

**TEACHERS' RETIREMENT
SYSTEM OF LOUISIANA**

JUNE 30, 2021

ACTUARIAL VALUATION



October 8, 2021

Board of Trustees
Teachers' Retirement System of Louisiana
Post Office Box 94123, Capitol Station
Baton Rouge, Louisiana 70804-9123

Dear Board Members:

This report is prepared for the Board of Trustees of Teachers' Retirement System of Louisiana (TRSL) to present the results of the actuarial valuation of assets and liabilities and funding requirements, as of June 30, 2021. 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 2022 and the projected actuarially required contribution rate for fiscal year ending 2023. 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 Statements of Fiduciary Net Position and Changes in Fiduciary Net Position as audited by Hawthorne, Waymouth & Carroll, LLP, 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 method specified in Louisiana Revised Statutes Title 11 Section 22(13). All actuarial assumptions have been adopted by the Board of Trustees and are reasonable and appropriate for the purposes of this valuation, unless otherwise stated herein. 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.

Appendix D has been included to comply with the guidance provided by Actuarial Standard of Practice, No 51, applicable to valuations on or after November 1, 2018. 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 Teachers' Retirement System of Louisiana.

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

TABLE OF CONTENTS

SECTION	TITLE	PAGE
	LETTER OF CERTIFICATION	i
I	PRESENTATION OF VALUATION RESULTS	
	Summary of Valuation Results	1
	Projected Contribution Rates by Plan	2
	Changes Since Prior Valuation	2
	Change in Funding Requirements	2
	Change in Unfunded Accrued Liability	3
	Plan Experience	4
	Actuarial Assets/Valuation Assets	5
	Legislative/Plan Changes	6
	Accelerated Reduction of OAB and EAAB	6
	Funded Status	7
II	ASSETS/FINANCIAL SUMMARY	8 – 12
III	DEVELOPMENT OF COSTS, LIABILITIES & CONTRIBUTIONS	13 - 14
IV	GASB STATEMENTS 67/68 REPORTING	15 - 18
 APPENDIX		
A	MEMBERSHIP DATA	19 - 31
B	SUMMARY OF PLAN PROVISIONS	33 – 47
C	FUNDING POLICY	48 – 49
D	DISCUSSION OF RISK	50 - 54
E	ACTUARIAL COST METHODS AND ASSUMPTIONS	55 – 61
F	AMORTIZATION SCHEDULES	
	June 30, 2021	62
	June 30, 2022 – Projected	63
	UAL Amortization Schedule Notes	64
	Table and Graph of UAL and Payment Schedule	65
	Components of Original Amortization Base	66
	GLOSSARY	67 – 69

PRESENTATION OF VALUATION RESULTS

SUMMARY OF VALUATION RESULTS

	June 30, 2021	----- Prior Years -----	
		June 30, 2020	June 30, 2019
I. Membership Census			
Retirees	81,620	80,536	79,647
Actives	85,980	86,860	85,998
DROP	2,227	2,359	2,462
Terminated Vested	8,409	7,992	7,574
II. Annual Benefits	\$2,120,995,108	\$2,072,641,570	\$2,033,557,103
III. Current Payroll			
Regular Teachers, Lunch Plans	3,586,756,266	3,498,582,193	3,386,982,919
Higher Education	748,334,382	731,038,788	684,771,436
Total	<u>4,335,090,648</u>	<u>4,229,620,981</u>	<u>4,071,754,355</u>
IV. Market Value of Assets	27,724,128,255	21,220,586,002	21,652,482,372
Valuation Assets	23,741,582,928	21,971,040,392	21,183,177,985
V. Investment Yield			
Market Value (Total Assets)	34.32%	0.82%	5.86%
Market Value (Excl LaDROP Assets)	34.92%	0.83%	5.95%
Actuarial Value	12.65%	6.80%	7.48%
DROP	12.15%	6.30%	6.98%
VI. Experience Account	369,000,000	97,714,607	91,497,197
VII. Total Normal Cost	482,490,694	468,547,375	454,344,240
Total Normal Cost % of Payroll	11.13%	11.08%	11.16%
Employer Normal Cost % of Payroll	3.15%	3.10%	3.18%
VIII. Unfunded Actuarial Accrued Liability	9,317,243,930	10,369,997,921	10,390,968,872
IX. Funded Percentage ¹	71.8%	67.9%	67.1%
X. Funding Requirements (Mid-year Pmt)			
1) Discount Rate (Current Year) ²	7.40%	7.45%	7.55%
Discount Rate (Next Year) ²	7.25%	7.40%	7.45%
2) Employee Contribution	348,655,596	340,628,608	328,587,112
3) Restated Required Employer Contribution	1,161,260,021	1,193,919,270	1,170,078,214
Aggregate Rate (Current Year) ³	23.9%	25.0%	25.4%
Restated Expected Employer Contribution ⁴	1,220,748,179	1,223,558,559	1,194,115,857
4) Projected Required Employer Contribution	1,215,753,986	1,214,905,342	1,204,979,667
Aggregate Rate (Next Year) ⁵	24.7%	25.1%	25.6%

The above funding requirements measure the cost of benefits that were in effect on June 30, 2021.

¹ See page 7 for additional information regarding the funding percentage and UAL impact due to discount rate reductions and past actuarial method changes.

² The assumed rate of return on investments is the discount rate plus 35 basis points for gain-sharing.

³ Reflects the restated aggregate employer contribution rate for the fiscal year following the valuation date.

⁴ The current year PRSAC approved employer contribution rate multiplied by restated current year projected payroll.

⁵ Reflects the projected aggregate employer contribution rate for fiscal year that begins one year after the valuation date.

PROJECTED CONTRIBUTION RATES BY PLAN

Act 716 of 2012 requires the employer contribution rate to be individually determined for each plan type as defined within the Act beginning with Fiscal Year 2012/2013. The term “plan” refers to each employer group specified in the Act, rather than each plan referring to a separate plan of benefits. 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 for a specific plan or group of plans by specific legislation will be allocated entirely to that plan or those plans. The recommended employer rates by plan are as follows:

	Recommended Employer Rate for FY 2022/2023					
	Total Normal Cost Rate	Aggregate Employee Normal Cost Rate	Employer Normal Cost Rate	Administrative Expense Rate	Shared UAL Rate	Total Employer Contribution Rate
Regular Teachers, Lunch A & B	11.6%	7.9789%	3.6398%	0.37%	20.8%	24.8%
Higher Education	10.9%	8.0000%	2.8909%	0.37%	20.8%	24.1%
Aggregate Rate	11.5%	7.9825%	3.5105%	0.37%	20.8%	24.7%

CHANGES SINCE PRIOR VALUATION

The discount rate for the June 30, 2021 valuation was reduced from 7.45% to 7.40%. This change was anticipated in the determination of the projected contribution requirements for Fiscal Year 2021/2022. The Board adopted a further reduction in the discount rate to 7.25% for purposes of determining the projected contribution requirements for Fiscal Year 2022/2023.

Two triggers set by Act 95 of 2016 were met on June 30, 2021. Since the funded ratio reached 70%, the amortization period for changes in assumptions, experience losses, and most experience gains reduced from 30 years to 20 years. Also, the OAB was re-amortized with level-dollar payments to 2029 since this re-amortization resulted in annual payments which are less than the FY 2021/2022 payments that would have been required without the re-amortization.

CHANGE IN FUNDING REQUIREMENTS

The aggregate employer contribution rate established by the Public Retirement Systems' Actuarial Committee for the 2021/2022 plan year was 25.1%. The restated employer contribution rate determined by this valuation for the 2021/2022 plan year is 23.9%. Therefore, a contribution surplus of 1.2% 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 decreased from 25.1% for Fiscal Year 2021/2022 to 24.7% for Fiscal Year 2022/2023. 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.

Employer Contribution Rate Reconciliation

Normal Cost	
Demographic Shift	-0.07%
Discount Rate Change (7.40% to 7.25%)	0.36%
<u>Normal Cost Total Change</u>	0.29%
UAL Payment	
Investment Experience Gain	-1.49%
Experience Account Allocation	0.74%
Other Experience Loss	0.02%
Reamortization of OAB with level payments	-0.43%
Contribution Variance Payment Change	0.00%
Discount Rate Change (7.40% to 7.25%)	0.73%
<u>Total UAL Payment Change</u>	-0.43%
Payroll Change	-0.36%
Administrative Expenses	0.00%
<u>Total</u>	-0.50%
Actual Contribution Rate Change	-0.40%

CHANGE IN UNFUNDED ACCRUED LIABILITY

The plan's total unfunded accrued liability (UAL) decreased, mainly due to principal reduction from receipt of UAL payments, an investment experience gain, and a contribution variance surplus. This decrease was partially offset by increases resulting from an allocation of investment experience gains to the experience account and a decrease in the discount rate.

Unfunded Liability - June 30, 2020		\$ 10,369,997,921
Interest on Unfunded Liability	\$ 772,564,845	
Employer Amortization Payment	(1,083,536,506)	
Act 120 of 2021 Appropriation	(18,612,744)	
Contribution Variance Surplus	(84,357,976)	
Investment Experience Gain	(1,075,214,831)	
Experience Account Allocation	265,864,686	
Other Experience Loss	11,323,650	
Act 37 of 2021 (Minimum Benefit COLA)	6,937,251	
Experience Account Disbursement	(6,937,251)	
<u>Discount Rate Change (7.45% to 7.40%)</u>	159,214,885	
<u>Total Change</u>		\$ (1,052,753,991)
Unfunded Liability - June 30, 2021		\$ 9,317,243,930

PLAN EXPERIENCE

The actuarial assumptions represent the best estimate of future experience in order to properly fund benefits. The results of the actuarial valuation are dependent on the actuarial assumptions used. These assumptions, which are adopted by the Board of Trustees, are detailed in Appendix E of the valuation report. A gain or loss occurs if the actual experience differs from 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 Assumption 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 2020/2021 plan year, the system incurred an experience loss of \$11,323,650. from plan experience differing from that anticipated by the demographic and salary assumptions. The loss is amortized over 20 years with level payments.

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

Source of Gain/(Loss)	Gain/(Loss)	% of Total Liability
Active Member Decrements	(\$86,492,475)	-0.26%
Active Member Salaries	(\$42,961,139)	-0.13%
Inactive Mortality	\$58,333,610	0.18%
Administrative Expenses	\$412,237	0
Other	\$59,384,117	0.18%
Total Change	(\$11,323,650)	-0.03%

Investment Assumption Experience

The market value of assets and actuarial value of assets include funds from the DROP accounts created for members eligible for DROP after January 1, 2004, which are invested in money market accounts. The rate of return on the actuarial value of assets is determined for trust assets net of these accounts.

	Actuarial Value of Assets	Money Market DROP Accounts	Net Actuarial Value of Assets
Beginning Assets	22,072,044,244	370,281,201	21,701,763,043
Contributions	1,665,236,336	95,738,901	1,569,497,435
Benefits Payments and Expenses	(2,327,055,423)	(103,214,927)	(2,223,840,496)
Investment Income	2,704,430,592	2,364,906	2,702,065,686
Ending Asset Value	24,114,655,748	365,170,080	23,749,485,668
Net AVA Rate of Return			12.65%

For the plan year ending June 30, 2021, the System's actuarial rate of return of 12.65% was greater than the 7.45% discount rate, resulting in an investment experience gain of \$1,075,214,831. Investment experience losses are amortized over 20 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 20 years with level payments. One-half of the remaining gain is allocated to the experience account, up to the statutory cap, to be used to fund future permanent benefit increases, when granted by the legislature, and is amortized as a cost over ten years.

The development of investment gains/losses and any resulting allocations are shown below:

Development of Investment Gain/(Loss)	
A. Beginning Net Actuarial Value of Assets	\$ 21,701,763,043
B. Total Contributions	1,569,497,435
C. Benefits Payments and Expenses	2,223,840,496
D. Ending Net Actuarial Value of Assets	23,749,485,668
<hr/>	
E. Investment Income (D - A - B + C)	2,702,065,686
Investment Rate of Return	12.65%
F. Expected Investment Income	1,592,164,006
Expected Rate of Return	7.45%
G. Investment Gain/(Loss) (E - F)	1,109,901,680
H. Gain allocated to Side Funds or DROP Accounts	34,686,849
I. Net Investment Gain	1,075,214,831
Current Allocation of Gain Threshold to OAB/EAAB	
J. \$200,000,000 Indexed by AVA Increase	\$ 272,698,290
Allocation of Investment Gain	
K. Original Amortization Base (OAB) Credit (J / 2)	\$ 136,349,145
L. Experience Account Amortization Base (EAAB) Credit (J / 2)	136,349,145
M. Net Investment Gain (20-Year Amortization) (I - K - L)	802,516,540
<hr/>	
N. Total Investment Gain	1,075,214,831
O. Experience Account Credit (10-year amortization)	(265,864,686)
<hr/>	
P. Retained Investment Gain (N - O)	809,350,145

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

	Actuarial Rate of Return		Geometric Average
2016	6.67%	5 Year	9.09%
2017	9.15%	10 Year	9.47%
2018	9.48%	15 Year	7.03%
2019	7.48%	20 Year	6.37%
2020	6.80%	25 Year	7.63%
2021	12.65%	30 Year	8.15%

DROP accounts for members eligible for DROP prior to January 1, 2004 are credited with interest following termination of DROP 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, 2020 through June 30, 2021 after the expense adjustment is 12.15%. DROP accounts for members eligible for DROP after January 1, 2004 are invested in money market accounts.

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 statutory minimum employer contribution rate of 15.5% over the actuarially required employer contribution (ARC), as restated in the current valuation. The minimum rate is not currently applicable, and the account continues to have a zero balance.

LSU Agriculture and Extension Service Fund: Participants of the LSU Agriculture and Extension Service receive supplemental benefits from TRSL equal to the difference between the TRSL benefit formula and the Federal Civil Service formula. The funding is recorded separately in the side-fund with assets commingled with the TRSL assets. The current balance is \$4,072,820.

Experience Account Fund: The account is used to fund permanent benefit increases for retirees. Fifty percent of any excess return above the statutory threshold will be credited to the Experience Account, up to the statutory maximum account balance, which is currently the expected cost of one permanent benefit increase. The account was credited with a \$265,864,686 from investment experience gains and interest on the current balance based on the System's actuarial return. If not for the statutory maximum balance of the cost of one permanent benefit increase, the account would have been credited \$401,258,270. The account disbursed \$6,937,251 to fund the Act 37 of 2021 COLA. The current balance is \$369,000,000.

LEGISLATIVE/PLAN CHANGES

Act 120 of 2021 provided a supplemental appropriation of \$18,612,744 to TRSL to be applied to the IUAL, which is a component of the Original Amortization Base.

Act 337 of 2020 created options for retired teachers who choose to return to work in a TRSL eligible position. Option 1 allows retirees to continue receiving their benefit subject to an earnings cap equal to 25% of their final average compensation. Option 2 suspends the retirement benefit but allows the retiree to return to work without an earnings cap and earn a supplemental benefit. The Act was effective August 1, 2020.

Act 95 of 2016 provides that the net remaining liability of the OAB and EAAB shall be re-amortized after application of the hurdle payments in the Fiscal Year 2024/2025 and in every fifth fiscal year thereafter until the system is 80% funded.

ACCELERATED REDUCTION OF OAB AND EAAB

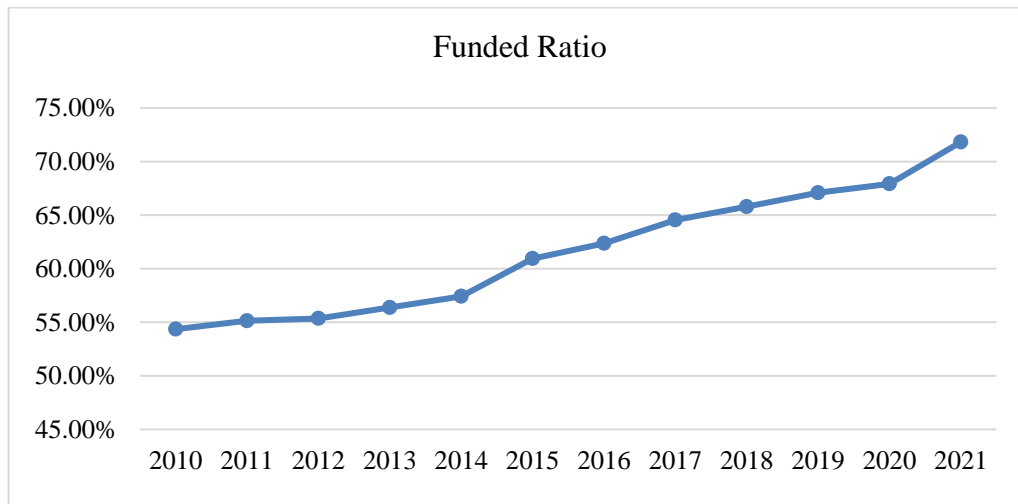
Act 497 of 2009 established the OAB and EAAB and required the application of certain investment gains and contribution variance credits to these schedules. Act 399 of 2014 modified the provisions of Act 497 and specifies that until the System's funded ratio reaches 85%, the funds applied to these schedules will be used to pay off the schedules early, rather than to reduce employer contributions. Since 2009, \$610,581,552 has been applied to the OAB and \$1,127,366,148 has been applied to the EAAB. Per Act 95 of 2016, the OAB and EAAB schedules were re-amortized to their original statutorily required pay-off dates in FY 2019/2020 and the OAB was re-amortized again on June 30, 2021 to 2029 with level payments. A projection of future UAL and UAL payments based on the projected amortization schedules, after re-amortization, is shown in Appendix F. This projection assumes that the actuarially determined contributions will be paid when due and all actuarial assumptions will be realized.

FUNDED STATUS

The funded status measure is appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s obligations and for assessing the amount of future contributions. The current funded ratio is 71.8%, as measured by the plan’s valuation assets divided by the total actuarial accrued liability, which are based on the asset valuation method, actuarial cost method, and actuarial assumptions described in Appendix E. This measure would be different if the measure reflected the market value of assets rather than the actuarial value of assets. The financial crisis of 2008, and gradual recognition of the losses, resulted in a funded ratio of 54.4% in 2010. The chart below shows the recovery to date as exhibited by the steady increase in the funded ratio through June 30, 2021.

If not for the reductions in the discount rate over this period and change to the Entry Age Normal cost method, the funded ratio would have increased to approximately 80.7%. 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.



ASSETS/FINANCIAL SUMMARY
STATEMENT OF REVENUES AND EXPENSES

		----- Prior Years -----	
	June 30, 2021	June 30, 2020	June 30, 2019
<u>OPERATING REVENUES:</u>			
1. Contribution Income			
Member	\$ 361,684,671	\$ 351,287,975	\$ 341,398,896
Employer	1,152,627,868	1,129,963,855	1,124,923,542
Legis Appropriations	18,612,744	36,789,397	21,327,137
Other Appropriations	25,099	25,399	27,033
ORP - Unfunded	131,768,231	134,957,347	132,340,454
LSU Ag Center Coop. Ext.	2,075,689	2,017,909	1,995,075
Miscellaneous	(1,557,967)	1,013,941	726,366
TOTAL CONTRIBUTIONS	1,665,236,336	1,656,055,823	1,622,738,503
2. Investment Income			
Investments	7,204,116,772	209,737,077	1,250,580,485
Less Advisor Fees	(38,755,431)	(35,726,244)	(36,658,316)
TOTAL INVESTMENT INCOME	7,165,361,341	174,010,833	1,213,922,169
3. Total Revenues	8,830,597,676	1,830,066,656	2,836,660,672
<u>OPERATING EXPENSES:</u>			
1. General Administration	14,132,424	14,418,013	13,445,962
Other Post-Employment Benefits ¹	-385,301	(540,170)	95,273
GASB 68 Pension Expense	1,870,195	1,576,153	880,211
Depreciation Expense	470,446	422,685	396,927
TOTAL ADMIN. EXPENSE	16,087,764	15,876,681	14,818,373
2. Benefits Paid			
Pension Benefits	2,256,015,333	2,193,873,471	2,163,684,514
LSU Ag Center Coop. Ext.	1,856,703	1,987,638	2,075,869
Refund of Contributions	53,095,624	50,225,236	50,301,709
TOTAL BENEFITS PAID	2,310,967,660	2,246,086,345	2,216,062,092
3. Total Expenses	2,327,055,424	2,261,963,026	2,230,880,465
<u>NET MARKET VALUE INCREASE:</u>	6,503,542,252	(431,896,370)	605,780,207

¹ The 2018 OPEB Expense includes a \$13,190,993 adjusting entry related to GASB 75 implementation.

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

Revenues by Source				
Fiscal Year	Members Contribution	Employer Contribution ¹	Investment Income	Total
2012	333,908,454	1,084,637,731	(56,240,846)	1,362,305,339
2013	327,767,936	1,095,482,766	1,754,983,691	3,178,234,393
2014	326,007,091	1,218,017,295 ²	2,818,063,134	4,362,087,520
2015	324,920,644	1,267,129,097	445,160,167	2,037,209,908
2016	330,773,315	1,197,925,446	180,592,209	1,709,290,970
2017	328,541,240	1,162,795,385	2,615,507,755	4,106,844,380
2018	337,928,752	1,251,838,141	2,140,697,973	3,730,464,866
2019	341,398,896	1,281,339,607	1,213,922,169	2,836,660,672
2020	351,287,975	1,304,767,848	174,010,833	1,830,066,656
2021	361,684,671	1,303,551,664	7,165,361,341	8,830,597,676

Expenses by Type				
Fiscal Year	Benefits	Refunds	Administrative Expenses	Total
2012	1,682,528,254	49,139,028	18,864,917	1,750,532,199
2013	1,800,166,804	59,152,481	17,661,969	1,876,981,254
2014	1,877,113,902	57,652,124	17,522,895	1,952,288,921
2015	1,956,857,437	51,545,762	19,265,221	2,027,668,420
2016	2,001,145,698	49,141,575	17,432,419	2,067,719,692
2017	2,063,449,370	49,805,920	18,194,370	2,131,449,660
2018	2,118,971,446	48,671,220	29,465,710	2,197,108,376
2019	2,165,760,383	50,301,709	14,818,373	2,230,880,465
2020	2,195,861,109	50,225,236	15,876,681	2,261,963,026
2021	2,256,015,333	53,095,624	16,087,763	2,325,198,720

¹ Includes Miscellaneous Contribution/Income in addition to direct employer contributions.

² Includes \$5,578,791 legislative appropriation from Act 55 of 2014.

STATEMENT OF ASSETS

ASSETS:	June 30, 2021	----Prior Years---	
		June 30, 2020	June 30, 2019
1. Short-term Assets			
Cash and Cash Equivalents	\$ 246,399,879	\$ 239,806,968	\$ 196,030,213
Short Term Securities	1,073,305,658	869,649,603	905,937,551
2. Global Debt	3,368,747,664	3,579,000,756	3,741,321,218
3. Global Equities	12,274,373,322	9,140,896,138	9,850,015,432
4. Other Assets			
Alternative Investments	10,795,084,608	7,725,680,541	7,219,278,272
Property and Equipment	3,756,028	3,582,219	3,738,196
Receivables less Payables	(41,800,034)	(337,194,283)	(263,891,846)
Deferred Outflows less Deferred Inflows	4,261,131	(835,940)	53,336
TOTAL ASSETS - Market Value	27,724,128,255	21,220,586,002	21,652,482,372

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 five-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.

Plan Year	Asset G/L	Deferred %	Deferred \$
2018	661,883,532	20%	132,376,706
2019	(372,073,354)	40%	(148,829,342)
2020	(1,436,489,787)	60%	(861,893,872)
2021	5,609,773,769	80%	4,487,819,015
			\$ 3,609,472,507
Market Value of Assets			\$ 27,724,128,255
- Deferred Asset G/L			3,609,472,507
Preliminary Actuarial Value of Assets			\$ 24,114,655,748
CORRIDOR LIMITS			
Minimum = 80% of Market Value			\$ 22,179,302,604
Maximum = 120% of Market Value			33,268,953,906
Actuarial Value of Assets			\$ 24,114,655,748

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

Plan Year	Deferred Gain/(Loss)	2022	2023	2024	2025
2018	132,376,706	132,376,706			
2019	(148,829,342)	(74,414,671)	(74,414,671)		
2020	(861,893,872)	(287,297,957)	(287,297,957)	(287,297,958)	
2021	4,487,819,015	1,121,954,754	1,121,954,754	1,121,954,754	1,121,954,753
	3,609,472,507	892,618,832	760,242,126	834,656,796	1,121,954,753

**SIDE ACCOUNTS AND
DEVELOPMENT OF VALUATION ASSETS**

---- Prior Years ----

	June 30, 2021	June 30, 2020	June 30, 2019
EMPLOYER CREDIT ACCOUNT¹			
Prior Year Ending Balance	\$ -	\$ -	\$ -
+ Contributions	-	-	-
- Disbursements	-	-	-
+ Accumulated Interest	-	-	-
Account Balance - Year End	-	-	-
LSU AG/EXT SERVICE:			
Prior Year Ending Balance	\$ 3,289,245	\$ 2,985,411	\$ 2,784,912
+ Contributions	2,075,689	2,017,909	1,995,075
- Benefit Disbursements	1,856,703	1,987,638	2,075,869
+ Accumulated Interest	564,589	273,563	281,293
Account Balance - Year End	4,072,820	3,289,245	2,985,411
EXPERIENCE ACCOUNT FUND:			
Prior Year Ending Balance	\$ 97,714,607	\$ 91,497,197	\$ 85,129,775
+ Experience Account Allocation	265,864,686	-	-
- Benefit Disbursements	6,937,251	-	-
+ Accumulated Interest	12,357,958	6,217,410	6,367,422
Fund Balance - Year End	369,000,000	97,714,607	91,497,197
DEVELOPMENT OF VALUATION ASSETS:			
Actuarial Value of Assets	\$ 24,114,655,748	\$ 22,072,044,244	\$ 21,277,660,593
- Employer Credit Account	-	-	-
- LSU Ag/Ext Service Account	4,072,820	3,289,245	2,985,411
- Experience Account Fund	369,000,000	97,714,607	91,497,197
Valuation Assets	\$ 23,741,582,928	\$ 21,971,040,392	\$ 21,183,177,985

¹ The Employer Credit Account was created by ACT 588 of 2004.

**DEVELOPMENT OF COSTS,
LIABILITIES AND CONTRIBUTIONS**

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

	June 30, 2021		---- Prior Year ---- June 30, 2020	
	<u>Dollar Amount</u>	<u>% of Salary</u>	<u>Dollar Amount</u>	<u>% of Salary</u>
Discount Rate	7.40%		7.45%	
I. Normal Costs				
Active Members				
a) Retirement Benefits	275,442,967	6.35%	270,325,934	6.39%
b) Disability Benefits	15,952,286	0.37%	15,432,109	0.36%
c) Survivor Benefits	6,345,805	0.15%	6,191,043	0.15%
d) Voluntary Termination	184,749,636	4.26%	176,598,289	4.18%
e) Total	<u>482,490,694</u>	11.13%	<u>468,547,375</u>	11.08%
II. Actuarial Accrued Liability				
a) Active Members				
1) Retirement Benefits	8,374,588,534		8,177,111,380	
2) Disability Benefits	202,007,601		191,729,973	
3) Survivor Benefits	83,988,558		81,449,117	
4) Voluntary Termination	<u>755,906,098</u>		<u>657,641,565</u>	
	9,416,490,791		9,107,932,035	
b) Retired and Inactive Members				
1) Regular Retirees	18,305,744,624		17,927,649,533	
2) Disability Benefits	475,820,491		483,093,856	
3) Survivors	1,338,227,031		1,273,408,196	
4) Vested Deferred ¹	478,670,699		441,537,875	
5) Contributions Refunded ²	136,698,682		140,787,058	
6) DROP Deferred Benefits	1,792,382,656		1,871,917,934	
7) DROP Account Balances	<u>1,114,791,884</u>		<u>1,094,711,826</u>	
	23,642,336,067		23,233,106,278	
c) Total	33,058,826,858		32,341,038,313	

¹ Includes pending Retirement/DROP applications.

² Includes terminated employee and rehired retiree contributions to be refunded.

Section III
DEVELOPMENT OF COSTS, LIABILITIES, AND CONTRIBUTIONS

TRSL Actuarial Valuation
June 30, 2021

	June 30, 2021	---- Prior Year ---- June 30, 2020
II. Actuarial Accrued Liability	33,058,826,858	32,341,038,313
Discount Rate	7.40%	7.45%
III. Valuation Assets	23,741,582,928	21,971,040,392
IV. Unfunded Actuarial Accrued Liability ¹	9,317,243,930	10,369,997,921
a) Change over prior year	(1,052,753,991)	(20,970,951)
b) Funded Percentage	71.8%	67.9%
V. Employer Contributions		
To Fund Current Plan Year ¹		
a) Employer Portion of Normal Cost	137,467,163	132,120,744
b) Administrative Expenses	16,500,000	16,500,000
c) Amortization Payments	1,007,292,858	1,045,298,526
d) Prior Contribution Variance	<u>0</u>	<u>0</u>
Total Required Contribution	1,161,260,021	1,193,919,270
Total Contribution Rate	23.9%	25.0%
PR SAC Approved rate ¹	25.1%	25.6%
Aggregate Employer Normal Cost Rate	3.1473%	3.0959%
VI. Projected Employer Contributions		
Discount Rate	7.25%	7.40%
To Fund Next Plan Year ¹		
a) Employer Portion of Normal Cost	155,302,581	139,273,835
b) Administrative Expenses	16,500,000	16,500,000
c) Amortization Payments	1,043,951,405	1,059,131,507
c) Prior Contribution Variance	<u>0</u>	<u>0</u>
Total Required Contribution	1,215,753,986	1,214,905,342
Total Contribution Rate	24.7%	25.1%
Projected Aggregate Employer Normal Cost Rate	3.5104%	3.2138%
VII. Current Payroll	4,335,090,648	4,229,620,981
Projected Payroll - Mid Year	4,367,724,091	4,267,552,628
Projected Payroll - Next Year	4,424,019,346	4,333,568,632
Optional Retirement Plan (ORP) Salary Adjustment Factor ²	1.13436	1.13849

¹ Dollar Amounts reflect estimated payments due mid-year on January 1st per Act 81. Constitutional Minimum is 11.8% without regard to the statutory minimum of 15.5%.

² Amortization payments are paid as a percentage of plan member and ORP payroll. The ORP salary adjustment factor is used to convert amortization payments to percentage of payroll.

GASB STATEMENT NO. 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 plan 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, excluding assets held for the LSU Agriculture and Extension Service. The Total Pension Liability was developed using the Entry Age Normal cost method.

SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY

	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>
Total Pension Liability	\$ 33,058,826,858	\$ 32,340,867,066	\$ 31,574,146,857
Plan Fiduciary Net Position ¹	\$ 27,720,055,435	\$ 21,217,296,757	\$ 21,649,496,961
Employers' Net Pension Liability	\$ 5,338,771,423	\$ 11,123,570,309	\$ 9,924,649,896
Plan Fiduciary Net Position as a percentage of Total Pension Liability	83.9%	65.6%	68.6%
Covered Employee Payroll	\$ 4,335,090,648	\$ 4,229,620,981	\$ 4,071,754,355
Net Pension Liability as a percentage of Covered Payroll	123.2%	263.0%	243.7%

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year	Actuarial Determined Contribution	Contributions in Relation to Actuarial Determined Contribution	Contribution Deficiency (Excess) ²	Covered Payroll	Contributions as a % of Covered Payroll
2012	1,120,095,898	1,127,265,199	(7,169,301)	3,808,760,594	29.6%
2013	1,149,134,132	1,137,733,532	11,400,600	3,726,325,750	30.5%
2014	1,218,397,771	1,258,687,418	(40,289,647)	3,764,954,727	33.4%
2015	1,212,285,929	1,303,570,582	(91,284,653)	3,815,648,662	34.2%
2016	1,177,993,580	1,242,445,786	(64,452,206)	3,869,730,024	32.1%
2017	1,188,962,275	1,204,634,319	(15,672,044)	3,901,627,792	30.9%
2018	1,227,397,115	1,288,863,851	(61,466,736)	3,998,051,313	32.2%
2019	1,246,577,897	1,306,003,522	(59,425,625)	4,071,754,355	32.1%
2020	1,221,266,156	1,313,932,563	(92,666,407)	4,229,620,981	31.1%
2021	1,243,818,612	1,328,176,588	(84,357,976)	4,335,090,648	30.6%

¹ Plan Fiduciary Net Position excludes side-fund assets held for the LSU Agriculture and Extension Service

² See Appendix D for an explanation of the Contribution Deficiency/(Excess)

**SCHEDULE OF CHANGES IN
EMPLOYERS' NET PENSION LIABILITY**

	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>
Total Pension Liability			
Service Cost	468,547,375	454,344,240	439,691,899
Interest	2,358,286,993	2,333,436,352	2,310,654,625
Changes of Benefit Terms	6,937,251	-	-
Diff. Between Expected and Actual	34,084,245	(2,565,994)	(132,534,910)
Changes of Assumptions	159,214,885	225,604,318	298,384,629
Retirement Benefits ¹	(2,256,015,333)	(2,193,873,471)	(2,163,684,514)
Refunds/Transfers of Member Contributions	(53,095,624)	(50,225,236)	(50,301,709)
Net Change in Total Pension Liability	<u>717,959,792</u>	<u>766,720,209</u>	<u>702,210,020</u>
Total Pension Liability - Beginning	<u>32,340,867,066</u>	<u>31,574,146,857</u>	<u>30,871,936,837</u>
Total Pension Liability - Ending (a)	<u>\$ 33,058,826,858</u>	<u>\$ 32,340,867,066</u>	<u>\$ 31,574,146,857</u>
Plan Fiduciary Net Position			
Employer Contributions ¹	1,239,712,158	1,222,809,468	1,217,167,321
Non-Employer Contributions	43,151,074	43,151,074	40,850,075
Employee Contributions	361,684,671	351,287,976	341,398,896
Net Investment Income ¹	7,163,605,200	170,755,803	1,208,949,546
Other Income	19,804,296	39,770,864	26,018,466
Retirement Benefits ¹	(2,256,015,333)	(2,193,873,471)	(2,163,684,514)
Refunds/Transfers of Member Contributions	(53,095,624)	(50,225,236)	(50,301,709)
Administrative Expense	(16,002,619)	(15,994,167)	(13,445,962)
Other Postemployment Benefit Expenses ²	385,301	540,170	(95,273)
Depreciation and Amortization Expenses	(470,446)	(422,685)	(1,277,138)
Adjusting Entry ³	-	-	352
Net Change in Plan Fiduciary Net Position	<u>6,502,758,678</u>	<u>(432,200,204)</u>	<u>605,580,060</u>
Plan Fiduciary Net Position - Beginning	<u>21,217,296,757</u>	<u>21,649,496,961</u>	<u>21,043,916,901</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 27,720,055,435</u>	<u>\$ 21,217,296,757</u>	<u>\$ 21,649,496,961</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 5,338,771,423</u>	<u>\$ 11,123,570,309</u>	<u>\$ 9,924,649,896</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	83.9%	65.6%	68.6%
Covered Employee Payroll	\$ 4,335,090,648	\$ 4,229,620,981	\$ 4,071,754,355
Net Pension Liability as a Percentage of Covered Employee Payroll	123.2%	263.0%	243.7%

¹ Amounts shown exclude side-fund assets, contributions, and benefits for the LSU Agriculture and Extension Service.

² The 2018 OPEB Expense includes a \$13,190,993 adjusting entry related to GASB 75 implementation.

³ Adjusting entry to correct variance from prior year beginning Fiduciary Net Position.

Actuarial Assumptions:

All assumptions used for purposes of GASB Statement 67/68 reporting requirements are described in Appendix D. Administrative expenses will be directly reflected in the employer pension expense in the year incurred in the Statement 67/68 reporting, rather than with an explicit reduction in the discount rate. A description of the discount rate used for GASB Statement 67/68 reporting is provided below.

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 adding expected inflation and an adjustment for the effect of rebalancing/diversification. The resulting long-term geometric nominal expected return is 7.87%. Best estimates of long-term real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2021, are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	4.21%
International Equity	5.23%
Domestic Fixed Income	0.44%
International Fixed Income	0.56%
Private Equity	8.48%
Other Private Assets	4.27%

The discount rate used to measure the total pension liability is 7.40 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.

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

The following presents the net pension liability calculated using the discount rate of 7.40%, and what the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher.

	1% Decrease	Current Discount Rate	1% Increase
	6.40%	7.40%	8.40%
Employers' Net Pension Liability	\$8,835,125,367	\$5,338,771,423	\$2,397,970,045

The Schedule of Pension Amounts, that follows, 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, remains at 5 years. Differences between projected and actual investment returns are amortized over a closed 5-year period.

SCHEDULE OF PENSION AMOUNTS

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	(11,123,570,309)	(697,798,589)	2,039,656,123	
Total Pension Liability Factors:				
Service cost	(468,547,375)			468,547,375
Interest	(2,358,286,993)			2,358,286,993
Changes in benefit terms	(6,937,251)			6,937,251
Differences between expected and actual experience	(34,084,245)	-	34,084,245	
Amortization of current year		-	(6,816,849)	6,816,849
Amortization of prior years		97,832,596	-	(97,832,596)
Changes in assumptions	(159,214,885)	-	159,214,885	
Amortization of current year		-	(31,842,977)	31,842,977
Amortization of prior years		-	(269,425,058)	269,425,058
Benefit payments	2,256,015,333			
Refunds/Transfers of Member Contributions	53,095,624			
Net Change in Total Pension Liability	(717,959,792)	97,832,596	(114,785,754)	3,044,023,907
Plan Fiduciary Net Position:				
Contributions - Employer	1,239,712,158			
Contributions - Non-Empl. Contributing Entities	43,151,074			
Contributions - Employees	361,684,671			(361,684,671)
Expected earnings on pension plan investments	1,555,378,751			(1,555,378,751)
Diff. between projected and actual investment earnings	5,608,226,449	(5,608,226,449)	-	
Amortization of current year		1,121,645,290	-	(1,121,645,290)
Amortization of prior years		387,412,007	(363,329,254)	(24,082,753)
Retirement Benefits	(2,256,015,333)			
Administrative Expense	(15,617,318)			15,617,318
Refunds/Transfers of Member Contributions	(53,095,624)			
Adjusting Entry	-			-
Other	19,333,850			(19,333,850)
Net Change in Plan Fiduciary Net Position	6,502,758,678	(4,099,169,152)	(363,329,254)	(3,066,507,997)
Ending Balance	(5,338,771,423)	(4,699,135,145)	1,561,541,115	(22,484,090)

MEMBERSHIP DATA

TRSL 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 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 TRSL but are classified as disability retirees for purposes of the actuarial valuation. Liabilities are calculated accordingly.

Active Members	2021		2020	
	Members	Avg. Salary	Members	Avg. Salary
Regular Teachers	71,724	48,223	72,375	46,512
Higher Education	11,127	65,916	11,108	64,344
Lunch Plan A	1	35,585	2	24,931
Lunch Plan B	1,097	22,366	1,160	21,556
Subtotal Actives	83,949	50,230	84,645	48,509
Post DROP	2,031	57,117	2,215	55,774
Total Active	85,980	50,393	86,860	48,695

Retired and Inactive Members	2021	2020
	Members	Members
Regular Retirees	69,297	68,382
Disability Retirees	4,060	4,145
Survivors	8,263	8,009
DROP Participants	2,227	2,359
Terminated Vested	8,409	7,992
Inactive Non-Vested (Due Refunds)	25,641	25,021
Total Retired and Inactive	117,897	115,908
Total Members	203,877	202,768
Less Inactive Non-Vested (Due Refunds)	-25,641	-25,021
Total Active and Vested Inactive	178,236	177,747

ACTIVE MEMBERS

	Pre-DROP	Post-DROP	Total
Non-Vested	28,168		28,168
Vested	55,781	2,031	57,812
	83,949	2,031	85,980

MEMBER RECONCILIATION

	Active (Pre- DROP)	Active after DROP	Terminated Vested	In DROP	Retired, Disabled, Survivor	Total
June 20, 2020	84,645	2,215	7,992	2,359	80,536	177,747
Additions to Census						
Newly Hired Members	7,419					7,419
Change in Status						
New Regular Retirees	(1,814)				1,814	0
New Disability Retirees	(89)				89	0
New Survivors	(42)				42	0
Active to Terminated Vested	(1,494)		1,494			0
Active to DROP	(804)			804		0
Terminated Vested to Active	449		(449)			0
Terminated Vested to Ret/Srv			(218)		218	0
Disability to Active/TV					0	0
DROP to Active After DROP		405		(405)		0
Act aft DROP to Ret/Srv		(582)			582	0
Terminated Vested to DROP			(2)	2		0
DROP to Ret/Srv				(528)	528	0
Eliminated from Census						
Refunded or Due Refund	(4,248)		(400)		0	(4,648)
Deceased	(64)	(7)	(21)	(1)	(2,294)	(2,387)
No Further Survivor Ben Due						0
Data Revisions	(9)	0	13	(4)	105	105
June 20, 2021	83,949	2,031	8,409	2,227	81,620	178,236

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
ALL ACTIVE MEMBERS (PRE-DROP)

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 25	873 \$39,723,321	1,175 \$51,108,749	3 \$115,848							2,051 \$90,947,918
25 - 29	1,071 \$48,798,725	4,913 \$217,627,740	1,285 \$62,841,536							7,269 \$329,268,001
30 - 34	868 \$42,076,625	3,903 \$171,926,225	4,280 \$214,070,824	738 \$39,796,733	1 \$69,902					9,790 \$467,940,309
35 - 39	673 \$31,121,216	3,519 \$156,910,725	3,311 \$165,734,285	3,470 \$191,792,542	956 \$56,138,904	3 \$110,120				11,932 \$601,807,792
40 - 44	562 \$25,213,911	2,825 \$120,863,076	2,687 \$129,488,365	2,578 \$140,199,159	3,273 \$195,242,259	947 \$59,044,126	2 \$96,637			12,874 \$670,147,533
45 - 49	371 \$18,065,258	2,124 \$91,820,787	2,071 \$99,373,273	2,042 \$105,508,957	2,166 \$123,383,928	2,730 \$174,617,756	687 \$45,274,599	1 \$35,019		12,192 \$658,079,577
50 - 54	347 \$17,590,957	1,700 \$74,305,860	1,685 \$76,230,808	1,765 \$85,412,727	1,826 \$96,055,527	1,929 \$113,271,817	2,262 \$149,756,012	101 \$7,939,166	2 \$66,919	11,617 \$620,629,793
55 - 59	283 \$13,396,996	1,360 \$55,771,163	1,319 \$56,903,877	1,439 \$66,475,372	1,594 \$75,282,180	1,454 \$74,170,181	384 \$21,600,294	125 \$9,044,717	30 \$2,294,780	7,988 \$374,939,560
60 - 64	152 \$7,577,967	862 \$34,237,540	832 \$37,100,183	795 \$37,242,639	857 \$39,685,825	960 \$47,727,701	360 \$18,996,979	110 \$6,920,421	57 \$4,056,417	4,985 \$233,545,672
65 - 69	55 \$2,402,075	343 \$15,771,481	331 \$15,818,835	333 \$16,427,853	361 \$18,961,136	298 \$14,517,978	262 \$13,553,723	116 \$6,811,746	93 \$8,321,853	2,192 \$112,586,680
70+	30 \$1,316,453	159 \$5,897,635	143 \$6,436,630	161 \$7,630,662	157 \$8,214,286	102 \$5,801,493	100 \$4,930,759	91 \$5,751,558	116 \$10,858,475	1,059 \$56,837,951
Total	5,285 \$247,283,504	22,883 \$996,240,981	17,947 \$864,114,464	13,321 \$690,486,644	11,191 \$613,033,947	8,423 \$489,261,172	4,057 \$254,209,003	544 \$36,502,627	298 \$25,598,444	83,949 \$4,216,730,786

AVERAGES --- Attained Age 44.59
Service Years 10.57
Active Salary \$50,230

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
ACTIVE - REGULAR K-12

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 25	717 \$32,577,975	1,087 \$47,818,097	3 \$115,848							1,807 \$80,511,920
25 - 29	828 \$37,094,932	4,291 \$191,535,342	1,210 \$59,298,239							6,329 \$287,928,513
30 - 34	640 \$27,313,715	3,097 \$128,989,767	3,887 \$192,679,268	705 \$37,809,560	1 \$69,902					8,330 \$386,862,212
35 - 39	492 \$20,534,970	2,769 \$110,908,483	2,780 \$132,124,787	3,216 \$176,460,494	930 \$54,344,844	2 \$63,944				10,189 \$494,437,522
40 - 44	425 \$17,130,028	2,201 \$85,266,997	2,233 \$100,148,321	2,223 \$116,787,601	3,064 \$180,993,675	923 \$57,489,715	2 \$96,637			11,071 \$557,912,974
45 - 49	284 \$12,993,322	1,713 \$68,254,702	1,733 \$76,489,248	1,801 \$88,705,320	1,950 \$108,293,790	2,638 \$167,283,855	674 \$44,358,300	1 \$35,019		10,794 \$566,413,556
50 - 54	250 \$10,461,201	1,311 \$50,157,583	1,420 \$60,244,630	1,523 \$69,482,371	1,626 \$81,024,451	1,796 \$103,572,836	2,164 \$142,514,233	90 \$7,054,418	2 \$66,919	10,182 \$524,578,642
55 - 59	201 \$7,904,007	1,040 \$36,699,936	1,046 \$40,712,111	1,185 \$50,841,736	1,394 \$62,134,055	1,326 \$66,266,434	322 \$17,857,263	112 \$7,777,641	28 \$2,176,836	6,654 \$292,370,019
60 - 64	98 \$3,696,305	633 \$21,633,968	616 \$22,430,177	606 \$24,453,313	722 \$30,248,048	875 \$42,012,677	310 \$15,063,734	86 \$4,957,289	47 \$3,437,581	3,993 \$167,933,092
65 - 69	39 \$1,473,153	235 \$8,187,710	233 \$8,745,418	251 \$9,960,319	283 \$12,686,835	270 \$12,625,625	230 \$11,187,414	90 \$4,522,292	41 \$2,639,374	1,672 \$72,028,140
70+	22 \$932,040	122 \$3,591,220	92 \$3,212,250	112 \$4,141,792	101 \$3,797,045	68 \$3,357,437	80 \$3,683,717	59 \$2,808,672	47 \$2,211,529	703 \$27,735,702
Total	3,996 \$172,111,648	18,499 \$753,043,805	15,253 \$696,200,297	11,622 \$578,642,506	10,071 \$533,592,645	7,898 \$452,672,523	3,782 \$234,761,298	438 \$27,155,331	165 \$10,532,239	71,724 \$3,458,712,292

AVERAGES --- Attained Age 44.3
Service Years 11
Active Salary \$48,223

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
ACTIVE - HIGHER EDUCATION

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 25	149 \$7,016,133	82 \$3,186,472								231 \$10,202,605
25 - 29	238 \$11,587,744	601 \$25,708,287	68 \$3,416,110							907 \$40,712,141
30 - 34	222 \$14,646,062	778 \$42,365,602	385 \$21,157,112	32 \$1,967,269						1,417 \$80,136,045
35 - 39	166 \$10,269,027	702 \$45,002,546	512 \$33,136,689	244 \$15,073,646	26 \$1,794,060	1 \$46,176				1,651 \$105,322,144
40 - 44	121 \$7,750,963	567 \$34,393,709	420 \$28,562,577	342 \$23,078,202	203 \$14,065,310	23 \$1,528,413				1,676 \$109,379,174
45 - 49	77 \$4,841,031	363 \$22,613,642	308 \$22,174,913	224 \$16,388,391	202 \$14,737,621	90 \$7,282,935	12 \$897,628			1,276 \$88,936,161
50 - 54	90 \$6,961,615	332 \$22,996,088	231 \$15,227,490	205 \$15,013,212	179 \$14,519,769	116 \$9,232,373	92 \$7,063,733	9 \$839,294		1,254 \$91,853,574
55 - 59	74 \$5,320,691	260 \$17,891,110	217 \$14,987,214	196 \$14,336,206	166 \$12,311,510	87 \$6,836,812	43 \$3,298,447	12 \$1,245,203	1 \$86,305	1,056 \$76,313,498
60 - 64	50 \$3,780,971	181 \$11,663,754	179 \$13,754,793	169 \$12,372,167	123 \$9,153,330	75 \$5,465,911	44 \$3,765,092	23 \$1,945,414	9 \$590,336	853 \$62,491,768
65 - 69	15 \$903,489	93 \$7,294,281	86 \$6,822,089	75 \$6,306,132	74 \$6,190,233	27 \$1,863,055	30 \$2,273,309	24 \$2,241,949	50 \$5,621,946	474 \$39,516,483
70+	7 \$362,606	33 \$2,222,992	42 \$3,041,673	43 \$3,350,131	53 \$4,343,367	33 \$2,426,470	20 \$1,247,042	32 \$2,942,886	69 \$8,646,946	332 \$28,584,113
Total	1,209 \$73,440,333	3,992 \$235,338,483	2,448 \$162,280,660	1,530 \$107,885,356	1,026 \$77,115,200	452 \$34,682,145	241 \$18,545,251	100 \$9,214,746	129 \$14,945,533	11,127 \$733,447,707

AVERAGES --- Attained Age 45.5
Service Years 8.2
Active Salary \$65,916

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
ACTIVE - LUNCH PLAN A

CELLS DEPICT -

MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 25										
25 - 29										
30 - 34										
35 - 39										
40 - 44										
45 - 49										
50 - 54										
55 - 59										
60 - 64										
65 - 69									1 \$35,585	1 \$35,585
70+										
Total									1 \$35,585	1 \$35,585

AVERAGES --- Attained Age 65.4
Service Years 42.5
Active Salary \$35,585

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
ACTIVE - LUNCH PLAN B

CELLS DEPICT - MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 25	7 \$129,212	6 \$104,180								13 \$233,392
25 - 29	5 \$116,049	21 \$384,111	7 \$127,187							33 \$627,347
30 - 34	6 \$116,848	28 \$570,856	8 \$234,444	1 \$19,904						43 \$942,052
35 - 39	15 \$317,219	48 \$999,696	19 \$472,809	10 \$258,402						92 \$2,048,126
40 - 44	16 \$332,919	57 \$1,202,370	34 \$777,467	13 \$333,356	6 \$183,274	1 \$25,998				127 \$2,855,384
45 - 49	10 \$230,905	48 \$952,443	30 \$709,112	17 \$415,246	14 \$352,517	2 \$50,966	1 \$18,671			122 \$2,729,860
50 - 54	7 \$168,141	57 \$1,152,189	34 \$758,688	37 \$917,144	21 \$511,307	17 \$466,608	6 \$178,046	2 \$45,454		181 \$4,197,577
55 - 59	8 \$172,298	60 \$1,180,117	56 \$1,204,552	58 \$1,297,430	34 \$836,615	41 \$1,066,935	19 \$444,584	1 \$21,873	1 \$31,639	278 \$6,256,043
60 - 64	4 \$100,691	48 \$939,818	37 \$915,213	20 \$417,159	12 \$284,447	10 \$249,113	6 \$168,153	1 \$17,718	1 \$28,500	139 \$3,120,812
65 - 69	1 \$25,433	15 \$289,490	12 \$251,328	7 \$161,402	4 \$84,068	1 \$29,298	2 \$93,000	2 \$47,505	1 \$24,948	45 \$1,006,472
70+	1 \$21,808	4 \$83,423	9 \$182,707	6 \$138,739	3 \$73,874	1 \$17,586				24 \$518,137
Total	80 \$1,731,523	392 \$7,858,693	246 \$5,633,507	169 \$3,958,782	94 \$2,326,102	73 \$1,906,504	34 \$902,454	6 \$132,550	3 \$85,087	1,097 \$24,535,202

AVERAGES --- Attained Age 51.30
Service Years 8.70
Active Salary \$22,366

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
DROP PARTICIPANTS

CELLS DEPICT -

MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 15	15 - 20	20+	Total
< 40										
40 - 44										
45 - 49										
50 - 54	212 \$8,973,012	155 \$6,947,520	91 \$3,988,032	5 \$245,388						463 \$20,153,952
55 - 59	434 \$15,896,076	463 \$17,655,720	481 \$18,968,100	13 \$716,652						1,391 \$53,236,548
60 - 64	106 \$2,941,152	136 \$3,291,108	109 \$2,859,540	8 \$291,156						359 \$9,382,956
65 - 69	7 \$185,388	5 \$28,692	1 \$2,196							13 \$216,276
70 - 74				1 \$2,976						1 \$2,976
75 - 79										
80 - 84										
85 - 89										
90+										
Total	759 \$27,995,628	759 \$27,923,040	682 \$25,817,868	27 \$1,256,172						2,227 \$82,992,708

AVERAGES --- Attained Age 56.99
Years Retired 1.37
Annual Benefit \$37,267

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
ACTIVE AFTER DROP

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS
DROP BENEFITS

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 15	15 - 20	20+	Total
< 44										
45 - 49										
50 - 54	16 \$649,882 \$594,240	1 \$66,072 \$43,368								17 \$715,954 \$637,608
55 - 59	249 \$11,078,304 \$9,576,528	170 \$10,781,636 \$6,858,468	49 \$3,520,229 \$2,249,604	38 \$2,531,400 \$1,514,520	17 \$1,161,267 \$716,268	11 \$620,418 \$376,068				534 \$29,693,254 \$21,291,456
60 - 64	122 \$3,925,181 \$2,931,144	113 \$5,824,544 \$2,998,176	144 \$8,655,236 \$4,909,836	87 \$4,989,649 \$2,792,964	70 \$4,234,175 \$2,525,904	209 \$14,156,922 \$8,270,820	7 \$382,744 \$206,928			752 \$42,168,451 \$24,635,772
65 - 69	1 \$13,629 \$3,408	6 \$216,377 \$90,096	47 \$1,986,970 \$843,120	53 \$2,282,355 \$1,039,548	58 \$2,848,958 \$1,301,016	183 \$10,556,339 \$5,260,548	102 \$7,985,135 \$3,816,696	5 \$280,869 \$121,980		455 \$26,170,632 \$12,476,412
70+		3 \$102,120 \$16,140	1 \$20,507 \$3,432	1 \$24,562 \$4,044	1 \$59,514 \$11,400	82 \$4,097,851 \$1,468,308	106 \$6,762,610 \$2,551,320	60 \$4,528,231 \$1,761,384	19 \$1,660,733 \$589,308	273 \$17,256,128 \$6,405,336
Total	388 \$15,666,996 \$13,105,320	293 \$16,990,749 \$10,006,248	241 \$14,182,942 \$8,005,992	179 \$9,827,966 \$5,351,076	146 \$8,303,914 \$4,554,588	485 \$29,431,530 \$15,375,744	215 \$15,130,489 \$6,574,944	65 \$4,809,100 \$1,883,364	19 \$1,660,733 \$589,308	2031 \$116,004,419 \$65,446,584

AVERAGES --- Attained Age 63.91
Post Drop Years 4.90
Active Salary \$57,117
Annual Benefit \$32,224

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
REGULAR RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 15	15 - 20	20+	Total
< 40										
40 - 44	21 \$357,332	8 \$110,784	4 \$85,116	3 \$42,564						36 \$595,796
45 - 49	84 \$1,941,456	63 \$1,387,428	67 \$1,563,516	66 \$1,553,664	51 \$1,086,732	61 \$1,263,072	1 \$14,904			393 \$8,810,772
50 - 54	115 \$3,467,640	115 \$3,543,916	120 \$3,474,156	134 \$3,963,444	103 \$2,587,612	446 \$9,997,956	50 \$1,008,660	4 \$39,744		1,087 \$28,083,128
55 - 59	243 \$7,750,803	217 \$7,141,476	299 \$10,280,284	553 \$21,067,824	572 \$21,890,028	1,221 \$41,487,940	264 \$5,538,972	95 \$1,476,396	2 \$13,560	3,466 \$116,647,283
60 - 64	695 \$13,682,718	573 \$11,089,360	689 \$13,206,496	610 \$12,211,172	658 \$13,869,860	3,441 \$124,566,444	1,359 \$51,078,804	447 \$7,479,348	176 \$2,212,812	8,648 \$249,397,013
65 - 69	440 \$11,399,795	432 \$11,169,828	524 \$12,650,932	505 \$11,822,568	555 \$12,956,064	4,384 \$95,965,412	4,739 \$176,127,180	2,453 \$85,317,312	812 \$11,906,868	14,844 \$429,315,958
70 - 74	154 \$3,959,512	171 \$4,863,072	192 \$5,054,056	238 \$6,379,548	270 \$6,915,084	2,439 \$60,376,172	3,903 \$79,219,812	5,940 \$203,233,872	3,063 \$83,158,836	16,370 \$453,159,963
75 - 79	41 \$1,808,248	31 \$1,217,256	55 \$1,968,384	51 \$1,167,108	65 \$2,023,248	654 \$18,100,224	1,092 \$26,956,264	3,128 \$58,988,268	5,783 \$174,035,700	10,900 \$286,264,700
80 - 84	9 \$331,932	3 \$140,796	13 \$407,088	14 \$398,076	13 \$354,216	164 \$5,633,928	338 \$10,453,416	813 \$19,064,568	5,761 \$142,940,748	7,128 \$179,724,768
85 - 89	1 \$6,972	3 \$67,692	1 \$93,600	4 \$193,704	3 \$51,756	24 \$975,816	65 \$2,311,080	204 \$4,720,056	3,889 \$90,625,960	4,194 \$99,046,636
90+						3 \$152,652	8 \$270,024	20 \$589,536	2,200 \$45,156,324	2,231 \$46,168,536
Total	1,803 \$44,706,407	1,616 \$40,731,608	1,964 \$48,783,628	2,178 \$58,799,672	2,290 \$61,734,600	12,837 \$358,519,616	11,819 \$352,979,116	13,104 \$380,909,100	21,686 \$550,050,808	69,297 \$1,897,214,553

AVERAGES --- Attained Age 72.37
Years Retired 15.38
Annual Benefit \$27,378

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
DISABILITY RETIREES

CELLS DEPICT - MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 15	15 - 20	20+	Total
< 40	1 \$21,900	3 \$52,452	2 \$36,864	4 \$61,536	3 \$39,612	4 \$66,876				17 \$279,240
40 - 44	5 \$70,056	7 \$195,684	5 \$102,612	8 \$157,440	8 \$153,924	34 \$550,236	6 \$78,864			73 \$1,308,816
45 - 49	12 \$245,796	20 \$447,756	16 \$360,624	15 \$367,284	18 \$319,212	41 \$791,184	22 \$302,124	1 \$8,304		145 \$2,842,284
50 - 54	18 \$429,864	23 \$523,140	25 \$507,360	28 \$574,404	25 \$501,936	114 \$2,352,084	36 \$523,080	20 \$201,744	9 \$83,052	298 \$5,696,664
55 - 59	32 \$532,248	29 \$462,324	21 \$371,460	26 \$380,544	52 \$790,332	164 \$2,469,792	81 \$1,251,012	37 \$382,164	35 \$346,776	477 \$6,986,652
60 - 64	11 \$165,480	11 \$190,800	33 \$441,408	34 \$504,624	34 \$477,732	206 \$3,156,420	126 \$1,649,208	112 \$1,376,076	100 \$1,066,752	667 \$9,028,500
65 - 69	2 \$11,304	5 \$49,884	2 \$16,644	9 \$116,364	23 \$317,820	137 \$1,962,960	169 \$2,354,280	155 \$1,830,636	200 \$2,192,544	702 \$8,852,436
70 - 74			4 \$50,640		5 \$60,648	46 \$687,156	139 \$1,780,308	216 \$2,469,840	337 \$3,790,500	747 \$8,839,092
75 - 79			1 \$11,556	1 \$13,500	1 \$21,684	7 \$72,876	28 \$351,276	105 \$1,149,660	348 \$3,697,308	491 \$5,317,860
80 - 84				1 \$10,776			4 \$48,144	13 \$136,464	271 \$2,703,600	289 \$2,898,984
85 - 89								5 \$39,792	117 \$1,273,704	122 \$1,313,496
90+									32 \$312,324	32 \$312,324
Total	81 \$1,476,648	98 \$1,922,040	109 \$1,899,168	126 \$2,186,472	169 \$2,682,900	753 \$12,109,584	611 \$8,338,296	664 \$7,594,680	1,449 \$15,466,560	4,060 \$53,676,348

AVERAGES --- Attained Age 67.11
Years Retired 16.48
Annual Benefit \$13,221

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
SURVIVOR BENEFITS

CELLS DEPICT -

MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 10	10 - 15	15 - 20	20+	Total
< 40	30 \$421,932	43 \$408,312	30 \$344,256	28 \$305,916	23 \$321,144	85 \$926,340	40 \$390,828	18 \$161,496	6 \$55,116	303 \$3,335,340
40 - 44	12 \$212,424	16 \$269,412	15 \$197,880	13 \$182,112	16 \$228,240	44 \$669,960	18 \$349,668	14 \$175,920	14 \$147,276	162 \$2,432,892
45 - 49	20 \$285,132	18 \$356,568	20 \$277,932	18 \$237,084	10 \$109,308	59 \$834,864	26 \$318,984	18 \$272,748	13 \$171,996	202 \$2,864,616
50 - 54	36 \$750,888	18 \$244,200	22 \$309,072	26 \$354,504	28 \$345,792	87 \$1,311,204	56 \$782,964	32 \$413,016	36 \$393,120	341 \$4,904,760
55 - 59	26 \$554,304	43 \$917,292	30 \$661,260	21 \$388,776	19 \$344,484	88 \$1,195,092	74 \$773,640	58 \$844,992	56 \$749,424	415 \$6,429,264
60 - 64	47 \$980,592	52 \$1,167,324	35 \$737,508	34 \$658,092	30 \$653,976	153 \$2,769,216	108 \$1,553,352	65 \$1,020,024	76 \$945,444	600 \$10,485,528
65 - 69	69 \$1,334,700	61 \$1,432,404	64 \$1,276,668	50 \$1,212,084	50 \$1,209,828	199 \$5,123,904	137 \$2,846,220	81 \$1,437,936	127 \$1,677,636	838 \$17,551,380
70 - 74	89 \$2,261,808	108 \$2,979,852	81 \$1,912,884	79 \$2,258,328	64 \$1,649,592	307 \$7,621,236	225 \$5,584,068	145 \$2,828,112	191 \$3,089,964	1,289 \$30,185,844
75 - 79	102 \$2,753,160	111 \$2,963,292	75 \$1,763,472	84 \$2,172,996	75 \$2,114,028	257 \$6,509,484	173 \$4,065,912	127 \$2,885,460	240 \$4,303,176	1,244 \$29,530,980
80 - 84	112 \$2,873,640	101 \$2,592,744	79 \$1,954,812	79 \$1,996,896	78 \$1,842,384	279 \$7,085,844	195 \$4,589,628	146 \$3,151,572	283 \$5,430,624	1,352 \$31,518,144
85 - 89	66 \$1,606,116	55 \$1,349,424	48 \$1,034,784	46 \$941,220	52 \$1,240,848	190 \$4,275,768	136 \$2,559,252	103 \$2,054,304	247 \$4,764,804	943 \$19,826,520
90+	20 \$370,248	17 \$292,080	28 \$622,980	23 \$497,424	19 \$408,312	125 \$2,434,836	92 \$1,681,560	81 \$1,660,452	169 \$2,970,864	574 \$10,938,756
Total	629 \$14,404,944	643 \$14,972,904	527 \$11,093,508	501 \$11,205,432	464 \$10,467,936	1,873 \$40,757,748	1,280 \$25,496,076	888 \$16,906,032	1,458 \$24,699,444	8,263 \$170,004,024

AVERAGES ---

Attained Age 72.41
Years Retired 11.07
Annual Benefit \$20,574

TRSL MEMBERSHIP PROFILE
TERMINATED VESTED

CELLS DEPICT -

MEMBER COUNT
TOTAL BENEFITS

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 20										
20 - 24										
25 - 29			77 \$466,911							77 \$466,911
30 - 34			634 \$4,609,940	20 \$277,978						654 \$4,887,918
35 - 39			984 \$7,996,842	251 \$3,809,628	10 \$214,848					1,245 \$12,021,318
40 - 44		1 \$4,491	919 \$7,301,700	402 \$5,994,945	136 \$3,224,277	4 \$117,878				1,462 \$16,643,291
45 - 49	1 \$537	5 \$20,708	794 \$6,270,419	389 \$5,517,556	161 \$3,465,298	23 \$596,337	2 \$78,743			1,375 \$15,949,598
50 - 54		6 \$24,271	772 \$5,574,284	448 \$5,675,775	150 \$2,881,294	41 \$1,258,021	11 \$384,477	1 \$83,763		1,429 \$15,881,886
55 - 59		4 \$10,518	649 \$4,718,549	444 \$5,332,064	187 \$3,156,582	29 \$607,099	2 \$76,810	1 \$73,703	1 \$104,239	1,317 \$14,079,564
60 - 64		5 \$15,637	307 \$1,805,596	151 \$1,580,116	76 \$1,103,315	13 \$310,721	5 \$140,053	2 \$111,207		559 \$5,066,644
65 - 69		4 \$15,096	97 \$508,680	38 \$425,724	23 \$335,739	10 \$171,856	3 \$57,634	1 \$50,820		176 \$1,565,548
70+		3 \$4,818	53 \$249,682	33 \$215,074	10 \$88,299	8 \$177,115	3 \$116,543	3 \$70,036	2 \$108,301	115 \$1,029,869
Total	1 \$537	28 \$95,539	5,286 \$39,502,603	2,176 \$28,828,860	753 \$14,469,651	128 \$3,239,028	26 \$854,261	8 \$389,528	3 \$212,540	8,409 \$87,592,547

AVERAGES --- Attained Age 48.00
Service Years 9.53
Annual Benefit \$10,417

Appendix A
MEMBERSHIP DATA

TRSL Actuarial Valuation
June 30, 2021

TRSL MEMBERSHIP PROFILE
RETIREES EARNING POST-RETIREMENT SUPPLEMENT

CELLS DEPICT -

MEMBER COUNT
TOTAL SALARY

VALUATION DATE 6/30/2021

Age/Years	<1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35+	Total
< 25										
25 - 29										
30 - 34										
35 - 39										
40 - 44										
45 - 49	1 \$17,378									1 \$17,378
50 - 54	4 \$164,988	3 \$163,669								7 \$328,657
55 - 59	7 \$419,554	1 \$69,502								8 \$489,056
60 - 64	9 \$359,468									9 \$359,468
65 - 69	13 \$774,672	3 \$209,586								16 \$984,258
70+	2 \$96,442	2 \$80,184								4 \$176,626
Total	36 \$1,832,502	9 \$522,941								45 \$2,355,443

AVERAGES --- Attained Age 62.3
Service Years 0.8
Active Salary \$52,343

SUMMARY OF PLAN PROVISIONS

EFFECTIVE DATE:

August 1, 1936

EMPLOYER:

The State of Louisiana, the parish school board, the city school board, the State Board of Education, the State Board of Supervisors, University or any other agency of and within the State by which a teacher is paid.

ELIGIBILITY FOR PARTICIPATION:

Condition of employment for all teachers.

CREDITABLE SERVICE:

Service as a teacher while member of the system.

ADDITIONAL SERVICE:

1. Credit for service canceled by withdrawal of accumulated contributions may be restored by member by paying the amount withdrawn plus interest.
2. Service rendered in public school system of another state may be purchased at the actuarial cost of the additional retirement benefit, or at the member's option receive service credit based on the funds actually transferred.
3. Credit for service in non-public or parochial schools may be purchased at the actuarial cost of the additional retirement benefit, or at the member's option receive service credit based on the funds actually transferred.
4. Maximum of 4 years of credit for military service may be obtained for each member, contingent on payment of actuarial cost.
5. Credit for legislative service of former teacher, now legislator, may be purchased at the actuarial cost.
6. Conversion of Sick Leave to Membership Service: At retirement, or at death before retirement of member with surviving spouse or dependent or both who are entitled to benefits, unused accumulated sick leave will be added to membership service. Conversion of unused sick and annual leave cannot be used to obtain retirement eligibility. Leave accumulated after January 30, 1990, can be converted to a maximum one-year service credit. Leave is converted on the following basis:

Leave Earned Prior to 6/30/88

Accumulated Sick Days	Fraction of Year Credit
25-45	0.25 year
46-90	0.50 year
91-135	0.75 year
136-180	1.00 year
181-225	1.25 years
226-270	1.50 years
271-315	1.75 years
316-360	2.00 years

Leave Earned After 6/29/88

Accumulated Sick Days (by Member Classification)				Fraction of Year Credit
9 Month	10 Month	11 Month	12 Month	
10-18	11-20	12-22	13-24	0.1
19-36	21-40	23-44	25-48	0.2
37-54	41-60	45-66	49-72	0.3
55-72	61-80	67-88	73-96	0.4
73-90	81-100	89-110	97-120	0.5
91-108	101-120	111-132	121-144	0.6
109-126	121-140	133-154	145-168	0.7
127-144	141-160	155-176	169-192	0.8
145-162	161-180	177-198	193-216	0.9
163-180	181-200	199-220	217-240	1.0

EARNABLE COMPENSATION:

The compensation earned by a member for qualifying service.

FINAL AVERAGE COMPENSATION

For members whose first employment makes them eligible for membership in a Louisiana state retirement system on or after January 1, 2011, the average annual earnable compensation is the highest 60 successive months of employment. The average compensation for purposes of computing benefits cannot increase more than 15% per year.

For all other members, the average annual earnable compensation is the highest 36 successive months of employment; the average compensation for purposes of computing benefits cannot increase more than ten percent per year.

Per R.S.11:892, if the maximum benefit accrual (100%) is reached, employee contributions are discontinued, average final compensation is not limited to the years for which employee contributions were made. Compensation is limited by the Internal Revenue Code Section 401(a)(17) compensation limit.

Includes workmen's compensation, and PIP's program in accordance with the following:

<u>Years of Participation</u>	<u>% of Earnings to be Included</u>
3	60%
4	80%
5	100%

However, if member completed at least two years and subsequently becomes disabled, he shall receive 40% of such earnings. If he has completed one year and becomes disabled, he shall receive 20% of such earnings.

ACCUMULATED CONTRIBUTIONS:

Sum of all amounts deducted from compensation of members.

EMPLOYEE CONTRIBUTIONS:

8% of earnable compensation. Prior to July 1, 1989, 7% of earnable compensation.

EMPLOYER CONTRIBUTIONS:

Determined in accordance with Louisiana Revised Statutes, Sections 11:102 and 11:102.2, 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.

NORMAL RETIREMENT ELIGIBILITY AND BENEFIT:

Retirement Eligibility:

1. Members whose first employment making them eligible for membership in one of the state systems occurred on or after July 1, 2015 are eligible for a regular retirement benefit at age 62 with five years of service credit. These members may also retire with an actuarial reduction with 20 years of service credit at any age.
2. Members whose first employment makes them eligible for membership in a Louisiana state retirement system on or after January 1, 2011 and before July 1, 2015 may retire with a 2.5% accrual rate after attaining age 60 with at least five years of service credit. Members are eligible for an actuarially reduced benefit with 20 years of service at any age.
3. For all other members:

If hired on or after July 1, 1999, members are eligible for a 2.5% accrual rate at the earliest of age 60 with five years of service, age 55 with 25 years of service, or at any age with 30 years of service. Members may retire with an actuarially reduced benefit with 20 years of service at any age.

If hired before July 1, 1999, members are eligible for a 2% accrual rate at the earliest of age 60 with five years of service, or at any age with 20 years of service and are eligible for a 2.5% accrual rate at the earliest of age 65 with 20 years of service, age 55 with 25 years of service, or at any age with 30 years of service.

Benefit:

Annuity which shall be the actuarial equivalent of accumulated employee contributions at retirement date, and annual pension, which, together with annuity, provides total allowance equal to the applicable accrual rate times final average compensation times years of creditable service (including unused sick leave). Members hired before June 30, 1986 receive an additional \$300 annual supplemental benefit (Act 608 of 1986).

1. Annual benefit may not exceed 100% of average earnable compensation.
2. For Members employed on or after July 1, 1999, the annual pension cannot exceed the maximum benefit provided under Section 415(b) of the Internal Revenue Code and related Federal Regulations as adjusted for inflation and form of benefit other than life annuity or qualified joint and survivor annuity.

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 the 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 \$200,000,000 to the unfunded accrued liability, the Experience Account is credited with up to 50% of the remaining excess investment income, up to a maximum balance as described below. The \$200,000,000 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 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, PBIs 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 12--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 12-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 of 60 for the receipt of a benefit increase does not apply to disability retirees.

DISABILITY RETIREMENT:

Eligibility:

Members whose first employment makes them eligible for membership in a Louisiana state retirement system on or after January 1, 2011 are eligible with ten years of service credit. All other members are eligible with five years of service; certification of disability by medical board (medical examination required once in every year for the first five years of disability retirement, and once in every three years thereafter, until age 60 if first employment making member eligible for membership in a state retirement system occurred before July 1, 2015 or until age 62 otherwise).

Benefit: Act 572 of 1995

1. If ineligible for service retirement at disability, disability pension will be 2.5% of average compensation multiplied by years of service. Benefit is limited to 50% of average compensation and will not be less than the lesser of 40% of the state minimum salary for a beginning teacher with a bachelor's degree or 75% of average compensation.
2. Additional 50% of member's benefit payable if minor child is present, but total amount to family limited to 75% of final average compensation.
3. Member will become a regular retiree upon attainment of the earliest age for retirement eligibility as if the member continued in service, without further change in compensation. Benefit is based on years of creditable service but not less than the disability benefit. Benefit for minor children continue as long as the retiree has a minor child.
4. Upon death of a disability retiree, surviving spouse, married to retiree at least two years prior to death of the disability retiree, shall receive 75% of disability benefit. Upon death of an unmarried retiree with minor children, the benefit shall equal 50% of disability benefit.
5. Upon recovery of disability as determined by the board of trustees, upon advice of the medical board, members returning to active membership for at least three years, starting no later than one year after recovery, shall be credited with one year of service for each year disabled for purposes of establishing benefit eligibility, but not for computation of benefits.

SURVIVOR'S BENEFITS:

Eligibility and Benefit:

1. Surviving Spouse with minor children of an active member with five years of service with at least two years earned immediately prior to death; or a member with 20 years of service regardless of when earned or whether in active service at time of death will receive the greater of:

- A.) \$600 per month, or
 - B.) 50% of benefit that would have been payable upon service retirement at age 60 had member continued in service to age 60 without change in compensation. 50% of spouse's benefit payable for each minor child (up to two), with total benefit to family at least equal to the Option 2 accrued benefit based on actual service credit. Benefits to spouse cease upon remarriage and resume upon subsequent divorce or death of new spouse; however, if the member was eligible to retire or had reached age 55 on the date of his death, benefits shall not cease upon remarriage. When minor children are no longer present and the deceased member had at least ten years of service, the spouse's benefit reverts to the Option 2 retirement benefit for the eligible spouse. If a deceased member had less than ten years, then the spouse will receive a refund of any remaining member contributions and monthly survivor benefits will cease.
2. Surviving Spouse without minor children of an active member with ten years of creditable service will receive the greater of:
 - A.) \$600 per month, or
 - B.) Option 2 equivalent of accrued benefit based on actual service. Spouse's benefit payable for life. Benefits to spouse cease upon remarriage and resume upon subsequent divorce or death of new spouse; however, if the member was eligible to retire on the date of his death, benefits shall not cease upon remarriage.
 3. Beneficiaries not eligible for survivor benefits described above will receive a lump-sum refund of the member's accumulated contributions.

REFUND OF CONTRIBUTIONS:

Members who terminate employment in all positions eligible for TRSL membership are entitled to a full refund of member contributions. If membership ceases due to death prior to retirement, accumulated member contributions are returnable to a designated beneficiary, if any; or to the member's estate.

TERMINATION WITH VESTED SERVICE:

Any member with credit for five years of service who withdraws from service may elect to leave accumulated contributions in system until age 60, when he may apply for retirement and begin receiving a retirement benefit based on the credits he had at date of withdrawal.

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.
- Option 2 - Reduced retirement allowance, if member dies, to be continued to designated beneficiary for his lifetime.
- Option 3 - One-half of reduced retirement allowance, if member dies, to be continued to designated beneficiary for his lifetime.

Option 4 - Other benefits of equal actuarial value may be elected with approval of the Board of Trustees.

Options 2A, 3A, 4A - Same as Options 2, 3, and 4, except that reduced benefit reverts to maximum if beneficiary predeceases retiree.

Automatic COLA Option – Members may choose an irrevocable election at retirement to receive an actuarially reduced benefit which increases 2.5% annually. The increase begins 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. (Per Act 270 of 2009, effective July 1, 2009.)

Initial Lump Sum Benefit Option - Members who did not participate in DROP may elect an actuarially reduced pension and receive a lump-sum equal to not more than 36 months of the maximum monthly pension.

DEFERRED RETIREMENT OPTION PLAN:

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

Normal Eligibility:

Members whose first employment making him eligible for membership in one of the state retirement systems occurred on or before December 31, 2010, and who is not covered by Lunch Plan A or Lunch Plan B and who has 30 years of service (YOS) at any age, 25 YOS at 55, or 20 YOS (exclusive of military service other than qualified military service as provided in 26 U.S.C. 414(u) earned on or after December 12, 1994), and is at least age 65 may elect to participate in DROP. A member with ten YOS, exclusive of military service other than qualified military service as provided in 26 U.S.C. 414(u) earned on or after December 12, 1994, and who is at least age 60 may elect to participate in DROP, but all benefits payable at any time shall be calculated using only a 2% benefit formula.

Members whose first employment making him eligible for membership in one of the state retirement systems occurred between January 1, 2011 and June 30, 2015, and not in Lunch Plan A or Lunch Plan B, and who has five years of service at age 60 may participate in DROP.

Members whose first employment making him eligible for membership in one of the state retirement systems occurred on or before June 30, 2015, who has 30 years of service at age 55 or ten years of service at age 60 may participate in DROP.

Members whose first employment making him eligible for membership in one of the state retirement systems occurred on or after July 1, 2015, who has at least five years of service at age 60 may participate in DROP.

An election to participate may only be made once, for a period not to exceed three years beginning within 60 days of reaching the eligibility described above.

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, payments into the account cease and account earns interest. The participant resumes active contributing membership and earns an additional retirement benefit based on additional service rendered. The method of computation of the additional benefit is subject to the following:

- (1) If additional service was less than the period used to determine Final Average Compensation, average compensation figure to calculate the additional benefit will be the same as used to calculate initial benefit.
- (2) If additional service was earned for a period greater than the number of months used to determine Final Average Compensation, the average compensation figure used to calculate the additional benefit will be based on compensation during the period of additional service.

DROP Accounts established prior to January 1, 2004, earn interest following termination of DROP at a rate 0.5% below the actuarial rate of the System's investment portfolio. DROP accounts established on or after January 1, 2004 are credited with money market rates.

**DESCRIPTION OF BENEFITS
FOR MERGED LSU EMPLOYEES**

GENERAL:

Eligibility for benefits is based on the eligibility requirements of the Teachers' plan, except for deaths and disabilities before 1984. All service, funded and non-funded, is used in determining eligibility.

Final Average Salary was the average of the three highest years, except for academic year employees who retired within three years after January 1, 1979. For this group, any salary used in the Final Average Salary calculation, which was earned before January 1, 1979, was increased by 2/9ths.

The Social Security breakpoint average, for service under the funded LSU plan, was frozen at the December 31, 1978 level. That is, the breakpoint average for funded service was calculated as of December 31, 1978 and kept constant. This produced the following breakpoint averages:

**Social Security Breakpoint Average
(for LSU funded service)**

<u>Calendar Year of Entry</u>	<u>Breakpoint Average</u>
1971 or before	13,400
1972	13,800
1973	14,600
1974	15,360
1975	15,900
1976	16,500
1977	17,100
1978	17,700

RETIREMENT BENEFITS:

Retirement benefits are calculated using LSU funded service with the LSU formula and service after December 31, 1978, with the Teacher's formula. Thus, the "funded" benefit is the sum of (1) 1.33% of final average salary under the Social Security breakpoint average plus 2.5% of final average salary over the Social Security breakpoint average, times years of "funded" service with LSU before December 31, 1978; (2) 2.5% (or 2% if total service less than 20 years) of final average salary for years since January 1, 1979; and (3) \$300.

SURVIVOR'S BENEFITS:

For deaths after 1983, the provisions of the Teachers' plan apply. However, the benefit is calculated using all service, funded and non-funded, then prorated by service between the funded and non-funded portions. Children's benefits are also prorated into the funded and non-funded portions.

DISABILITY BENEFITS:

For disabilities after 1983, the provisions of the Teachers' plan apply. However, the benefit is calculated using all service, then prorating by service between the funded and non-funded portions. Children's benefits are also prorated.

VESTING BENEFITS:

Benefits for terminated vested members was determined as outlined under "Retirement Benefits."

REFUND OF CONTRIBUTIONS:

Terminated members are allowed a refund of accumulated contributions as described by the Teachers' plan.

COOPERATIVE EXTENSION PERSONNEL:

The LSU employees are eligible for the supplemental benefit described in Section 700.2 of Act 643 of 1978. The benefit is equal to 1% for the first five years of service, 3/4% for the next five years, and 1/2% thereafter. The funded benefit is the benefit based on service after September 12, 1975.

OPTIONAL FORMS OF BENEFITS:

Retiring members may elect options as described by the Teachers' plan.

DEFERRED RETIREMENT OPTION PLAN:

Eligible members may participate under same requirements as described by the Teachers' plan.

DESCRIPTION OF BENEFITS
FOR MERGED SCHOOL LUNCH EMPLOYEES

EFFECTIVE DATE:

The School Lunch Employees' Retirement System was originally established on January 1, 1953.

On July 1, 1980, the School Lunch Employees' Retirement System was restructured. All individuals who become employed after July 1, 1980, shall become members of Plan A or Plan B as determined by the agreement in effect for each employer.

Plan A: Parishes which had withdrawn from Social Security coverage became known as Plan A parishes. Those participating in both the regular and the supplemental plan or only in the supplemental plan shall become members of Plan A.

Plan B: Parishes which had not withdrawn from Social Security coverage became known as Plan B parishes. Those participating only in the regular plan shall become members of Plan B.

Effective July 1, 1983 Plan A and Plan B were merged into TRSL.

CREDITABLE SERVICE:

Service as an employee while member of the system.

MILITARY SERVICE:

Maximum of four years of credit may be purchased.

ADDITIONAL CREDITABLE SERVICE:

Credit for service canceled by withdrawal of accumulated contributions may be restored by paying into system the amount withdrawn plus regular interest.

EMPLOYEE CONTRIBUTIONS:

Plan A: 9.10% of monthly earnings
Plan B: 5% of monthly earnings

EMPLOYER CONTRIBUTIONS:

Plan A and Plan B: Actuarial Required Amount (Effective July 1, 1989)

SCHOOL LUNCH PLAN A

RETIREMENT BENEFIT:

Members hired after June 30, 1983 earn regular Teachers' benefits. The benefit description below applies to members hired prior to July 1, 1983.

NORMAL RETIREMENT:

Eligibility:

1. Age 60 and five years of creditable service.
2. Age 55 and 25 years of creditable service.
3. 30 years of creditable service, regardless of age.

Benefit:

3% of average final compensation times years of creditable service.

Members of only the supplemental plan prior to July 1, 1980 who were age 60 or older at the time the member's employer terminated its agreement with the Department of Health, Education and Welfare, and who became a member of the retirement system because of this termination earned one percent of average final compensation plus two dollars per month for each year of service credited prior to July 1, 1980, plus 3% of average final compensation for each year of service credited after July 1, 1980.

Members hired before June 30, 1986 receive an additional \$300 annual supplemental benefit.

Benefits are limited to 100% of average final compensation.

DISABILITY RETIREMENT:

Eligibility:

Five years of creditable service; certification of disability by the State Medical Disability Board.

Benefit:

Normal retirement allowance if eligible; otherwise, an amount equal to the normal retirement allowance to which the member would have been entitled had he met eligibility requirements; provided the amount is subject to a minimum of 60% and a maximum of 100% of average final compensation, in the event no optional selection is chosen.

SURVIVOR'S BENEFITS:

Eligibility:

1. Surviving spouse with minor children of a member with five years of service credit with at least two years earned immediately prior to death, or 20 years of service credit regardless of when earned or whether the deceased member was in active service at the time of death.
2. Surviving spouse with no minor children of member with ten or more years of service credit with at least two years earned immediately prior to death, or 20 years of service credit regardless of when earned or whether the deceased member was in active service at the time of death.
3. Beneficiary not eligible for 1 or 2.

Benefit:

1. Greater of:
 - A.) \$600 per month, or
 - B.) 50% of benefit that would have been payable upon retirement at age 60 had member continued in service to age 60 without change in compensation. 50% of spouse's benefit payable for each minor child (maximum two children), with total benefit to family at least equal to the Option 2 benefit. Accrued Benefit based on actual service credit. Benefits to spouse cease upon remarriage and will resume upon subsequent death or divorce of new spouse. When minor children are no longer present, spouse's benefit reverts to benefit in (2), if spouse is eligible for such benefit.
2. Greater of:
 - A.) \$600 per month, or
 - B.) Option 2 equivalent of accrued benefit based on actual service. Surviving spouse must have been married to the deceased member at least one year prior to death. If the member had not been eligible for retirement upon date of death, benefits to spouse cease upon remarriage, and resume upon subsequent death or divorce of new spouse.
3. Return of member's accumulated contributions.

SCHOOL LUNCH PLAN B

NORMAL RETIREMENT:

Eligibility:

1. Age 60 and five years of creditable service.
2. Age 55 and 30 years of creditable service.

Benefit:

Annual pension which provides total allowance equal to 2% of average final compensation times years of creditable service. Members hired before June 30, 1986 receive an additional \$300 annual supplemental benefit.

DISABILITY RETIREMENT:

Eligibility:

Five years of creditable service; certification of disability by the State Medical Disability Board.

Benefit:

Normal retirement allowance if eligible; otherwise 2% of average final compensation times years of creditable service; provided amount not less than 30%, nor more than 75% of average final compensation, in the event no optional selection is made.

SURVIVOR'S BENEFITS:

Eligibility: 20 or more years of creditable service.

Benefit: Option 2 benefit.

SCHOOL LUNCH PLAN A and PLAN B

OPTIONAL FORMS OF BENEFIT:

Retiring members may elect options as described by the Teachers' plan.

RETURN OF CONTRIBUTIONS:

Should a member not eligible to retire cease to be an employee, he shall be paid the amount of his accumulated contributions upon demand. Should a member's death occur prior to retirement with no survivors eligible for benefits, his accumulated contributions are returnable to a designated beneficiary, if any; otherwise, to his estate.

TERMINATION WITH VESTED SERVICE:

Any member with credit for five years of service who withdraws from service may elect to leave accumulated contributions in system until his earliest normal retirement date, when he may apply for retirement and begin receiving a retirement benefit based on average final compensation and creditable service at date of withdrawal.

DEFERRED RETIREMENT OPTION PLAN:

Retiring members may elect options as described by the Teachers' plan.

FUNDING POLICY

TRSL's funding policy is established by Sections 102 and 102.2 of Title 11 of the Louisiana Revised Statutes. TRSL 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 Initial UAL (IUAL). The funds are used to reduce the Original Amortization Base (OAB), which includes the IUAL.

Per State constitutional provisions, the employer contribution rate cannot drop below 11.8%, 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 contribution rates 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 plan 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. The cost method is used to determine the normal cost, which is divided into the employee and employer portion, both expressed as a percentage of payroll. The cost method also determines the plan's total actuarial accrued liability. The UAL is determined as the total actuarial accrued liability less the plan's valuation assets, which are developed in Section II. The UAL changes annually due principal payments contributed toward the debt, gains or losses that develop as actual plan experience differs 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 ten 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 \$200 million threshold amounts, indexed to increases in the actuarial value of assets, beginning June 30, 2016, as required by Act 399 of 2014. By not re-amortizing except when specifically allowed by law, gains applied to these schedules result in earlier pay-off of these schedules. Investment gains above the threshold amount are amortized over 20 years. One-half of investment gains above the threshold are credited to the Experience Account up to the statutory cap and amortized as a loss over 10 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.

If aggregate payroll increases at the same rate as the percentage increase in total amortization payments, the employer contribution rate attributable to the amortization payments would maintain a level percentage of payroll. If future aggregate payroll increases at a higher rate than total amortization payments, the employer contribution rate will decrease. Future total UAL amortization payments for all current schedules and the annual percentage change 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 (PR SAC). 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 through Fiscal Year 2039/2040 will be allocated to the EAAB 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 TRSL's investment consultant's expected return for TRSL's 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 for the year immediately following the valuation date and projects the Actuarially Determined Contribution 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 actuarially determined contribution divided by projected aggregate payroll. If actual aggregate payroll for the projected period exceeds expected aggregate payroll, a contribution surplus will develop. Conversely, if actual aggregate payroll for the projected period is less than expected aggregate payroll, a contribution deficit will develop.

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 requirement that the legislature provide an amount necessary to fund the normal cost and the UAL existing prior to June 30, 1988 further reduces 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 to eliminate the back-loaded increasing payment schedules. All current and future UAL 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 amortization schedules from 30 years to 20 years.
- 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.
- Requirement of direct funding of administrative expenses, included in the employer contribution rate, rather than with investment returns.
- 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.

	(A)	(B)	(C)	(D)	(E)	(F)	(F)/(E)	(A)/(B+C)	(D)/(E)
	Total			Inactive	Total				Accrued
	Active	DROP	Inactive	Accrued	Accrued	Valuation	Funded	Support	Liability
	Members	Members	Members	Liability *	Liability *	Assets *	Ratio	Ratio	Ratio
2012	84,513	2,637	74,096	\$17,510	\$24,540	\$13,584	55.4%	110.1%	71.4%
2013	82,910	2,451	77,022	\$19,074	\$26,018	\$14,669	56.4%	104.3%	73.3%
2014	82,886	2,291	79,531	\$20,014	\$28,120	\$16,146	57.4%	101.3%	71.2%
2015	83,602	2,283	81,865	\$20,498	\$28,646	\$17,457	60.9%	99.4%	71.6%
2016	84,068	2,504	82,517	\$21,017	\$29,272	\$18,254	62.4%	98.9%	71.8%
2017	84,228	2,478	84,199	\$21,438	\$29,763	\$19,210	64.5%	97.2%	72.0%
2018	85,045	2,420	85,634	\$22,326	\$30,872	\$20,320	65.8%	96.6%	72.3%
2019	85,998	2,464	87,041	\$22,827	\$31,574	\$21,183	67.1%	96.1%	72.3%
2020	86,860	2,359	88,528	\$23,233	\$32,341	\$21,971	67.9%	95.6%	71.8%
2021	85,980	2,227	90,029	\$23,642	\$33,059	\$23,742	71.8%	93.2%	71.5%

Funded Ratio: The funded ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 55.4% to 71.8% 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 reduce future potential losses and resulting contribution rate increases. For example, during this time period, TRSL has reduced the discount rate from 8.25% to 7.40% and changed the actuarial cost method from projected unit credit to entry age normal which in total have increased the unfunded accrued liability by \$3.6 billion. If not for these changes, the funded ratio would be approximately 80.7%. 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 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, has remained fairly level since 2012. Inactive membership, which includes retirees, survivors, and terminated vested members, has been steadily increasing. The support ratio has decreased from 110.1% to 93.2% over the last ten years. This should be 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 liability attributable to inactive members, has remained fairly level at just above 70% for the last ten years. 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 amortization period for actuarial gains and losses and changes in liability based on change in actuarial methods reduced from 30 years to 20 years on June 30, 2021.

	(A) Market Value of Assets *	(B) Total Payroll (incl. ORP) *	(A)/(B) Asset Volatility Ratio
2012	\$14,189	\$4,355	325.8%
2013	\$15,490	\$4,250	364.5%
2014	\$17,900	\$4,301	416.2%
2015	\$17,896	\$4,371	409.4%
2016	\$17,538	\$4,423	396.5%
2017	\$19,513	\$4,443	439.2%
2018	\$21,047	\$4,551	462.4%
2019	\$21,652	\$4,645	466.2%
2020	\$21,221	\$4,815	440.7%
2021	\$27,724	\$4,918	563.7%

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. Since amortization payments for gains and losses are paid as a percentage of total payroll, including payroll for Optional Retirement Plan (ORP) members, the asset liability ratio is determined using payroll that includes ORP 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 2012, the asset volatility ratio has increased from 325.8% to 563.7%.

	(A) Contributions*	(B) Benefits*	(A)-(B) Contributions less Benefits*	(C) Market Value of Assets*	(B)/(C) Benefits/ MVA	[(A)-(B)]/(C)
2012	\$1,419	\$1,751	(\$332)	\$14,189	12.3%	-2.3%
2013	\$1,423	\$1,877	(\$454)	\$15,490	12.1%	-2.9%
2014	\$1,544	\$1,952	(\$408)	\$17,900	10.9%	-2.3%
2015	\$1,592	\$2,028	(\$436)	\$17,896	11.3%	-2.4%
2016	\$1,529	\$2,068	(\$539)	\$17,538	11.8%	-3.1%
2017	\$1,491	\$2,131	(\$640)	\$19,513	10.9%	-3.3%
2018	\$1,590	\$2,197	(\$607)	\$21,047	10.4%	-2.9%
2019	\$1,623	\$2,231	(\$608)	\$21,652	10.3%	-2.8%
2020	\$1,656	\$2,262	(\$606)	\$21,221	10.7%	-2.9%
2021	\$1,665	\$2,325	(\$660)	\$27,724	8.4%	-2.4%

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)*
2012	(\$407)	\$322	(\$85)
2013	\$588	\$55	\$643
2014	\$694	\$162	\$857
2015	\$540	\$50	\$590
2016	(\$184)	\$158	(\$27)
2017	\$237	\$197	\$435
2018	\$320	\$109	\$429
2019	(\$34)	\$127	\$93
2020	(\$156)	(\$3)	(\$159)
2021	\$1,075	(\$11)	\$1,064

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. TRSL’s consistent “other” experience gains result primarily from salary and mortality experience relative to assumptions. Following the most recent experience study, assumptions 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 modelling, 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, 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 five-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 Changes in Fiduciary Net Position provided by the accounting staff were the final drafts prior to publication. Should these Statements differ from the final audited report, a revised actuarial valuation will be issued, but only to the extent that any difference in reporting affects the employer's contribution rate or the yield to 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 TRSL Accounting Department staff.

POST RETIREMENT BENEFIT INCREASES:

The actuarial accrued liability includes previously granted post-retirement benefit increases. Louisiana law pertaining to TRSL 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 (paragraph 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, effective July 1, 2018. The study was based on an observation period of July 1, 2012-June 30, 2017. The Retirement System is required to conduct an experience study every five years, but the scope of such a study is not necessarily limited to a five-year period. The experience was reviewed separately for Regular Teachers, Higher Education, and the School Lunch Plans (Plan A and Plan B). The experience study report, dated March 1, 2018, provides further information regarding the rationale for these assumptions. The revised rate tables are illustrated at the end of this appendix.

INFLATION ASSUMPTION:

The Board of Trustees reduced the inflation assumption from 2.50% to 2.30%, effective July 1, 2020.

DISCOUNT RATE / INVESTMENT EARNINGS:

Funding Valuation Assumptions: The discount rate was reduced from 7.45% to 7.40%. A discount rate of 7.25% was used to determine the recommended contribution requirement for Fiscal Year 2022/2023.

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.

June 30, 2021 GASB Assumptions: A discount rate of 7.40% is used for GASB reporting purposes.

MORTALITY ASSUMPTIONS:

The mortality tables for active, non-disabled retirees, and disabled retirees, were revised effective June 30, 2018, based on the most recent experience study.

Active Members Mortality Table: RP-2014 White Collar Employee tables for males and females, adjusted by 1.010 for males and by 0.997 for females.

Non-Disabled Retiree/Inactive Members: RP-2014 White Collar Healthy Annuitant tables for males and females, adjusted by 1.366 for males and by 1.189 for females.

Disability Retiree Mortality: RP-2014 Disability tables for males and females, adjusted by factors of 1.111 for males and by 1.134 for females.

The base tables for active members, non-disabled retirees, and disabled retirees are adjusted from 2014 to 2018 using the MP-2017 generational improvement table, with continued future mortality improvement projected using the MP-2017 generational mortality improvement tables.

DISABILITY ASSUMPTION:

Rates for total and permanent disability are based on attained age and were revised effective June 30, 2018, based on the most recent experience study.

RETIREMENT/DROP ASSUMPTION:

Eligibility for normal retirement benefits and DROP participation is based on age and service requirements that vary by plan. Retirement and DROP rates are developed in combination and include an age and service component. The rates were revised effective June 30, 2018, based on the most recent experience study.

TERMINATION ASSUMPTIONS:

Voluntary termination or withdrawal rates were revised effective June 30, 2018, based on the most recent experience study. Rates for Regular Teachers and Higher Education members are based on a combination of age and service. Rates for Lunch Plans A and B are based on service. 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 on the 2014-2018 experience study. The rates vary based upon the member's years of service. 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%. The rates were developed as the inflation assumption plus the assumed real rates of wage growth, which include increases due to promotion and longevity (often called merit increases) which are generally service related. For valuation purposes, current salaries and projected future salaries are limited to the Section 401(a)(17) limit of the Internal Revenue Code, with future indexed increases.

CONVERTED LEAVE:

Converted Leave is assumed to increase the accrued benefit at retirement according to the following table, based on the most recent experience study. The reduction from the prior rates for regular teachers and the lunch plans to current rates shown below is due to statutory limits placed on the amount of leave earned after June 30, 1990 that can be converted to service credit. In the most recent experience study, higher education experience was reviewed independently from regular teachers. The study showed that higher education members convert significantly more leave to service credit at retirement.

	Current Rates
Regular Teachers	0.9%
Higher Education	3.0%
Lunch Plans A & B	0.9%

FAMILY STATISTICS:

The composition of the family is based on Current Population Reports published by the United States Census Bureau. 75% of the membership is assumed to be married with the wife assumed to be three (3) years younger than the husband. Sample rates are as follows:

Member Age	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

Actuarial Assumptions
Regular Teachers

AGE	DISABILITY RATES	TERMINATION RATES				RETIREMENT/DROP RATES			DUR	SALARY INCREASE
		< 1 YEAR	1-2 YEARS	2-3 YEARS	4+ YEARS	< 25 YOS	25-29 YOS	30+ YOS		Eff. July 1, 2020
18	0.0001	0.250	0.250	0.165	0.170	0.000	0.000	0.000	1	0.046
19	0.0001	0.250	0.250	0.165	0.170	0.000	0.000	0.000	2	0.037
20	0.0001	0.250	0.250	0.165	0.170	0.000	0.000	0.000	3	0.037
21	0.0001	0.250	0.250	0.165	0.170	0.000	0.000	0.000	4	0.037
22	0.0001	0.250	0.250	0.165	0.170	0.000	0.000	0.000	5	0.037
23	0.0001	0.180	0.200	0.165	0.170	0.000	0.000	0.000	6	0.035
24	0.0001	0.180	0.200	0.165	0.170	0.000	0.000	0.000	7	0.035
25	0.0001	0.180	0.135	0.165	0.090	0.000	0.000	0.000	8	0.035
26	0.0001	0.180	0.135	0.125	0.090	0.000	0.000	0.000	9	0.035
27	0.0001	0.180	0.135	0.122	0.090	0.000	0.000	0.000	10	0.035
28	0.0001	0.180	0.135	0.119	0.085	0.000	0.000	0.000	11	0.035
29	0.0001	0.180	0.135	0.116	0.080	0.000	0.000	0.000	12	0.035
30	0.0003	0.180	0.135	0.113	0.070	0.000	0.000	0.000	13	0.035
31	0.0003	0.180	0.135	0.110	0.070	0.000	0.000	0.000	14	0.032
32	0.0003	0.165	0.135	0.107	0.060	0.000	0.000	0.000	15	0.032
33	0.0003	0.165	0.135	0.104	0.060	0.000	0.000	0.000	16	0.032
34	0.0003	0.165	0.130	0.101	0.050	0.000	0.000	0.000	17	0.032
35	0.0007	0.165	0.130	0.098	0.050	0.000	0.000	0.000	18	0.032
36	0.0008	0.165	0.120	0.095	0.045	0.000	0.000	0.000	19	0.032
37	0.0009	0.165	0.120	0.095	0.045	0.000	0.000	0.000	20	0.032
38	0.0010	0.165	0.120	0.095	0.042	0.035	0.000	0.000	21	0.032
39	0.0011	0.165	0.120	0.092	0.042	0.035	0.000	0.000	22	0.032
40	0.0012	0.165	0.120	0.090	0.042	0.035	0.000	0.000	23	0.032
41	0.0013	0.165	0.120	0.090	0.042	0.035	0.000	0.000	24	0.032
42	0.0014	0.150	0.120	0.090	0.042	0.035	0.000	0.000	25	0.032
43	0.0015	0.150	0.120	0.090	0.042	0.035	0.000	0.000	26	0.032
44	0.0016	0.150	0.120	0.090	0.042	0.035	0.000	0.000	27	0.032
45	0.0019	0.150	0.120	0.090	0.042	0.035	0.020	0.000	28	0.032
46	0.0020	0.150	0.120	0.090	0.042	0.035	0.020	0.000	29	0.032
47	0.0022	0.150	0.120	0.090	0.042	0.035	0.020	0.000	30	0.032
48	0.0023	0.150	0.120	0.090	0.042	0.035	0.025	0.450	31	0.032
49	0.0025	0.150	0.120	0.090	0.042	0.035	0.025	0.450	32	0.032
50	0.0030	0.150	0.120	0.090	0.042	0.035	0.045	0.450	33	0.032
51	0.0035	0.150	0.120	0.090	0.042	0.035	0.140	0.600	34	0.032
52	0.0040	0.150	0.120	0.090	0.042	0.035	0.240	0.600	35	0.032
53	0.0045	0.150	0.120	0.090	0.042	0.040	0.240	0.450	36	0.032
54	0.0050	0.150	0.120	0.090	0.042	0.100	0.470	0.360	37	0.032
55	0.0050	0.150	0.120	0.090	0.042	0.180	0.760	0.270	38	0.032
56	0.0050	0.150	0.120	0.090	0.042	0.180	0.350	0.210	39	0.032
57	0.0050	0.150	0.120	0.090	0.042	0.180	0.310	0.220	40	0.032
58	0.0050	0.150	0.120	0.090	0.042	0.190	0.310	0.230	41	0.032
59	0.0050	0.150	0.120	0.090	0.100	0.235	0.250	0.230	42	0.032
60	0.0048	0.150	0.120	0.090	0.100	0.235	0.250	0.230	43	0.032
61	0.0046	0.150	0.120	0.090	0.100	0.145	0.250	0.230	44	0.032
62	0.0044	0.150	0.120	0.090	0.100	0.145	0.240	0.230	45	0.032
63	0.0042	0.150	0.120	0.090	0.100	0.145	0.220	0.210	46	0.032
64	0.0040	0.150	0.120	0.090	0.100	0.180	0.240	0.290	47	0.032
65	0.0034	0.150	0.120	0.090	0.100	0.250	0.235	0.270	48	0.032
66	0.0029	0.150	0.120	0.090	0.100	0.200	0.220	0.225	49	0.032
67	0.0024	0.150	0.120	0.090	0.100	0.200	0.220	0.225	50	0.032
68	0.0022	0.150	0.120	0.090	0.100	0.200	0.220	0.225	51	0.032
69	0.0020	0.150	0.120	0.090	0.100	0.200	0.220	0.225	52	0.032
70	0.0020	0.150	0.120	0.090	0.100	0.200	0.220	0.225	53	0.032
71	0.0020	0.150	0.120	0.090	0.100	0.200	0.220	0.225	54	0.032
72	0.0020	0.150	0.120	0.090	0.100	0.200	0.220	0.225	55	0.032
73	0.0020	0.150	0.120	0.090	0.100	0.200	0.220	0.225	56	0.032
74	0.0020	0.150	0.120	0.090	0.100	0.200	0.220	0.225	57	0.032

Actuarial Assumptions
Higher Education

AGE	DISABILITY RATES	TERMINATION RATES				RETIREMENT/DROP RATES			DUR	SALARY INCREASE
		< 1 YEAR	1-2 YEARS	2-3 YEARS	4+ YEARS	< 25 YOS	25-29 YOS	30+ YOS		Eff. July 1, 2020
18	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	1	0.046
19	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	2	0.046
20	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	3	0.043
21	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	4	0.037
22	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	5	0.037
23	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	6	0.037
24	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	7	0.037
25	0.0000	0.230	0.250	0.170	0.250	0.000	0.000	0.000	8	0.037
26	0.0000	0.230	0.210	0.230	0.250	0.000	0.000	0.000	9	0.037
27	0.0000	0.230	0.210	0.220	0.200	0.000	0.000	0.000	10	0.034
28	0.0001	0.230	0.210	0.215	0.120	0.000	0.000	0.000	11	0.034
29	0.0001	0.230	0.210	0.210	0.120	0.000	0.000	0.000	12	0.034
30	0.0001	0.230	0.210	0.205	0.120	0.000	0.000	0.000	13	0.034
31	0.0001	0.230	0.180	0.200	0.120	0.000	0.000	0.000	14	0.034
32	0.0001	0.210	0.180	0.195	0.120	0.000	0.000	0.000	15	0.034
33	0.0001	0.210	0.180	0.190	0.120	0.000	0.000	0.000	16	0.034
34	0.0001	0.210	0.180	0.185	0.100	0.000	0.000	0.000	17	0.034
35	0.0002	0.210	0.180	0.180	0.100	0.000	0.000	0.000	18	0.034
36	0.0002	0.210	0.180	0.175	0.090	0.000	0.000	0.000	19	0.031
37	0.0002	0.195	0.180	0.170	0.090	0.000	0.000	0.000	20	0.031
38	0.0002	0.195	0.180	0.165	0.090	0.080	0.050	0.400	21	0.031
39	0.0003	0.195	0.180	0.160	0.080	0.080	0.050	0.400	22	0.031
40	0.0003	0.195	0.180	0.155	0.080	0.080	0.050	0.400	23	0.031
41	0.0004	0.195	0.200	0.153	0.080	0.080	0.050	0.400	24	0.031
42	0.0004	0.195	0.200	0.151	0.080	0.080	0.050	0.400	25	0.031
43	0.0005	0.195	0.200	0.149	0.080	0.070	0.050	0.400	26	0.031
44	0.0006	0.195	0.200	0.147	0.080	0.045	0.050	0.400	27	0.031
45	0.0007	0.195	0.200	0.145	0.080	0.045	0.050	0.400	28	0.031
46	0.0008	0.195	0.190	0.143	0.080	0.033	0.050	0.400	29	0.031
47	0.0008	0.195	0.180	0.141	0.080	0.033	0.050	0.400	30	0.031
48	0.0008	0.195	0.170	0.139	0.080	0.033	0.050	0.400	31	0.031
49	0.0008	0.195	0.160	0.137	0.080	0.033	0.050	0.400	32	0.031
50	0.0008	0.195	0.150	0.135	0.080	0.033	0.050	0.400	33	0.031
51	0.0008	0.195	0.140	0.133	0.080	0.033	0.100	0.500	34	0.031
52	0.0008	0.195	0.140	0.131	0.080	0.033	0.100	0.250	35	0.031
53	0.0008	0.195	0.140	0.129	0.080	0.033	0.100	0.250	36	0.031
54	0.0008	0.195	0.140	0.127	0.080	0.100	0.320	0.400	37	0.031
55	0.0008	0.195	0.140	0.125	0.080	0.125	0.500	0.155	38	0.031
56	0.0008	0.195	0.140	0.123	0.080	0.125	0.250	0.155	39	0.031
57	0.0008	0.195	0.140	0.121	0.080	0.100	0.200	0.155	40	0.031
58	0.0008	0.195	0.140	0.119	0.080	0.145	0.120	0.155	41	0.031
59	0.0006	0.195	0.140	0.117	0.080	0.160	0.135	0.155	42	0.031
60	0.0004	0.195	0.140	0.115	0.080	0.200	0.180	0.155	43	0.031
61	0.0003	0.195	0.140	0.115	0.080	0.120	0.150	0.155	44	0.031
62	0.0002	0.195	0.140	0.115	0.080	0.120	0.150	0.155	45	0.031
63	0.0001	0.195	0.140	0.115	0.080	0.080	0.150	0.155	46	0.031
64	0.0001	0.195	0.140	0.115	0.080	0.130	0.120	0.155	47	0.031
65	0.0001	0.195	0.140	0.115	0.080	0.180	0.165	0.155	48	0.031
66	0.0001	0.195	0.140	0.115	0.080	0.180	0.180	0.155	49	0.031
67	0.0001	0.195	0.140	0.115	0.080	0.140	0.100	0.155	50	0.031
68	0.0001	0.195	0.140	0.115	0.080	0.140	0.100	0.155	51	0.031
69	0.0001	0.195	0.140	0.115	0.080	0.140	0.160	0.155	52	0.031
70	0.0001	0.195	0.140	0.115	0.080	0.140	0.160	0.155	53	0.031
71	0.0001	0.195	0.140	0.115	0.080	0.140	0.160	0.155	54	0.031
72	0.0001	0.195	0.140	0.115	0.080	0.140	0.160	0.155	55	0.031
73	0.0001	0.195	0.140	0.115	0.080	0.140	0.160	0.155	56	0.031
74	0.0001	0.195	0.140	0.115	0.080	0.140	0.160	0.155	57	0.031

Actuarial Assumptions
Lunch Plans A and B

AGE	DISABILITY RATES	RETIREMENT/DROP RATES	DUR	TERMINATION RATES	SALARY INCREASE
					Eff. July 1, 2020
18	0.0000	0.000	0	0.150	0.044
19	0.0000	0.000	1	0.135	0.044
20	0.0000	0.000	2	0.120	0.034
21	0.0000	0.000	3	0.105	0.031
22	0.0000	0.000	4	0.090	0.031
23	0.0000	0.000	5	0.075	0.031
24	0.0000	0.000	6	0.060	0.031
25	0.0000	0.000	7	0.045	0.031
26	0.0000	0.000	8	0.045	0.031
27	0.0000	0.000	9	0.045	0.031
28	0.0000	0.000	10	0.045	0.031
29	0.0000	0.000	11	0.045	0.031
30	0.0000	0.000	12	0.045	0.031
31	0.0000	0.000	13	0.045	0.031
32	0.0000	0.000	14	0.045	0.031
33	0.0000	0.000	15	0.045	0.031
34	0.0000	0.000	16	0.045	0.031
35	0.0001	0.000	17	0.045	0.031
36	0.0003	0.000	18	0.045	0.031
37	0.0005	0.000	19	0.045	0.031
38	0.0007	0.500	20	0.045	0.031
39	0.0009	0.500	21	0.045	0.031
40	0.0011	0.500	22	0.045	0.031
41	0.0015	0.500	23	0.045	0.031
42	0.0019	0.500	24	0.045	0.031
43	0.0024	0.500	25	0.045	0.031
44	0.0029	0.500	26	0.045	0.031
45	0.0037	0.500	27	0.045	0.031
46	0.0045	0.500	28	0.045	0.031
47	0.0050	0.500	29	0.045	0.031
48	0.0056	0.500	30	0.045	0.031
49	0.0064	0.500	31	0.045	0.031
50	0.0074	0.500	32	0.045	0.031
51	0.0084	0.500	33	0.045	0.031
52	0.0094	0.500	34	0.045	0.031
53	0.0098	0.500	35	0.045	0.031
54	0.0098	0.500	36	0.045	0.031
55	0.0100	0.700	37	0.045	0.031
56	0.0100	0.430	38	0.045	0.031
57	0.0100	0.390	39	0.045	0.031
58	0.0100	0.350	40	0.045	0.031
59	0.0100	0.330	41	0.045	0.031
60	0.0030	0.430	42	0.045	0.031
61	0.0025	0.230	43	0.045	0.031
62	0.0020	0.230	44	0.045	0.031
63	0.0015	0.230	45	0.045	0.031
64	0.0011	0.300	46	0.045	0.031
65	0.0009	0.280	47	0.045	0.031
66	0.0008	0.240	48	0.045	0.031
67	0.0007	0.240	49	0.045	0.031
68	0.0006	0.240	50	0.045	0.031
69	0.0005	0.240	51	0.045	0.031
70	0.0005	0.240	52	0.045	0.031
71	0.0005	0.240	53	0.045	0.031
72	0.0005	0.240	54	0.045	0.031
73	0.0005	0.240	55	0.045	0.031
74	0.0005	0.240	56	0.045	0.031

Actuarial Assumptions
Mortality Tables

Active Member Mortality

Adjusted RP-2014 Base Table			Projected 2020 Table			Projected 2050 Table		
Age	Male	Female	Age	Male	Female	Age	Male	Female
20	0.000288	0.000137	20	0.000266	0.000132	20	0.000195	0.000099
30	0.000320	0.000183	30	0.000329	0.000190	30	0.000243	0.000142
40	0.000444	0.000333	40	0.000462	0.000346	40	0.000357	0.000267
50	0.001194	0.000927	50	0.001115	0.000889	50	0.000849	0.000679
60	0.003321	0.002054	60	0.003312	0.002093	60	0.002448	0.001567

Non-Disabled Retiree Mortality

Adjusted RP-2014 Base Table			Projected 2020 Table			Projected 2050 Table		
Age	Male	Female	Age	Male	Female	Age	Male	Female
50	0.003776	0.002468	50	0.003525	0.002367	50	0.002685	0.001807
60	0.007137	0.004626	60	0.007118	0.004714	60	0.005261	0.003530
70	0.016941	0.012549	70	0.016409	0.011871	70	0.012455	0.009030
80	0.050961	0.036168	80	0.048168	0.034546	80	0.035915	0.025595
90	0.172376	0.119146	90	0.164979	0.115535	90	0.125508	0.088364

Disabled Mortality

Adjusted RP-2014 Base Table			Projected 2020 Table			Projected 2050 Table		
Age	Male	Female	Age	Male	Female	Age	Male	Female
30	0.008794	0.003405	30	0.009051	0.003535	30	0.006678	0.002650
40	0.012218	0.006185	40	0.012703	0.006419	40	0.009821	0.004966
50	0.022659	0.013503	50	0.021153	0.012952	50	0.016114	0.009884
60	0.029557	0.019277	60	0.029479	0.019645	60	0.021788	0.014709
70	0.044824	0.031982	70	0.043417	0.030254	70	0.032955	0.023015
80	0.085120	0.069215	80	0.080455	0.066111	80	0.059989	0.048982

AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
June 30, 2021 (7.40% discount rate)

Date	Description	Notes	Amtz. Period	Beginning Liability	Years Remain	Remaining Balance	Mid-Year Payment
2021	OAB	Note 1	8	1,285,203,259	8	1,285,203,259	210,913,681
2021	EAAB	Note 2,3	19	2,575,396,402	19	2,575,396,402	271,394,635
2021	2009 Experience G/L		18	2,470,567,701	18	2,470,567,701	243,879,274
2021	2010 Experience G/L		19	977,565,531	19	977,565,530	94,021,691
2021	2011 Experience G/L		20	(152,108,059)	20	(152,108,059)	(14,288,101)
2021	2012 Experience G/L		21	111,377,884	21	111,377,884	10,239,562
2021	2013 Experience G/L		22	(224,119,075)	22	(224,119,075)	(20,204,209)
2021	2013 Assump/Asset Method Chg		22	762,806,111	22	762,806,111	68,766,544
2021	2014 Assump/Cost Method Chg		23	1,331,450,963	23	1,331,450,963	117,897,153
2021	2014 Liability G/L		23	(148,872,444)	23	(148,872,444)	(13,182,339)
2021	2015 Experience G/L		24	(350,880,948)	24	(350,880,948)	(30,564,182)
2021	2016 Experience G/L		25	25,144,713	25	25,144,713	2,157,590
2021	2017 Discount Rate Change		26	129,367,168	26	129,367,168	10,948,449
2021	2017 Experience G/L		26	(207,733,728)	26	(207,733,728)	(17,580,674)
2021	2017 Experience Acct Allocation		6	6,772,650	6	6,772,650	1,388,025
2021	2018 Disc Rate/Assump Change		27	666,679,694	27	666,679,694	55,710,670
2021	2018 Experience G/L		27	(192,187,782)	27	(192,187,782)	(16,060,051)
2021	2018 Experience Acct Allocation		7	34,318,984	7	34,318,984	6,230,658
2021	2019 Experience G/L		28	(90,778,379)	28	(90,778,379)	(7,497,867)
2021	2019 Discount Rate Change		28	292,395,415	28	292,395,415	24,150,485
2021	2020 Disc Rate/Sal Change		29	223,402,540	29	223,402,540	18,254,887
2021	2020 Experience G/L		29	157,588,651	29	157,588,651	12,877,038
2021	2021 Discount Rate Change		20	159,214,885	20	159,214,885	14,955,673
2021	2021 Experience G/L		20	(791,192,891)	20	(791,192,891)	(74,319,821)
2021	2021 Experience Acct Allocation		10	265,864,686	10	265,864,686	37,204,087
Total Outstanding Balance						\$ 9,317,243,930	\$ 1,007,292,858
Employers Credit Balance							
2021	2017 Contribution Variance	Note 3	-	-	-	-	-
2021	2018 Contribution Variance	Note 3	-	-	-	-	-
2021	2019 Contribution Variance	Note 3	-	-	-	-	-
2021	2020 Contribution Variance	Note 3	-	-	-	-	-
2021	2021 Contribution Variance	Note 3	-	-	-	-	-
Total Credit Balance						\$ -	\$ -
Total Unfunded Actuarial Accrued Liability						\$ 9,317,243,930	\$ 1,007,292,858

See UAL Amortization Schedule Notes within this Appendix.

Appendix F
AMORTIZATION SCHEDULES

TRSL Actuarial Valuation
June 30, 2021

AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
June 30, 2022 - Projected (7.25% discount rate)

Date	Description	Notes	Amtz. Period	Initial Liability	Years Remain	Remaining Balance	Mid-Year Payment
2022	OAB	Note 1	7	1,161,730,077	7	1,161,730,077	209,967,096
2022	EAAB	Note 2,3	18	2,423,468,165	18	2,423,468,165	269,148,109
2022	2009 Experience G/L		17	2,400,647,935	17	2,400,647,935	241,557,933
2022	2010 Experience G/L		18	952,466,967	18	952,466,967	93,087,222
2022	2011 Experience G/L		19	(148,556,729)	19	(148,556,729)	(14,140,287)
2022	2012 Experience G/L		20	109,008,183	20	109,008,183	10,129,611
2022	2013 Experience G/L		21	(219,765,462)	21	(219,765,462)	(19,979,601)
2022	2013 Assump/Asset Method Chg		21	747,988,262	21	747,988,262	68,002,075
2022	2014 Assump/Cost Method Chg		22	1,307,796,833	22	1,307,796,833	116,543,379
2022	2014 Liability G/L		22	(146,227,624)	22	(146,227,624)	(13,030,970)
2022	2015 Experience G/L		23	(345,171,263)	23	(345,171,263)	(30,202,440)
2022	2016 Experience G/L		24	24,769,426	24	24,769,426	2,131,320
2022	2017 Discount Rate Change		25	127,594,026	25	127,594,026	10,811,557
2022	2017 Experience G/L		25	(204,886,473)	25	(204,886,473)	(17,360,858)
2022	2017 Experience Acct Allocation		5	5,835,360	5	5,835,360	1,383,457
2022	2018 Disc Rate/Assump Change		26	658,278,811	26	658,278,811	54,996,521
2022	2018 Experience G/L		26	(189,766,009)	26	(189,766,009)	(15,854,179)
2022	2018 Experience Acct Allocation		6	30,401,510	6	30,401,510	6,206,371
2022	2019 Experience G/L		27	(89,725,642)	27	(89,725,642)	(7,399,475)
2022	2019 Discount Rate Change		27	289,004,569	27	289,004,569	23,833,566
2022	2020 Disc Rate/Sal Change		28	221,016,064	28	221,016,064	18,009,998
2022	2020 Experience G/L		28	155,905,225	28	155,905,225	12,704,293
2022	2021 Discount Rate Change		19	155,497,629	19	155,497,629	14,800,952
2022	2021 Experience G/L		19	(772,720,583)	19	(772,720,583)	(73,550,964)
2022	2021 Experience Acct Allocation		9	246,982,599	9	246,982,599	36,995,028
2022	2022 Discount Rate Change		20	486,000,273	20	486,000,273	45,161,691
Total Outstanding Balance						\$ 9,387,572,129	\$ 1,043,951,405
Employers Credit Balance							
2021	2017 Contribution Variance	Note 3	-	-	-	-	-
2021	2018 Contribution Variance	Note 3	-	-	-	-	-
2021	2019 Contribution Variance	Note 3	-	-	-	-	-
2021	2020 Contribution Variance	Note 3	-	-	-	-	-
2021	2021 Contribution Variance	Note 3	-	-	-	-	-
Total Credit Balance						\$ -	\$ -
Total Unfunded Actuarial Accrued Liability						\$ 9,387,572,129	\$ 1,043,951,405

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See UAL Amortization Schedule Notes within this Appendix.

UAL Amortization Schedule Notes

Act 497 of 2009 consolidated all schedules established prior to 2009 into two amortization schedules, the Original Amortization Base (OAB) and the Experience Account Amortization Base (EAAB). The OAB consists of the outstanding balance of the Initial Unfunded Accrued Liability and schedules with negative outstanding balances. The outstanding balance of this schedule was credited with funds from the Initial UAL account, excluding the subaccount of this fund, and the balance of the Employer Credit Account. The OAB payment schedule is prescribed by statute, as described in Note 1 below. The EAAB consists of the 2004 schedule and all remaining schedules. The outstanding balance of this schedule was credited with the balance of funds from the Initial UAL subaccount, which were transferred from the Employee Experience Account on June 30, 2009. The EAAB payment schedule is prescribed by statute, as described in Note 2 below.

Effective July 1, 2021, all schedules were re-amortized using a discount rate of 7.40% and the OAB was re-amortized to be paid off by 2029 with level payments. Projected July 1, 2022 schedules are based on a 7.25% discount rate.

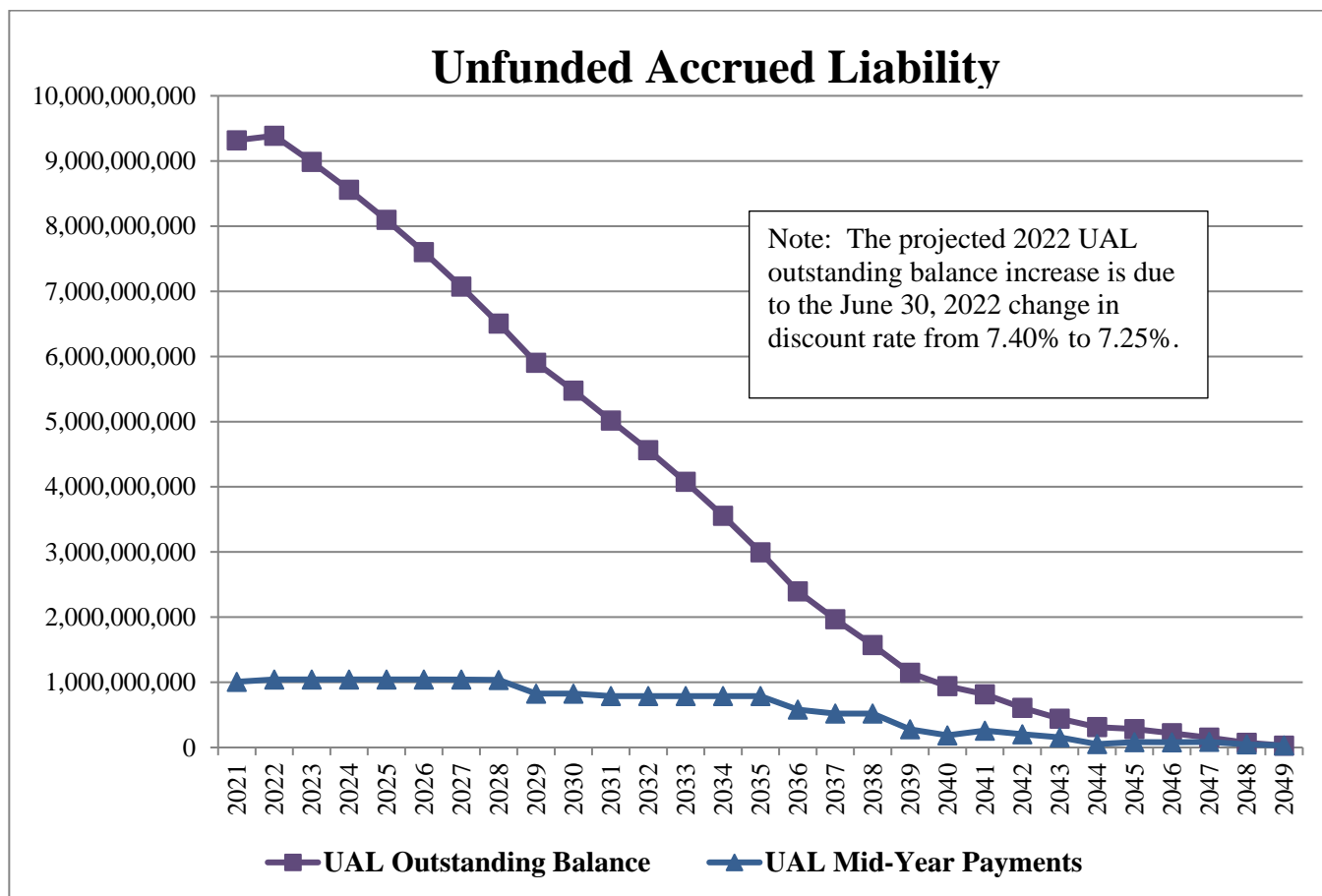
Note 1: Act 497 of 2009 created the Original Amortization Base, effective July 1, 2010, which includes the Initial Unfunded Accrued Liability (IUAL) and certain negative bases that existed before 2009. The combined balance was reduced by applying funds from the IUAL Fund, excluding the subaccount of this fund. In addition to regular payments and contribution variance credits, the schedule was reduced by investment gains up to the annual “thresholds” created by Act 497 of 2009 and Act 399 of 2014. The schedule was credited appropriations from Act 55 of 2014, Act 56 of 2015, Act 59 of 2018, Act 50 of 2019, Act 255 of 2020, and Act 120 of 2021. Future payments be level until paid off on or before 2029.

Note 2: Act 497 of 2009 created the Experience Account Amortization Base, which combined 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 combined balance was reduced by applying funds from the subaccount of the IUAL Fund, which were transferred from the Experience Account on June 30, 2009. In addition to regular payments and contribution variance credits, the schedule was reduced by investment gains up to the annual “thresholds” created by Act 497 of 2009 and Act 399 of 2014. Future payments will be level until paid off in or before 2040.

Note 3: The 2012 contribution variance surplus of \$7,169,301 was used to reduce and re-amortize the EAAB, per Act 497 of 2009. The 2014-2021 contribution variance surpluses were used to reduce the EAAB, per Act 399 of 2014. The 2021 contribution variance surplus was updated from last year’s projected amount to \$84,357,976. The projected contribution variance surplus for 2022 is \$61,250,532.

UAL Outstanding Balance and Payment Schedule
Based on June 30, 2022 Projected UAL Schedules

FY Beginning	UAL Outstanding Balance (Millions)	UAL Mid-Year Payments (Millions)	Payment % Change	FY Beginning	UAL Outstanding Balance (Millions)	UAL Mid-Year Payments (Millions)	Payment % Change
2021	9,317	1,007	0.0%	2036	2,395	581	-26.4%
2022	9,388	1,044	3.6%	2037	1,967	520	-10.4%
2023	8,987	1,044	0.0%	2038	1,571	520	0.0%
2024	8,557	1,044	0.0%	2039	1,146	279	-46.4%
2025	8,097	1,044	0.0%	2040	941	186	-33.4%
2026	7,603	1,044	0.0%	2041	817	258	39.3%
2027	7,073	1,043	-0.1%	2042	608	203	-21.4%
2028	6,506	1,036	-0.6%	2043	442	155	-23.6%
2029	5,904	826	-20.3%	2044	313	52	-66.7%
2030	5,476	826	0.0%	2045	283	82	58.5%
2031	5,018	789	-4.5%	2046	218	80	-2.6%
2032	4,564	789	0.0%	2047	152	86	8.2%
2033	4,077	789	0.0%	2048	73	47	-45.4%
2034	3,555	789	0.0%	2049	30	31	-34.9%
2035	2,996	789	0.0%	2050	0	0	-100.0%



Components of Original Amortization Base
(Dollar amounts in millions)

	Annual Outstanding Balance					Annual Payments				
	Other		IUAL	Employer		Other		IUAL	Employer	
	IUAL	Schedules		Credit	Total	IUAL	Schedules		Credit	Total
	IUAL	Schedules	Acct	Account	OAB	IUAL	Schedules	Acct	Account	OAB
2021	4,410.9	(2,618.5)	(281.6)	(70.6)	1,440.2	698.4	(429.7)	(46.2)	(11.6)	210.9
2022	3,847.0	(2,367.0)	(254.6)	(63.8)	1,161.7	698.4	(429.7)	(46.2)	(11.6)	210.9
2023	3,407.9	(2,096.8)	(225.5)	(56.5)	1,029.1	698.4	(429.7)	(46.2)	(11.6)	210.9
2024	2,936.3	(1,806.6)	(194.3)	(48.7)	886.7	698.4	(429.7)	(46.2)	(11.6)	210.9
2025	2,429.7	(1,494.9)	(160.8)	(40.3)	733.7	698.4	(429.7)	(46.2)	(11.6)	210.9
2026	1,885.7	(1,160.2)	(124.8)	(31.3)	569.5	698.4	(429.7)	(46.2)	(11.6)	210.9
2027	1,301.5	(800.7)	(86.1)	(21.6)	393.0	698.4	(429.7)	(46.2)	(11.6)	210.9
2028	673.9	(414.7)	(44.6)	(11.2)	203.5	698.4	(429.7)	(46.2)	(11.6)	210.9
2029	(0.0)	0.0	0.0	0.0	(0.0)	-	-	-	-	-

This table has changed from previously published tables due the 2021 legislative appropriation allocated to the IUAL, the re-amortization of the OAB with level payments, and the change in discount rate from 7.45% to 7.40%.

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.

GLOSSARY

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 such as retirement, disability, withdrawal, or death.

Employer Normal Cost – Portion of the normal cost, excluding administrative expenses, 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: 1997, 2001-2003, 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. See Note 2 in Appendix D for additional details.

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 actuarial cost 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), 1994-1996, 1998-2000, and 2005-2008. See Note 1 in Appendix D for additional details.

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 within the Louisiana Department of the Treasury to ensure orderly and consistent strategies for continuing development and growth that will attain and maintain the soundness of the public retirement systems, plans and funds and to report all findings and recommendations 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 (decreases) each time an actuarial loss (gain) occurs and when new benefits are added without being fully funded initially.

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.