

**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, ASA, MAAA



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

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**PRESENTATION OF VALUATION RESULTS**

SUMMARY OF VALUATION RESULTS

	June 30, 2022	----- Prior Years -----	
		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 <sup>1</sup>	4,918,407,777	5,047,740,413	5,494,242,231
Funding % w/o discount rate/method changes <sup>1</sup>	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								
Plan	Plan Status	Total	Employee	Employer	Admin	Shared	Plan	Total
		Normal Cost % (A)	NC % (B)	NC % (A)-(B)	Expense %	UAL %	Specific UAL %	Employer Contribution %
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:

	<b>\$ Gain/(Loss)</b>	<b>% of Liability</b>
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	

**Section I**  
**PRESENTATION OF VALUATION RESULTS**

**LASERS Actuarial Valuation**  
**June 30, 2022**

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 Assets	Directed DROP Accounts	Net Actuarial Value 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 gains up to the threshold amounts, are allocated to the Original Amortization Base and 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
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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
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:

Employer Credit Account: 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 its 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 Years -----		
	June 30, 2022	June 30, 2021	June 30, 2020
<b><u>Operating Income:</u></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><u>Operating Expenses:</u></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
<b><u>Net Income:</u></b>	<b>\$ (1,477,764,627)</b>	<b>\$ 3,295,633,872</b>	<b>\$ (861,988,096)</b>

<sup>1</sup> Legislative Acts Income: 2022 includes \$2,577 in litter fines and \$21,829,362 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**

**Revenues by Source**

<b>Plan Year</b>	<b>Member Contribution</b>	<b>Employer Contribution<sup>1</sup></b>	<b>Investment Income<sup>3</sup></b>	<b>Total</b>
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

**Expenses by Type**

<b>Plan Year</b>	<b>Benefits</b>	<b>Refunds</b>	<b>Administrative Expenses<sup>2,3</sup></b>	<b>Total</b>
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>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 Years---		
	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)
<b>TOTAL ASSETS - Market Value</b>	<b>13,238,580,140</b>	<b>14,716,344,767</b>	<b>11,420,710,895</b>
Cost Value	11,167,928,091	11,037,578,296	10,596,943,658

**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.

<b>Plan Year</b>	<b>Market Value Gain/(Loss)</b>	<b>Deferred %</b>	<b>Deferred Gain/(Loss)</b>
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 Asset Gain/(Loss)			(608,815,212)
Preliminary Actuarial Value of Assets			13,847,395,352
<b>CORRIDOR LIMITS</b>			
Minimum = 80% of Market Value			10,590,864,112
Maximum = 120% of Market Value			15,886,296,168
Actuarial Value of Assets			13,847,395,352

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

<b>Plan Year</b>	<b>Deferred Gain/(Loss)</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
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	June 30, 2021	June 30, 2020
<b><u>EMPLOYER CREDIT ACCOUNT</u></b> <sup>1</sup> :			
Prior Year Ending Balance	\$ -	\$ -	\$ -
+ Current Year Allocation	-	-	-
- Current Year Disbursements	-	-	-
+ Accumulated Interest	-	-	-
<b>Total Fund Balance - Year End</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b><u>INITIAL UAL AMORTIZATION FUND:</u></b>			
Prior Year Ending Balance	\$ -	\$ -	\$ -
+ Current Year Allocation	-	-	-
- Current Year Disbursements	-	-	-
+ Accumulated Interest	-	-	-
<b>Total Fund Balance - Year End</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b><u>EXPERIENCE ACCOUNT FUND:</u></b>			
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
<b>Fund Balance - Year End</b>	<b>23,082,605</b>	<b>85,173,827</b>	<b>12,289,990</b>
<b><u>DEVELOPMENT OF VALUATION ASSETS:</u></b>			
Actuarial Value of Assets	\$ 13,847,395,352	\$ 13,432,636,820	\$ 12,629,479,030
- Employer Credit Account	-	-	-
- Initial UAL Fund	-	-	-
- Experience Account Fund	23,082,605	85,173,827	12,289,990
<b>Valuation Assets</b>	<b>\$ 13,824,312,747</b>	<b>\$ 13,347,462,993</b>	<b>\$ 12,617,189,040</b>

<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.

	<b>June 30, 2022</b>		<b>---- Prior Year ---- June 30, 2021</b>	
	<b>Dollar Amount</b>	<b>% of Salary</b>	<b>Dollar Amount</b>	<b>% of Salary</b>
Discount Rate	7.25%		7.40%	
<b>I. Normal Costs</b>				
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%
<b>II. Actuarial Accrued Liability</b>				
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	

**Section III**  
**DEVELOPMENT OF COSTS, LIABILITIES AND CONTRIBUTIONS**

**LASERS Actuarial Valuation**  
**June 30, 2022**

	<b>June 30, 2022</b>	<b>---- Prior Year ---- June 30, 2021</b>
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	<u>844,489,079</u>	<u>819,154,890</u>
Less direct UAL payments <sup>2</sup>	295,767	453,367
NET contribution required	<u>844,193,312</u>	<u>818,701,523</u>
	41.9%	40.6%
PR SAC 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	<u>849,261,642</u>	<u>835,998,857</u>
Less direct UAL payments <sup>2</sup>	295,767	295,767
NET contribution required	<u>848,965,875</u>	<u>835,703,090</u>
	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.

**SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY**

	<u>June 30, 2022</u>	<u>June 30, 2021</u>	<u>June 30, 2020</u>
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 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.

**STATEMENT OF CHANGES IN NET PENSION LIABILITY**

	<b>2022</b>	<b>2021</b>	<b>2020</b>
<b>Total Pension Liability (TPL)</b>			
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)
<b>Net Change in Total Pension Liability</b>	<b>578,001,411</b>	<b>528,941,735</b>	<b>163,766,504</b>
<b>Total Pension Liability - Beginning</b>	<b>20,220,320,534</b>	<b>19,691,378,799</b>	<b>19,527,612,295</b>
<b>Total Pension Liability - Ending (a)</b>	<b>20,798,321,945</b>	<b>20,220,320,534</b>	<b>19,691,378,799</b>
<b>Plan Fiduciary Net Position</b>			
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)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>(1,477,764,627)</b>	<b>3,295,633,872</b>	<b>(861,988,096)</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>14,716,344,767</b>	<b>11,420,710,895</b>	<b>12,282,698,991</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>13,238,580,140</b>	<b>14,716,344,767</b>	<b>11,420,710,895</b>
<b>Ending Net Pension Liability (NPL) (a) - (b)</b>	<b>7,559,741,805</b>	<b>5,503,975,767</b>	<b>8,270,667,904</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>63.7%</b>	<b>72.8%</b>	<b>58.0%</b>
<b>Covered Employee Payroll</b>	<b>\$ 2,008,311,596</b>	<b>\$ 2,004,062,861</b>	<b>\$ 1,999,414,595</b>
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>376.4%</b>	<b>274.6%</b>	<b>413.7%</b>

<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:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
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.

	1% Decrease	Current Discount 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.

<b>2022 Active Remaining Service Life:</b>	<b># Years</b>	<b>Plan Year</b>	<b>Amortization Period</b>
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		
<hr/>			
Weighted Average	1.80		
Amortization Period (Rounded Up)	2.0 Years		

**SCHEDULE OF PENSION AMOUNTS**

	<b>Net Pension Liability</b>	<b>Deferred Inflows</b>	<b>Deferred Outflows</b>	<b>Pension Expense</b>
<b>Beginning balance</b>	(5,503,975,767)	(2,310,572,625)	1,167,275,137	
<b>Total Pension Liability Factors:</b>				
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)
<b>Net Change in Total Pension Liability</b>	<b>(578,001,411)</b>	<b>-</b>	<b>17,812,798</b>	<b>560,188,613</b>
<b>Plan Fiduciary Net Position:</b>				
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)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>(1,477,764,627)</b>	<b>596,362,921</b>	<b>1,296,095,154</b>	<b>441,123,954</b>
<b>Ending Balance</b>	<b>(7,559,741,805)</b>	<b>(1,714,209,704)</b>	<b>2,481,183,089</b>	<b>1,001,312,567</b>

**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.

**ACTIVE MEMBERS BY PLAN**

	<b>2022</b>	<b>2021</b>	<b>2020</b>
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
<b>Subtotal</b>	<b>35,932</b>	<b>37,045</b>	<b>37,818</b>
Post DROP	1,426	1,527	1,669
<b>Total Active Members</b>	<b>37,358</b>	<b>38,572</b>	<b>39,487</b>

**TOTAL MEMBERS**

	<b>2022</b>	<b>2021</b>	<b>2020</b>
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
<b>Subtotal</b>	<b>92,172</b>	<b>93,142</b>	<b>93,886</b>
Terminated, Due Refund	59,146	57,464	55,676
<b>Total Members</b>	<b>151,318</b>	<b>150,606</b>	<b>149,562</b>

**MEMBER RECONCILIATION**

	<b>Active Pre-DROP</b>	<b>Active after DROP</b>	<b>Terminated Vested</b>	<b>In DROP</b>	<b>Retired, Disabled, Survivors</b>	<b>Total</b>
<b>June 30, 2021</b>	37,045	1,527	3,724	1,311	49,535	93,142
<b>Additions</b>						
Initial Membership	3,589					3,589
Non-Vested Rehire	491					491
Data Revisions		3	15	1	37	56
<b>Change in Status</b>						
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	
<b>Eliminated from Census</b>						
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)
<b>June 30, 2022</b>	<b>35,932</b>	<b>1,426</b>	<b>3,868</b>	<b>1,199</b>	<b>49,747</b>	<b>92,172</b>

**LASERS MEMBERSHIP PROFILE**  
**Regular Members Before July 2006**

CELLS DEPICT - MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

Age	Credited Service									Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
< 25										
25 - 29										
30 - 34		1 \$36,364			2 \$75,013					3 \$111,377
35 - 39		7 \$307,587	5 \$165,492	12 \$530,945	170 \$9,409,574	19 \$1,060,794	1 \$45,616			214 \$11,520,008
40 - 44	4 \$122,812	14 \$574,226	14 \$541,014	42 \$2,649,892	794 \$50,867,758	377 \$23,790,185	29 \$2,159,510			1274 \$80,705,397
45 - 49		15 \$667,040	21 \$1,203,394	46 \$2,698,033	587 \$37,537,098	872 \$59,217,953	304 \$20,142,907	15 \$1,382,483		1860 \$122,848,908
50 - 54	1 \$20,510	18 \$708,420	18 \$1,186,907	42 \$2,602,378	538 \$32,616,303	883 \$57,866,568	797 \$56,486,638	106 \$8,622,914	3 \$410,616	2406 \$160,521,254
55 - 59	1 \$15,872	14 \$831,924	13 \$613,039	31 \$1,655,284	464 \$26,226,603	667 \$40,580,727	259 \$18,079,497	149 \$12,231,369	34 \$2,579,908	1632 \$102,814,223
60 - 64		10 \$384,605	8 \$311,505	27 \$1,407,802	299 \$16,628,020	266 \$15,633,057	152 \$10,223,884	110 \$9,265,404	62 \$4,393,970	934 \$58,248,247
65 - 69		2 \$63,604	3 \$183,012	6 \$358,807	137 \$8,839,325	142 \$8,612,616	93 \$6,023,464	49 \$3,363,782	37 \$2,869,807	469 \$30,314,417
70+		1 \$11,322		4 \$239,678	52 \$2,421,528	77 \$4,346,380	56 \$3,784,120	33 \$2,013,489	32 \$2,744,476	255 \$15,560,993
<b>Total</b>	6 \$159,194	82 \$3,585,092	82 \$4,204,363	210 \$12,142,819	3043 \$184,621,222	3303 \$211,108,280	1691 \$116,945,636	462 \$36,879,441	168 \$12,998,777	9047 \$582,644,824

Averages ----- Attained Age 53.09  
Service Years 22.04  
Active Salary \$64,402

**LASERS MEMBERSHIP PROFILE**  
**Regular Members After July 2006**

CELLS DEPICT -

MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

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

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

**LASERS MEMBERSHIP PROFILE**  
**Appellate Law Clerks**

CELLS DEPICT - MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

Age	Credited Service								Total	
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34		35+
< 25										
25 - 29										
30 - 34										
35 - 39				2						2
				\$144,118						\$144,118
40 - 44				5	4					9
				\$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
<b>Total</b>				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

**LASERS MEMBERSHIP PROFILE**  
**Participating Legislators**

CELLS DEPICT -

MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

Age	Credited Service									Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
< 25										
25 - 29										
30 - 34										
35 - 39										
40 - 44										
45 - 49										
50 - 54							1			1
							\$265,457			\$265,457
55 - 59										
60 - 64				1						1
				\$124,303						\$124,303
65 - 69										
70+							1			1
							\$111,260			\$111,260
<b>Total</b>				1	1	1				3
				\$124,303	\$111,260	\$265,457				\$501,020

Averages -----

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

**LASERS MEMBERSHIP PROFILE**  
**Active Judges Pre 2011**

CELLS DEPICT -

MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

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

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

**LASERS MEMBERSHIP PROFILE**  
**Active Judges Post 2011**

CELLS DEPICT -

MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

Age	Credited Service									Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
< 25										
25 - 29										
30 - 34										
35 - 39	2 \$268,998	8 \$1,211,534	2 \$187,507	1 \$170,339						13 \$1,838,378
40 - 44	1 \$94,210	23 \$3,603,513	7 \$1,056,332	2 \$327,316	1 \$163,658					34 \$5,245,029
45 - 49		13 \$2,133,581	14 \$2,202,840	2 \$327,600	1 \$163,658					30 \$4,827,679
50 - 54		16 \$2,520,748	13 \$1,997,711	2 \$328,649		1 \$163,658				32 \$5,010,766
55 - 59		10 \$1,566,441	14 \$2,304,482	5 \$812,990	1 \$163,658	2 \$313,877				32 \$5,161,448
60 - 64	1 \$131,365	11 \$1,806,919	8 \$1,315,291		1 \$163,658					21 \$3,417,233
65 - 69		11 \$1,663,204	8 \$1,313,595	4 \$666,940						23 \$3,643,739
70+			1 \$163,004							1 \$163,004
<b>Total</b>	4 \$494,573	92 \$14,505,940	67 \$10,540,762	16 \$2,633,834	4 \$654,632	3 \$477,535				186 \$29,307,276

Averages

----

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

**LASERS MEMBERSHIP PROFILE**  
**Hazardous Duty**

CELLS DEPICT - MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

Age	Credited Service									Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
< 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
<b>Total</b>	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

**LASERS MEMBERSHIP PROFILE**  
**Corrections Primary**

CELLS DEPICT - 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										
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+										
<b>Total</b>		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

Averages ----- Attained Age 55.49  
Service Years 23.57  
Active Salary \$62,520

**LASERS MEMBERSHIP PROFILE**  
**Corrections Secondary**

CELLS DEPICT - 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			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
<b>Total</b>		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

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

**LASERS MEMBERSHIP PROFILE**  
**Wildlife**

CELLS DEPICT - 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				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+										
<b>Total</b>			21	53	30	5	1			110
			\$1,420,612	\$3,898,665	\$2,640,399	\$502,267	\$105,392			\$8,567,335

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

**LASERS MEMBERSHIP PROFILE**  
**Peace Officers**

CELLS DEPICT - 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					2
				\$59,519	\$68,843					\$128,362
40 - 44					5	1				6
					\$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+										
<b>Total</b>				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

**LASERS MEMBERSHIP PROFILE**  
**Alcohol Tobacco Control**

CELLS DEPICT

-

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+										
<b>Total</b>				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

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
				\$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+										
<b>Total</b>				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

**LASERS MEMBERSHIP PROFILE**  
**Harbor Police**

CELLS DEPICT - 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			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
<b>Total</b>			2	3	2	7	1			15
			\$106,556	\$179,591	\$123,051	\$480,107	\$76,961			\$966,266

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		
<b>40-44</b>											
Pay											
Benefit											
<b>45-49</b>	1	1									2
Pay	\$87,667	\$44,429									\$132,096
Benefit	\$38,544	\$42,024									\$80,568
<b>50-54</b>	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
<b>55-59</b>	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
<b>60 - 64</b>	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
<b>65 - 69</b>	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
<b>70+</b>	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
<b>Total</b>	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 DEPICT - MEMBER COUNT VALUATION DATE 6/30/2022  
TOTAL BENEFITS

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

Averages -----  
Attained Age 57.85  
Years Retired 1.57  
Average Benefit \$38,152

**LASERS MEMBERSHIP PROFILE**  
**Post Retirement Services**

CELLS DEPICT - MEMBER COUNT  
TOTAL SALARY

VALUATION DATE 6/30/2022

Age	Credited Service									Total
	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+	
< 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+	32 \$1,328,699	24 \$1,004,135	13 \$786,892	2 \$86,491			1 \$57,710			72 \$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

VALUATION DATE 6/30/2022

Age	Years Retired										Total
	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+		
< 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
<b>Total</b>	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

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

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2022

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

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

**LASERS MEMBERSHIP PROFILE**  
**Survivor Benefits**

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

VALUATION DATE 6/30/2022

Age	Years Retired									Total
	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 14	15 - 19	20+	
< 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
90+						1	1	3	487	492
						\$17,292	\$22,644	\$37,572	\$7,009,440	\$7,086,948
<b>Total</b>	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 ----- Attained Age 72.01  
Years Retired 23.65  
Average Benefit \$18,588

**LASERS MEMBERSHIP PROFILE**  
**Terminated Vested**

CELLS DEPICT - MEMBER COUNT  
TOTAL BENEFITS

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

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

## **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:

1 - 26 Days	10% of a Year
27 - 52 Days	20% of a Year
53 - 78 Days	30% of a Year
79 - 104 Days	40% of a Year
105 - 130 Days	50% of a Year
131 - 156 Days	60% of a Year
157 - 182 Days	70% of a Year
183 - 208 Days	80% of a Year
209 - 234 Days	90% of a Year
235 - 260 Days	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.

Permanent Benefit Increases: 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.

Eligibility Requirements: 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.
    - ii. 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:

Option 1 - If a member dies before receiving present value of annuity in monthly payments, balance paid to designated beneficiary(ies).

Option 2 - 100% of reduced retirement allowance, if member dies, continued for designated beneficiary's lifetime.

Option 3 - 50% of reduced retirement allowance, if member dies, continued for designated beneficiary's lifetime.

Option 4 - 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.

Automatic COLA Option – 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.

Initial Benefit Option - 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).

Normal Eligibility: 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 re-amortized 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 lower 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 period exceeds the projected aggregate payroll and/or if the restated ADC is less than 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 greater than the projected 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

	(A) Total Active Members	(B) DROP Members	(C) Inactive Members	(D) Inactive Accrued Liability *	(E) Total Accrued Liability *	(F) Valuation Assets *	(F)/(E) Funded Ratio	(A)/ (B+C) Support Ratio	(D)/(E) Accrued Liability 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%

Funded Ratio: 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, 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.

Support Ratio: 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.

Accrued Liability Ratio: 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

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

	(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%

Asset Volatility Ratio: 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%

Cash Flow Measures: 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)

Experience Gains and Losses: 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 re-evaluated. 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:**

Funding Valuation Assumption: 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

Males	RP-2014 Blue Collar Employee *0.978
Females	RP-2014 Blue Collar Employee * 1.144

Public Safety Active Employees

Males	RP-2014 Blue Collar Employee *1.005
Females	RP-2014 Blue Collar Employee * 1.129

General Retiree/Inactive Employees

Males	RP-2014 Blue Collar Annuitant * 1.280
Females	RP-2014 White Collar Annuitant * 1.417

Public Safety Retiree/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 Member	Number of Minor Children	Years for Youngest Child to Attain 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
Regular Members	5.0%	1.5%
Judicial Members	0.5%	1.0%
Corrections	9.0%	3.0%
Wildlife	9.0%	3.0%
Rehired Retirees	7.5%	N/A

**Actuarial Assumptions**  
**Regular Members**

AGE	DISABILITY RATES	TERMINATION RATES					
		< 1 YEAR	1 YEAR	2-3 YEARS	4-6 YEARS	7-9 YEARS	10+ 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	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	0.0001	0.290	0.220	0.180	0.133	0.080	0.055
35	0.0005	0.290	0.220	0.180	0.133	0.080	0.055
36	0.0005	0.290	0.220	0.180	0.133	0.080	0.055
37	0.0005	0.290	0.220	0.150	0.133	0.080	0.055
38	0.0005	0.290	0.180	0.150	0.130	0.080	0.055
39	0.0005	0.280	0.180	0.150	0.130	0.080	0.055
40	0.0010	0.280	0.180	0.150	0.130	0.080	0.055
41	0.0010	0.280	0.180	0.150	0.130	0.080	0.055
42	0.0010	0.280	0.180	0.140	0.125	0.080	0.055
43	0.0010	0.250	0.180	0.140	0.125	0.080	0.055
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	0.050
46	0.0015	0.250	0.180	0.140	0.125	0.075	0.050
47	0.0015	0.250	0.180	0.125	0.115	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	0.0022	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**

AGE	RETIREMENT/DROP RATES					DUR	SALARY INCREASE
	< 10 YOS	10-19 YOS	20-24 YOS	25-29 YOS	30+ YOS		
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	0.0300
45	0.000	0.050	0.050	0.050	0.000	27	0.0300
46	0.000	0.050	0.050	0.050	0.000	28	0.0300
47	0.000	0.050	0.050	0.050	0.000	29	0.0300
48	0.000	0.080	0.080	0.080	0.200	30	0.0300
49	0.000	0.080	0.080	0.080	0.200	31	0.0300
50	0.000	0.100	0.100	0.100	0.200	32	0.0300
51	0.000	0.100	0.100	0.100	0.200	33	0.0300
52	0.000	0.100	0.100	0.100	0.200	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**  
**Judges**

AGE	DISABILITY RATES	RETIREMENT/DROP			DUR	SALARY INCREASE
		< 12 YOS	12-17 YOS	18+ YOS		
18	0.0000	0.000	0.000	0.000	0	0.0505
19	0.0000	0.000	0.000	0.000	1	0.0255
20	0.0000	0.000	0.000	0.000	2	0.0255
21	0.0000	0.000	0.000	0.000	3	0.0255
22	0.0000	0.000	0.000	0.000	4	0.0255
23	0.0000	0.000	0.000	0.000	5	0.0255
24	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	0.0255
68	0.0002	0.108	0.105	0.122	50	0.0255
69	0.0002	0.108	0.105	0.122	51	0.0255
70	0.0000	0.108	0.105	0.122	52	0.0255
71	0.0000	0.108	0.105	0.122	53	0.0255
72	0.0000	0.108	0.105	0.545	54	0.0255
73	0.0000	0.108	0.105	0.545	55	0.0255
74	0.0000	0.108	0.105	0.545	56	0.0255

**Actuarial Assumptions**  
**Corrections/Hazardous Duty & Wildlife**

AGE	DISABILITY RATES	RETIREMENT/DROP RATES		TERMINATION RATES (Excluding Wildlife)							DUR	SALARY INCREASES
		< 10 YOS	10+ YOS	< 1 YOS	1 YOS	2 YOS	3-4 YOS	5-7 YOS	8-9 YOS	10+ YOS		
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	0.0480
28	0.0001	0.000	0.000	0.467	0.305	0.240	0.205	0.135	0.064	0.028	10	0.0480
29	0.0001	0.000	0.000	0.467	0.305	0.240	0.200	0.135	0.064	0.028	11	0.0480
30	0.0005	0.000	0.000	0.435	0.255	0.240	0.200	0.135	0.064	0.028	12	0.0480
31	0.0005	0.000	0.000	0.435	0.255	0.240	0.200	0.100	0.064	0.028	13	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	0.410	0.210	0.200	0.155	0.090	0.064	0.028	23	0.0355
42	0.0017	0.000	0.235	0.320	0.210	0.200	0.155	0.090	0.064	0.028	24	0.0355
43	0.0017	0.000	0.235	0.320	0.170	0.200	0.155	0.090	0.064	0.028	25	0.0355
44	0.0017	0.000	0.235	0.320	0.170	0.200	0.155	0.090	0.064	0.028	26	0.0355
45	0.0028	0.000	0.235	0.320	0.170	0.120	0.155	0.090	0.064	0.028	27	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	0.0080	0.000	0.235	0.275	0.170	0.090	0.100	0.090	0.064	0.028	37	0.0355
56	0.0080	0.000	0.235	0.190	0.170	0.090	0.100	0.090	0.064	0.028	38	0.0355
57	0.0080	0.000	0.289	0.190	0.170	0.090	0.100	0.090	0.064	0.028	39	0.0355
58	0.0080	0.000	0.289	0.190	0.170	0.090	0.100	0.090	0.064	0.028	40	0.0355
59	0.0080	0.500	0.369	0.190	0.170	0.090	0.100	0.090	0.064	0.028	41	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	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	50	0.0355
69	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	51	0.0355
70	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	52	0.0355
71	0.0000	0.325	0.196	0.190	0.170	0.090	0.100	0.090	0.064	0.028	53	0.0355
72	0.0000	0.325	0.196	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

**Actuarial Assumptions**  
**Mortality Tables**

	Adjusted RP-2014 Base Table			Projected 2020 Table			Projected 2050 Table		
	Age	Male	Female	Age	Male	Female	Age	Male	Female
<b>General Active Member Mortality</b>	20	0.000513	0.000208	20	0.000532	0.000220	20	0.000411	0.000172
	30	0.000572	0.000279	30	0.000666	0.000319	30	0.000521	0.000251
	40	0.000795	0.000508	40	0.000909	0.000561	40	0.000746	0.000455
	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
<b>Public Safety Active Member Mortality</b>	20	0.000528	0.000205	20	0.000547	0.000217	20	0.000423	0.000169
	30	0.000588	0.000275	30	0.000685	0.000315	30	0.000536	0.000247
	40	0.000817	0.000501	40	0.000934	0.000553	40	0.000767	0.000449
	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
<b>General Non-Disabled Retiree Mortality</b>	50	0.005202	0.002942	50	0.004987	0.002866	50	0.003945	0.002241
	60	0.010824	0.005514	60	0.010988	0.005744	60	0.008226	0.004352
	70	0.025199	0.014955	70	0.024699	0.014237	70	0.018928	0.010935
	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
<b>Public Safety Non-Disabled Retiree Mortality</b>	50	0.004816	0.002870	50	0.004617	0.002796	50	0.003653	0.002186
	60	0.010020	0.005832	60	0.010172	0.006075	60	0.007615	0.004603
	70	0.023329	0.014203	70	0.022866	0.013521	70	0.017523	0.010385
	80	0.061453	0.038813	80	0.058455	0.037324	80	0.043855	0.027776
	90	0.173496	0.113767	90	0.166671	0.110785	90	0.127257	0.085108
<b>General and Public Safety Disabled Mortality</b>	30	0.022774	0.007770	30	0.022774	0.007770	30	0.022774	0.007770
	40	0.022774	0.007770	40	0.022774	0.007770	40	0.022774	0.007770
	50	0.029236	0.012031	50	0.029236	0.012031	50	0.029236	0.012031
	60	0.042420	0.022778	60	0.042420	0.022778	60	0.042420	0.022778
	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)**

<b>Date</b>	<b>Description</b>	<b>Notes *</b>	<b>Amtz. Period</b>	<b>Initial Liability</b>	<b>Years Remain</b>	<b>Remaining Balance</b>	<b>Mid-Year Payment</b>
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
<b>Plan Specific UAL</b>							
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
<b>Total Outstanding Balance</b>						<b>6,974,009,168</b>	<b>763,755,919</b>
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	-	-
<b>Total Contribution Variance Credit Balance</b>						<b>\$ -</b>	<b>\$ -</b>
<b>Total Unfunded Actuarial Accrued Liability</b>						<b>\$6,974,009,168</b>	<b>\$763,755,919</b>

\* See UAL Amortization Schedule Notes within this Appendix.

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

<b>Date</b>	<b>Description</b>	<b>Notes *</b>	<b>Amtz. Period</b>	<b>Initial Liability</b>	<b>Years Remain</b>	<b>Remaining Balance</b>	<b>Mid-Year Payment</b>
2022	OAB	Note 1	7	1,002,732,098	6	883,639,638	185,194,718
2022	EAAB	Note 2	18	1,874,305,969	17	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	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
<b>Plan Specific UAL</b>							
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
<b>Total Outstanding Balance</b>						<b>6,688,667,197</b>	<b>763,755,919</b>
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
<b>Total Contribution Variance Credit Balance</b>						<b>\$ 18,773,050</b>	<b>\$ 4,450,745</b>
<b>Total Unfunded Actuarial Accrued Liability</b>						<b>\$6,707,440,247</b>	<b>\$768,206,664</b>

\* 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.

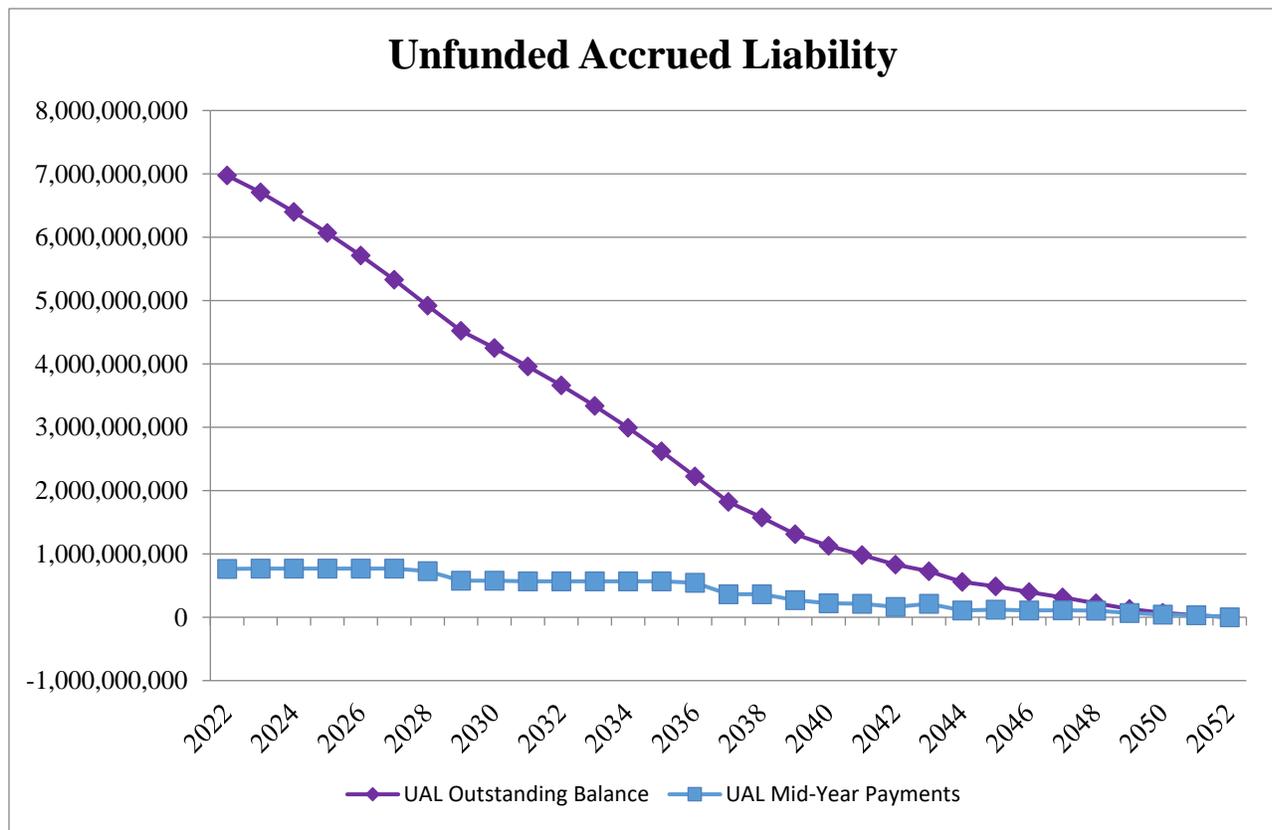
**Note 2:** The Experience Account Amortization Base includes the liability resulting from Act 588 of 2004 which zeroed out the Experience Account, and certain other positive schedules that existed prior to 2009. The new combined balance was credited with funds from the sub-account of the IUAL Fund, 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.

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

<b>FY Beginning</b>	<b>UAL Outstanding Balance (Millions)</b>	<b>UAL Mid-Year Payments (Millions)</b>	<b>Payment % Change</b>	<b>FY Beginning</b>	<b>UAL Outstanding Balance (Millions)</b>	<b>UAL Mid-Year Payments (Millions)</b>	<b>Payment % Change</b>
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%				



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

	Annual Outstanding Balance					Annual Payments				
	IUAL	IUAL Acct	Net IUAL	Other Schedules	Total OAB	IUAL	IUAL Acct	Net IUAL	Other Schedules	Total 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

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.