,810 has been applied to the OAB and \$364,970,329 has been applied to the EAAB. Funds credited to the EAAB since it's last re-amortization on June 30, 2019 result in an early payoff from FY 2039/40 to FY 2036/37, with a reduced final payment in the last payment year.

#### FUNDED STATUS

The funded status is a measure of the plan's assets relative to the plan's obligations. The current funded ratio is 66.5%, as measured by the plan's valuation assets divided by the total actuarial accrued liability, based on the asset valuation method, actuarial cost method, and actuarial assumptions described in Appendix E. The funded ratio has increased from 55.9% since 2012. See Appendix D for a 10-year history. If not for the reductions in the discount rate and change to the Entry Age Normal Cost method, the funded ratio would have increased to 73.8%. However, these changes have improved the financial stability of the plan by reducing the potential for future contribution rate increases. If all actuarial assumptions are realized, the funded ratio is expected to steadily increase as unfunded liabilities are amortized in accordance with the plan's funding policy.

The funded ratio reported for GASB purposes, which is based on the market value of assets rather than on valuation assets, is 64.1%.

# ASSETS/FINANCIAL SUMMARY

## STATEMENT OF REVENUES AND EXPENSES

				Prior	Year	s
	e	June 30, 2022	J	une 30, 2021	J	une 30, 2020
<b>Operating Income:</b>						
1. Contribution Income						
Member	\$	167,117,810	\$	166,954,560	\$	164,576,018
Employer		833,659,874		844,395,225		837,086,539
ORP		325,589		381,162		363,063
2. Other Income						
Legislative Acts Income <sup>1</sup>		21,831,939		8,438,055		16,668,183
Transfers/Purchases		11,082,262		10,062,645		11,300,144
Miscellaneous		4,735,688		4,493,495		4,655,368
Total Non-Investment Income		1,038,753,162		1,034,725,142		1,034,649,315
3. Investment Income						
Investments		(920,857,381)		3,805,906,491		(388,156,381)
Less Investment Expenses		(95,101,172)		(102,313,232)		(92,417,433)
Net Investment Income		(1,015,958,553)		3,703,593,259		(480,573,814)
4. Total Income		22,794,609		4,738,318,401		554,075,501
<b>Operating Expenses:</b>						
1. General Administration		16,710,210		16,606,586		16,749,257
Other Post Employment Benefits		966,102		89,651		42,750
Depreciation Expenses		800,575		769,107		820,094
2. Benefits Paid						
Pension Benefits		1,447,668,471		1,394,914,135		1,368,004,318
Return of Contributions		34,413,878		30,305,050		30,447,178
Total Benefits Paid		1,482,082,349		1,425,219,185		1,398,451,496
3. Total Expenses	\$	1,500,559,236	\$	1,442,684,529	\$	1,416,063,597
Net Income:	\$	(1,477,764,627)	\$	3,295,633,872	\$	(861,988,096)

<sup>&</sup>lt;sup>1</sup> Legislative Acts Income: 2022 includes \$2,577 in litter fines and \$21,829362 in appropriations from Act 170 of 2022; 2021 includes \$7,368 in litter fines and \$8,430,687 in appropriations from Act 120 of 2021; 2020 includes \$6,628 in litter fines and \$16,661,555 in appropriations from Act 255 of 2020

## **COMPARATIVE SUMMARY OF REVENUES BY SOURCE** AND EXPENSES BY TYPE

Plan	Member	Employer	Investment	
Year	Contribution	Contribution <sup>1</sup>	Income <sup>3</sup>	Total
2013	173,357,802	682,836,602	1,106,494,873	1,962,689,277
2014	152,993,052	635,974,701	1,770,521,381	2,559,489,134
2015	153,281,097	739,607,123	152,809,130	1,045,697,350
2016	152,233,771	744,582,736	(296,729,233)	600,087,274
2017	149,931,242	689,633,005	1,520,600,699	2,360,164,946
2018	152,189,709	744,678,436	1,011,537,508	1,908,405,653
2019	160,338,556	782,681,902	452,914,317	1,395,934,775
2020	164,576,018	870,073,297	(480,573,814)	554,075,501
2021	166,954,560	867,770,582	3,703,593,259	4,738,318,401
2022	167,117,810	871,635,352	(1,015,958,553)	22,794,609

#### **Revenues by Source**

## **Expenses by Type**

Plan			Administrative	
Year	Benefits	Refunds	Expenses <sup>2,3</sup>	Total
2013	1,070,410,859	61,522,162	18,932,247	1,150,865,268
2014	1,167,477,166	77,118,765	17,638,128	1,262,234,059
2015	1,199,079,252	38,308,757	18,011,841	1,255,399,850
2016	1,238,507,932	35,997,261	17,018,181	1,291,523,374
2017	1,274,461,022	37,606,040	18,536,860	1,330,603,922
2018	1,317,635,325	35,191,508	25,141,552	1,377,968,385
2019	1,343,892,705	34,948,707	18,107,490	1,396,948,902
2020	1,368,004,318	30,447,178	17,612,101	1,416,063,597
2021	1,394,914,135	30,305,050	17,465,344	1,442,684,529
2022	1,447,668,471	34,413,878	18,476,887	1,500,559,236

<sup>1</sup> Includes transfers and purchases and the annual employer contribution, and any legislative appropriations.
 <sup>2</sup> Includes other expenses, not related to administration.

<sup>&</sup>lt;sup>3</sup> Investment Income and Administrative Expenses do not tie to LASERS financial statements for 2013 because Investment Administrative Expenses were transferred from Administrative Expenses to Investment Income per instructions from GASB.

## STATEMENT OF ASSETS

		Prior `	Yea	rs
	 June 30, 2022	June 30, 2021		June 30, 2020
ASSETS (Market Value)				
1. Short-Term Assets				
Cash/Cash Equivalencies	\$ 169,121,709	\$ 148,590,579	\$	139,023,019
Short-Term Investments	183,287,969	250,365,783		533,930,023
2. Bonds				
Domestic Issues	1,200,717,250	1,341,333,489		1,287,120,678
International Issues	1,659,244,087	1,687,925,583		1,267,656,475
3. Equities				
Domestic Stock	3,717,981,231	4,301,389,387		2,172,131,338
International Stock	2,780,795,943	3,644,585,085		2,929,335,194
4. Other Assets				
Fixed Assets	5,840,563	5,954,546		6,217,506
Alternative Assets	3,467,824,267	3,298,280,425		3,028,015,501
5. Receivables - Payables	51,590,097	38,268,362		59,505,364
6. Securities Lending Assets - Liabilities	(229,120)	6,447		6,629
7. Deferred Outflows & Inflows	2,406,144	(354,919)		(2,230,832)
TOTAL ASSETS - Market Value	13,238,580,140	14,716,344,767		11,420,710,895
Cost Value	11,167,928,091	11,037,578,296		10,596,943,658
6. Securities Lending Assets - Liabilities 7. Deferred Outflows & Inflows TOTAL ASSETS - Market Value	(229,120) 2,406,144 13,238,580,140	6,447 (354,919) 14,716,344,767		6,629 (2,230,832) 11,420,710,895

## **ACTUARIAL VALUE OF ASSETS**

The actuarial value of assets (AVA) is determined as the market value of assets (MVA) adjusted to gradually recognize investment gains and losses relative to the net assumed investment return, over a 5-year period in 20% increments. The actuarial value of assets is subject to Corridor Limits of 80% to 120% of the Market Value of Assets. The tables below show the development of the actuarial value of assets and the amount of deferred gains and losses to be recognized in future years.

	Market Value	Deferred	De fe rre d
Plan Year	Gain/(Loss)	%	Gain/(Loss)
2019	(469,064,390)	20%	(93,812,878)
2020	(1,398,931,804)	40%	(559,572,721)
2021	2,857,048,590	60%	1,714,229,154
2022	(2,087,073,459)	80%	(1,669,658,767)
			(608,815,212)
Market Value	of Assets		13,238,580,140
- Deferred As	set Gain/(Loss)		(608,815,212)
Preliminary Ac	ctuarial Value of Assets	8	13,847,395,352
CORRIDOR	LIMITS		
Minimum = 8		10,590,864,112	
Maximum =		15,886,296,168	
Actuarial Valu	e of Assets		13,847,395,352

#### Deferred Gain/Loss to be Recognized in Actuarial Value of Assets in Future Years

Plan	Deferred				
Year	Gain/(Loss)	2023	2024	2025	2026
2019	(93,812,878)	(93,812,878)			
2020	(559,572,721)	(279,786,361)	(279,786,360)		
2021	1,714,229,154	571,409,718	571,409,718	571,409,718	
2022	(1,669,658,767)	(417,414,692)	(417,414,692)	(417,414,692)	(417,414,691)
	(608,815,212)	(219,604,213)	(125,791,334)	153,995,026	(417,414,691)

## SIDE FUNDS AND DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

				Prior	Years	
		June 30, 2022	Ju	June 30, 2021		June 30, 2020
EMPLOYER CREDIT ACCOUNT <sup>1</sup> :						
Prior Year Ending Balance	\$	-	\$	-	\$	-
+ Current Year Allocation		-		-		-
- Current Year Disbursements		-		-		-
+ Accumulated Interest		-		-		-
Total Fund Balance - Year End		-		-		-
INITIAL UAL AMORTIZATION FUND:						
Prior Year Ending Balance	\$	-	\$	-	\$	-
+ Current Year Allocation		-		-		-
- Current Year Disbursements		-		-		-
+ Accumulated Interest		-		-		-
Total Fund Balance - Year End		-		-		-
EXPERIENCE ACCOUNT FUND:						
Prior Year Ending Balance	\$	85,173,827	\$	12,289,990	\$	11,824,506
+ Experience Account Allocation				77,702,485		-
- Benefit Disbursements		(68,096,068)		(6,041,053)		-
+ Accumulated Interest		6,004,846		1,222,405		465,484
Fund Balance - Year End		23,082,605		85,173,827		12,289,990
DEVELOPMENT OF						
VALUATION ASSETS:						
	¢	10.015.005.055	<b>•</b> • •		¢	
Actuarial Value of Assets	\$	13,847,395,352	\$ 1.	3,432,636,820	\$	12,629,479,030
- Employer Credit Account		-		-		-
- Initial UAL Fund		-		-		-
- Experience Account Fund	φ.	23,082,605	ሰ ተ	85,173,827	φ.	12,289,990
Valuation Assets	\$	13,824,312,747	\$ 1.	3,347,462,993	\$	12,617,189,040

<sup>1</sup> The Employer Credit Account was created by ACT 588 of 2004.

# DEVELOPMENT OF COSTS, LIABILITIES AND CONTRIBUTIONS

Normal Costs and Accrued Liabilities are calculated based on the Provisions of the Plan as summarized in Appendix B in accordance with the Entry Age Normal Cost Method, and the Actuarial Assumptions outlined in Appendix E.

	L		Prior Yea		
	June 30, 20		June 30, 20		
	Dollar Amount	% of Salary	Dollar Amount	% of Salary	
		Salal y		Salal y	
Discount Rate	7.25%		7.40%		
I. Normal Costs					
Active Members with Complete Data					
a) Retirement Benefits	136,298,904	6.79%	130,762,314	6.52%	
b) Disability Benefits	4,132,454	0.20%	3,940,747	0.20%	
c) Survivor Benefits	4,437,172	0.22%	4,344,539	0.22%	
d) Voluntary Termination	80,355,755	4.00%	79,196,925	3.95%	
TOTAL	225,224,285	11.21%	218,244,525	10.89%	
II. Actuarial Accrued Liability					
a) Active Members					
1) Retirement/Termination Benefits	5,098,156,310		4,937,165,645		
2) Disability Benefits	53,119,692		52,058,753		
3) Survivor Benefits	63,565,517		62,468,179		
	5,214,841,519		5,051,692,577		
b) Retired and Inactive Members					
1) Regular Retirees	11,736,387,806		11,300,327,045		
2) Disability	233,191,866		237,335,673		
3) Survivors	924,681,092		881,684,751		
4) Terminated Vested	384,951,279		378,147,491		
5) Contributions Refunded	94,391,162		90,048,020		
6) DROP Deferred Benefits	1,066,225,729		1,122,799,731		
7) DROP Account Balances	1,138,772,981		1,152,219,353		
8) ORP Account Balances	4,878,511		6,065,893		
	15,583,480,426		15,168,627,957		
c) Total	20,798,321,945		20,220,320,534		

	June 30, 2022	Prior Year June 30, 2021
II. Actuarial Accrued Liability	20,798,321,945	20,220,320,534
Discount Rate	7.25%	7.40%
III. Valuation Assets	13,824,312,747	13,347,462,993
IV. Unfunded Actuarial Accrued		
Liability - Entry Age Normal	6,974,009,198	6,872,857,541
a) Change over prior year	101,151,657	(201,332,218)
b) Funded Percentage	66.5%	66.0%
V. Employer Contributions To Fund Current Plan Year <sup>1</sup>		
a) Employer Portion of Normal Cost	62,733,160	56,709,275
b) Administrative Expenses	18,000,000	17,500,000
c) Amortization Payments	763,755,919	738,385,308
d) Prior Contribution Variance Amort. Pmt	-	6,560,307
TOTAL Required Contribution	844,489,079	819,154,890
Less direct UAL payments <sup>2</sup>	295,767	453,367
NET contribution required	844,193,312	818,701,523
	41.9%	40.6%
PRSAC Approved rate <sup>3</sup>	41.0%	40.2%
VI. Projected Employer Contributions		
Discount Rate	7.25%	7.25%
To Fund Next Plan Year <sup>1</sup>		
a) Employer Portion of Normal Cost	63,054,978	63,196,547
b) Administrative Expenses	18,000,000	17,500,000
c) Amortization Payments	763,755,919	753,318,995
d) Prior Contribution Variance Amort. Pmt	4,450,745	1,983,315
TOTAL Required Contribution	849,261,642	835,998,857
Less direct UAL payments <sup>2</sup>	295,767	295,767
NET contribution required	848,965,875	835,703,090
	41.9%	41.0%
Projected Rank and File Employer Normal Cost Rate	2.48%	2.50%
Projected Aggregate Employer Normal Cost Rate	3.11%	3.10%
VII. Current Payroll	2,008,311,596	2,004,062,861
Projected Payroll - Mid Year	2,014,158,693	2,018,049,135
Projected Payroll - Next Year	2,024,491,230	2,036,887,452

<sup>1</sup> Dollar amounts reflect estimated payments due mid-year on January 1st per Act 81.

<sup>2</sup> Direct UAL payments for Act 414 and Harbor Police are not included in the employer contribution rate.

<sup>3</sup> Constitutional Minimum is 12% without regard to Employer Credits.

# **GASB STATEMENTS 67/68 REPORTING**

The Governmental Accounting Standards Board Statements No. 67/68 establish financial reporting standards for state and local governmental pension plans and their sponsors that are administered through trusts or equivalent arrangements. The required actuarial disclosures are illustrated below. The Plan Fiduciary Net Position is the Market Value of Assets used for the funding valuation. The Total Pension Liability was developed using the Entry Age Normal cost method.

	 June 30, 2022	 June 30, 2021	]	June 30, 2020
Total Pension Liability	\$ 20,798,321,945	\$ 20,220,320,534	\$	19,691,378,799
Plan Fiduciary Net Position	\$ 13,238,580,140	\$ 14,716,344,767	\$	11,420,710,895
Net Pension Liability	\$ 7,559,741,805	\$ 5,503,975,767	\$	8,270,667,904
Plan Fiduciary Net Position as a percentage of Total Pension Liability	63.7%	72.8%		58.0%
Covered Employee Payroll	\$ 2,008,311,596	\$ 2,004,062,861	\$	1,999,414,595
Net Pension Liability as percentage of Covered Employee Payroll	376.4%	274.6%		413.7%

#### SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year	Actuarially Determined Contribution (ADC) <sup>1</sup>	Contributions in Relation to ADC <sup>1</sup>	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2013	724,391,420	649,029,708	75,361,712	1,951,987,750	33.2%
2014	709,799,409	612,698,414	97,100,995	1,813,759,357	33.8%
2015	697,377,899	722,137,361	(24,759,462)	1,856,735,292	38.9%
2016	694,091,525	718,606,514	(24,514,989)	1,842,286,184	39.0%
2017	701,906,777	675,583,750	26,323,027	1,821,943,975	37.1%
2018	707,672,002	725,802,871	(18,130,869)	1,864,035,191	38.9%
2019	717,033,569	760,150,449	(43,116,880)	1,952,495,777	38.9%
2020	785,380,878	837,449,602	(52,068,724)	1,999,414,595	41.9%
2021	795,212,826	844,776,387	(49,563,561)	2,004,062,861	42.2%
2022	820,423,194	833,985,463	(13,562,269)	2,008,311,596	41.5%

<sup>1</sup>Contributions shown are not interest adjusted. Actual contributions tie to financial statements.

		2022	2021	2020
Total Pension Liability (TPL)				
Service Cost		218,244,525	218,244,525	220,437,301
Interest		1,457,616,767	1,449,374,537	1,447,710,612
Changes of Benefit Terms <sup>1</sup>		68,096,068	6,041,053	-
Diff Between Expected and Actual Experience		41,232,922	10,871,434	(158,856,913)
Changes of Assumptions		274,893,478	269,629,371	52,927,000
Retirement Benefits	(	(1,447,668,471)	(1,394,914,135)	(1,368,004,318)
Refunds and Transfers	_	(34,413,878)	 (30,305,050)	 (30,447,178)
Net Change in Total Pension Liability		578,001,411	528,941,735	163,766,504
Total Pension Liability - Beginning	2	0,220,320,534	19,691,378,799	19,527,612,295
Total Pension Liability - Ending (a)	2	0,798,321,945	20,220,320,534	19,691,378,799
Plan Fiduciary Net Position				
Employer Contributions		855,817,402	853,214,442	854,117,785
Employee Contributions		167,117,810	166,954,560	164,576,018
Net Investment Income	(	1,015,958,553)	3,703,593,259	(480,573,814)
Other Income		15,817,950	14,556,140	15,955,512
Retirement Benefits	(	(1,447,668,471)	(1,394,914,135)	(1,368,004,318)
Refunds and Transfers of Member Contributions		(34,413,878)	(30,305,050)	(30,447,178)
Administrative Expense		(16,710,210)	(16,606,586)	(16,749,257)
Other Postemployment Benefit Expenses		(966,102)	(89,651)	(42,750)
Depreciation and Amortization Expenses		(800,575)	(769,107)	(820,094)
Net Change in Plan Fiduciary Net Position	(	(1,477,764,627)	3,295,633,872	(861,988,096)
Plan Fiduciary Net Position - Beginning	1	4,716,344,767	11,420,710,895	12,282,698,991
Plan Fiduciary Net Position - Ending (b)	1	3,238,580,140	14,716,344,767	11,420,710,895
Ending Net Pension Liability (NPL) (a) - (b)		7,559,741,805	5,503,975,767	8,270,667,904
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		63.7%	72.8%	58.0%
Covered Employee Payroll	\$	2,008,311,596	\$ 2,004,062,861	\$ 1,999,414,595
Net Pension Liability as a Percentage of Covered Employee Payroll		376.4%	274.6%	413.7%

## STATEMENT OF CHANGES IN NET PENSION LIABILITY

<sup>1</sup> Increase in Net Pension Liability resulting from Act 37 of 2021.

#### **Actuarial Assumptions:**

All assumptions used for purposes of GASB Statement 67/68 reporting requirements are described in Appendix E, except for the discount rate. Please see below for a description of the discount rate used for GASB Statement 67/68 reporting.

#### **Discount Rate:**

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) 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 adjusting for expected inflation of 2.30% and an adjustment for the effect of rebalancing/diversification. The resulting expected long-term nominal rate of return is 8.34%. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2022 are summarized in the following table:

	Long Term Expected
Asset Class	Real Rate of Return
Cash	0.39%
Domestic Equity	4.57%
International Equity	5.76%
Domestic Fixed Income	1.48%
International Fixed Income	5.04%
Alternatives	8.30%
Total Fund	5.91%

The discount rate used to measure the total pension liability was 7.25 percent.

The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

	Current Discount			
	1% Decrease	Rate	1% Increase	
	6.25%	7.25%	8.25%	
2022 Employers' Net Pension Liability	9,512,361,423	7,559,741,805	5,779,236,411	

The Schedule of Pension Amounts, below, provides employers with amounts to be recognized in the financial statements and note disclosures for GASB 68 reporting. In accordance with GASB Statement 68, changes in total pension liability due to differences between actual and expected experience and changes in assumptions are amortized over a period equal to the average of the expected 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 current average remaining service life, when rounded up to the next higher whole number changed from 3 years to 2 years in 2019. Differences between projected and actual investment returns are amortized over a closed 5-year period.

2022 Active Remaining Service Life:	# Years	Plan Year	Amortization Period
Active	7.41	2014-2018	3.00
Active After DROP	3.79	2019-2022	2.00
Supplemental	3.29		
DROP	0		
Term Vested	0		
Term Non-vested	0		
Retired	0		
Weighted Average	1.80		
Amortization Period (Rounded Up)	2.0 Years		

## SCHEDULE OF PENSION AMOUNTS

	Net Pension Liability	De fe rre d Inflows	Deferred Outflows	Pension Expense
Beginning balance	(5,503,975,767)	(2,310,572,625)	1,167,275,137	
Total Pension Liability Factors:				
Service cost	(218,244,525)			218,244,525
Interest	(1,457,616,767)			1,457,616,767
Changes in benefit terms	(68,096,068)			68,096,068
Differences between expected and actual	(41,232,922)	-	41,232,922	
Amortization of current year		-	(20,616,461)	20,616,461
Amortization of prior years			(5,435,717)	5,435,717
Changes in assumptions	(274,893,478)	-	274,893,478	
Amortization of current year		-	(137,446,739)	137,446,739
Amortization of prior years		-	(134,814,685)	134,814,685
Benefit payments	1,447,668,471			(1,447,668,471)
Refunds and Transfers of Member	34,413,878			(34,413,878)
Net Change in Total Pension Liability	(578,001,411)		17,812,798	560,188,613
Plan Fiduciary Net Position:				
Employer Contributions	855,817,402			
Employee Contributions	167,117,810			(167,117,810)
Expected earnings on pension plan investments	1,071,180,273			(1,071,180,273)
Differences between projected and actual				
earnings on pension plan investments	(2,087,138,826)	-	2,087,138,826	
Amortization of current year		-	(417,427,765)	417,427,765
Amortization of prior years		596,362,921	(373,615,907)	(222,747,014)
Retirement Benefits	(1,447,668,471)			1,447,668,471
Administrative Expense	(16,710,210)			16,710,210
Refunds and Transfers of Member	(34,413,878)			34,413,878
Other	14,051,273			(14,051,273)
Net Change in Plan Fiduciary Net Position	(1,477,764,627)	596,362,921	1,296,095,154	441,123,954
Ending Balance	(7,559,741,805)	(1,714,209,704)	2,481,183,089	1,001,312,567

## MEMBERSHIP DATA

LASERS provides the data for individual members of the system as of the valuation date. The validity of the results of any actuarial valuation is dependent upon the accuracy of the data provided. Our review of submitted data is limited to validation of reasonableness and consistency in several areas, such as age, service, salary, and current benefits. Our review includes checks for duplicate records and a comparison of the current year records to those submitted in prior years. Records identified as containing suspicious data were assigned values based on information from similar records or based on historical averages for similarly situated members. Suspicious data are not necessarily errors, but data which fall outside the normal parameters. Notwithstanding our efforts to review both census and financial data for apparent errors, we must rely upon the system's administrative staff and accountants to provide accurate information.

The data contained in this valuation is summarized on the following pages. The data summarized in the tables that follow serve as the basis for determining costs and liabilities. Salary and benefit totals in the membership profiles may not sum exactly to totals shown due to rounding.

Salary data contained in the profiles and valuation report exceed the amount reported by internal audit for members with less than one year of service. In the valuation process, salaries are annualized for members with fractional service in the first year of employment.

Disability retirees who have reached normal retirement eligibility requirements are considered regular retirees by LASERS but are classified as disability retirees for purposes of the actuarial valuation. Liabilities are calculated accordingly.

	2022	2021	2020
Rank and File, Appellate Law Clerks	31,252	32,324	32,774
Legislators	3	4	4
Judges, Prior to 2011	133	136	173
Judges, Post 2011	186	186	126
Wildlife	110	124	130
Corrections Primary	55	67	91
Corrections Secondary	1,016	1,151	1,272
Peace Officers	29	32	35
Alcohol Tobacco Control	8	7	9
Bridge Police	3	3	3
Hazardous Duty Plan	3,122	2,995	3,182
Harbor Police	15	16	19
Subtotal	35,932	37,045	37,818
Post DROP	1,426	1,527	1,669
Total Active Members	37,358	38,572	39,487

## ACTIVE MEMBERS BY PLAN

	2022	2021	2020
Active Members	37,358	38,572	39,487
DROP Participants	1,199	1,311	1,367
Regular Retirees	41,678	41,449	41,271
Disability Retirees	1,918	2,000	2,091
Survivors	6,151	6,086	5,979
Terminated Vested	3,868	3,724	3,691
Subtotal	92,172	93,142	93,886
Terminated, Due Refund	59,146	57,464	55,676
Total Members	151,318	150,606	149,562

## TOTAL MEMBERS

## MEMBER RECONCILIATION

	Active Pre-DROP	Active after DROP	Terminated Vested	In DROP	Retired, Disabled, Survivors	Total
June 30, 2021	37,045	1,527	3,724	1,311	49,535	93,142
Additions						
Initial Membership	3,589					3,589
Non-Vested Rehire	491					491
Data Revisions		3	15	1	37	56
Change in Status						
Active to Terminated Vested	(631)		631			
Active to In DROP	(370)			370		
Active to Retired	(926)				926	
Disabled to Active						
Terminated Vested to Active	133		(133)			
Terminated Vested to Retiree			(174)		174	
Terminated Vested to DROP			(4)	4		
In DROP to Active after DROP		211		(211)		
In DROP to Retiree				(274)	274	
Active After DROP to Retiree		(315)			315	
Eliminated from Census						
Refunded	(1,448)		(147)			(1,595)
Terminated, Due Refund	(1,894)		(14)			(1,908)
Deceased	(35)	(2)	(17)	(2)	(1,425)	(1,481)
Data Revisions	(22)	2	(13)		(89)	(122)
June 30, 2022	35,932	1,426	3,868	1,199	49,747	92,172

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CELLS DEPICT

# LASERS MEMBERSHIP PROFILE

**Regular Members Before July 2006** 

CLLLS D		TOTAL SA	ALARY					(THEOT			
Credited Service											
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total	
< 25											
25 - 29											
30 - 34		1			2					3	
		\$36,364			\$75,013					\$111,377	
35 - 39		7	5	12	170	19	1			214	
		\$307,587	\$165,492	\$530,945	\$9,409,574	\$1,060,794	\$45,616			\$11,520,008	
40 - 44	4	14	14	42	794	377	29			1274	
	\$122,812	\$574,226	\$541,014	\$2,649,892	\$50,867,758	\$23,790,185	\$2,159,510			\$80,705,397	
45 - 49		15	21	46	587	872	304	15		1860	
		\$667,040	\$1,203,394	\$2,698,033	\$37,537,098	\$59,217,953	\$20,142,907	\$1,382,483		\$122,848,908	
50 - 54	1	18	18	42	538	883	797	106	3	2400	
	\$20,510	\$708,420	\$1,186,907	\$2,602,378	\$32,616,303	\$57,866,568	\$56,486,638	\$8,622,914	\$410,616	\$160,521,254	
55 - 59	1	14	13	31	464	667	259	149	34	1632	
	\$15,872	\$831,924	\$613,039	\$1,655,284	\$26,226,603	\$40,580,727	\$18,079,497	\$12,231,369	\$2,579,908	\$102,814,223	
60 - 64		10	8	27	299	266	152	110	62	934	
		\$384,605	\$311,505	\$1,407,802	\$16,628,020	\$15,633,057	\$10,223,884	\$9,265,404	\$4,393,970	\$58,248,247	
65 - 69		2	3	6	137	142	93	49	37	469	
		\$63,604	\$183,012	\$358,807	\$8,839,325	\$8,612,616	\$6,023,464	\$3,363,782	\$2,869,807	\$30,314,417	
70+		1		4	52	77	56	33	32	255	
		\$11,322		\$239,678	\$2,421,528	\$4,346,380	\$3,784,120	\$2,013,489	\$2,744,476	\$15,560,993	
Total	6	82	82	210	3043	3303	1691	462	168	9047	
	\$159,194	\$3,585,092	\$4,204,363	\$12,142,819	\$184,621,222	\$211,108,280	\$116,945,636	\$36,879,441	\$12,998,777	\$582,644,824	

Averages

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Attained Age53.09Service Years22.04Active Salary\$64,402

MEMBER COUNT

VALUATION DATE 6/30/2022

## **Regular Members After July 2006**

CELLS DEPICT - MEMBER COUNT TOTAL SALARY							VALUAT	FION DA	ATE 6/30/2022			
Credited Service												
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total		
< 25	637	504	9							1150		
	\$16,852,430	\$15,055,816	\$286,396							\$32,194,642		
25 - 29	565	1458	375	8						2406		
	\$16,617,229	\$56,335,814	\$16,361,016	\$292,881						\$89,606,940		
30 - 34	464	1415	1054	207	10	1				3151		
	\$14,840,072	\$59,684,050	\$52,596,999	\$11,301,230	\$461,527	\$48,879				\$138,932,757		
35 - 39	369	1203	1121	780	178	3				3654		
	\$13,014,369	\$54,433,118	\$58,244,116	\$47,915,932	\$11,168,369	\$181,599				\$184,957,503		
40 - 44	315	1015	826	709	272	11				3148		
	\$12,016,251	\$46,166,574	\$43,324,724	\$44,281,589	\$17,113,593	\$667,933				\$163,570,664		
45 - 49	267	810	658	535	233	17	2			2522		
	\$9,436,486	\$37,575,800	\$34,977,020	\$31,270,965	\$15,156,159	\$1,338,959	\$111,167			\$129,866,556		
50 - 54	227	739	671	478	211	11	5			2342		
	\$8,116,137	\$33,196,201	\$35,956,700	\$28,552,064	\$12,984,405	\$807,614	\$416,900			\$120,030,021		
55 - 59	167	571	588	476	194	14	5	2		2017		
	\$5,835,680	\$26,143,767	\$29,499,799	\$27,659,842	\$11,213,326	\$1,078,254	\$409,230	\$114,088		\$101,953,986		
60 - 64	61	279	360	333	107	9	3			1152		
	\$2,381,663	\$12,587,735	\$17,522,477	\$17,158,054	\$6,020,716	\$706,519	\$349,327			\$56,726,491		
65 - 69	26	67	124	165	59	6	1			448		
	\$1,047,583	\$3,239,832	\$6,583,646	\$9,190,100	\$3,424,318	\$595,859	\$63,301			\$24,144,639		
70+	3	24	34	45	19	1				126		
	\$132,560	\$1,364,547	\$1,922,311	\$2,626,575	\$1,516,957	\$110,893				\$7,673,843		
Total	3101	8085	5820	3736	1283	73	16	2		22116		
	\$100,290,460	\$345,783,254	\$297,275,204	\$220,249,232	\$79,059,370	\$5,536,509	\$1,349,925	\$114,088		\$1,049,658,042		

Averages	 Attained Age	42.29
	Service Years	6.13
	Active Salary	\$47,461

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## Appellate Law Clerks

CELLS DEP	LS DEPICT - MEMBER COUNT VALUATION DATE TOTAL SALARY					6/30/2022				
				C	redited Service					
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29										
30 - 34										
35 - 39				2 \$144,118						2 \$144,118
40 - 44				5	4					<u> </u>
40 - 44				\$409,521	\$332,789					\$742,310
45 - 49				1	11	3	2			17
				\$75,413	\$884,497	\$245,726	\$171,302			\$1,376,938
50 - 54				2	6	3	5			16
				\$174,468	\$568,548	\$288,860	\$459,228			\$1,491,104
55 - 59					2	7	5	5	3	22
					\$180,177	\$674,498	\$546,423	\$529,216	\$326,233	\$2,256,547
60 - 64				2	3	4	2	2	1	14
				\$174,408	\$293,655	\$360,490	\$222,756	\$251,821	\$103,491	\$1,406,621
65 - 69					3	1		1		5
					\$270,611	\$130,000		\$89,340		\$489,951
70+				1	1		1	1		4
				\$75,321	\$81,220		\$93,696	\$106,285		\$356,522
Total				13	30	18	15	9	4	89
				\$1,053,249	\$2,611,497	\$1,699,574	\$1,493,405	\$976,662	\$429,724	\$8,264,111

Averages	 Attained Age	54.75
	Service Years	21.85
	Active Salary	\$92,855

## **Participating Legislators**

CELLS DEP	CT - MEMBER COUNT TOTAL SALARY						6/30/2022				
Credited Service											
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total	
< 25											
25 - 29											
30 - 34											
35 - 39											
40 - 44											
45 - 49											
50 - 54						1 \$265,457				\$265,45	
55 - 59						\$205,457				\$203,43	
60 - 64				1 \$124,303						\$124,30	
65 - 69				\$124,303						\$12 <b>4</b> ,50	
70+					1						
					\$111,260					\$111,26	
Total				1 \$124.202	1 ¢111.200	f2(5,457				¢501.00	
				\$124,303	\$111,260	\$265,457				\$501,0	

Averages	 Attained Age	64.37
	Service Years	18.87
	Active Salary	\$167,007

## Active Judges Pre 2011

CELLS DEPICT - MEMBER COUNT VALUA TOTAL SALARY							TION DATE	6/30/2022			
Credited Service											
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total	
< 25											
25 - 29											
30 - 34											
35 - 39											
40 - 44											
45 - 49		1		2	3					6	
		\$154,999		\$240,549	\$334,786					\$730,334	
50 - 54		1	1	16	4	3	2			27	
		\$163,658	\$170,339	\$2,455,334	\$594,017	\$429,789	\$271,287			\$4,084,424	
55 - 59		1		10	8	5	1	1		26	
		\$163,658		\$1,610,984	\$1,148,132	\$765,653	\$143,978	\$170,339		\$4,002,744	
60 - 64			2	9	9	4	4	2		30	
			\$291,518	\$1,500,948	\$1,425,021	\$660,536	\$653,450	\$340,678		\$4,872,151	
65 - 69				5	6	6	11	4		32	
				\$831,652	\$844,534	\$980,250	\$1,864,638	\$699,329		\$5,220,403	
70+		1			2	3	2	4		12	
		\$163,658			\$333,997	\$492,488	\$292,849	\$609,849		\$1,892,841	
Total		4	3	42	32	21	20	11		133	
		\$645,973	\$461,857	\$6,639,467	\$4,680,487	\$3,328,716	\$3,226,202	\$1,820,195		\$20,802,897	

Averages ----- Attained Age 61.03 Service Years 19.18 Active Salary \$156,413

## Active Judges Post 2011

CELLS DE	EPICT -	MEMBER COUNT TOTAL SALARY						VALUATION DATE 6/30/2022			
			Cr	edited Service							
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total	
< 25											
25 - 29											
30 - 34											
35 - 39	2	8	2	1							
	\$268,998	\$1,211,534	\$187,507	\$170,339						\$1,838,	
40 - 44	1	23	7	2	1						
	\$94,210	\$3,603,513	\$1,056,332	\$327,316	\$163,658					\$5,245,	
45 - 49		13	14	2	1						
		\$2,133,581	\$2,202,840	\$327,600	\$163,658					\$4,827,	
50 - 54		16	13	2		1					
		\$2,520,748	\$1,997,711	\$328,649		\$163,658				\$5,010,	
55 - 59		10	14	5	1	2					
		\$1,566,441	\$2,304,482	\$812,990	\$163,658	\$313,877				\$5,161,	
60 - 64	1	11	8		1						
	\$131,365	\$1,806,919	\$1,315,291		\$163,658					\$3,417,	
65 - 69		11	8	4							
		\$1,663,204	\$1,313,595	\$666,940						\$3,643,	
70+			1								
			\$163,004							\$163,	
Total	4	92	67	16	4	3				,	
	\$494,573	\$14,505,940	\$10,540,762	\$2,633,834	\$654,632	\$477,535				\$29,307,	

Averages	 Attained Age	52.78
	Service Years	5.66
	Active Salary	\$157,566

## **Hazardous Duty**

CELLS DEPICT	-	MEMBER COUNT
		TOTAL SALARY

	Credited Service										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total	
< 25	188	175	9							372	
	\$5,300,822	\$6,261,579	\$412,428							\$11,974,829	
25 - 29	121	284	103	1						509	
	\$3,839,834	\$11,162,143	\$4,777,434	\$54,477						\$19,833,888	
30 - 34	83	218	162	24	1					488	
	\$2,499,835	\$8,778,982	\$8,269,652	\$1,378,111	\$57,502					\$20,984,082	
35 - 39	75	132	134	40	22					403	
	\$2,396,656	\$5,449,634	\$6,767,875	\$2,110,697	\$1,236,338					\$17,961,200	
40 - 44	53	127	105	37	41	19				382	
	\$1,680,261	\$5,303,803	\$5,153,425	\$2,116,077	\$2,434,657	\$1,268,611				\$17,956,834	
45 - 49	49	93	78	28	25	30	9			312	
	\$1,554,644	\$3,949,573	\$3,956,307	\$1,576,169	\$1,550,660	\$2,103,339	\$724,661			\$15,415,353	
50 - 54	36	83	98	29	18	26	12	1		303	
	\$1,205,538	\$3,740,577	\$4,963,965	\$1,732,053	\$1,139,115	\$1,663,249	\$778,123	\$106,213		\$15,328,833	
55 - 59	16	71	59	27	14	10	5			202	
	\$577,831	\$3,215,209	\$3,120,751	\$1,336,555	\$826,389	\$559,059	\$292,372			\$9,928,166	
60 - 64	9	36	40	8	7	3	6	1		110	
	\$339,557	\$1,655,569	\$2,048,459	\$448,633	\$366,224	\$162,829	\$386,774	\$69,369		\$5,477,414	
65 - 69	4	9	11	2	1	1	1			29	
	\$112,582	\$361,592	\$620,970	\$111,420	\$72,529	\$76,589	\$63,139			\$1,418,821	
70+	3	3	4	2						12	
	\$107,882	\$111,740	\$219,172	\$87,034						\$525,828	
Total	637	1231	803	198	129	89	33	2		3122	
	\$19,615,441	\$49,990,401	\$40,310,438	\$10,951,226	\$7,683,414	\$5,833,676	\$2,245,069	\$175,582		\$136,805,247	

Averages ----- Attained Age 38.94 Service Years 5.45 Active Salary \$43,820 VALUATION DATE 6/30/2022

## **Corrections Primary**

	Credited Service												
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total			
< 25													
25 - 29													
30 - 34													
35 - 39													
40 - 44			2			1				3			
			\$88,159			\$88,399				\$176,558			
45 - 49					1	12	1			14			
					\$65,518	\$801,846	\$57,653			\$925,017			
50 - 54		1				7	2			10			
		\$36,231				\$421,853	\$140,707			\$598,791			
55 - 59		1				5	1	3	1	11			
		\$39,938				\$317,628	\$70,037	\$173,482	\$145,783	\$746,868			
60 - 64					1	4	3	3	1	12			
					\$42,732	\$222,524	\$196,253	\$207,792	\$57,663	\$726,964			
65 - 69						5				5			
						\$264,410				\$264,410			
70+													
Total		2	2		2	34	7	6	2	55			
		\$76,169	\$88,159		\$108,250	\$2,116,660	\$464,650	\$381,274	\$203,446	\$3,438,608			

CELLS DEPICT -MEMBER COUNT

Averages Attained Age 55.49 -----Service Years 23.57 Active Salary \$62,520 VALUATION DATE 6/30/2022

## **Corrections Secondary**

CELLS DEPICT	-	MEMBER COUNT

TOTAL SALARY

Credited Service										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29										
30 - 34			1	23	3					27
			\$39,924	\$1,171,805	\$158,432					\$1,370,161
35 - 39			2	64	62	6				134
			\$77,532	\$3,407,777	\$3,510,558	\$397,365				\$7,393,232
40 - 44		1		46	93	70	5			215
		\$46,231		\$2,470,728	\$5,568,537	\$4,522,374	\$365,581			\$12,973,451
45 - 49		1	2	28	56	111	18			216
		\$37,992	\$90,791	\$1,491,962	\$3,277,414	\$7,511,370	\$1,294,132			\$13,703,661
50 - 54				31	45	92	31	4		203
				\$1,676,697	\$2,557,363	\$5,864,413	\$2,339,590	\$340,149		\$12,778,212
55 - 59				31	37	55	12	4		139
				\$1,441,780	\$1,932,439	\$3,364,931	\$876,593	\$400,072		\$8,015,815
60 - 64				18	16	15	4	3		56
				\$948,892	\$820,113	\$819,264	\$240,953	\$202,213		\$3,031,435
65 - 69				4	5	4	1	1	2	17
				\$216,025	\$239,377	\$210,111	\$67,499	\$53,664	\$131,467	\$918,143
70+				2	5	2				9
				\$85,413	\$243,366	\$103,622				\$432,401
Total		2	5	247	322	355	71	12	2	1016
		\$84,223	\$208,247	\$12,911,079	\$18,307,599	\$22,793,450	\$5,184,348	\$996,098	\$131,467	\$60,616,511

Attained Age 48.51 Averages -----18.97 Service Years Active Salary \$59,662

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#### LASERS MEMBERSHIP PROFILE Wildlife

CELLS DEPICT	-	MEMBER COUNT
		TOTAL SALARY

					Credited Se	ervice				
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29										
30 - 34				3						3
				\$211,318						\$211,318
35 - 39				12	11	1				24
				\$798,932	\$792,754	\$68,633				\$1,660,319
40 - 44				3	26	6				35
				\$214,940	\$1,882,731	\$491,830				\$2,589,501
45 - 49				3	8	11				22
				\$195,422	\$628,750	\$1,009,707				\$1,833,879
50 - 54					5	10	3			18
					\$358,498	\$908,046	\$325,484			\$1,592,028
55 - 59					3	2	2	1		8
					\$235,932	\$162,183	\$176,783	\$105,392		\$680,290
60 - 64						· · · ·	· · · · ·			
65 - 69										
70+										
Total				21	53	30	5	1		110
				\$1,420,612	\$3,898,665	\$2,640,399	\$502,267	\$105,392		\$8,567,335

Attained Age 44.91 Averages -----Service Years 18.38 Active Salary \$77,885

Appendix A Membership Data

VALUATION DATE 6/30/2022

# LASERS MEMBERSHIP PROFILE

# **Peace Officers**

CELLS DEPICT	-	MEMBER COUNT	
		TOTAL SALARY	

				Cr	edited Service					
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29										
30 - 34										
35 - 39				1	1					2
40 - 44				\$59,519	\$68,843 5	1				\$128,362
					\$321,907	\$56,193				\$378,100
45 - 49				1	4	2	4			11
				\$48,918	\$273,190	\$147,441	\$258,571			\$728,120
50 - 54					2	3	1			6
					\$107,089	\$177,187	\$60,195			\$344,471
55 - 59						1	2			3
						\$79,530	\$152,309			\$231,839
60 - 64										
65 - 69					1					1
					\$84,194					\$84,194
70+										
Total				2	13	7	7			29
				\$108,437	\$855,223	\$460,351	\$471,075			\$1,895,086

Averages ----- Attained Age 48.62 Service Years 20.95 Active Salary \$65,348 -

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# LASERS MEMBERSHIP PROFILE

### **Alcohol Tobacco Control**

CELLS DEPIC	ĽΤ
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MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2022

Credited Service										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29										
30 - 34										
35 - 39				1						1
				\$61,565						\$61,565
40 - 44					2					2
					\$132,181					\$132,181
45 - 49					1	3				4
					\$56,077	\$209,985				\$266,062
50 - 54										
55 - 59										
60 - 64								1		1
								\$88,254		\$88,254
65 - 69										
70+										
Total				1	3	3		1		8
				\$61,565	\$188,258	\$209,985		\$88,254		\$548,062

Averages ----- Attained Age 46.44 Service Years 19.96 Active Salary \$68,508 -

# LASERS MEMBERSHIP PROFILE

**Bridge Police** 

CELLS DEPICT	

MEMBER COUNT TOTAL SALARY VALUATION DATE 6/30/2022

				Cree	lited Service					
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29										
30 - 34										
35 - 39				1						1
				\$55,068						\$55,068
40 - 44					1					1
					\$73,137					\$73,137
45 - 49										
50 - 54										
55 - 59									1	1
									\$71,906	\$71,906
60 - 64										
65 - 69										
70+										
Total				1	1				1	3
				\$55,068	\$73,137				\$71,906	\$200,111

Averages	 Attained Age	46.71
	Service Years	22.70
	Active Salary	\$66,704

VALUATION DATE 6/30/2022

#### LASERS MEMBERSHIP PROFILE

**Harbor Police** 

		TOTAL SALA	RY							
				Credi	ted Service					
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25										
25 - 29			1							1
			\$50,715							\$50,715
30 - 34				1						1
				\$58,347						\$58,347
35 - 39			1	1	2					4
			\$55,841	\$64,424	\$123,051					\$243,316
40 - 44										
45 - 49				1		3				4
				\$56,820		\$229,940				\$286,760
50 - 54						2	1			3
						\$121,881	\$76,961			\$198,842
55 - 59						1				1
						\$65,660				\$65,660
60 - 64										
65 - 69										
70+						1				1
						\$62,626				\$62,626
Total			2	3	2	7	1			15
			\$106,556	\$179,591	\$123,051	\$480,107	\$76,961			\$966,266

CELLS DEPICT - MEMBER COUNT TOTAL SALARY

Averages	 Attained Age	46.27
	Service Years	17.71
	Active Salary	\$64,418

#### LASERS MEMBERSHIP PROFILE Active After DROP

CELLS DEPICT -

MEMBER COUNT TOTAL SALARY

TOTAL BENEFIT

VALUATION DATE 6/30/2022

			Credited Service									
Age	<1	1	2	3	4	5-9	10-14	15-20		Total		
40-44												
Pay												
Benefit												
45-49	1	1								2		
Pay	\$87,667	\$44,429								\$132,096		
Benefit	\$38,544	\$42,024								\$80,568		
50-54	15	9	5	1	2					32		
Pay	\$1,037,379	\$704,035	\$436,213	\$75,615	\$165,948					\$2,419,190		
Benefit	\$791,484	\$422,856	\$236,364	\$44,424	\$76,692					\$1,571,820		
55-59	88	74	26	23	16	26	4			257		
Pay	\$4,768,876	\$5,314,570	\$1,761,851	\$1,603,547	\$1,175,671	\$1,853,006	\$404,437			\$16,881,958		
Benefit	\$3,464,424	\$3,085,548	\$1,146,456	\$962,232	\$665,688	\$1,011,504	\$98,076			\$10,433,928		
60 - 64	105	114	89	54	55	125	16	1		559		
Pay	\$5,147,053	\$7,024,986	\$6,063,012	\$3,955,006	\$3,719,421	\$9,052,057	\$1,359,858	\$92,971		\$36,414,364		
Benefit	\$2,607,936	\$3,054,552	\$3,255,936	\$2,062,656	\$2,047,056	\$5,061,516	\$602,988	\$19,752		\$18,712,392		
65 - 69	1	13	77	64	55	141	38	5	2	396		
Pay	\$9,868	\$681,555	\$4,150,607	\$3,990,541	\$3,316,058	\$9,817,221	\$2,717,760	\$324,638	\$197,342	\$25,205,590		
Benefit	\$3,780	\$197,052	\$1,469,328	\$1,654,248	\$1,295,616	\$4,379,268	\$1,222,572	\$105,408	\$26,172	\$10,353,444		
70+	1			2	3	76	54	36	8	180		
Pay	\$24,051			\$97,481	\$127,780	\$5,060,724	\$3,062,654	\$2,992,984	\$566,938	\$11,932,612		
Benefit	\$2,892			\$20,004	\$20,352	\$1,690,188	\$959,352	\$966,828	\$172,680	\$3,832,296		
Total	211	211	197	144	131	368	112	42	10	1426		
Pay	\$11,074,895	\$13,769,575	\$12,411,683	\$9,722,190	\$8,504,878	\$25,783,008	\$7,544,709	\$3,410,593	\$764,280	\$92,985,811		
Benefit	\$6,909,060	\$6,802,032	\$6,108,084	\$4,743,564	\$4,105,404	\$12,142,476	\$2,882,988	\$1,091,988	\$198,852	\$44,984,448		

Averages	 Attained Age	64.34
	Service Years	4.84
	Average Salary	\$65,207
	Average Benefit	\$31,546

#### LASERS MEMBERSHIP PROFILE DROP Participants

CELLS D		IEMBER COUNT OTAL BENEFITS		VALUATION DATE 6/30/2022						
			Years Retired							
Age	<1	1 - 2	2-3	3 - 4	4-5	5+	Total			
< 40										
40-44										
45-49	8	6	1				15			
	\$427,812	\$230,281	\$61,236				\$719,329			
50-54	75	77	52				204			
	\$3,558,744	\$3,812,499	\$2,332,536				\$9,703,779			
55-59	157	190	214	1			562			
	\$6,382,404	\$8,137,182	\$9,358,032	\$53,880			\$23,931,498			
60-64	126	142	146				414			
	\$3,145,956	\$4,187,219	\$3,966,900				\$11,300,075			
65-69		1	2				3			
		\$78,348	\$8,388				\$86,736			
70-74			1				1			
			\$2,820				\$2,820			
75-79										
80-84										
85-90										
90+										
Total	366	416	416	1			1199			
	\$13,514,916	\$16,445,530	\$15,729,912	\$53,880			\$45,744,238			

Averages

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Attained Age Years Retired

Average Benefit \$38,152

57.85

1.57

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# LASERS MEMBERSHIP PROFILE

#### **Post Retirement Services**

MEMBER COUNT TOTAL SALARY VALUATION DATE 6/30/2022

Credited Service											
Age	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+	Total	
< 25											
25 - 29											
30 - 34											
35 - 39											
40 - 44											
45 - 49	1 \$63,994	2 \$73,163								3 \$137,157	
50 - 54	3 \$116,396	2 \$197,546								5 \$313,942	
55 - 59	4 \$261,410	14 \$1,200,585	6 \$435,841	3 \$174,916	1 \$49,144					28 \$2,121,896	
60 - 64	14 \$780,544	21 \$1,361,616	9 \$596,064	2 \$201,272	. ,	1 \$67,420				47 \$3,006,916	
65 - 69	13 \$584,740	24 \$1,272,816	8 \$590,296	2 \$114,746	1 \$50,149	1 \$116,295				49 \$2,729,042	
70+	\$1,328,699	24 \$1,004,135	13 \$786,892	2 \$86,491	<i>40</i> , <i>1</i>	\$57,710				\$3,263,927	
Total	67 \$3,135,783	87 \$5,109,861	36 \$2,409,093	9 \$577,425	2 \$99,293	3 \$241,425				204 \$11,572,880	

Averages ----- Attained Age 67.98 Service Years 3.47 Active Salary \$56,730

# LASERS MEMBERSHIP PROFILE

### **Regular Retirees**

CELLS DEPICT	-	MEMBER COUNT
		TOTAL BENEFITS

Years Retired												
Age	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+	Total		
< 40	1									1		
	\$20,892									\$20,892		
40-44	10	5	3	4		2				24		
	\$340,992	\$154,680	\$53,580	\$103,200		\$28,224				\$680,676		
45-49	47	29	16	21	14	54				181		
	\$2,095,764	\$1,140,396	\$494,412	\$567,528	\$512,904	\$1,144,860				\$5,955,864		
50-54	85	73	79	65	62	325	22	1		712		
	\$4,443,455	\$3,665,964	\$3,669,132	\$2,624,220	\$2,724,228	\$8,674,320	\$540,852	\$25,080		\$26,367,251		
55-59	169	170	182	274	237	1083	309	70	20	2514		
	\$7,436,924	\$8,166,447	\$7,504,344	\$11,840,088	\$10,413,276	\$37,443,192	\$9,815,988	\$1,469,112	\$408,144	\$94,497,515		
60-64	423	363	404	468	435	2319	1841	403	189	6845		
	\$11,727,002	\$9,476,750	\$11,294,664	\$12,165,480	\$12,414,936	\$87,328,344	\$69,573,540	\$9,678,192	\$3,385,056	\$227,043,964		
65-69	206	237	185	237	288	3281	3006	1634	506	9580		
	\$5,370,764	\$7,660,476	\$5,719,788	\$6,127,644	\$7,620,840	\$85,365,048	\$116,671,644	\$51,182,340	\$10,362,768	\$296,081,312		
70-74	66	87	76	105	130	1249	3023	3079	1439	9254		
	\$2,146,989	\$3,579,240	\$3,501,264	\$2,893,212	\$3,402,876	\$31,423,968	\$75,976,416	\$99,694,128	\$40,589,592	\$263,207,685		
75-79	14	35	19	35	30	379	824	2166	2550	6052		
	\$527,064	\$1,545,209	\$611,136	\$1,189,764	\$874,044	\$9,792,684	\$18,180,564	\$45,927,468	\$74,830,392	\$153,478,325		
80-84	2	6	1	7	8	87	167	421	2802	3501		
	\$106,572	\$105,408	\$16,512	\$315,936	\$249,936	\$2,839,032	\$4,170,432	\$7,098,588	\$64,335,180	\$79,237,596		
85-90		1	1	2	1	19	35	85	1791	1935		
		\$36,360	\$44,544	\$44,244	\$52,500	\$634,188	\$1,162,704	\$1,729,944	\$37,429,224	\$41,133,708		
90+	1					1	5	9	1063	1079		
	\$42,492					\$2,940	\$153,780	\$151,464	\$18,679,476	\$19,030,152		
Total	1024	1006	966	1218	1205	8799	9232	7868	10360	41678		
	\$34,258,909	\$35,530,930	\$32,909,376	\$37,871,316	\$38,265,540	\$264,676,800	\$296,245,920	\$216,956,316	\$250,019,832	\$1,206,734,939		

Averages

----- Attained Age 71.16 Years Retired 14.39 Average Benefit \$28,954 VALUATION DATE 6/30/2022

#### LASERS MEMBERSHIP PROFILE **Disability Retirees**

CELLS DEPICT	-	MEMBER COUNT
		TOTAL BENEFITS

					Years Retired					
Age	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+	Total
< 40	3	1	1		1					6
	\$30,828	\$28,944	\$9,132		\$50,424					\$119,328
40-44	2	4	3		4	5	2			20
	\$70,908	\$90,924	\$50,724		\$67,956	\$66,564	\$28,248			\$375,324
45-49	2	2	7	3	3	13	4	1		35
	\$38,964	\$45,438	\$141,948	\$51,444	\$32,148	\$238,704	\$64,884	\$35,280		\$648,810
50-54	3	6	8	8	3	28	32	9		97
	\$67,651	\$101,088	\$240,012	\$147,528	\$120,264	\$510,840	\$562,824	\$139,668		\$1,889,875
55-59	16	14	6	13	4	62	69	25	13	222
	\$397,056	\$185,592	\$97,536	\$187,272	\$75,120	\$1,238,472	\$1,310,902	\$336,996	\$124,848	\$3,953,794
60-64	1	3	3	2	10	77	92	77	53	318
	\$15,600	\$45,444	\$44,784	\$23,772	\$140,592	\$1,279,740	\$1,741,692	\$1,227,420	\$554,556	\$5,073,600
65-69				1		45	108	122	144	420
				\$23,328		\$1,003,644	\$1,806,444	\$2,156,112	\$1,832,496	\$6,822,024
70-74							38	96	198	332
							\$607,920	\$1,461,048	\$2,586,336	\$4,655,304
75-79							1	34	202	237
							\$66,960	\$433,560	\$2,458,068	\$2,958,588
80-84									138	138
									\$1,476,432	\$1,476,432
85-90									75	75
									\$760,596	\$760,596
90+									18	18
									\$169,104	\$169,104
Total	27	30	28	27	25	230	346	364	841	1918
	\$621,007	\$497,430	\$584,136	\$433,344	\$486,504	\$4,337,964	\$6,189,874	\$5,790,084	\$9,962,436	\$28,902,779

Averages	 Attained Age	68.27
	Years Retired	18.83
	Average Benefit	\$15,069

#### LASERS MEMBERSHIP PROFILE

#### **Survivor Benefits**

VALUATION DATE 6/30/2022

CELLS DEPICT - MEMBER COUNT TOTAL BENEFITS

		IOTAL BENEFI	15							
					Years R					
Age	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+	Total
< 40	8	17	14	10	12	65	79	88	138	431
	\$222,792	\$617,200	\$331,452	\$246,708	\$239,232	\$1,680,423	\$1,923,936	\$1,727,712	\$2,058,168	\$9,047,624
40-44	1	2	3	2	1	9	19	17	71	125
	\$16,800	\$46,939	\$76,704	\$37,032	\$15,180	\$135,444	\$347,292	\$309,576	\$1,193,328	\$2,178,295
45-49	2	5	2	3	4	15	14	21	59	125
	\$54,816	\$97,500	\$28,884	\$40,596	\$55,140	\$223,332	\$237,948	\$399,204	\$894,588	\$2,032,008
50-54	2	5	4	6	7	16	25	26	62	153
	\$104,484	\$237,432	\$82,452	\$173,460	\$109,836	\$380,892	\$452,388	\$368,412	\$890,160	\$2,799,516
55-59	1	3	5	7	7	37	56	39	57	212
	\$19,872	\$75,912	\$141,816	\$137,460	\$214,416	\$893,028	\$1,280,652	\$643,824	\$821,316	\$4,228,296
60-64	4	7	6	6	5	70	101	76	116	391
	\$132,732	\$141,099	\$153,408	\$129,840	\$78,276	\$1,714,176	\$2,411,700	\$1,612,836	\$1,716,996	\$8,091,063
65-69	1	8	6	9	8	111	144	160	235	682
	\$42,420	\$308,892	\$154,464	\$213,360	\$107,736	\$2,605,908	\$3,378,096	\$3,347,280	\$3,996,696	\$14,154,852
70-74			3	1	2	55	153	244	418	876
			\$38,268	\$7,320	\$90,012	\$1,321,356	\$3,403,344	\$4,871,376	\$8,393,820	\$18,125,496
75-79		1			1	24	71	188	690	975
		\$6,012			\$732	\$871,380	\$1,405,692	\$3,470,148	\$13,105,488	\$18,859,452
80-84				3	2	13	21	82	826	947
				\$23,376	\$65,820	\$276,012	\$455,280	\$1,486,164	\$14,034,300	\$16,340,952
85-90						3	10	18	711	742
						\$68,100	\$223,092	\$263,328	\$10,837,188	\$11,391,708
<b>90</b> +						1	1	3	487	492
						\$17,292	\$22,644	\$37,572	\$7,009,440	\$7,086,948
Total	19	48	43	47	49	419	694	962	3870	6151
	\$593,916	\$1,530,986	\$1,007,448	\$1,009,152	\$976,380	\$10,187,343	\$15,542,064	\$18,537,432	\$64,951,488	\$114,336,210

Averages

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Attained Age72.01Years Retired23.65Average Benefit\$18,588

CELLS DEPICT -

## LASERS MEMBERSHIP PROFILE

#### **Terminated Vested**

	T	OTAL BENEFITS											
	Credited Service												
Age	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total			
<20													
20-24			2 \$11,820							2 \$11,820			
25-29			47 \$449,544							47 \$449,544			
30-34	1 \$552	1 \$3,276	193 \$2,322,823	11 \$155,676						206 \$2,482,327			
35-39		3 \$33,053	345 \$3,988,537	110 \$1,922,233	14 \$262,020					472 \$6,205,843			
40-44	1 \$216	1 \$2,258	247 \$2,649,915	236 \$4,002,588	49 \$1,119,284	6 \$181,466	1 \$31,601			541 \$7,987,329			
45-49		1 \$15,600	186 \$2,017,728	290 \$5,277,076	98 \$2,277,031	15 \$513,563	2 \$64,128			592 \$10,165,125			
50-54		3 \$10,979	166 \$2,043,518	348 \$5,821,476	163 \$4,050,344	38 \$1,274,833	12 \$466,312	1 \$33,708		731 \$13,701,169			
55-59	1 \$194	3 \$8,737	142 \$1,641,302	351 \$5,674,058	201 \$4,506,632	60 \$1,753,734	12 \$421,663	2 \$77,784		772 \$14,084,104			
60-64	1 \$1,076	1 \$10,332	87 \$892,930	153 \$2,176,576	59 \$1,115,078	21 \$413,332	3 \$147,133		1 \$40,620	326 \$4,797,076			
65-69		2 \$13,730	20 \$252,738	55 \$781,539	23 \$380,768	7 \$125,203	1 \$37,509			108 \$1,591,488			
70+	2 \$31,200		3 \$37,284	41 \$506,133	11 \$198,755	6 \$117,668	6 \$146,525	1 \$29,549	1 \$44,676	71 \$1,111,790			
Total	6 \$33,238	15 \$97,965	1438 \$16,308,139	1595 \$26,317,357	618 \$13,909,911	153 \$4,379,798	37 \$1,314,871	4 \$141,041	2 \$85,296	3868 \$62,587,615			

Averages	 Attained Age	50.49
	Service Years	11.40
	Average Benefit	\$16,181

MEMBER COUNT

# SUMMARY OF PLAN PROVISIONS

#### **EFFECTIVE DATE:**

July 1, 1947

#### **EMPLOYEE:**

Any person legally occupying a position in state service.

#### **EMPLOYER:**

The State of Louisiana or any of its boards, commissions, departments, agencies and courts which are contributing members and those approved for membership by the legislature from which any employee receives his compensation.

#### **ELIGIBILITY FOR PARTICIPATION:**

Condition of employment in state service except the following: elected or appointed officials or employees who are contributing members of any other state system; public officials and state employees who receive a per diem in lieu of compensation; persons employed on or after July 1, 1991, who work on a part-time basis except those with ten or more years of service in the system; patient or inmate help in state charitable, penal or correctional institutions; part-time students, interns and resident physicians; independent contractors; retirees of the retirement system who return to work under certain conditions; judges in office prior to October 2, 1976, who did not elect to become members prior to October 2, 1976; civilian employees who on November 1, 1981, were within five years of retirement eligibility in the Federal Civil Service Retirement and Disability Fund; certain unclassified, temporary seasonal employees of the Department of Revenue excluding the Louisiana Tax Commission; Employees of the New Orleans City Park Improvement Association, certain employees of political subdivisions.

#### **CREDITABLE SERVICE:**

For service prior to January 1, 1973: 1/4 year granted for each 89 day interval of service, not to exceed one credit per fiscal year. Minimum 15 days required for 1st Quarter credit.

For service on or after January 1, 1973, a member shall receive credit based on the ratio of actual pay to the annual base per calendar year. Fractional service shall be rounded to the next highest 1/10th, not to exceed 100 percent per year.

#### **ADDITIONAL CREDITABLE SERVICE:**

- 1. Credit for service canceled by withdrawal of accumulated contributions may be restored by member by paying into system the amount withdrawn plus interest at the Actuarial Valuation rate.
- 2. Maximum of four years of credit for military service may be obtained for each member with at least two years of service, contingent on payment of Actuarial Cost.

- 3. Credit for service which was classified as a job appointment or emergency appointment where the intended duration of employment exceeds two years of service.
- 4. At retirement, all accumulated unused sick and annual leave shall be credited based on the following schedule:

10% of a Year
20% of a Year
30% of a Year
40% of a Year
50% of a Year
60% of a Year
70% of a Year
80% of a Year
90% of a Year
100% of a Year

Service credit for unused leave can be used for computation purpose only, not for eligibility. An actuarial equivalent lump sum is available after August 15, 1993.

#### **EARNABLE COMPENSATION:**

The base pay earned by an employee for a given pay period as reported by the employing agency. This includes the full amount earned by an employee, overtime, and per diem earned by an employee of the House of Representatives, the Senate, or an agency of the legislature, and expense allowances and per diem paid to members of the legislature, the clerk, or sergeant at arms of the House of Representatives and president and secretary or sergeant at arms of the Senate.

# AVERAGE FINAL COMPENSATION FOR BENEFIT PURPOSES:

The average annual earned compensation for the 36 highest months of successive employment, or the highest 36 successive joined months where interruption of service occurred; part-time employees use the base pay the part-time employee would have received had employment been full-time. Per Act 75 of 2005, average final compensation for Regular members, Bridge Police, and Appellate Law Clerks hired on or after July 1, 2006, is determined as the 60 highest months of successive employment. Per Act 992 of 2010, average final compensation for Judges hired on or after January 1, 2011 and all members of the Hazardous Duty Plan is based on the highest 60 months. Compensation is limited by the 401(a)(17) compensation limit of the Internal Revenue Code for certain members.

#### **ACCUMULATED CONTRIBUTIONS:**

The sum of all amounts deducted from earned compensation and credited to the individual account in the employee's savings account, plus regular interest credited prior to July 1971.

#### **EMPLOYER CONTRIBUTIONS:**

Determined in accordance with Louisiana Revised Statutes Sections 102 and 102.1, which require the employer rate to be actuarially determined and set annually, based on the Public Retirement Systems' Actuarial Committee's recommendation to the Legislature.

#### **EMPLOYEE CONTRIBUTIONS:**

Plan	Current Contribution
Regular Employees, Appellate Law Clerks, Optional Retirement Plan	
Pre-Act 75 (hired before 7/1/2006)	7.5%
Post-Act 75 (hired after 6/30/2006)	8.0%
Legislators	11.5%
Special Legislative	9.5%
Judges hired before 1/1/2011	11.5%
Judges hired after 12/31/2010	13.0%
Corrections Primary and Secondary	9.0%
Wildlife and Fisheries, Hazardous Duty	9.5%
Peace Officers/Alcohol Tobacco Control	9.0%
Bridge Police	8.5%
Harbor Police	9.0%

#### NORMAL RETIREMENT ELIGIBILITY AND BENEFIT:

Members whose first LASERS eligible employment occurs on or after July 1, 2015:

- 1. Regular Plan: Eligible with 5 years at age 62. Benefit accrual rate is 2.5%.
- 2. Judges: Eligible with 5 years at age 62. Benefit accrual is 3.5%, plus regular plan benefits for prior service.
- 3. Hazardous Duty Plan: Eligible with 12 years at age 55 or 25 years at any age. Benefit accrual rate is 3.33% for service earned in the Hazardous Duty Plan if the last 10 years of service was earned in a hazardous duty position; otherwise, the accrual rate is 2.5%.

Members whose first LASERS eligible employment occurs during January 1, 2011 to June 30, 2015:

- 1. Regular Plan: Eligible with 5 years at age 60. Benefit accrual rate is 2.5%.
- 2. Judges: Eligible with 5 years at age 60. Benefit accrual is 3.5% plus regular plan benefits for prior service.
- 3. Hazardous Duty Plan: Eligible with 12 years at age 55 or 25 years at any age. Benefit accrual rate is 3.33% for service earned in the Hazardous Duty Plan if the last 10 years of service was earned in a hazardous duty position; otherwise, the accrual rate is 2.5%.

Members whose first LASERS eligible employment occurs prior to January 1, 2011:

- 1. Regular members hired prior to July 1, 2006: Eligible with 10 years at age 60, or 25 years at age 55, or 30 years at any age. Regular members hired on or after July 1, 2006 are eligible with 5 years at age 60. Benefit accrual rate is 2.5% for all years of service.
- 2. Judges, Court Officers, and Appellate Law Clerks: Eligible with 18 years at any age, 10 years at age 65, 20 total years with at least 12 years as a judge or court officer at age 50, 12 years at age 55, or age 70 regardless of service. Judges and Court Officers earn 3.5% for year of service, plus regular plan benefits for prior service. Appellate Law Clerks earn 2.5% for all years of service.

- 3. Members of the legislature, governor, lieutenant governor and state treasurer: Eligible with 16 years of service at any age, 20 total years with at least 12 years as a member of this class at age 50, or 12 years at age 55. Members earn 3.5% per year of service, plus regular plan benefits for prior service.
- 4. Plans for certain employees of the Department of Public Safety and Corrections:
  - a. Corrections Primary, hired before August 15, 1986: Eligible with 10 years at age 60 or 20 years at any age. Benefit accrual rate is 2.5%.
  - b. Corrections Primary, hired August 15, 1986 to December 31, 2001: Eligible with 10 years at age 60, 20 years at age 50, or 25 years at any age. Benefit accrual rate is 2.5%.
  - c. Corrections Primary, hired prior to January 1, 2002, and employed as a probation and parole officers in the Office of Adult Services of the Department of Corrections: Eligible as stated above. Benefit accrual rate is 3.0% for service earned prior to July 1, 2014 and 3.33% for service earned after June 30, 2014.
  - d. Corrections Secondary Plan, hired after January 1, 2002, or transferred from Corrections Primary Plan: Eligible with 10 years at age 60 or 25 years at any age. Benefit accrual rate is 3.33%.
- 5. Wildlife and Fisheries:
  - a. Members hired before July 1, 2003: 10 years at age 55, or 20 years at any age. Benefit accrual is 3.0% for service earned prior to July 1, 2003 and 3.33% for service earned after June 30, 2003.
  - b. Members hired on or after July 1, 2003: 10 years at age 60, or 25 years at any age. Benefit accrual is 3.33%.
- 6. Peace Officers: Eligible with 10 years of service and age 60 or at 25 years at age 55, or 30 years at any age. Benefit accrual is 3.33%.
- 7. Alcohol Tobacco Control: Eligible with 10 years of service and age 60 or at 25 years of service at any age. Benefit accrual is 3.33%.
- 8. Bridge Police: Eligible with 10 years at age 60, or 25 years at any age. Benefit accrual is 2.5%.

Members originally enrolled in the Harbor Police Retirement System who transferred to LASERS and elected not to enroll in the Hazardous Duty Plan are eligible with 25 years at any age, 10 years at age 60, 12 years at age 55, or 20 years at age 45. Benefit accrual is 3.33%.

#### NOTES:

- A. Benefits are limited to 100% of final average compensation.
- B. Retirees who return to work will continue to receive unreduced benefits if compensation does not exceed 50% of the annual benefit during the fiscal year. Earnings above this limit will result in a corresponding reduction to benefits. Retirees who return to work may choose to suspend their retirement benefits and resume making contributions in the system. Upon subsequent retirement, benefit will resume. If post-retirement employment is at least 36 months, a supplemental benefit will be calculated. Otherwise, employee contributions will be refunded.
- C. A \$300 annual supplemental benefit is provided to persons who become members of the retirement system prior to July 1, 1986 (Act 608 of 1986).
- D. For members employed after January 1, 1990, the annual pension paid from the trust cannot exceed the maximum benefit provided under Section 415(b) of the Internal Revenue Code, and related Section 415 regulations, as adjusted for inflation and form of benefit other than life annuity or qualified joint and survivor annuity for retirement ages.

#### **ACTUARIALLY REDUCED RETIREMENT:**

Members with 20 years of service credit at any age are eligible for an actuarially reduced benefit from the earliest date member would be eligible if employment had continued, to the earliest normal retirement date, based on service earned to date. This does not apply to the Correctional Secondary Plan members, Wildlife agents hired on or after July 1, 2003, or Harbor Police Plan members.

#### **POST RETIREMENT INCREASES:**

The provisions regarding future Permanent Benefit Increases (PBIs) were substantially changed by Act 399 of 2014. PBIs may be granted, if requested by the Board and approved with a two-thirds vote of both houses of legislature, provided there are sufficient funds in the Experience Account to fully fund the increase on an actuarial basis.

Experience Account Credits/Debits: After allocation of the first \$100,000,000 to the unfunded accrued liability, the Experience Account is credited with 50% of the remaining excess investment income, up to a maximum balance as described below. The \$100,000,000 threshold is indexed based upon the increase in the actuarial value of assets. Excess investment income is investment income for the prior fiscal year in excess of the expected income based on the actuarial valuation rate for that fiscal year. Balances in the Experience Account accrue interest at the actuarial rate of return earned during the prior year. All credits are limited as follows:

If the system's funded ratio is less than 80%, the Experience Account is limited to the reserve necessary to grant one PBI. If the funded ratio is at least 80%, the Experience Account is limited to the reserve necessary to fund two PBI's. The Experience Account is debited for the increase in actuarial accrued liability resulting from the increases.

<u>Permanent Benefit Increases</u>: No increase can be granted if the legislature granted an increase in the preceding fiscal year, unless the system is 85% funded or greater. Additionally, PBI's are limited to the lesser of the increase in the Consumer Price Index, U.S. city average for all urban consumers (CPI-U) for the twelve-month period ending on the system's valuation date, or by a percentage increase determined by the system's funded ratio:

Funded Ratio	PBI Increase Limit
< 55%	0%
55% to <65%	1.5%
65% to <75%	2.0%
75% to <80%	2.5%
80% +	3.0%

Beginning July 1, 2015, any increase is limited to the first \$60,000 of a retiree's annual benefit, increased annually by the CPI-U for the twelve-month period ending in June. If the actuarial rate of return for the prior plan year is less than 8.25%, regardless of the discount rate, the increase is limited to the lesser of 2% or the amount described above.

<u>Eligibility Requirements</u>: Benefits are restricted to those retirees who have attained age 60 and have been retired for at least one year. The minimum age 60 for the receipt of a benefit increase does not apply to disability retirees.

#### **MINIMUM BENEFITS:**

Effective September 1, 2001, retirees and beneficiaries receiving retirement benefits shall be entitled to a minimum benefit which is not less than \$30.00 per month for each year of creditable service. The minimum benefit is adjusted for the option elected at retirement.

#### **DISABILITY RETIREMENT:**

#### Eligibility:

Ten years of creditable service and certification of disability by medical board. (Medical examination may be required once per year for the first five years of disability retirement, and once every three years thereafter, until age 60.) No minimum service requirement for judges hired before January 1, 2011. Five years of service for members of the Harbor Police Plan.

Benefit:

- 1. The disability retirement annuity shall be equivalent to the regular retirement formula without reduction due to age for all classes of membership.
- 2. For judges and court officers, the benefit in (1) but not less than 50% of current salary.
- 3. Corrections Primary Plan: When the disability is incurred in the line of duty, the retirement annuity is 60% of their final average compensation. When incurred in the line of duty and caused by an intentional act of violence, the retirement annuity is 100% of final average compensation. Otherwise, benefits paid per (1) above.
- 4. Corrections Secondary Plan: When the disability is incurred in the line of duty, the retirement annuity is 40% of final average compensation. If the member has 10 or more years of service, the benefit will be the greater of 40% of final average compensation or the benefit determined by (1) above. When incurred in the line of duty and caused by an intentional act of violence, the retirement annuity is 100% of final average compensation. Disabilities not incurred in the line of duty determined per (1) above.
- 5. For certain Wildlife agents: When partially disabled and not eligible for (1) above, the retirement annuity is 75% of the annuity in (1); When totally disabled while in the line of duty, the retirement annuity is 60% of final average compensation. When the disability is incurred in the line of duty and caused by an intentional act of violence, the retirement annuity is 100% of final average compensation.
- 6. Hazardous Duty Plan: When the disability is incurred in the line of duty, the retirement annuity is 75% of their final average compensation. When incurred in the line of duty and caused by an intentional act of violence, the retirement annuity is 100% of final average compensation. Disabilities not incurred in the line of duty paid per (1) above.
- 7. Harbor Police Plan: When the disability is incurred in the line of duty, the retirement annuity is 60% of final average compensation. When incurred in the line of duty and caused by an intentional act of violence, the retirement annuity is 100% of final average compensation. When not incurred in the line of duty, the retirement annuity is 40% of final average compensation if under age 55, and is the regular retirement annuity if age 55 or greater.

#### **SURVIVOR'S BENEFITS:**

Members whose first LASERS eligible employment occurs on or after January 1, 2011, or members of the Hazardous Duty Plan regardless of when hired:

Eligibility and Benefit:

- 1. Regular Members and Judges:
  - a. Surviving spouse with minor children of a deceased member with five years of service credit, two of which were earned immediately prior to death, or 20 years of service will receive 50% of the retirement benefit that would have been due to the member, or \$600 per month if greater. Each qualifying child will receive 50% of the spouse's benefit, up to 2 children. The total spouse and children benefit is subject to a minimum based on the Option 2A equivalent for the surviving spouse.
  - b. Surviving spouse, legally married one year prior to death, of a deceased member with 10 years of service credit, two of which were earned immediately prior to death, or 20 years of service regardless of date earned will receive the Option 2A equivalent of the retirement benefit that would have been due to the member, or \$600 per month if greater.
  - c. Surviving minor children will each (up to two) receive 50% of the benefit paid to a surviving spouse with children. This amount will be divided equally among all eligible children.
  - d. Surviving physically handicapped or mentally disabled children continue to receive a minor child's benefit described above in (1) or (3), whichever is applicable.
- 2. Hazardous Duty Members:
  - a. Surviving spouse and children of members who did not die in the line of duty receive benefits described for non-Hazardous Duty members.
  - b. Surviving spouse and children of members who died in the line of duty receive 80% of the member's final average compensation, or 100% if the death was caused by an intentional act of violence. The benefit is shared equally.
  - c. Surviving spouse of a retired member will receive 75% of members' monthly benefit. If no spouse, then surviving children receive (1.c.) above.
- 3. If no one is eligible to receive a survivor benefit, named beneficiary receives accumulated contributions.

Members whose first LASERS eligible employment occurs prior to January 1, 2011:

#### Eligibility and Benefit:

- 1. Regular members:
  - a. Surviving spouse, legally married one year prior to death, of a deceased member with 10 years of service credit, two of which were earned immediately prior to death, or 20 years of service, receive the greater of 50% of member's average compensation or \$200 per month.
  - b. If member with no spouse has surviving minor child, and 5 years of service credit, two of which were earned immediately prior to death, or 20 years of service, minor children receive the greater of 75% of member's average compensation or \$300 per month.
  - c. For surviving spouse with minor children, the spouse must be eligible per (a) above and the children per (b) above to receive these benefits. If either one is ineligible, then the criteria in (a) or (b) would apply accordingly.

- d. Surviving physically handicapped or mentally disabled children continue to receive a minor child's benefit described above in (a) or (c) whichever is applicable.
- 2. Surviving spouse of a judge or court officer receive survivor's benefit described in (1a) or (1b), but not less than the greater of 1/3 the member's current compensation, 50% of the retirement pay which such member was entitled or receiving prior to death, or 50% of the member's final average compensation (if the provisions of R.S. 11:471 are met). Benefit limited to 75% of average compensation.
- 3. Corrections
  - a. In the line of duty:
    - i. Surviving spouse with no minor children: 60% of average compensation if member had less than 25 years of service, or 75% of average compensation with 25 or more years of service.
    - ii. Minor children or disabled children and no spouse: 60% of average compensation if member had less than 5 years of service (25 years for Secondary Plan), or 75% of average compensation if member had 5 or more years of service (25 years for Secondary Plan).
    - iii. Surviving spouse with minor children: 60% of average compensation if member had less than 5 years of service (25 years for secondary plan) and benefit divided 1/3 to spouse and 2/3 to minor children equally. 75% of average compensation with 5 or more years of service (25 years for Secondary Plan) and benefit divided 1/3 to spouse and 2/3 to minor children equally.
  - b. Not in the line of duty: Benefits in accordance with the provisions for regular members.
- 4. Wildlife agents
  - a. In the line of duty:
    - i. Surviving spouse receives 75% of average compensation if member has 25 or more years of service, otherwise, spouse receives 60% of compensation. Spouse receives 100% if the death was caused by an intentional act of violence. Benefits cease upon remarriage.
    - Minor children (if no eligible surviving spouse): one child 30% of average compensation, 2 children – 40%, 3 children – 50%, 4 or more children – 60%, divided equally among children. Minor children receive 100% if the death was caused by an intentional act of violence.
  - b. Not in the line of duty benefit to surviving spouse and children: Surviving spouse receives a benefit as if the member retired on the date of death, until remarried. If member dies prior to age 55 with at least 15 years of service, benefit computed based on years of service without regard to age.
  - c. Survivors of retired Wildlife agents will receive 75% of the retiree benefit in priority order: surviving spouse (until remarriage), minor children, parents who derive main support from retiree.
- 5. If no one is eligible to receive a survivor benefit, then the named beneficiary will receive the member's accumulated contributions.
- 6. Harbor Police
  - a. In line of duty benefit to surviving spouse is 60% of average compensation, regardless of years of service or 100% if the death was caused by an intentional act of violence. Benefits cease upon remarriage. Benefits continue to minor children until age 18 if there is no eligible surviving spouse or the member's parents if there is no eligible surviving spouse or child.

b. Not in the line of duty benefit to surviving spouse with children is 60% of final average compensation, until remarried and children attain age 18. If no children, surviving spouse receives 40% of final average compensation, until remarried. If no surviving spouse, children receive 60% of final average compensation until the youngest child attains age 18. If no surviving spouse or child, parents who derive sole support from member receive 40% of final average compensation.

#### **OPTIONAL FORMS OF BENEFIT:**

In lieu of receiving normal retirement benefit, member may elect to receive actuarial equivalent of retirement allowance in a reduced form as follows:

- <u>Option 1</u> If a member dies before receiving present value of annuity in monthly payments, balance paid to designated beneficiary(ies).
- <u>Option 2</u> 100% of reduced retirement allowance, if member dies, continued for designated beneficiary's lifetime.
- <u>Option 3</u> 50% of reduced retirement allowance, if member dies, continued for designated beneficiary's lifetime.
- <u>Option 4</u> Other benefits of equal actuarial value may be elected with approval of board.
  - A. 90% of the maximum retirement allowance to member; when member dies, 55% of the maximum retirement allowance continued to beneficiary.
  - B. 55% of the reduced retirement allowance, if member dies, continued for designated beneficiary's lifetime.

Member's reduced benefit reverts to the maximum if the beneficiary predeceases the annuitant.

If divorced after retirement, optional benefit can revert to maximum benefit with actuarial adjustment.

<u>Automatic COLA Option</u> – An irrevocable retirement option which permits the member to receive an actuarially reduced benefit with a 2.5% annual benefit COLA (Cost of Living Adjustment) beginning on the first retirement anniversary date, but not before the retiree attains age 55 or would have attained age 55 in the case of a surviving spouse. This option can be chosen in combination with the above options.

<u>Initial Benefit Option</u> - Maximum benefit actuarially reduced for partial lump sum equal to not more than 36 months of maximum monthly pension.

#### **REFUND OF CONTRIBUTIONS:**

If a member ceases to be a member, except by death or retirement, he shall be paid in full or partially at his option, the amount of the accumulated contributions credited to his individual account in annuity savings fund plus any accumulated interest thereon as of June 30, 1971; if member of legislature, no interest. No interest credited after June 30, 1971. Death prior to retirement - accumulated contributions credited to individual account in annuity savings fund are returnable to a designated beneficiary or to member's estate.

#### **DEFERRED RETIREMENT OPTION PLAN:**

Instead of terminating employment and accepting a service retirement allowance, any member who has met the normal eligibility requirements may participate in the Deferred Retirement Option Plan (DROP).

<u>Normal Eligibility</u>: Any member who is eligible for unreduced service retirement allowance may begin participation on the first retirement eligibility date for a period not to exceed the third anniversary of retirement eligibility.

Benefit: Upon termination of employment, a participant will receive, at his option:

- 1. Lump sum payment (equal to the payments to the account);
- 2. A true annuity based upon his account; or
- 3. Other methods of payment approved by the Board of Trustees.

If a participant dies during the period of participation in the program, his account balance shall be paid to the beneficiary, or if none, to his estate in any form approved by the Board of Trustees.

If employment is not terminated at the end of DROP participation, then:

- 1. Payment into account shall cease;
- 2. Payment from account only upon termination of employment; and
- 3. The participant shall resume active contributing membership.

Upon termination of employment, the benefit payments indicated above shall be paid. The participant shall receive an additional retirement benefit based on additional service rendered since termination of DROP participation, usually the normal method of computation of benefit subject to the following:

- 1. If additional service was less than the period used to determine the average compensation, then the average compensation figure used to calculate the additional benefit shall be based on compensation used to determine the initial benefit.
- 2. If additional service was greater than the period used to determine the average compensation, the average compensation figure used to calculate the additional benefit shall be based on compensation earned during the period of additional service.

DROP accounts for members who become eligible for retirement prior to January 1, 2004, and participate in DROP shall earn interest, following termination of DROP, at a rate of 0.5% below the actuarial rate of the System's investment portfolio. Members eligible for retirement on or after January 1, 2004, must invest their DROP accounts in self-directed accounts approved by the Board of Trustees.

The annual DROP interest rate for the Harbor Police plan is the three-year average investment return of the plan assets (calculated as the compound average of 36 months) for the period ending the June 30th immediately preceding that given date. This rate determined by LASERS is reduced by a 0.5% "contingency" adjustment, but not to below zero. DROP interest is forfeited if member does not cease employment after DROP participation.

# FUNDING POLICY

LASERS' funding policy is established by Sections 102 and 102.1 of Title 11 of the Louisiana Revised Statutes. LASERS is funded by employee and employer contributions, as a percentage of payroll, plus investment earnings. The basic elements of the annual required contribution are the normal cost, which is the cost of benefits earned by current active employees that is allocated to the current year, plus amortization of the unfunded accrued liability (UAL). Act 55 of 2014, Section 1, appropriates a percentage of nonrecurring revenue in accordance with the Constitution Article VII, Section 10(D)(2)(b)(ii) and requires the funds to be used to reduce the IUAL. The funds are used to reduce the Original Amortization Base (OAB), which includes the Initial Unfunded Accrued Liability (IUAL).

Per State constitutional provisions, the employer contribution rate cannot drop below 12%, without regard to employer credits, and without a corresponding adjustment to the employee contribution rate. Per statutory provisions, the employer contribution rate cannot drop below 15.5% until the UAL that existed on June 30, 2004 is fully funded. Amounts paid to the system due to the minimum will be accumulated in the employer credit account to be used exclusively to reduce any UAL created before July 1, 2004.

Employee contributions are fixed and established by statutes. Employer contributions are determined using the Entry Age Normal actuarial cost method, as required by statute and actuarial assumptions regarding future experience, such as long-term expected investment rates of return, future salary increases, and demographic assumptions such as rates of retirement, termination, disability, and mortality. The actuarial assumptions utilized in this valuation can be found in Appendix E of this report. The cost method is used to determine the normal cost, which is divided into the employee portion and the employer portion, both expressed as a percentage of payroll. The cost method also determines the plans total actuarial accrued liability. The Unfunded Accrued Liability (UAL) is determined as the total actuarial accrued liability less the plan's valuation assets, which are developed in Section II of this report. The UAL changes annually due to plan experience gains or losses, which develop as actual plan experience will differ from that assumed by the actuarial assumptions, and if applicable, changes in benefits, or actuarial methods and/or assumptions. Statutes provide for the amortization of changes in the UAL.

Benefit changes resulting in an actuarial cost can only be enacted by a two-thirds vote of the legislature and must be paid within 10 years. Non-investment experience gains and losses and investment losses are amortized over 30 years with level payments. Investment gains are first allocated to the OAB and EAAB, without re-amortization, up to the \$100 million threshold amounts, indexed beginning June 30, 2016, as required by Act 399 of 2014. By not re-amortizing, gains applied to these schedules result in earlier pay-off of these schedules. One-half of any remaining gains are credited to the Experience Account up to the statutory cap. Any remaining gains are then amortized over 30 years with level payments. Beginning in 2016, the full investment gain remaining after the allocation to the OAB and EAAB will be amortized over 30 years, and any gains credited to the Experience Account will be amortized as an offsetting loss over a 10-year period. Once the fund attains a funded ratio of 70%, future gains or losses (investment and non-investment) that would have otherwise been amortized over 30 years will be amortized over 20 years.

If the System is less than 80% funded, the net remaining liability of the OAB and EAAB shall be reamortized after application of the "threshold allocations" in Fiscal Year 2024/2025 and in every fifth fiscal year thereafter. Once the system attains an 80% funded ratio, the OAB and EAAB will be re-amortized following allocations of "threshold allocations" or contribution variance surpluses. All other schedules will have level payments. If aggregate payroll increases at the same rate as the increase in amortization payments, the employer contribution rate attributable to the amortization payments will maintain a level percentage of payroll. If future aggregate payroll increases at a higher rate than the total amortization payments, the employer contribution will decrease. A table and graph showing future UAL amortization payments in aggregate for all current schedules are shown in Appendix F.

Employers pay the full required employer contribution rate, as recommended to the legislature by the Public Retirement Systems' Actuarial Committee (PRSAC). This rate is determined as the projected actuarially determined contribution divided by the projected payroll. The actual actuarially determined contribution and actual payroll will vary from the projected amounts, resulting in a contribution variance. Per statutory requirements, contribution surpluses will be allocated to the EAAB through fiscal year 2039/2040, and contribution deficits will be amortized over a five-year period with level payments.

The funding policy described above is consistent with the plan accumulating adequate assets to make benefit payments when due and improving the funded status of the plan by fully amortizing the unfunded accrued liability, assuming the actuarially determined contributions will be paid when due and all actuarial assumptions will be realized.

# **DISCUSSION OF RISK**

Measuring pension obligations and calculating actuarially determined contributions require the use of assumptions regarding future economic and demographic experience. It should be noted that the liabilities and the corresponding funded status presented in this report would differ if a different assumption set were utilized. Future plan experience may differ from the assumptions used in this valuation resulting in actuarial gains and losses. The extent of these differences will impact the plan's future financial condition, the volatility of future plan measurements, and the volatility of future required contributions. Actuarial losses on assets and liabilities will lead to higher contribution amounts, while actuarial gains on assets and liabilities will lead to higher contribution amounts, while actuarial gains on assets and liabilities will lead to higher contribution amounts, while actuarial gains on assets and liabilities will lead to higher contribution amounts. Because these risks may not be apparent to the reader, we have included a summary of the key risk factors that should be considered.

#### Investment Risk

For most plans, investment returns are a significant portion of the assets used to fund plan benefits. Therefore, current plan liabilities are developed by discounting future expected benefits based on the expected returns that will be used to fund those benefits.

Statutory funding policy provides that a portion of investment gains will be transferred to the experience account to fund future Permanent Benefit Increases, should the legislature grant them. The guidance provided in Actuarial Standard of Practice No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, makes it clear that the discount rate is not necessarily the same as the expected investment return assumption. Section 3.5.1 states that the actuary may determine that it is appropriate to adjust the economic assumptions for provisions that are difficult to measure, of which the definition includes gain-sharing provisions. Therefore, in accordance with this guidance, the reasonableness of the discount rate is evaluated against the expected investment return less the portion of returns that are expected to be transferred to the experience account rather than fund regular plan benefits.

Due to the nature of investments, long-term expectations are not a guarantee and actual average long-term returns may be above or below the assumed investment return. Investment experience gains and losses will develop from two sources: (1) the extent to which the actual long-term rate of return used to fund regular plan benefits differs from the discount rate, and (2) the extent to which transfers to the experience account differ from the margin described above. Short-term volatility in actual returns is expected and will result in year-over-year fluctuations in financial metrics. Prolonged periods of investment performance below the assumed rate of return can result in a decrease in funded status (i.e. increases unfunded liabilities) and an increase in contributions required in future years. Of course, the opposite is also true. Therefore, as part of the annual valuation process, the expected return is evaluated in comparison to LASERS investment consultant's expected return for LASERS portfolio and industry-average long-term capital market assumptions to determine if the return assumption continues to be reasonable.

#### **Demographic Risk**

The results in this report assume demographic characteristics of the plan will follow a pattern consistent with assumptions disclosed for termination of employment, incidence of disabilities, timing of retirement, and duration of payments throughout retirement. Actuarial assumptions are applied to large groups of individuals to reasonably estimate plan liabilities and are not necessarily intended to be applied on an individual basis. As actual demographic experience will differ from the assumptions, future experience gains and losses will develop.

#### **Payroll Risk**

Individual Salary - Total plan liabilities include the estimated impact of future salary increases on future benefits for individual plan participants. To the extent that future salary increases differ from plan assumptions, gains and losses will develop.

Aggregate Plan Payroll - The valuation determines the Actuarially Determined Contribution (ADC) for the year immediately following the valuation date and projects the ADC for the following year. The employer contribution rate for the second fiscal year following the valuation date, which is the rate actually paid by the employer, is determined as the projected ADC divided by projected aggregate payroll. A contribution surplus may develop if actual aggregate payroll for the projected ADC. Conversely, a contribution deficit may develop if actual aggregate payroll for the projected period is less than projected aggregate payroll and/or if the restated ADC is less than the projected period is less than projected aggregate payroll and/or if the restated ADC.

#### **Contribution Risk**

This risk results from the potential that actual employer contributions may deviate from actuarially determined contributions, which are determined in accordance with statutory funding policy. The funding policy provides contribution requirements that will result in a reasonable expectation that assets will accumulate to be sufficient to pay plan benefits when due, and eventually reach a 100% funded status if actuarial assumptions are realized in the aggregate. The Louisiana Constitutional requirements set forth in Article 10 Section 29(E) further reduce contribution risk.

#### **Other Considerations**

Significant legislative changes have been enacted since 2009, which reduced the plan's risk of not accumulating sufficient assets to pay plan benefits when due. Highlights of these changes are listed below:

- Restructuring of UAL payment schedules so that all schedules are amortized with level payments.
- Dedication of significantly more investment experience gains to the reduction of UAL debt before credits can be made to the Experience Account to fund future Permanent Benefit Increases (PBIs).
- Reduction in the maximum PBI percentage that can be granted, until funded status reaches 80%.
- Limitations on frequency of potential for Board to request that future PBI's be granted.
- Reduction in the term of future amortization schedules from 30 years to 20 years once the system attains a 70% funded ratio.
- Requirement that contribution variance surpluses and a portion of investment experience gains be used to reduce the UAL without an immediate reduction to employer contributions.
- Funding of administrative expenses via direct employer contributions.
- Constitutional requirement that benefit provisions enacted by the legislature that have an actuarial cost be amortized over a 10-year period.

#### Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared among active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on the risk characteristics and risk tolerance of the plan. For example, plans with a large amount of liability attributable to retirees have a shorter time horizon to recover from losses (such as investment experience losses due to lower than expected investment returns) than plans where the majority of the liability is attributable to active members. For this reason, highly mature plans with a substantial liability due to retirees and inactive members have

less tolerance for risk. Similarly, mature plans paying substantial retirement benefits resulting in a small positive or negative net cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan and assessing risk, we have provided some relevant metrics and discuss the highlights of information derived from these metrics below.

\* Asterisks in tables in this section denote dollar values shown in millions Note all values may not foot totals show due to rounding

				(D)	(E)				
	(A)			Inactive	Total			(A)/	(D)/(E)
	Total	(B)	(C)	Accrued	Accrued	(F)	(F)/(E)	(B+C)	Accrued
	Active	DROP	Inactive	Liability	Liability	Valuation	Funded	Support	Liability
_	Members	Members	Members	*	*	Assets *	Ratio	Ratio	Ratio
2013	44,111	2,092	49,587	\$11,981	\$16,182	\$9,741	60.2%	85.4%	74.0%
2014	40,321	1,838	51,498	\$13,073	\$17,878	\$10,606	59.3%	75.6%	73.1%
2015	40,194	1,682	51,596	\$13,327	\$18,217	\$11,318	62.1%	75.4%	73.2%
2016	39,284	1,609	52,066	\$13,692	\$18,576	\$11,631	62.6%	73.2%	73.7%
2017	39,055	1,520	52,473	\$13,978	\$18,792	\$11,977	63.7%	72.3%	74.4%
2018	39,293	1,398	52,726	\$14,244	\$19,104	\$12,361	64.7%	72.6%	74.6%
2019	39,533	1,354	53,013	\$14,502	\$19,528	\$12,521	64.1%	72.7%	74.3%
2020	39,487	1,367	53,032	\$14,804	\$19,691	\$12,617	64.1%	72.6%	75.2%
2021	38,572	1,311	53,259	\$15,169	\$20,220	\$13,347	66.0%	70.7%	75.0%
2022	37,358	1,199	53,615	\$15,583	\$20,798	\$13,824	66.5%	68.2%	74.9%

<u>Funded Ratio:</u> The funded ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 60.2% to 66.5% over the last ten years. This ratio generally reflects the financial health of the plan but should not be considered in isolation since changes in methods and assumptions may reduce the funded ratio but also reduce future potential losses and resulting contribution rate increases. For example, during this time period, <u>LASERS has reduced the discount rate from 8.25% to 7.25% and changed the actuarial cost method from projected unit credit to entry age normal which in total have increased the unfunded accrued liability by \$2.2 billion (\$2.1 billion remaining in UAL). If not for these changes, the funded ratio would be approximately 73.8%. However, these changes have improved the financial stability of the plan by reducing the potential for future contribution rate increases. If all actuarial assumptions are realized, the funded ratio is expected to steadily increase as unfunded liabilities are amortized in accordance with the plan's funding policy.</u>

<u>Support Ratio</u>: The support ratio is determined as the ratio of active to inactive members. Active membership, which includes Active After DROP members, decreased substantially between 2013 and 2014 due in part to State lay-offs and continues to decrease. Inactive membership, which includes retirees, survivors, and terminated vested membership has steadily increased. As a result, the support ratio has decreased from 85.4% to 68.2%, over the last ten years. This should be closely monitored by the investment staff to be sure no cash-flow issues develop that would require pre-mature liquidation of assets, which could result in investment experience losses.

<u>Accrued Liability Ratio</u>: The accrued liability ratio, which is a measure of the proportion of Total Accrued Liability attributable to inactive members has remained steady since 2013 at approximately 75%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors should be amortized over a shorter time horizon than for a less mature plan. The legislature has enacted a provision

	(A) Market Value of Assets *	(B) Total Payroll *	(A)/(B) Asset Volatility Ratio
2013	\$10,328	\$1,952	529.1%
2014	\$11,625	\$1,814	640.9%
2015	\$11,415	\$1,857	614.8%
2016	\$10,724	\$1,842	582.1%
2017	\$11,753	\$1,822	645.1%
2018	\$12,284	\$1,864	659.0%
2019	\$12,283	\$1,952	629.1%
2020	\$11,421	\$1,999	571.2%
2021	\$14,716	\$2,004	734.3%
2022	\$13,239	\$2,008	659.2%

that will reduce the amortization period from 30 years to 20 years once the funded ratio reaches 70%.

<u>Asset Volatility Ratio</u>: The asset volatility ratio, determined as the ratio of the Market Value of Assets to Total Payroll, is a measure of the impact of investment volatility on employer contributions which are paid as a percentage of payroll. Although MVA growth that exceeds payroll growth may contribute to the financial stability of the plan, the amortization of changes in these higher asset values have a greater impact on contribution volatility as this ratio increases. Since 2013, the asset volatility ratio has increased from 529.1% to 659.2%.

	(A) Contributions*	(B) Benefits*	(A)-(B) Contributions less Benefits*	(C) Market Value of Assets*	(B)/(C) Benefits/ MVA	[(A)- (B)]/(C)
2013	\$856	\$1,151	(\$295)	\$10,328	11.1%	-2.9%
2014	\$789	\$1,262	(\$473)	\$11,625	10.9%	-4.1%
2015	\$893	\$1,255	(\$363)	\$11,415	11.0%	-3.2%
2016	\$897	\$1,292	(\$395)	\$10,724	12.0%	-3.7%
2017	\$840	\$1,331	(\$491)	\$11,753	11.3%	-4.2%
2018	\$897	\$1,378	(\$481)	\$12,284	11.2%	-3.9%
2019	\$943	\$1,397	(\$454)	\$12,283	11.4%	-3.7%
2020	\$1,035	\$1,416	(\$381)	\$11,421	12.4%	-3.3%
2021	\$1,035	\$1,443	(\$408)	\$14,716	9.8%	-2.8%
2022	\$1,039	\$1,501	(\$462)	\$13,239	11.3%	-3.5%

<u>Cash Flow Measures:</u> Mature plans paying substantial retirement benefits resulting in small positive or negative cash flows may be more sensitive to near term investment volatility. Note investment returns result in significant asset growth despite the negative cash flow.

	(A) Investment Experience Gains/(Losses)*	(B) Other Experience Gains/(Losses)*	(A)+(B) Total Experience Gain/(Loss)*
2013	\$321	\$429	\$750
2014	\$473	\$61	\$534
2015	\$281	(\$28)	\$253
2016	(\$250)	\$81	(\$169)
2017	(\$14)	\$100	\$86
2018	(\$20)	\$18	(\$2)
2019	(\$286)	(\$96)	(\$382)
2020	(\$431)	\$151	(\$280)
2021	\$273	(\$6)	\$267
2022	(\$44)	(\$81)	(\$126)

<u>Experience Gains and Losses</u>: As plan experience differs from actuarial assumptions, experience gains and losses will develop. If assumptions are appropriately determined, gains and losses are expected to offset over time. Consistent gains or losses may be an indication that actuarial assumptions need to be reevaluated. LASERS' consistent "other" experience gains result primarily from salary and mortality assumptions. Recent changes following the experience study are expected to mirror actual experience more closely.

The risks identified and discussed above are the most significant risks based on the characteristics of the plan, however this is not an exhaustive list of potential risks that could be considered. Advanced modeling, as well as the identification of additional risks, can be helpful and can be provided upon request of the Board.

# ACTUARIAL COST METHODS AND ASSUMPTIONS

#### **ACTUARIAL COST METHOD:**

Louisiana Statutes, R. S. 11:22, prescribes the Entry Age Normal cost method for funding valuation purposes. This cost method generally produces normal costs that are level as a percentage of the member's projected pay if the composition of the active group with regard to age, sex, and service is stable. Normal costs are attributed from the first period in which a member accrues benefits through all assumed exit ages until retirement.

#### **ASSET VALUATION:**

The market value of assets is adjusted to gradually recognize investment gains and losses relative to the discount rate over a 5-year period in 20% increments. The adjusted asset value is subject to Corridor Limits of 80% to 120% of the market value of assets.

#### **ACCOUNTING DISCLOSURE:**

The Statements of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position provided by the accounting staff were the final drafts prior to publication. If these statements differ from the final audit report, a revised actuarial report will be issued, but only to the extent that any changes affect the employer's contribution rate or the return on the Actuarial Value of Assets.

#### **ADMINISTRATIVE EXPENSES:**

Administrative expenses are funded directly by employers as a percentage of projected payroll beginning July 1, 2018, in accordance with Act 94 of 2016. Projected administrative expenses are determined based on prior year actual expenses with consideration of any expected variations provided by LASERS Fiscal Division.

#### **POST RETIREMENT BENEFIT INCREASES:**

The accrued actuarial liability includes previously granted post-retirement benefit increases. Louisiana law pertaining to LASERS' retiree benefit increases provides for the funding of future increases by requiring the automatic transfer of a portion of excess investment earnings to the experience account, subject to the statutory maximum balance of the account. The law does not provide for automatic benefit increases. Many conditions must be met before an increase can be granted, as described in the Post-Retirement Increases section of the Summary of Plan Provisions in Appendix B of this report. The legislature and governor have the ultimate authority as to whether a future increase will be granted. Since a portion of investment earnings will be used to fund these benefits, if granted, the rate used to discount plan liabilities represents the long-term expected returns (net of investment expenses) less the expected returns used to fund future retiree benefit increases. This adjustment is made in accordance with Actuarial Standards of Practice No. 27 (section 3.5.1) regarding the selection of economic assumptions, which states that it is appropriate to adjust the economic assumptions to provide for plan provisions that are difficult to measure, such as gain-sharing provisions.

#### **ACTUARIAL ASSUMPTIONS:**

Demographic and Salary assumptions used in the valuation were adopted by the Board of Trustees following the most recent experience study. The Retirement System is required to conduct an experience study every five years. An experience study was completed for the observation period of July 1, 2013 through June 30, 2018. The recommended assumption changes based on this study were adopted by the Board, effective July 1, 2019. The experience study report, dated January 23, 2019, provides further information regarding the rationale for these assumptions. The current rate tables are illustrated at the end of this appendix.

#### **INFLATION:**

The Board of Trustees adopted a change in the inflation assumption from 2.50% to 2.30%, effective July 1, 2020.

#### **DISCOUNT RATE / INVESTMENT EARNINGS:**

<u>Funding Valuation Assumption</u>: A discount rate of 7.25%, was used for the June 30, 2022 valuation, including for the projected contribution requirements for Fiscal Year 2023/2024.

The discount rate for funding purposes reflects the assumed investment rate of return, net of investment expenses, and net of investment gains expected to be allocated to the Experience Account to fund future permanent benefit increases (35 basis points). Therefore, by excluding returns expected to be used for purposes other than funding regular plan benefits, the discount rate represents the expected returns to be used to fund regular plan benefits.

GASB Assumptions: A discount rate of 7.25% is used for GASB reporting purposes.

#### **MORTALITY ASSUMPTIONS:**

Mortality rates were revised based on the 2014-2018 experience study as follows:

General Active Employees

	$\frac{1}{2}$
Males	RP-2014 Blue Collar Employee *0.978
Females	RP-2014 Blue Collar Employee * 1.144
	1 5
Public Safety Active	Employees
Males	RP-2014 Blue Collar Employee *1.005
Females	RP-2014 Blue Collar Employee * 1.129
General Retiree/Inac	tive Employees
Males	RP-2014 Blue Collar Annuitant * 1.280
Females	RP-2014 White Collar Annuitant * 1.417
Public Safety Retired	e/Inactive Employees
Males	RP-2014 Blue Collar Annuitant *1.185
Females	RP-2014 Blue Collar Annuitant * 1.017

**Disability Retirees** 

Males	RP-2000 Disability Retiree * 1.009
Females	RP-2000 Disability Retiree * 1.043

Mortality assumptions for active and regular retirees include adjustments for expected future mortality improvement using the MP-2018 Generational Improvement Scale. Mortality assumptions for Disability Retirees include no adjustments for expected future mortality improvement, based on plan experience.

#### **DISABILITY ASSUMPTION:**

Rates of total and permanent disability vary based upon attained age and vary by plan, based upon the 2014-2018 experience study.

#### **RETIREMENT/DROP ASSUMPTION:**

Eligibility for normal retirement benefits and DROP participation is based on age and service requirements that vary by plan, based on the 2014-2018 experience study.

#### **TERMINATION ASSUMPTIONS:**

Voluntary termination or withdrawal rates are based on the 2014-2018 experience study. Rates for Regular members and Corrections/Hazardous Duty members are based on a combination of age and service. Rates for Wildlife employees are 7.6% for zero to five years of service and 0.5% for six or more years of service. The expected withdrawal rate for Judges is a flat rate of 1.20%. For members terminating with vested benefits, it is assumed that 20% will elect to withdraw their accumulated employee contribution, and 80% will receive a benefit beginning at age 60.

#### **SALARY GROWTH:**

The rates of annual salary growth are based upon the member's years of service and are based on the 2014-2018 experience study. The rates include anticipated productivity growth, merit adjustments, and an inflation component, which is consistent with the inflation assumptions used to develop the discount rate. For valuation purposes, current salaries and projected future salaries are limited to the Section 401(a)(17) limit of the Internal Revenue Service Code, with future indexed increases.

All salary growth assumptions were reduced by 0.20%, effective July 1, 2020, based on the reduction in the inflation assumption from 2.50% to 2.30%.

#### FAMILY STATISTICS:

The composition of the family is based upon Current Population Reports published by the United States Census Bureau. Seventy-five percent of the membership is assumed to be married. The wife is assumed to be three years younger than the husband. Sample rates for the assumed number of minor children are as follows:

Age of	Number of Minor	Years for Youngest Child to Attain
Member	Children	Majority
25	1.2	17
30	1.4	15
35	1.7	13
40	1.7	10
45	1.4	8
50	1.1	4

#### **CONVERTED LEAVE:**

Leave credit is accrued throughout a member's career and converted to service credit or paid as a lump sum. Converted leave rates below represent the percentage increase in a retiree's accrued benefit upon conversion of the leave to benefits. The current rates are based on the 2014-2018 experience study.

	Regular	
	Retirement	Disability
<b>Regular Members</b>	5.0%	1.5%
Judicial Members	0.5%	1.0%
Corrections	9.0%	3.0%
Wildlife	9.0%	3.0%
<b>Rehired Retirees</b>	7.5%	N/A

		TERMINATION RATES									
	DISABILITY	<1	1	2-3	4-6	7-9	10+				
AGE	RATES	YEAR	YEAR	YEARS	YEARS	YEARS	YEARS				
18	0.0000	0.500	0.550	0.330	0.230	0.105	0.080				
19	0.0000	0.500	0.550	0.330	0.230	0.105	0.080				
20	0.0000	0.500	0.380	0.330	0.230	0.105	0.080				
21	0.0001	0.500	0.320	0.330	0.230	0.105	0.080				
22	0.0001	0.440	0.300	0.240	0.230	0.105	0.080				
23	0.0001	0.380	0.300	0.240	0.230	0.105	0.080				
24	0.0001	0.325	0.270	0.200	0.230	0.105	0.080				
25	0.0001	0.325	0.270	0.200	0.160	0.105	0.080				
26	0.0001	0.325	0.270	0.200	0.160	0.105	0.080				
27	0.0001	0.290	0.270	0.200	0.160	0.105	0.080				
28	0.0001	0.290	0.270	0.200	0.160	0.105	0.080				
29 20	0.0001	0.290	0.230	0.180	0.160	0.105	0.080				
30	0.0001	0.290	0.230	0.180	0.133	0.105	0.080				
31	0.0001	0.290	0.230	0.180	0.133	0.080	0.080				
32	0.0001	0.290	0.230	0.180	0.133	0.080	0.080				
33	0.0001	0.290	0.230	0.180	0.133	0.080	0.080				
34 35	0.0001 0.0005	0.290 0.290	0.220 0.220	0.180 0.180	0.133 0.133	0.080	0.055 0.055				
		0.290	0.220			0.080					
36 37	0.0005 0.0005	0.290	0.220	0.180 0.150	0.133 0.133	$\begin{array}{c} 0.080\\ 0.080\end{array}$	0.055 0.055				
	0.0005	0.290	0.220		0.133						
38 39	0.0005	0.290	0.180	0.150 0.150	0.130	$\begin{array}{c} 0.080\\ 0.080\end{array}$	0.055 0.055				
39 40	0.0003	0.280	0.180	0.150	0.130	0.080	0.055				
40 41	0.0010	0.280	0.180	0.150	0.130	0.080	0.055				
41	0.0010	0.280	0.180	0.130	0.130	0.080	0.055				
42	0.0010	0.230	0.180	0.140	0.125	0.080	0.055				
43 44	0.0010	0.250	0.180	0.140	0.125	0.080	0.055				
45	0.0015	0.250	0.180	0.140	0.125	0.080	0.055				
46	0.0015	0.250	0.180	0.140	0.125	0.030	0.050				
47	0.0015	0.250	0.180	0.140	0.125	0.075	0.050				
48	0.0015	0.250	0.180	0.125	0.115	0.075	0.050				
49	0.0015	0.250	0.180	0.125	0.115	0.075	0.050				
50	0.0013	0.250	0.180	0.125	0.115	0.075	0.050				
51	0.0022	0.250	0.180	0.125	0.115	0.070	0.050				
52	0.0022	0.250	0.180	0.115	0.115	0.070	0.050				
53	0.0022	0.250	0.180	0.115	0.115	0.070	0.050				
54	0.0022	0.250	0.180	0.115	0.085	0.070	0.050				
55	0.0030	0.200	0.180	0.115	0.085	0.070	0.050				
56	0.0030	0.200	0.180	0.115	0.085	0.070	0.050				
57	0.0030	0.200	0.180	0.115	0.085	0.070	0.050				
58	0.0030	0.200	0.180	0.115	0.085	0.070	0.050				
59	0.0030	0.200	0.180	0.115	0.085	0.070	0.050				
60	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
61	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
62	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
63	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
64	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
65	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
66	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
67	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
68	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
69	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
70	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
71	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
72	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
73	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				
74	0.0000	0.200	0.180	0.115	0.085	0.070	0.050				

#### Actuarial Assumptions Regular Members

	R	ETIREM	1 [					
	< 10	10-19	20-24	25-29	30+			SALARY
AGE	YOS	YOS	YOS	YOS	YOS		DUR	INCREASE
18	0.000	0.000	0.000	0.000	0.000		0	0.1280
19	0.000	0.000	0.000	0.000	0.000		1	0.0690
20	0.000	0.000	0.000	0.000	0.000		2	0.0615
21	0.000	0.000	0.000	0.000	0.000		3	0.0540
22	0.000	0.000	0.000	0.000	0.000		4	0.0515
23	0.000	0.000	0.000	0.000	0.000		5	0.0490
24	0.000	0.000	0.000	0.000	0.000		6	0.0460
25	0.000	0.000	0.000	0.000	0.000		7	0.0430
26	0.000	0.000	0.000	0.000	0.000		8	0.0400
27	0.000	0.000	0.000	0.000	0.000		9	0.0390
28	0.000	0.000	0.000	0.000	0.000		10	0.0360
29	0.000	0.000	0.000	0.000	0.000		11	0.0360
30	0.000	0.000	0.000	0.000	0.000		12	0.0360
31	0.000	0.000	0.000	0.000	0.000		13	0.0330
32	0.000	0.000	0.000	0.000	0.000		14	0.0320
33	0.000	0.000	0.000	0.000	0.000		15	0.0320
34	0.000	0.000	0.000	0.000	0.000		16	0.0320
35	0.000	0.000	0.000	0.000	0.000		17	0.0320
36	0.000	0.000	0.000	0.000	0.000		18	0.0310
37	0.000	0.000	0.000	0.000	0.000		19	0.0300
38	0.000	0.050	0.050	0.050	0.000		20	0.0300
39	0.000	0.050	0.050	0.050	0.000		21	0.0300
40	0.000	0.050	0.050	0.050	0.000		22	0.0300
41	0.000	0.050	0.050	0.050	0.000		23	0.0300
42	0.000	0.050	0.050	0.050	0.000		24	0.0300
43	0.000	0.050	0.050	0.050	0.000		25	0.0300
44	0.000	0.050	0.050	0.050	0.000		26 27	0.0300
45	0.000	0.050	0.050	0.050	0.000		27	0.0300
46	$0.000 \\ 0.000$	$0.050 \\ 0.050$	$0.050 \\ 0.050$	$0.050 \\ 0.050$	$\begin{array}{c} 0.000\\ 0.000\end{array}$		28	$0.0300 \\ 0.0300$
47 48	0.000	0.030	0.030	0.030	0.000		29 30	0.0300
40	0.000	0.080	0.080	0.080	0.200		30 31	0.0300
49 50	0.000	0.080	0.080	0.080	0.200		31	0.0300
51	0.000	0.100	0.100	0.100	0.200		32	0.0300
52	0.000	0.100	0.100	0.100	0.200		33 34	0.0300
53	0.000	0.100	0.100	0.100	0.200		35	0.0300
54	0.000	0.250	0.250	0.250	0.250		36	0.0300
55	0.000	0.180	0.180	0.600	0.600		37	0.0300
56	0.000	0.180	0.180	0.200	0.200		38	0.0300
57	0.000	0.180	0.180	0.200	0.200		39	0.0300
58	0.000	0.180	0.180	0.200	0.200		40	0.0300
59	0.000	0.180	0.180	0.200	0.200		41	0.0300
60	0.350	0.350	0.350	0.350	0.350		42	0.0300
61	0.180	0.180	0.180	0.180	0.180		43	0.0300
62	0.170	0.170	0.170	0.170	0.170		44	0.0300
63	0.150	0.150	0.150	0.150	0.150		45	0.0300
64	0.170	0.170	0.170	0.170	0.170		46	0.0300
65	0.200	0.200	0.200	0.200	0.200		47	0.0300
66	0.180	0.180	0.180	0.180	0.180		48	0.0300
67	0.180	0.180	0.180	0.180	0.180		49	0.0300
68	0.180	0.180	0.180	0.180	0.180		50	0.0300
69	0.180	0.180	0.180	0.180	0.180		51	0.0300
70	0.180	0.180	0.180	0.180	0.180		52	0.0300
71	0.180	0.180	0.180	0.180	0.180		53	0.0300
72	0.180	0.180	0.180	0.180	0.180		54	0.0300
73	0.180	0.180	0.180	0.180	0.180		55	0.0300
74	0.180	0.180	0.180	0.180	0.180		56	0.0300
-								

# Actuarial Assumptions Regular Members

## Actuarial Assumptions Judges

		] Г					
AGE	DISABILITY RATES	<12 YOS	12-17 YOS	18+ YOS		DUR	SALARY INCREASE
AGE 18	0.0000	0.000	0.000	0.000	-	<u>0</u>	0.0505
18	0.0000	0.000	0.000	0.000		1	0.0303
20	0.0000	0.000	0.000	0.000		2	0.0255
20	0.0000	0.000	0.000	0.000		3	0.0255
21	0.0000	0.000	0.000	0.000		4	0.0255
23	0.0000	0.000	0.000	0.000		5	0.0255
23	0.0000	0.000	0.000	0.000		6	0.0255
25	0.0000	0.000	0.000	0.000		7	0.0255
26	0.0000	0.000	0.000	0.000		8	0.0255
27	0.0000	0.000	0.000	0.000		9	0.0255
28	0.0000	0.000	0.000	0.000		10	0.0255
29	0.0000	0.000	0.000	0.000		11	0.0255
30	0.0000	0.000	0.000	0.000		12	0.0255
31	0.0000	0.000	0.000	0.000		13	0.0255
32	0.0000	0.000	0.000	0.000		14	0.0255
33	0.0000	0.000	0.000	0.000		15	0.0255
34	0.0000	0.000	0.000	0.000		16	0.0255
35	0.0000	0.000	0.000	0.000		17	0.0255
36	0.0000	0.000	0.000	0.000		18	0.0255
37	0.0000	0.000	0.000	0.000		19	0.0255
38	0.0000	0.000	0.000	0.068		20	0.0255
39	0.0000	0.000	0.000	0.068		21	0.0255
40	0.0000	0.000	0.000	0.068		22	0.0255
41	0.0000	0.000	0.000	0.068		23	0.0255
42	0.0000	0.000	0.000	0.068		24	0.0255
43	0.0000	0.000	0.000	0.068		25	0.0255
44	0.0000	0.000	0.000	0.068		26	0.0255
45	0.0002	0.000	0.000	0.068		27	0.0255
46	0.0002	0.000	0.000	0.068		28	0.0255
47	0.0002	0.000	0.000	0.068		29	0.0255
48	0.0002	0.000	0.000	0.068		30	0.0255
49	0.0002	0.000	0.000	0.068		31	0.0255
50	0.0002	0.000	0.000	0.068		32	0.0255
51	0.0002	0.000	0.000	0.068		33	0.0255
52	0.0002	0.000	0.000	0.068		34	0.0255
53	0.0002	0.000	0.000	0.068		35	0.0255
54	0.0002	0.000	0.000	0.068		36	0.0255
55	0.0002	0.000	0.208	0.115		37	0.0255
56	0.0002	0.000	0.090	0.115		38	0.0255
57	0.0002	0.000	0.090	0.115		39	0.0255
58	0.0002	0.000	0.090	0.115		40	0.0255
59	0.0002	0.000	0.090	0.115		41	0.0255
60	0.0002	0.108	0.090	0.238		42	0.0255
61	0.0002	0.108	0.090	0.173		43	0.0255
62	0.0002	0.108	0.090	0.173		44	0.0255
63	0.0002	0.108	0.090	0.173		45	0.0255
64	0.0002	0.108	0.090	0.173		46	0.0255
65	0.0002	0.108	0.182	0.173		47	0.0255
66	0.0002	0.108	0.105	0.122		48	0.0255
67	0.0002	0.108	0.105	0.122		49 50	0.0255
68	0.0002	0.108	0.105	0.122		50	0.0255
69 70	0.0002	0.108	0.105	0.122		51 52	0.0255
70	0.0000	0.108	0.105	0.122		52 53	0.0255
71	0.0000	0.108	0.105	0.122		53	0.0255
72 73	0.0000	0.108	0.105	0.545		54 55	0.0255
	0.0000	0.108	0.105	0.545		55 56	0.0255
74	0.0000	0.108	0.105	0.545	ΙL	56	0.0255

	DIGADI		EMENT/		TERMINATION RATES (Excluding Wildlife)							
	DISABI LITY	< 10	RATES 10+	<1	<1 1 2 3-4 5-7 8-9 10+							SALARY
AGE	RATES	YOS	YOS	YOS	YOS	YOS	YOS	YOS	YOS	YOS	DUR	INCREASES
18	0.0000	0.000	0.000	0.580	0.500	0.300	0.370	0.155	0.064	0.028	0	0.1380
19	0.0000	0.000	0.000	0.580	0.500	0.300	0.370	0.155	0.064	0.028	1	0.0780
20	0.0001	0.000	0.000	0.580	0.390	0.300	0.370	0.155	0.064	0.028	2	0.0630
21	0.0001	0.000	0.000	0.580	0.390	0.300	0.370	0.155	0.064	0.028	3	0.0605
22	0.0001	0.000	0.000	0.580	0.390	0.300	0.370	0.155	0.064	0.028	4	0.0580
23	0.0001	0.000	0.000	0.480	0.360	0.300	0.240	0.155	0.064	0.028	5	0.0555
24	0.0001	0.000	0.000	0.480	0.305	0.300	0.240	0.155	0.064	0.028	6	0.0555
25	0.0001	0.000	0.000	0.480	0.305	0.300	0.240	0.155	0.064	0.028	7	0.0480
26	0.0001	0.000	0.000	0.467	0.305	0.240	0.205	0.155	0.064	0.028	8	0.0480
27	0.0001	0.000	0.000	0.467	0.305	0.240	0.205	0.155	0.064	0.028	9 10	0.0480
28 29	0.0001 0.0001	$\begin{array}{c} 0.000\\ 0.000\end{array}$	$0.000 \\ 0.000$	0.467 0.467	0.305 0.305	0.240 0.240	0.205 0.200	0.135 0.135	$0.064 \\ 0.064$	0.028 0.028	10	$0.0480 \\ 0.0480$
29 30	0.0001	0.000	0.000	0.407	0.303	0.240	0.200	0.135	0.064	0.028	11	0.0480
31	0.0005	0.000	0.000	0.435	0.255	0.240	0.200	0.100	0.064	0.028	12	0.0430
32	0.0005	0.000	0.000	0.435	0.255	0.200	0.200	0.100	0.064	0.028	14	0.0380
33	0.0005	0.000	0.000	0.435	0.255	0.200	0.200	0.100	0.064	0.028	15	0.0355
34	0.0005	0.000	0.000	0.435	0.255	0.200	0.200	0.100	0.064	0.028	16	0.0355
35	0.0013	0.000	0.000	0.435	0.255	0.200	0.200	0.100	0.064	0.028	17	0.0355
36	0.0013	0.000	0.000	0.410	0.255	0.200	0.155	0.100	0.064	0.028	18	0.0355
37	0.0013	0.000	0.110	0.410	0.255	0.200	0.155	0.100	0.064	0.028	19	0.0355
38	0.0013	0.000	0.110	0.410	0.255	0.200	0.155	0.100	0.064	0.028	20	0.0355
39	0.0013	0.000	0.110	0.410	0.210	0.200	0.155	0.100	0.064	0.028	21	0.0355
40	0.0017	0.000	0.110	0.410	0.210	0.200	0.155	0.090	0.064	0.028	22	0.0355
41	0.0017	0.000	0.110 0.235	0.410 0.320	0.210	0.200 0.200	0.155	0.090	0.064	0.028	23 24	0.0355
42 43	0.0017 0.0017	$\begin{array}{c} 0.000\\ 0.000\end{array}$	0.235	0.320	0.210 0.170	0.200	0.155 0.155	$0.090 \\ 0.090$	$0.064 \\ 0.064$	$0.028 \\ 0.028$	24 25	0.0355 0.0355
43 44	0.0017	0.000	0.235	0.320	0.170	0.200	0.155	0.090	0.064	0.028	25 26	0.0355
45	0.0017	0.000	0.235	0.320	0.170	0.200	0.155	0.090	0.064	0.028	20	0.0355
46	0.0028	0.000	0.235	0.320	0.170	0.120	0.155	0.090	0.064	0.028	28	0.0355
47	0.0028	0.000	0.235	0.320	0.170	0.120	0.100	0.090	0.064	0.028	29	0.0355
48	0.0028	0.000	0.235	0.320	0.170	0.120	0.100	0.090	0.064	0.028	30	0.0355
49	0.0028	0.000	0.235	0.275	0.170	0.120	0.100	0.090	0.064	0.028	31	0.0355
50	0.0055	0.000	0.235	0.275	0.170	0.120	0.100	0.090	0.064	0.028	32	0.0355
51	0.0055	0.000	0.235	0.275	0.170	0.120	0.100	0.090	0.064	0.028	33	0.0355
52	0.0055	0.000	0.235	0.275	0.170	0.120	0.100	0.090	0.064	0.028	34	0.0355
53	0.0055	0.000	0.235	0.275	0.170	0.090	0.100	0.090	0.064	0.028	35	0.0355
54	0.0055	0.000	0.235	0.275	0.170	0.090	0.100	0.090	0.064	0.028	36	0.0355
55 56	0.0080	0.000	0.235	0.275	0.170	0.090	0.100	0.090	0.064	0.028	37 38	0.0355
56 57	$0.0080 \\ 0.0080$	$\begin{array}{c} 0.000\\ 0.000 \end{array}$	0.235 0.289	0.190 0.190	$0.170 \\ 0.170$	$0.090 \\ 0.090$	0.100 0.100	0.090 0.090	$0.064 \\ 0.064$	$0.028 \\ 0.028$	38 39	0.0355 0.0355
57 58	0.0080	0.000	0.289	0.190	0.170	0.090	0.100	0.090	0.064	0.028	39 40	0.0355
59	0.0080	0.500	0.369	0.190	0.170	0.090	0.100	0.090	0.064	0.028	40	0.0355
60	0.0000	0.500	0.240	0.190	0.170	0.090	0.100	0.090	0.064	0.028	42	0.0355
61	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	43	0.0355
62	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	44	0.0355
63	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	45	0.0355
64	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	46	0.0355
65	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	47	0.0355
66	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	48	0.0355
67	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	49	0.0355
68 60	$0.0000 \\ 0.0000$	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	50 51	0.0355
69 70	0.0000	0.325 0.325	0.196 0.196	0.190 0.190	$0.170 \\ 0.170$	$0.090 \\ 0.090$	0.100 0.100	$0.090 \\ 0.090$	$0.064 \\ 0.064$	0.028 0.028	51	0.0355 0.0355
70	0.0000	0.323	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	52 53	0.0355
72	0.0000	0.325	0.190	0.190	0.170	0.090	0.100	0.090	0.064	0.028	54	0.0355
73	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	55	0.0355
74	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	56	0.0355
<u> </u>				•			• •					

# Actuarial Assumptions Corrections/Hazardous Duty & Wildlife

# Actuarial Assumptions Mortality Tables

	Adju	sted RP-2014	Base Table	Р	rojected 202	0 Table	P	rojected 205	0 Table
	Age	Male	Female	Age	Male	Female	Age	Male	Female
General	20	0.000513	0.000208	20	0.000532	0.000220	20	0.000411	0.000172
Active	30	0.000572	0.000279	30	0.000666	0.000319	30	0.000521	0.000251
Member Mortality	40	0.000795	0.000508	40	0.000909	0.000561	40	0.000746	0.000455
wortanty	50	0.002134	0.001414	50	0.002046	0.001377	50	0.001618	0.001077
	60	0.005934	0.003133	60	0.006024	0.003264	60	0.004510	0.002473
	Age	Male	Female	Age	Male	Female	Age	Male	Female
Public	20	0.000528	0.000205	20	0.000547	0.000217	20	0.000423	0.000169
Safety	30	0.000588	0.000275	30	0.000685	0.000315	30	0.000536	0.000247
Active Member	40	0.000817	0.000501	40	0.000934	0.000553	40	0.000767	0.000449
Mortality	50	0.002193	0.001395	50	0.002102	0.001359	50	0.001663	0.001062
	60	0.006097	0.003092	60	0.006189	0.003221	60	0.004634	0.002440
	Age	Male	Female	Age	Male	Female	Age	Male	Female
General Non-	50	0.005202	0.002942	50	0.004987	0.002866	50	0.003945	0.002241
Disabled	60	0.010824	0.005514	60	0.010988	0.005744	60	0.008226	0.004352
Retiree	70	0.025199	0.014955	70	0.024699	0.014237	70	0.018928	0.010935
Mortality	80	0.066380	0.043104	80	0.063142	0.041450	80	0.047371	0.030847
	90	0.187405	0.141993	90	0.180033	0.138271	90	0.137459	0.106224
	1	Male	Female	4	Male	Female	4 72	Male	Female
Public	Age 50	0.004816	0.002870	Age 50	0.004617	0.002796	Age 50	0.003653	0.002186
Safely Non-	50 60	0.010020	0.002870	50 60	0.010172	0.006075	50 60	0.003633	0.002180
Disabled	70	0.023329	0.014203	70	0.022866	0.013521	70	0.007013	0.010385
Retiree	80	0.061453	0.038813	80	0.022800	0.037324	70 80	0.017323	0.010385
Mortality	90	0.173496	0.113767	90	0.166671	0.110785	90	0.127257	0.085108
	Age	Male	Female	Age	Male	Female	Age	Male	Female
General	30	0.022774	0.007770	30	0.022774	0.007770	30	0.022774	0.007770
and	40	0.022774	0.007770	40	0.022774	0.007770	40	0.022774	0.007770
Public Sofoty	50	0.029236	0.012031	50	0.029236	0.012031	50	0.029236	0.012031
Safety Disabled	60	0.042420	0.022778	60	0.042420	0.022778	60	0.042420	0.022778
Mortality	70	0.063146	0.039253	70	0.063146	0.039253	70	0.063146	0.039253
	80	0.110356	0.075421	80	0.110356	0.075421	80	0.110356	0.075421

#### AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY June 30, 2022 - (7.25% Discount Rate)

			Amtz.		Years	Remaining	Mid-Year
Date	Description	Notes *		Initial Liability	Remain	Balance	Payment
2022	OAB	Note 1	7	1,002,732,098	7	1,002,732,098	185,194,718
2022	EAAB	Note 2	18	1,874,305,969	18	1,874,305,969	202,802,984
2022	2009 Change in Assumptions		17	(178,405,518)	17	(178,405,518)	(17,951,515)
2022	2009 Change in Liability		17	1,112,629,282	17	1,112,629,282	111,954,954
2022	2010 Change in Liability		18	521,853,857	18	521,853,857	51,002,216
2022	2011 Change in Liability		19	73,753,082	19	73,753,082	7,020,145
2022	Change in Lia (Assumed Rate)		20	309,973,510	20	309,973,510	28,804,362
2022	Change in Lia (Experience)		20	236,388,676	20	236,388,676	21,966,474
2022	Change in Asset Val Method		21	(75,271,792)	21	(75,271,792)	(6,843,206)
2022	Change in Lia (Experience)		21	(477,455,495)	21	(477,455,495)	(43,407,050)
2022	2014 Assumption Change		22	653,388,139	22	653,388,139	58,226,217
2022	2014 Method Change		22	560,381,276	22	560,381,276	49,937,976
2022	2014 Non-Inv Experience Gain		22	(55,124,508)	22	(55,124,508)	(4,912,381)
2022	2015 Experience Gain		23	(140,763,130)	23	(140,763,130)	(12,316,755)
2022	2016 Experience Loss		24	157,304,483	24	157,304,483	13,535,486
2022	2017 Discount Rate/Salary Chg		25	39,396,367	25	39,396,367	3,338,213
2022	2017 Experience Gain		25	(80,540,833)	25	(80,540,833)	(6,824,550)
2022	2018 Experience Loss		26	2,130,998	26	2,130,998	178,036
2022	2018 Discount Rate Change		26	79,667,604	26	79,667,604	6,655,905
2022	2019 Discount Rate/Assumptions		27	66,528,805	27	66,528,805	5,486,483
2022	2019 Experience Loss		27	369,464,619	27	369,464,619	30,468,928
2022	2020 Inv and Other Experience		28	274,302,700	28	274,302,700	22,352,181
2022	2020 Discount Rate/Salary Change		28	51,859,794	28	51,859,794	4,225,913
2022	2021 Inv and Other Experience		29	(147,984,784)	29	(147,984,784)	(11,926,661)
2022	2021 Experience Account Allocation		9	72,183,944	9	72,183,944	10,812,288
2022	2021 Discount Rate Change		29	266,973,954	29	266,973,954	21,516,455
2022	2022 Inv and Other Experience		30	125,570,503	30	125,570,503	10,017,796
2022	2022 Discount Rate Change		30	274,893,478	30	274,893,478	21,930,522
		]	Plan Spec	ific UAL			
2022	Act 414 - Chg in Lia		15	2,746,245	15	2,746,245	295,767
2022	Act 224 and 595	Note 3	6	450,071	6	450,071	91,881
2022	Act 595 retro	Note 3	7	675,774	7	675,774	122,137
	Total Outstanding Balance					6,974,009,168	763,755,919
2022	2018 Contribution Variance Credit	Note 4	1	-	1	-	-
2022	2019 Contribution Variance Credit	Note 4	2	-	2	-	-
2022	2020 Contribution Variance Credit	Note 4	3	-	3	-	-
2022	2021 Contribution Variance Credit	Note 4	4	-	4	-	-
2022	2022 Contribution Variance Credit	Note 4	5	-	5	-	
	Total Contribution Variance Credit		-		·	\$ -	\$ -

**Total Unfunded Actuarial Accrued Liability** 

\* See UAL Amortization Schedule Notes within this Appendix.

<sup>\$6,974,009,168 \$763,755,919</sup> 

#### AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY June 30, 2023 (Projected)- (7.25% Discount Rate)

Data	Description	Notes *	Amtz. Poriod	Initial Liability	Years	Remaining Balance	Mid-Year Boymont
<b>Date</b> 2022	Description OAB		Period 7	Initial Liability	Remain 6	883,639,638	Payment 185,194,718
2022	EAAB	Note 1	18	1,002,732,098	6 17		
		Note 2		1,874,305,969		1,800,167,185	202,802,984
2022	2009 Change in Assumptions		17	(178,405,518)	16	(172,749,046)	(17,951,515)
2022	2009 Change in Liability		17	1,112,629,282	16	1,077,352,590	111,954,954
2022	2010 Change in Liability		18	521,853,857	17	506,869,563	51,002,216
2022	2011 Change in Liability		19 20	73,753,082	18	71,830,008	7,020,145
2022	Change in Lia (Assumed Rate)		20	309,973,510	19	302,616,338	28,804,362
2022	Change in Lia (Experience)		20	236,388,676	19	230,778,029	21,966,474
2022	Change in Asset Val Method		21	(75,271,792)	20	(73,642,065)	(6,843,206)
2022	Change in Lia (Experience)		21	(477,455,495)	20	(467,117,993)	(43,407,050)
2022	2014 Assumption Change		22	653,388,139	21	640,458,792	58,226,217
2022	2014 Method Change		22	560,381,276	21	549,292,363	49,937,976
2022	2014 Non-Inv Experience Gain		22	(55,124,508)	21	(54,033,696)	(4,912,381)
2022	2015 Experience Gain		23	(140,763,130)	22	(138,213,031)	(12,316,755)
2022	2016 Experience Loss		24	157,304,483	23	154,691,496	13,535,486
2022	2017 Discount Rate/Salary Chg		25	39,396,367	24	38,795,497	3,338,213
2022	2017 Experience Gain		25	(80,540,833)	24	(79,312,432)	(6,824,550)
2022	2018 Experience Loss		26	2,130,998	25	2,101,118	178,036
2022	2018 Discount Rate Change		26	79,667,604	25	78,550,545	6,655,905
2022	2019 Discount Rate/Assumptions		27	66,528,805	26	65,670,255	5,486,483
2022	2019 Experience Loss		27	369,464,619	26	364,696,702	30,468,928
2022	2020 Inv and Other Experience		28	274,302,700	27	271,041,375	22,352,181
2022	2020 Discount Rate/Salary Change		28	51,859,794	27	51,243,206	4,225,913
2022	2021 Inv and Other Experience		29	(147,984,784)	28	(146,362,243)	(11,926,661)
2022	2021 Experience Account Allocation		9	72,183,944	8	66,219,904	10,812,288
2022	2021 Discount Rate Change		29	266,973,954	28	264,046,786	21,516,455
2022	2022 Inv and Other Experience		30	125,570,503	29	124,299,777	10,017,796
2022	2022 Discount Rate Change		30	274,893,478	29	272,111,661	21,930,522
			Plan Spe	ecific UAL			
2022	Act 414 - Chg in Lia		15	2,746,245	14	2,639,046	295,767
2022	Act 224 and 595	Note 3	6	450,071	5	387,548	91,881
2022	Act 595 retro	Note 3	7	675,774	6	598,281	122,137
	Total Outstanding Balance					6,688,667,197	763,755,919
2022	2019 Contribution Variance Credit	Note 4	2	-	1	-	-
2022	2020 Contribution Variance Credit	Note 4	3	-	2	-	-
2022	2021 Contribution Variance Credit	Note 4	4	-	3	-	-
2022	2022 Contribution Variance Credit	Note 4	5	-	4	-	-
2022	2023 Contribution Variance Credit	Note 4	5	18,773,050	5	18,773,050	4,450,745
	Total Contribution Variance Cred		ce			\$ 18,773,050	\$ 4,450,745
Total U	Unfunded Actuarial Accrued Liabil	lity				\$6,707,440,247	\$768,206,664

\* See UAL Amortization Schedule Notes within this Appendix.

#### UAL AMORTIZATION SCHEDULES NOTES

Act 497 of 2009 consolidated all LASERS amortization schedules established on or before July 1, 2008, except those established due to benefit changes for a specific plan, into two schedules: the Original Amortization Base (OAB) and the Experience Account Amortization Base (EAAB). The OAB, which consists of the outstanding balance of the Initial Unfunded Accrued Liability (IUAL) and other schedules with negative outstanding balances, was credited with the balance of funds from the IUAL fund. The EAAB consists of the 2004 schedule and all other remaining schedules. The outstanding balance of this schedule was credited with funds from the IUAL subaccount, which were originally transferred from the Employee Experience Account on June 30, 2009. The EAAB payment schedule is prescribed by statute, as described in Note 2 below.

All schedules were re-amortized, effective July 1, 2022, using a rate of 7.25%.

**Note 1**: The Original Amortization Base includes the Initial Unfunded Accrued Liability (IUAL) and certain negative bases that existed prior to 2009: The new combined balance was credited with funds from IUAL Account. The OAB was reduced by \$50 million on June 30, 2013, and re-amortized. The OAB was reduced by appropriations paid to LASERS per Act 368 of 2015, Act 59 of 2018, Act 50 of 2019, Act 255 of 2020, Act 120 of 2021, and Act 170 of 2022. This schedule was re-amortized to its original pay-off date of 2029 on June 30, 2019, and on June 30, 2021, both per Act 95 of 2016. Future payments will remain level until paid off in 2029 or before.

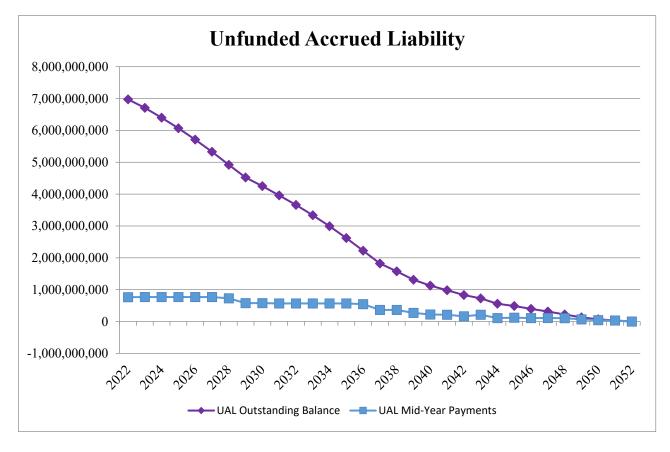
**Note 2**: The Experience Account Amortization Base includes the liability resulting from Act 588 of 2004 which zeroed out the Experience Account, and certain other positive schedules that existed prior to 2009. The new combined balance was credited with funds from the sub-account of the IUAL Fund, which were transferred from the Experience Account on June 30, 2009. The EAAB was reduced by \$50 million on June 30, 2013 and re-amortized. This schedule was re-amortized to its original pay-off date of 2040 on June 30, 2019, per Act 95 of 2016. Future payments will remain level until paid off in 2040 or before.

**Note 3:** Acts 224 and 595 of 2018 Increase in Accrued Liability – Increase in disability and survivor benefits for members disabled or killed in the line of duty. The resulting amortization payments are allocated to the plan specific UAL payment for each affected plan.

**Note 4:** Per Act 399 of 2014, the 2015 and 2016 contribution variance surpluses were used to reduce the OAB. The 2018-2022 contribution variance surpluses were used to reduce the EAAB. The 2022 contribution variance surplus was updated from last year's projected amount as a deficit to a surplus of \$14,055,118.

FY Beginning	UAL Outstanding Balance (Millions)	UAL Mid-Year Payments (Millions)	Payment % Change	FY Beginning	UAL Outstanding Balance (Millions)	UAL Mid- Year Payments (Millions)	Payment % Change
2022	6,974	764	0.0%	2038	1,575	364	0.0%
2023	6,707	768	0.6%	2039	1,312	270	-25.8%
2024	6,398	768	0.0%	2040	1,127	219	-18.9%
2025	6,066	768	0.0%	2041	981	212	-3.2%
2026	5,711	768	0.0%	2042	832	162	-23.9%
2027	5,329	768	0.0%	2043	725	212	31.1%
2028	4,920	729	-5.1%	2044	558	109	-48.7%
2029	4,522	578	-20.7%	2045	486	121	11.3%
2030	4,250	578	0.0%	2046	396	107	-11.2%
2031	3,960	568	-1.9%	2047	314	111	3.2%
2032	3,659	568	0.0%	2048	222	104	-6.2%
2033	3,337	568	0.0%	2049	130	68	-34.5%
2034	2,991	568	0.0%	2050	69	42	-39.0%
2035	2,620	568	0.0%	2051	31	32	-23.1%
2036	2,222	543	-4.3%	2052	0	0	
2037	1,820	364	-32.9%				

#### UAL Outstanding Balance and Payment Schedule Based on Projected June 30, 2023 UAL Schedules



		Annual	Outstandin	g Balance		Annual Payments				
		IUAL		Other			IUAL	Net	Other	Total
	IUAL	Acct	Net IUAL	Schedules	Total OAB	IUAL	Acct	IUAL	Schedules	OAB
2022	1,669.4	-57.7	1,611.7	-609.0	1,002.7	308.3	-10.7	297.7	-112.5	185.2
2023	1,471.1	-50.8	1,420.3	-536.7	883.6	308.3	-10.7	297.7	-112.5	185.2
2024	1,258.5	-43.5	1,215.0	-459.1	755.9	308.3	-10.7	297.7	-112.5	185.2
2025	1,030.4	-35.6	994.8	-375.9	618.9	308.3	-10.7	297.7	-112.5	185.2
2026	785.8	-27.1	758.7	-286.7	472.0	308.3	-10.7	297.7	-112.5	185.2
2027	523.5	-18.1	505.4	-191.0	314.4	308.3	-10.7	297.7	-112.5	185.2
2028	242.1	-8.4	233.8	-88.3	145.4	250.8	-8.7	242.1	-91.5	150.6
2029	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## Components of Original Amortization Base (Dollar amounts in millions)

This table has changed from previously published tables due to legislative appropriations allocated to the IUAL, and the change in discount rate from 7.40% to 7.25%.

#### GLOSSARY

Accrued Benefit – The pension benefit that an individual has earned as of a specific date based on the provisions of the plan and the individual's age, service, and salary as of that date.

Actuarial Accrued Liability – Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the actuarial present value of benefits attributable to service credit earned (or accrued) as of the valuation date.

Actuarial Present Value of Benefits – Amount which, together with future interest, is expected to be sufficient to pay all benefits to be paid in the future, regardless of when earned, as determined by the application of a particular set of actuarial assumptions; equivalent to the actuarial accrued liability plus the present value of future normal costs attributable to the members.

Actuarial Assumptions – Assumptions as to the occurrence of future events affecting pension costs. These assumptions include rates of investment earnings, changes in compensation, rates of mortality, withdrawal, disablement, and retirement as well as statistics related to marriage and family composition.

Actuarial Cost Method – A method of determining the portion of the cost of a pension plan to be allocated to each year; sometimes referred to as the "actuarial funding method." Each cost method allocates a certain portion of the actuarial present value of benefits between the actuarial accrued liability and future normal costs.

Actuarial Equivalence – Series of payments with equal actuarial present values on a given date when valued using the same set of actuarial assumptions.

Actuarial Present Value - The amount of funds required as of a specified date to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments between the specified date and the expected date of payment.

Actuarial Value of Assets – The value of cash, investments, and other property belonging to the pension plan as used by the actuary for the purpose of the actuarial valuation. This may correspond to market value of assets, or some modification using an asset valuation method to reduce the volatility of asset values.

Actuarially Reduced – The method of adjusting a benefit received at an early date, or paid in a form other than the lifetime of the member so that the expected total cost to the retirement system is equivalent to the cost if the benefit did not begin until later, or was paid for the lifetime of the member.

Asset Gain (Loss) – That portion of the actuarial gain attributable to investment performance above (below) the expected rate of return in the actuarial assumptions.

**Amortization** – Paying off an interest-discounted amount with periodic payments of interest and (generally) principal, as opposed to paying off with a lump sum payment.

Amortization Payment – That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the amortization payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

**Contribution Variance** – The difference between actuarially required contribution and the actual amount received based upon a projected contribution rate. Results in an increase or decrease to future required contributions.

**Discount Rate** – The interest rate used in developing present values to reflect the time value of money.

**Decrements** – Events which result in the termination of membership in the system such as retirement, disability, withdrawal, or death.

Employer Normal Cost – Portion of the normal cost not paid by employee contributions.

**Entry Age Normal (EAN) Funding Method** – A standard actuarial funding method whereby each member's normal costs (service costs) are generally level as a percentage of pay from entry age until retirement. The annual cost of benefits is comprised of the normal cost plus an amortization payment to reduce the UAL.

**Experience Gain (Loss)** – The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities during the period between two valuation dates. It is a measurement of the difference between actual and expected experience, and may be related to investment earnings above (or below) those expected or changes in the liability due to fewer (or greater) than expected numbers of retirements, deaths, disabilities, or withdrawals, or variances in pay increases relative to assumed pay increases. The effect of such gains (or losses) is to decrease (or increase) future costs.

**Experience Account Amortization Base (EAAB)** – Amortization base created in 2010 by Act 497 of 2009. Consolidated and re-amortized schedules created in the following valuation years, which existed prior to Act 497: 1996, 1999 - 2003, 2004 (the liability resulting from Act 588 of 2004 which zeroed out the Experience Account), and 2008. The new combined balance was credited with funds from the sub-account of the IUAL Fund, which were transferred from the Experience Account on June 30, 2009.

**Funded Ratio** – A measure of the ratio of the actuarial value of assets to liabilities of the system. Typically, the assets used in the measure are the actuarial value of assets as determined by the asset valuation method adopted by the Board of Trustees; the liabilities are determined using the actuarial funding method specified by Louisiana statute. Thus, the funded ratio depends not only on the financial strength of the plan but also on the asset valuation method used to determine the assets and on the funding method used to determine the liabilities.

**Governmental Accounting Standards Board (GASB)** – Governmental agency that sets the accounting standards for state and local government operations.

Market Value of Assets (MVA) – The value of assets as they would trade on an open market.

**Normal Cost** – Computed differently under different funding methods, generally that portion of the actuarial present value of benefits allocated to the current plan year.

**Original Amortization Base (OAB)** – Amortization base created in 2010 by Act 497 of 2009. Consolidated and re-amortized schedules created in the following valuation years, which existed prior to Act 497: 1993 (Initial Unfunded Accrued Liability), 1993 (Change in Liability), 1994, 1995, 1997, 1998, 2005, 2006, and 2007 (excluding schedules established to amortize liability resulting from Acts 414, 262, and 740).

Permanent Benefit Increase – An increase in specified current retiree benefits authorized by statutes.

**Projected Benefits** – The benefits expected to be paid in the future based on the provisions of the plan and the actuarial assumptions. The projected values are based on anticipated future advancement in age and accrual of service as well as increases in salary paid to the participant.

**Projected Unit Credit (PUC) Funding Method** – A standard actuarial funding method whereby the actuarial present value of projected benefits of each individual is accumulated from the participant's attained age to anticipated retirement. The portion attributable to current year benefit accruals is called the normal cost. The

actuarial present value of future benefits in proportion to service accrued on the date of valuation is called the actuarial accrued liability. The annual cost of benefits is comprised of the normal cost plus an amortization payment to reduce the unfunded actuarial accrued liability.

**Public Retirement Systems' Actuarial Committee (PRSAC)** –A committee created by state law to insure orderly and consistent strategies for continuing development and growth that will attain and maintain the soundness of the public retirement systems, plans and funds, adopts the official valuation for each state and statewide retirement system, and reports all findings, recommendations and official valuation to the House and Senate committees on retirement and the Joint Legislative Committee on the Budget.

Side-Fund Assets – Assets held in the trust for purposes other than for paying the accrued benefits or administrative expenses of the plan.

**Unfunded Actuarial Accrued Liability (UAAL or UAL)** – The excess of the actuarial accrued liability over the valuation assets; sometimes referred to as "unfunded past service liability". UAL increases each time an actuarial loss occurs and when new benefits are added without being fully funded initially and decreases when actuarial gains occur.

**Valuation Assets** – The actuarial value of assets less side-fund assets; represents the portion of the actuarial value of assets available to pay the accrued benefits of the plan.

Vested Benefit – Benefits that the members are entitled to regardless of employment status.