# TEACHERS' RETIREMENT SYSTEM OF LOUISIANA 

JUNE 30, 2016
ACTUARIAL VALUATION

October 7, 2016

Board of Trustees
Teachers' Retirement System of Louisiana
Post Office Box 94123, Capitol Station
Baton Rouge, Louisiana 70804-9123
Ladies and Gentlemen:
This report is prepared for the Board of Trustees of Teachers' Retirement System of Louisiana to present the results of the actuarial valuation of assets and liabilities, as well as funding requirements, as of June 30, 2016. The primary purpose of the report is to determine the actuarially required contribution for fiscal year ending 2017 and the projected actuarially required contribution rate for fiscal year ending 2018. The valuation measures the liability and funding levels and provides other information for financial reporting. Results 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 data, plan assets and other matters as detailed in the exhibits of this report. In particular, we have relied upon the Statements of Fiduciary Net Position and Changes in Fiduciary Net Position as audited by Duplantier, Hrapmann, Hogan \& Maher, 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 present values 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, the use of another set of assumptions and methods could also be reasonable and could produce materially different results. Actual results may vary from assumptions used to prepare the valuation.

Exhibit 3 provides disclosures of the Fiduciary Net Position and Net Pension Liabilities required by the Governmental Accounting Standards Board Statements 67/68. 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 Brad is a Fellow in the Society of Actuaries. Shelley and Brad are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,
FOSTER \& FOSTER INC.


Shelley R. Johnson, ASA, MAAA


Bradley R. Heinfichs, FSA, EA, MAAA

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## SUMMARY OF VALUATION RESULTS

A brief summary of the more important figures developed in this valuation, with comparable results from previous valuations are as follows:


The above funding requirements measure the cost of benefits that were in effect on June 30, 2016, and Acts of the 2016 Regular Legislative Session.

1 Member Contributions: Regular and Higher Ed - $8.0 \%$, Lunch Plan A - 9.10\%, Lunch Plan B - $5.00 \%$
2 Reflects the restated aggregate employer contribution rate for the fiscal year following the valuation, as determined by the current year valuation.
3 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. Per Act 95 of 2016, the Lunch Plan contribution requirements are consolidated with the Regular Techers (K-12) employer contribution rate. The term "plan" is used to define each employer group defined in the Act, and not to imply that each group has 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, and the rate contributed by employees. The shared UAL contribution rate is determined in aggregate for all plans. The UAL established due to a specific plan or group of plans due to legislation will be allocated entirely to that plan or those plans. The recommended employer rates by plan are as follows:

|  | Recommended Employer Rate for FY 17/18 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Normal <br> Cost Rate | Aggregate <br> Employee <br> Normal <br> Cost Rate | Employer <br> Normal <br> Cost Rate | Shared <br> UAL <br> Rate | Particularized <br> UAL <br> Rate | Total <br> Employer <br> Contribution <br> Rate |
| Regular Teachers, <br> Lunch A \& B | $12.3 \%$ | $7.9797 \%$ | $4.3642 \%$ | $22.2 \%$ | $0.0 \%$ | $\mathbf{2 6 . 6 \%}$ |
| Higher Education | $11.2 \%$ | $8.0 \%$ | $3.2194 \%$ | $22.2 \%$ | $0.0 \%$ | $\mathbf{2 5 . 4 \%}$ |
| Aggregate Rate | $12.2 \%$ | $7.9826 \%$ | $4.1988 \%$ | $22.2 \%$ | $0.0 \%$ | $\mathbf{2 6 . 4 \%}$ |

The variation in normal cost by plan reflects differences in benefits, actuarial assumptions, and member demographics based on the entry age normal cost method. A reconciliation of the change in projected rate from the prior year's projected rate is included below.

## CHANGES IN UAL AND FUNDING REQUIREMENTS

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 aggregate employer contribution rate established by the Public Retirement Systems' Actuarial Committee for the 2016/2017 plan year was $25.4 \%$. The restated employer contribution rate determined by this valuation for the $2016 / 2017$ plan year is $25.8 \%$. Therefore, an employer contribution deficit of $0.4 \%$ is expected in next year's valuation.

The increase in projected contribution requirements for FY 2017/18 is due mainly to the statutory $6.5 \%$ increase in the UAL payments for the OAB and EAAB schedules. Note that this is the last year that statutes require this increase. Future OAB payments will increase by $\mathbf{2 \%}$ and future EAAB payments will be level, which will result in a smaller likelihood of future employer contribution rate increases. The investment experience loss relative to the discount rate was largely offset by an experience gain relative to all other actuarial assumptions. The current actuarial valuation discloses a decrease in the plan's unfunded accrued liability (UAL) due mainly to UAL amortization payments received. The contribution variance surplus of $\$ 64,452,206$ was used to reduce the EAAB rather than reduce employer contribution requirements, per Act 497 of 2009, which would have created a credit to the employer rate of $0.3 \%$.

The change in the projected employer contribution rate and the change unfunded accrued liability are detailed in the tables 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 do not operate in isolation of each other, hence are not additive.

## Aggregate Contribution Rate Change from FY 16/17 to FY 17/18

| Normal Cost |  |
| :--- | ---: |
| Member Demographics Change | $-0.10 \%$ |
| Discount Rate Change | $0.12 \%$ |
| UAL Payment | $0.33 \%$ |
| Investment Experience Loss | $-0.28 \%$ |
| Other Experience Gain | $0.77 \%$ |
| Statutory UAL Payment Increase | $0.10 \%$ |
| Contribution Variance Payment Change | $0.27 \%$ |
| Discount Rate Change | $-0.15 \%$ |
| Payroll Change | $1.06 \%$ |
| Total | $1.00 \%$ |
| Actual Contribution Rate Change |  |

## Change In Unfunded Actuarial Accued Liability

Unfunded Liability - June 30, 2015

| Interest on Unfunded Liability | $\$ 867,151,623$ |
| :--- | :---: |
| Employer Amortization Payment | $(1,000,284,318)$ |
| Permanent Benefit Increase | $216,473,124$ |
| Experience Account Disbursement | $(216,473,124)$ |
| Contribution Variance Surplus | $(64,452,206)$ |
| Investment Experience Loss | $184,298,067$ |
| Other Experience Gain | $(157,685,531)$ |
| T |  |

Total Change
$867,151,623$
$(1,000,284,318)$
216,473,124
$(216,473,124)$
$(64,452,206)$
184,298,067
$(157,685,531)$
\$ 11,189,053,201
(170,972,365)
Unfunded Liability - June 30, 2016
\$ 11,018,080,836

## ACTUARIAL ASSETS/VALUATION ASSETS

Because the market value of assets can be volatile from one year to the next, an asset valuation method is generally used to adjust the market value of assets to smooth the effects of short-term volatility. The adjusted asset value is called the actuarial value of assets. The method gradually recognizes investment gains and losses relative to the assumed rate over five years.

The gross actuarial value of assets represents the total assets to fund all liabilities of the pension plan as well as side-fund accounts dedicated for other purposes. The valuation assets exclude the side-fund accounts for purposes of determining the employer contribution rate as illustrated in Exhibit 2.

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 co-mingled with the TRSL assets. The current balance is \$2,535,804.

## Experience Account Fund:

The account is used to fund permanent benefit increases for retirees. Fifty percent of any excess return above $\$ 200,000,000$, indexed to increases in the actuarial value of assets beginning June 30, 2016, are credited to the Experience Account, subject to the restrictions provided in Act 399 of 2014, described in Exhibit 5. Based on the current funded ratio, the account balance is currently restricted to the reserve needed to fund one $1.5 \%$ permanent benefit increase. The cost of the $1.5 \%$ PBI, per Act 93 of 2016, was disbursed from the fund. The account was credited with interest based on the System's actuarial return. The current balance is $\$ 24,977,477$.

## PLAN EXPERIENCE

The actuary is charged with recommending actuarial assumptions based on the best estimate of future plan experience to properly fund future 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 Exhibit 6 of the valuation report. If the actual experience differs from the projected experience, a gain or loss occurs. For the current measurement period, this gain or loss is amortized over a 30 year period with level dollar payments, except for investment gains allocated to the OAB, EAAB, or the Experience Account.

## Economic/Investment Experience

For the plan year ending June 30, 2016, the System's actuarial rate of return of $6.67 \%$ was less than the $7.75 \%$ discount rate, resulting in an investment experience loss of $\$ 184,298,067$. The investment experience.

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 used to fund the experience account and administrative expenses, or $8.10 \%$.
$\left.\begin{array}{ccrc}\text { Actuarial Rate } \\ \text { of Return }\end{array} \quad \begin{array}{c}\text { Geometric } \\ \text { Average }\end{array}\right]$

## Demographic Experience and Salary Assumptions:

Demographic assumptions include rates of retirement/DROP, rates at which members become disabled, turnover rates, mortality rates, and several other demographic assumptions. Salary assumptions anticipate future salary increases. During the 2015/2016 plan year, the system incurred an experience gain of $\$ 157,685,531$ from plan experience differing from that anticipated by the demographic and salary assumptions. The experience gain includes a reduction for administrative expenses, as described below.

## LEGISLATIVE/PLAN CHANGES

Act 93 of 2016 provides for a $1.5 \%$ permanent benefit increase, calculate on the first $\$ 60,000$ of a recipient's benefit for eligible members, effective July 1, 2016. All retirees must have been retired by June 30, 2015 to be eligible. Regular retirees must be at least age 60 . There is no age requirement for disability retirees. Nonretiree beneficiaries are eligible if the retiree would have attained age 60 by June 30, 2015.

Act 94 of 2016 provides for direct funding by employers of noninvestment-related administrative expenses beginning in the first fiscal year in which the projected aggregate employer contribution rate, calculated without regard to any changes in the board-approved actuarial valuation rate, will not increase.

Act 95 of 2016 amends the funding policy and other provisions as follows:
o Accelerates the implementation of the reduction in amortization period for most actuarial changes, gains, or losses from 30 years to 20 years. The 20 year amortization will begin once the funded ratio reaches $70 \%$, rather than $85 \%$, as previously required.
o Accelerates the implementation of the change in amortization of actuarial gains allocated to the experience account. The transfer of gains to the experience account will be amortized as a loss with level payments over a ten-year period, beginning with the first system valuation following June 30 , 2015, in which an allocation is made to the system's experience account, rather than beginning on June 30, 2019, as provided by prior law.
o Provides for re-amortization of the OAB with level-dollar payments to 2029 in 2020-2021 Fiscal Year or later, when such re-amortization results in annual payments that are not more than the next annual payment otherwise required under prior law.
o Provides that until a system is $80 \%$ funded, the net remaining liability of the OAB and EAAB shall be re-amortized after application of the hurdle payments in the 2019-2020 Fiscal Year and in every fifth fiscal year thereafter.
o Accelerates the timing of the review of volatility of payment schedules. Prior law required that the results of the study be reported to the Public Retirement Systems' Actuarial Committee by Nov. 1, 2019. Act 95 requires the review of volatility to be done following the close of Fiscal Year 2016-2017 and the report to be submitted by Nov. 1, 2017.
o Consolidates all K-12 employee groups at Teachers' into a single plan for rate purposes.

## 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 Exhibit 6. 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 Exhibit 2 of this report. The UAL changes annually due to 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 10 years. Non-investment experience gains and losses and investment losses are amortized over 30 years with level payments. Investment gains are first allocated to the OAB and EAAB, without re-amortization, up to the $\$ 200$ million threshold amounts, indexed beginning June 30, 2016, as required by Act 399 of 2014. By not re-amortizing, gains applied to these schedules result in earlier pay-off of these schedules. One-half of any remaining gains are credited to the experience account up to the statutory cap. Any remaining gains are then amortized over 30 years with level payments. Beginning in 2016, the full investment gain remaining after the allocation to the OAB and EAAB will be amortized over 30 years, and any gains credited to the experience account will be amortized as an offsetting loss over a 10 year period. Once the fund attains a funded ratio of $70 \%$, future gains or losses that would have otherwise been amortized over 30 years will be amortized over 20 years. The OAB will be re-amortized with level-dollar payments to 2029 in fiscal year 2020/21 or later, when such re-amortization results in annual payments that are not more than the next annual payment otherwise required. 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 2019-2020 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.

Future payments to amortize the OAB and Experience Account Amortization Base will increase as shown in the following table, as required by Act 497 of 2010. All other schedules will have level payments.

| Plan Year |  | Original <br> Amortization Base |  | Experience Account <br> Amortization Base |
| :---: | :---: | :---: | :---: | :---: |
|  | $6.5 \%$ |  | $6.5 \%$ |  |
| $2016 / 2017-2017 / 2018$ |  |  | Level Payments |  |

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 Exhibit 7-C.

Employers pay the full required employer contribution rate, as recommended to the legislature by the Public Retirement Systems’ Actuarial Committee (PRSAC). This rate is determined as the projected actuarially determined contribution divided by the projected payroll. The actual actuarially determined contribution and
actual payroll will vary from the projected amounts, resulting in a contribution variance. Per statutory requirements, contribution surpluses 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 that the actuarially determined contributions will be paid when due and all actuarial assumptions will be realized.

## 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 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, $\$ 250,000,000$ has been applied to the OAB and $\$ 453,195,808$ has been applied to the EAAB. When combined with the surplus dollars appropriated to the System by the legislature, these result in the acceleration of the payoff of the OAB to 2028, one year earlier than the 2029 payoff required by the State Constitution. These funds have resulted in the acceleration of the payoff of the EAAB by 2035, five years earlier than the statutory requirement that this schedule be paid by 2040. A projection of future UAL and UAL payments based on current amortization schedules is shown in Exhibit 7-C. This projection assumes that the actuarially determined contributions will be paid when due and all actuarial assumptions will be realized.

The table below illustrates the impact of Acts 497 and 399 by showing how investment gains and contribution variance surpluses occurring between 2010 and 2016 have been allocated compared to the allocation that would have occurred prior to these Acts. To date, $\$ 546,642,127$ million in gains/surpluses have reduced the UAL rather than credit the Experience Account based on the change in funding policy.

|  | Investment Gain and Contribution Surplus | Allocation of Gains/Surplus Pre-Acts 497/399 (If Not Enacted) |  | Actual Allocation of Gains/Surplus <br> Based on Acts 497/399 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Reduce UAL | Credit Experience Account | Reduce UAL | Credit Experience Account |
| 2010 | 0 | 0 | 0 | 0 | 0 |
| 2011 | 0 | 0 | 0 | 0 | 0 |
| 2012 | 7,169,301 | 7,169,301 | 0 | 7,169,301 | 0 |
| 2013 | 639,473,813 | 319,736,907 | 319,736,907 | 419,736,907 | 219,736,906 |
| 2014 | 734,622,453 | 387,456,051 | 347,166,403 | 564,287,565 | 170,334,888 |
| 2015 | 630,905,879 | 361,095,266 | 269,810,613 | 630,905,879 | 0 |
| 2016 | 64,452,206 | 64,452,206 | 0 | 64,452,206 | 0 |
| Total | 2,076,623,652 | 1,139,909,731 | 936,713,923 | 1,686,551,858 | 390,071,794 |
| Total |  | - |  | - |  |
| Gains/Surplus | 2,076,623,652 | 2,076,623 | 3,654 | 2,076,623 | 3,652 |

## FUNDED STATUS

The funded status is a measure of the plan's assets relative to the plan's obligations. The current funded ratio is $62.36 \%$, as measured by the plans valuation assets divided by the total actuarial accrued liability, based on the asset valuation method, actuarial cost method, and actuarial assumptions described above. There were no changes in these assumptions or methods since the prior valuation. 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. This measure would be different if the measure reflected the market value of assets rather than the actuarial value of assets. 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.

## FUNDING OF ADMINISTRATIVE AND INVESTMENT EXPENSES

The employer contribution rate is determined in accordance with R.S. 11 Section 102, which by omission of language regarding the funding of administrative expenses precludes funding of these expenses by a direct allocation through the employer contribution rate. These expenses are instead funded through the employer rate with the 30 year amortization of the experience loss. Per Actuarial Standard of Practice No. 27, (paragraph 3.8.3.e.) the investment return assumption should be reduced to reflect investment and administrative expenses that are paid from plan assets and not otherwise recognized. The discount rate was developed with a margin of 10 basis points to account for these expenses, therefore these losses are expected to be offset by long-term investment earnings. Exhibit 6 provides further explanation regarding the impact of administrative expenses on plan assumptions/experience.

Act 94 of 2016 provides for direct funding by employers of noninvestment-related administrative expenses beginning in the first fiscal year in which the projected aggregate employer contribution rate, calculated without regard to any changes in the board-approved actuarial valuation rate, will not increase.

Investment manager fees are treated as a direct offset to investment income.

## FUNDING OF FUTURE POST RETIREMENT BENEFIT INCREASES

The liability for previously granted benefit increases is included in the retiree reserve. 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. 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 Exhibit 5 of this report. The legislature and governor have the ultimate authority as to whether or not a future increase will be granted. Since a portion of investment earnings will be used to fund these benefits, which are not accrued benefits of the plan, the accrued benefits are discounted using a net discount rate. The net discount rate is determined as the gross expected long-term return less investment and administrative expenses and the expected return used to provide for future retiree benefit increases. This adjustment is made in accordance with Actuarial Standards of Practice No. 27 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.

The adjustment for gain-sharing reflects TRSL's specific statutory provisions which require $50 \%$ of investment gains, determined using the actuarial value of assets, above the statutory threshold of $\$ 200$ million, indexed to increases in the actuarial value of assets. Transfers to the Experience Account are limited based upon the maximum balance of this account, which has been significantly decreased by Act 399 of 2014. While the liabilities in this report do not explicitly include liabilities for future ad hoc retiree benefit increases, the assumptions recognize that investment earnings will be diverted to fund the increases. This disclosure is provided in accordance with Actuarial Standards of Practice No. 4.

## EXHIBIT 1

## DEVELOPMENT OF

## COSTS, LIABILITIES AND CONTRIBUTIONS

Normal Costs and Accrued Liabilities are calculated in accordance with the Entry Age Normal cost method, and the Actuarial Assumptions outlined in Exhibit 6 based on the Provisions of the Plan as summarized in Exhibit 5.

|  | June 30, 2016 |  | $\begin{gathered} \text {---- Prior Year ---- } \\ \text { June 30, } 2015 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Dollar Amount | \% of Salary | Dollar Amount | \% of Salary |
| I. Normal Costs |  |  |  |  |
| Active Members |  |  |  |  |
| a) Retirement Benefits | 304,492,745 | 7.87\% | 306,147,279 | 8.02\% |
| b) Disability Benefits | 14,365,660 | 0.37\% | 14,130,553 | 0.37\% |
| c) Survivor Benefits | 10,964,092 | 0.28\% | 10,664,199 | 0.28\% |
| d) Voluntary Termination | 136,768,983 | 3.53\% | 132,841,215 | 3.48\% |
| e) Total | 466,591,480 | 12.06\% | 463,783,246 | 12.15\% |

## II. Actuarial Accrued Liability

a) Active Members

1) Retirement Benefits
7,703,033,944
7,642,648,734
2) Disability Benefits
144,592,915 141,698,457
3) Survivor Benefits
135,025,810 132,277,860
4) Voluntary Termination

| $272,396,531$ |
| ---: |
| $8,255,049,200$ |

231,997,284
b) Retired and Inactive Members

1) Regular Retirees

16,101,366,471
15,700,534,358
2) Disability Benefits

445,123,589
415,620,096
3) Survivors

1,057,732,944
1,004,696,859
4) Vested Deferred ${ }^{1}$
5) Contributions Refunded ${ }^{2}$

306,722,016
298,144,696
6) DROP Deferred Benefits

131,749,421
129,177,219
7) DROP Account Balances

1,873,371,007
1,822,045,328
$\begin{array}{r}1,101,287,330 \\ \hline 21,017,352,778\end{array}$
1,127,456,006
c) Total

29,272,401,978
28,646,296,897

## 1 Includes pending Retirement/DROP applications.

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

## Exhibit 1 (Continued)

## Costs, Liabilities \& Contributions

|  | June 30, 2016 | ---- Prior Year -- <br> June 30, 2015 |
| :---: | :---: | :---: |
| II. Actuarial Accrued Liability | 29,272,401,978 | 28,646,296,897 |
| III. Valuation Assets | 18,254,321,142 | 17,457,243,696 |
| IV. Unfunded Actuarial Accrued Liabilitiy ${ }^{1}$ | 11,018,080,836 | 11,189,053,201 |
| a) Change over prior year | -170,972,365 | -784,710,556 |
| b) Funded Percentage | 62.4\% | 60.9\% |
| V. Employer Contributions |  |  |
| To Fund Current Plan Year ${ }^{1}$ |  |  |
| a) Employer Portion of Normal Cost | 160,360,450 | 162,236,872 |
| b) Amortization Payments | 974,555,726 | 935,381,362 |
| c) Prior Contribution Variance | 2,735,460 | 28,258,642 |
| Total Required Contribution | 1,137,651,636 | 1,125,876,876 |
| Total Contribution Rate | 25.8\% | 25.8\% |
| PERSAC Approved rate ${ }^{1}$ | 25.4\% | 26.2\% |
| Aggregate Employer Normal Cost Rate | 4.0749\% | 4.1731\% |
| VI. Projected Employer Contributions |  |  |
| To Fund Next Plan Year ${ }^{1}$ |  |  |
| a) Employer Portion of Normal Cost | 170,179,978 | 167,630,952 |
| b) Amortization Payments | 1,021,447,416 | 972,331,902 |
| c) Prior Contribution Variance | 7,402,122 | 2,735,460 |
| Total Required Contribution | 1,199,029,516 | 1,142,698,314 |
| Total Contribution Rate | 26.4\% | 25.4\% |
| Projected Aggregate Employer Normal Cost Rate ${ }^{2}$ | 4.1988\% | 4.1731\% |
| VII. Current Payroll | 3,869,730,024 | 3,815,649,662 |
| Projected Payroll - Mid Year | 3,935,352,728 | 3,887,668,656 |
| Projected Payroll - Next Year | 4,053,069,190 | 4,016,926,538 |
| ORP - Salary Adjustment Factor ${ }^{2}$ | 1.14294 | 1.14553 |

[^0]
## EXHIBIT 2

FINANCIAL SUMMARY

## STATEMENT OF REVENUES AND EXPENSES

FOR FISCAL YEAR ENDING
----- Prior Years -----
June 30, 2016 June 30, 2015 June 30, 2014

## OPERATING REVENUES:

1. Contribution Income

| Member | $\$ 330,773,316$ | $\$ 324,920,644$ | $\$ 326,007,091$ |
| :--- | ---: | ---: | ---: |
| Employer | $1,066,521,193$ | $1,120,150,411$ | $1,084,221,275$ |
| Legis Appropriations | - | $10,384,806$ | $5,578,791$ |
| Other Appropriations | 34,500 | 41,721 | 48,165 |
| ORP - Unfunded | $128,543,466$ | $133,771,593$ | $124,874,274$ |
| LSU Ag Center Coop. Ext. | $1,830,995$ | $1,851,985$ | $2,028,819$ |
| Miscellaneous | 995,292 | 928,581 | $1,265,971$ |
| TOTAL CONTRIBUTIONS | $1,528,698,762$ | $1,592,049,741$ | $1,544,024,386$ |

## 2. Investment Income

| Investments | $216,567,366$ | $481,866,158$ | $2,853,792,892$ |
| :--- | ---: | ---: | ---: |
| Less Advisor Fees | $-35,975,157$ | $-36,705,991$ | $-35,729,758$ |
| TOTAL INVESTMENT INCOME | $180,592,209$ | $445,160,167$ | $2,818,063,134$ |
|  |  |  |  |
| Total Revenues | $1,709,290,971$ | $2,037,209,908$ | $4,362,087,520$ |

## OPERATING EXPENSES:

| 1. General Administration ${ }^{1}$ | $17,025,314$ | $18,880,795$ | $17,200,014$ |
| :--- | ---: | ---: | ---: |
| Depreciation Expense | 407,105 | 384,426 | 322,881 |
|  |  |  |  |
| 2. Benefits Paid | $1,999,272,395$ | $1,955,102,582$ | $1,875,366,921$ |
| Pension Benefits | $1,873,303$ | $1,754,855$ | $1,746,982$ |
| LSU Ag Center Coop. Ext. | $49,141,575$ | $51,545,762$ | $57,652,124$ |
| Refund of Contributions | $2,050,287,273$ | $2,008,403,199$ | $1,934,766,027$ |
| TOTAL BENEFITS PAID | $2,067,719,692$ | $2,027,668,420$ | $1,952,288,922$ |
| 3. Total Expenses |  |  |  |
|  |  | $9,541,488$ | $2,409,798,598$ |

1 The General Administration Operating Expense includes $\$ 1,047,832$, $\$ 1,685,836$, and $-\$ 24,005$ for 2014, 2015, and 2016, Other Post-Employment Benefits (OPEB), respectively and \$2,078,530, and 1,773,559 for 2015 and 2016 GASB 68 Pension Expense, respectively.

## EXHIBIT 2 (Continued)

Financial Summary

## STATISTICAL DATA

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

| Revenues by Source |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fiscal | Members | Employer | Investment |  |
| Year | Contribution | Contribution ${ }^{1}$ | Income | Total |
| 2007 | 282,326,101 | 593,819,853 | 2,622,473,864 | 3,498,619,818 |
| 2008 | 323,678,452 | 753,661,042 ${ }^{2}$ | -793,655,054 | 283,684,440 |
| 2009 | 344,547,871 | 714,703,222 | -3,287,852,517 | -2,228,601,424 |
| 2010 | 347,114,632 | 726,567,699 | 1,289,304,693 | 2,362,987,024 |
| 2011 | 342,323,329 | 943,678,941 | 2,945,993,096 | 4,231,995,366 |
| 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 ${ }^{3}$ | 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 |


| Expenses by Type |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Benefits | Refunds | Administrative <br> Expenses | Total |
| 2007 | $1,295,552,338$ | $47,579,251$ | $14,370,760$ | $1,357,502,349$ |
| 2008 | $1,383,381,577$ | $34,285,358$ | $18,498,003^{4}$ | $1,436,164,938$ |
| 2009 | $1,464,106,312$ | $33,939,436$ | $19,321,250$ | $1,517,366,998$ |
| 2010 | $1,532,526,141$ | $40,210,177$ | $19,100,619$ | $1,591,836,937$ |
| 2011 | $1,615,778,191$ | $42,248,487$ | $18,189,491$ | $1,676,216,169$ |
| 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 | $2,001,145,698$ | $49,141,575$ | $17,432,419$ | $2,067,719,692$ |

1 Includes Miscellaneous Contribution/Income in addition to direct employer contributions.
2 Includes \$40,000,000 legislative appropriation from Act 7 of 2008 (2 ${ }^{\text {nd }}$ Extraordinary Session).
3 Includes \$5,578,791 legislative appropriation from Act 55 of 2014.
4 Includes OPEB expense, beginning in 2008.

## EXHIBIT 2 (Continued)

Financial Summary

## FINANCIAL SUMMARY STATEMENT OF ASSETS FOR FISCAL YEAR ENDING

|  |  |  |  | ----Prio | Ye |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  | me 30, 2016 |  | une 30, 2015 |  | une 30, 2014 |
| Cash and Cash Equivalents | \$ | 5,279,450 | \$ | 236,026,000 | \$ | 205,397,273 |
| Short Term Securities |  | 1,307,428,499 |  | 990,777,882 |  | 871,504,691 |
| Domestic Bonds |  | 1,828,132,715 |  | 1,775,656,703 |  | 1,770,055,139 |
| International Bonds |  | 1,413,994,202 |  | 1,489,882,945 |  | 1,667,920,752 |
| Domestic Equities |  | 5,161,381,152 |  | 5,478,561,612 |  | 5,201,856,937 |
| International Equities |  | 3,166,197,700 |  | 3,429,594,486 |  | 3,688,369,407 |
| Alternative Investments |  | 4,573,041,477 |  | 4,358,084,637 |  | 4,312,950,822 |
| Property and Equipment |  | 3,710,875 |  | 4,051,370 |  | 4,100,275 |
| Receivables less Payables |  | 76,602,964 |  | 132,407,761 |  | 177,880,162 |
| Deferred Outflows less Deferred Inflows |  | 2,181,921 |  | 1,336,282 |  | - |
| TOTAL ASSETS - Market Value |  | 17,537,950,955 |  | 17,896,379,678 |  | 17,900,035,458 |
| 2014 MVA Adjustment due to Accounting Principle Change |  |  | $\frac{(13,197,268)}{17,883,182,410}$ |  |  |  |
| Restated 2014 Market Value of Assets |  |  |  |  |  |  |

## ACTUARIAL VALUE OF ASSETS

The market value of assets gradually recognizes investment gains and losses relative to the net assumed investment return, over a 5 year period in $20 \%$ increments. The adjusted asset value is subject to Corridor Limits of $80 \%$ to $120 \%$ of the Market Value of Assets.


## EXHIBIT 2 (Continued)

Financial Summary

> FINANCIAL SUMMARY
> STATEMENT OF ASSETS FOR FISCAL YEAR ENDING
---- Prior Years ----

|  | June 30, 2016 |  | June 30, 2015 |  |  | June 30, 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EMPLOYER CREDIT ACCOUNT ${ }^{1}$ : |  |  |  |  |  |  |
| Prior Year Ending Balance | \$ | - | \$ | - | \$ | \$ - |
| + Contributions |  | - |  | - |  | - |
| Disbursements |  | - |  | - |  | - |
| + Accumulated Interest |  | - |  | - |  | - |
| Account Balance - Year End |  | - |  | - | - | - |
| LSU AG/EXT SERVICE: |  |  |  |  |  |  |
| Prior Year Ending Balance | \$ | 2,360,090 | \$ | 1,933,057 | \$ | \$ 1,322,042 |
| + Contributions |  | 1,830,995 |  | 1,851,985 |  | 2,028,819 |
| - Benefit Disbursements |  | 1,873,303 |  | 1,754,855 |  | 1,746,982 |
| + Accumulated Interest |  | 218,022 |  | 329,903 |  | 329,178 |
| Account Balance - Year End |  | 2,535,804 |  | 2,360,090 |  | 1,933,057 |


| EXPERIENCE ACCOUNT FUND: |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $\quad$ Prior Year Ending Balance | $\$$ | $226,356,559$ | $\$$ | $218,148,161$ | $\$$ | $219,736,906$ |
| + Experience Account Allocation |  | - |  | - |  | $170,334,888$ |
| - Benefit Disbursements | $216,473,124$ |  | - |  | $200,806,602$ |  |
| + Accumulated Interest | $15,094,042$ |  | $8,208,398$ | - | $28,882,969$ |  |
| Fund Balance - Year End | $24,977,477$ |  | $226,356,559$ |  | $218,148,161$ |  |


| DEVELOPMENT OF |  |  |  |
| :--- | ---: | ---: | ---: |
| VALUATION ASSETS: |  |  |  |
| $\quad$ Actuarial Value of Assets | $\$ 18,281,834,423$ | $\$ 17,685,960,345$ | $\$ 16,365,854,025$ |
| - $\quad$ Employer Credit Account | - | - | - |
| - LSU Ag/Ext Service Account | $2,535,804$ | $2,360,090$ | $1,933,057$ |
| - Experience Account Fund | $24,977,477$ | $226,356,559$ | $218,148,161$ |
|  | Valuation Assets | $18,254,321,142$ | $17,457,243,696$ |

[^1]
## EXHIBIT 3

## GASB STATEMENT NO. 67/68 FINANCIAL REPORTING

The Governmental Accounting Standards Board Statements No. 67/68 establish financial reporting standards for state and local governmental pension plans 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



[^2]
## EXHIBIT 3 (Continued)

Pension Accounting \& Financial Disclosure

## SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY

|  | June 30, 2016 | June 30, 2015 | June 30, 2014 |
| :---: | :---: | :---: | :---: |
| Total Pension Liability |  |  |  |
| Service Cost | 441,619,569 | 459,658,120 | 462,730,192 |
| Interest | 2,174,908,690 | 2,137,096,756 | 2,086,494,384 |
| Changes of Benefit Terms | 216,473,124 | - | 200,806,602 |
| Diff. Between Expected and Actual | $(157,739,253)$ | $(62,489,198)$ | (122,326,978) |
| Changes of Assumptions | - | - | - |
| Retirement Benefits ${ }^{1}$ | (1,999,272,395) | $(1,955,102,582)$ | $(1,877,113,903)$ |
| Refunds/Transfers of Member Contributions | $(49,884,654)$ | $(52,402,762)$ | (58,777,337) |
| Net Change in Total Pension Liability | 626,105,081 | 526,760,334 | 691,812,960 |
| Total Pension Liability - Beginning | 28,646,296,897 | 28,119,536,563 | 27,427,723,603 |
| Total Pension Liability - Ending (a) | \$ 29,272,401,978 | \$ 28,646,296,897 | \$ 28,119,536,563 |
| Plan Fiduciary Net Position |  |  |  |
| Employer Contributions ${ }^{1}$ | 1,157,901,123 | 1,217,466,676 | 1,176,569,685 |
| Non-Employer Contributions | 38,193,328 | 37,425,629 | 35,927,881 |
| Employee Contributions | 330,773,316 | 324,920,644 | 326,007,091 |
| Net Investment Income ${ }^{1}$ | 177,422,752 | 443,034,317 | 2,815,090,995 |
| Other Income | 2,951,433 | 13,866,589 | 7,880,853 |
| Retirement Benefits ${ }^{1}$ | (1,999,272,395) | $(1,955,102,582)$ | $(1,877,113,903)$ |
| Refunds/Transfers of Member Contributions | $(49,884,654)$ | $(52,402,762)$ | $(58,777,337)$ |
| Administrative Expense | $(16,306,240)$ | $(18,023,794)$ | $(15,026,969)$ |
| Other Postemployment Benefit Expenses | 24,005 | $(1,685,836)$ | $(1,047,832)$ |
| Depreciation and Amortization Expenses | $(407,105)$ | $(384,426)$ | $(322,881)$ |
| Accounting Principle Change | - | $(13,197,268)$ | - |
| Net Change in Plan Fiduciary Net Position | $(358,604,437)$ | $(4,082,813)$ | 2,409,187,583 |
| Plan Fiduciary Net Position - Beginning | 17,894,019,588 | 17,898,102,401 | 15,488,914,818 |
| Plan Fiduciary Net Position - Ending (b) | \$ 17,535,415,151 | \$ 17,894,019,588 | \$ 17,898,102,401 |
| Net Pension Liability - Ending (a) - (b) | \$ 11,736,986,827 | \$ 10,752,277,309 | \$ 10,221,434,162 |
| Plan Fiduciary Net Position as a |  |  |  |
| Percentage of the Total Pension Liability | 59.9\% | 62.5\% | 63.7\% |
| Covered Employee Payroll | \$ 3,869,730,024 | \$ 3,815,648,662 | \$ 3,764,954,727 |
| Net Pension Liability as a |  |  |  |
| Percentage of Covered Employe Payroll | 303.3\% | 281.8\% | 271.5\% |

[^3]
## EXHIBIT 3 (Continued)

## Pension Accounting \& Financial Disclosure

## Actuarial Assumptions:

All assumptions used for purposes of GASB Statement 67/68 reporting requirements are described in Exhibit 6, except for administrative expenses and the discount rate. Administrative expenses will be directly reflected in the employer pension expense in the year incurred in the Statement 67/68 reporting. Please see below for a description of the discount rate used for GASB Statement 67/68 reporting.

## Discount Rate:

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, and by adding expected inflation and an adjustment for the effect of rebalancing/ diversification. The resulting long-term geometrical nominal expected return is $8.23 \%$. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2016 are summarized in the following table:

| Asset Class | Long Term Expected <br> Real Rate of Return |
| :--- | :---: |
| Domestic Equity | $4.50 \%$ |
| International Equity | $5.31 \%$ |
| Domestic Fixed Income | $2.45 \%$ |
| International Fixed Income | $3.28 \%$ |
| Private Equity | $6.80 \%$ |
| Other Private Assets | $4.82 \%$ |

The discount rate used to measure the total pension liability was 7.75 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 $7.75 \%$, 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 |
| :--- | :---: | :---: | :---: |
| Employers' Net Pension Liability | $6.75 \%$ | $7.75 \%$ | $8.75 \%$ |
|  | $14,639,614,986$ | $11,736,986,827$ | $9,267,046,412$ |

The Schedule of Pension Amounts, below, provides employers with amounts to be recognized in the financial statements and note disclosures for GASB 68 reporting. In accordance with GASB Statement 68, changes in total pension liability due to differences between actual and expected experience and changes in assumptions are amortized over a period equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees) determined as of the beginning of the measurement period. The current and prior year's average remaining service life is shown below. Differences between projected and actual investment returns are amortized over a closed 5 -year period.

## EXHIBIT 3 (Continued)

## Pension Accounting \& Financial Disclosure

## SCHEDULE OF PENSION AMOUNTS

|  | Net Pension Liability | Deferred Inflows | Deferred Outflows | Pension Expense |
| :---: | :---: | :---: | :---: | :---: |
| Beginning balance | (10,752,277,309) | (1,107,596,057) | 740,920,215 |  |


| Total Pension Liability Factors: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Service cost | $(463,783,246)$ |  |  | 463,783,246 |
| Interest | $(2,176,626,375)$ |  |  | 2,176,626,375 |
| Changes in benefit terms | $(216,473,124)$ |  |  | 216,473,124 |
| Differences between expected and actual experience | 181,620,615 | (181,620,615) | - |  |
| Amortization of current year |  | 36,324,123 | - | $(36,324,123)$ |
| Amortization of prior years |  | 36,963,235 | - | $(36,963,235)$ |
| Changes in assumptions | - | - | - |  |
| Amortization of current year |  |  | - |  |
| Amortization of prior years |  | - | - | - |
| Benefit payments | 1,999,272,395 |  |  | (1,999,272,395) |
| Refunds/Transfers of Member Contributions | 49,884,654 |  |  | $(49,884,654)$ |
| Net Change in Total Pension Liability | $(626,105,081)$ | (108,333,257) | - | 734,438,338 |
| Plan Fiduciary Net Position: |  |  |  |  |
| Contributions - Employer | 1,157,901,123 |  |  |  |
| Contributions - Non-Empl. Contributing Entities | 38,193,328 |  |  |  |
| Contributions - Employees | 330,773,316 |  |  | (330,773,316) |
| Expected earnings on pension plan investments | 1,366,015,464 |  |  | $(1,366,015,464)$ |
| Differences between projected and actual earnings on pension plan investments | (1,188,592,712) | - | 1,188,592,712 |  |
| Amortization of current year |  | - | (237,718,542) | 237,718,542 |
| Amortization of prior years |  | 326,069,504 | $(185,230,054)$ | $(140,839,450)$ |
| Retirement Benefits | (1,999,272,395) |  |  | 1,999,272,395 |
| Administrative Expense | $(16,282,235)$ |  |  | 16,282,235 |
| Refunds/Transfers of Member Contributions | $(49,884,654)$ |  |  | 49,884,654 |
| Other | 2,544,328 |  |  | $(2,544,328)$ |
| Net Change in Plan Fiduciary Net Position | $(358,604,437)$ | 326,069,504 | 765,644,116 | 462,985,268 |
| Ending Balance | (11,736,986,827) | (889,859,810) | 1,506,564,331 | 1,197,423,606 |


| 2016 Average Remaining Service Life |  |
| :--- | :---: |
| Active | 9.92 |
| Active Post-DROP | 3.28 |
| Inactive/Retired | 0 |
| Average | 4.32 |
| Amort. Period (Rounded up) | 5.0 |

## EXHIBIT 4

## CENSUS DATA

## GENERAL COMMENTS

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 base. Our review of submitted information is limited to validation of reasonableness and consistency in several areas, such as age, service, salary, and current benefits. In order to minimize coverage errors (i.e., missing or duplicated individual records) the records are checked for duplicates, and a comparison of the current year's records to those submitted in prior years is made. Records identified as containing suspicious data were assumed to possess the same characteristics of "good data" in the same cohort. Suspicious data are not necessarily errors, but data which fall outside the parameters of the editing process for further checking. The assigned values are based on information from similar records or based on historical averages for similarly situated members. 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 with exceptions noted below. The profile depicted in the cellular graphs represents "error-free data," which serves as the basis for determining costs and liabilities. Active members are allocated to cells based upon attained age and years of service. Retirees and survivors are allocated to cells based upon attained age and years elapsed since retirement or commencement of benefits.

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.

Salary data contained in the profiles and valuation report exceed the sums reported by internal audit due to annualized salaries. In the valuation process, membership data with fractional service in the first year of employment annualizes the salary.

The following is a summary by plan of the data submitted for valuation:

|  | 2016 |  | 2015 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Active Members | Census | Avg. Salary | Census | Avg. Salary |
| Regular Teachers | 71,511 | 44,339 | 70,881 | 43,965 |
| Higher Education | 8,792 | 61,158 | 8,803 | 60,338 |
| Lunch Plan A | 8 | 23,638 | 10 | 23,922 |
| Lunch Plan B | 1,162 | 19,029 | 1,192 | 18,625 |
| Post DROP | 2,595 | 53,576 | 2,716 | 53,675 |
| Total | 84,068 | 46,031 | 83,602 | 45,641 |

## EXHIBIT 4 (Continued)

Census Data

|  | $\mathbf{2 0 1 6}$ <br> Census | 2015 <br> Census |
| :--- | ---: | ---: |
| Retired and Inactive Members | 64,593 | 64,366 |
| Regular Retirees | 4,238 | 4,121 |
| Disability Retirees | 6,997 | 6,772 |
| Survivors | 2,504 | 2,283 |
| DROP Participants | 6,687 | 6,606 |
| Vested \& Reciprocals | 19,842 | 19,005 |
| Inactive Non-Vested (Due Refunds) | 104,861 | 103,153 |
| Total Retired and Inactive | 188,929 | 186,755 |
| Total Members | $-19,842$ | $-19,005$ |
| Less Inactive Non-Vested (Due Refunds) | 169,087 | 167,750 |

## MEMBER RECONCILIATION

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \& Active (Pre-DROP) \& Active after DROP \& Terminated Vested \& In DROP \& Retired, Disabled, Survivor \& Total \\
\hline June 30, 2015 Valuation \& 80,886 \& 2,716 \& 6,606 \& 2,283 \& 75,259 \& 167,750 \\
\hline \multicolumn{7}{|l|}{Additions to Census} \\
\hline Newly Hired Members \& 7,782 \& \& 0 \& \& \& 7,782 \\
\hline \multicolumn{7}{|l|}{Change in Status} \\
\hline \begin{tabular}{l}
New Regular Retirees \\
New Disability Retirees \\
New Survivors \\
Active to Terminated Vested \\
Active to DROP \\
Terminated Vested to Active \\
Disability to Active \\
Terminated Vested to DROP \\
DROP to Active After DROP
\end{tabular} \& \[
\begin{array}{r}
(1,473) \\
(187) \\
(41) \\
(1,160) \\
(899) \\
498 \\
1
\end{array}
\] \& \begin{tabular}{l}
(558) \\
(4) \\
437
\end{tabular} \& \begin{tabular}{l}
(209) \\
(18) \\
(5) \\
1,160 \\
(498) \\
(2)
\end{tabular} \& \[
\begin{array}{r}
(505) \\
(3) \\
899 \\
\\
2 \\
(437) \\
\hline
\end{array}
\] \& 2,745
205
53

(1) \& 0 <br>
\hline \multicolumn{7}{|l|}{Eliminated from Census} <br>

\hline Refunded or Due Refund Deceased \& $$
\begin{array}{r}
(3,848) \\
(40) \\
\hline
\end{array}
$$ \& (1) \& \[

$$
\begin{array}{r}
(364) \\
(19) \\
\hline
\end{array}
$$

\] \& (2) \& \[

$$
\begin{array}{r}
(2) \\
(2,158) \\
\hline
\end{array}
$$

\] \& \[

$$
\begin{aligned}
& (4,214) \\
& (2,220)
\end{aligned}
$$
\] <br>

\hline Data Revisions \& (46) \& 5 \& 36 \& 267 \& (273) \& (11) <br>
\hline June 30, 2016 Valuation \& 81,473 \& 2,595 \& 6,687 \& 2,504 \& 75,828 \& 169,087 <br>
\hline
\end{tabular}

## TRSL MEMBERSHIP PROFILE

## ALL ACTIVE MEMBERS (PRE-DROP)

MEMBER COUNT TOTAL SALARY

| Age/Years | <1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<25$ | $\begin{array}{r} 665 \\ \$ 27,123,254 \end{array}$ | $\begin{array}{r} 1,186 \\ \$ 48,007,115 \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 1,851 \\ \$ 75,130,369 \end{array}$ |
| 25-29 | $\begin{array}{r} 1,051 \\ \$ 42,891,612 \end{array}$ | $\begin{array}{r} 5,357 \\ \$ 225,075,052 \\ \hline \end{array}$ | $\begin{array}{r} 949 \\ \$ 42,920,451 \end{array}$ | $\begin{array}{r} 2 \\ \$ 70,623 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 7,359 \\ \$ 310,957,738 \\ \hline \end{array}$ |
| 30-34 | $\begin{array}{r} 830 \\ \$ 35,793,835 \end{array}$ | $\begin{array}{r} \hline 3,936 \\ \$ 164,181,859 \end{array}$ | $\begin{array}{r} \hline 4,225 \\ \$ 194,651,004 \end{array}$ | $\begin{array}{r} 1,067 \\ \$ 53,450,286 \end{array}$ | $\begin{array}{r} 2 \\ \$ 42,213 \end{array}$ |  |  |  |  | $\begin{array}{r} \hline 10,060 \\ \$ 448,119,197 \end{array}$ |
| 35-39 | $\begin{array}{r} 715 \\ \$ 30,210,045 \\ \hline \end{array}$ | $\begin{array}{r} 3,126 \\ \$ 124,460,106 \\ \hline \end{array}$ | $\begin{array}{r} 3,134 \\ \$ 141,037,354 \\ \hline \end{array}$ | $\begin{array}{r} 3,646 \\ \$ 185,814,288 \\ \hline \end{array}$ | $\begin{array}{r} 1,036 \\ \$ 56,283,030 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ \$ 61,319 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 11,659 \\ \$ 537,866,142 \\ \hline \end{array}$ |
| 40-44 | $\begin{array}{r} 517 \\ \$ 22,465,756 \end{array}$ | $\begin{array}{r} 2,386 \\ \$ 95,758,068 \end{array}$ | $\begin{array}{r} 2,476 \\ \$ 106,630,412 \end{array}$ | $\begin{array}{r} 2,441 \\ \$ 117,939,536 \end{array}$ | $\begin{array}{r} 3,096 \\ \$ 172,293,981 \\ \hline \end{array}$ | $\begin{array}{r} 785 \\ \$ 45,337,813 \end{array}$ | $\begin{array}{r} 1 \\ \$ 32,892 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 11,702 \\ \$ 560,458,458 \\ \hline \end{array}$ |
| 45-49 | $\begin{array}{r} 449 \\ \$ 18,440,938 \end{array}$ | $\begin{array}{r} 1,956 \\ \$ 74,864,012 \\ \hline \end{array}$ | $\begin{array}{r} 2,191 \\ \$ 88,286,845 \end{array}$ | $\begin{array}{r} 2,139 \\ \$ 96,157,536 \end{array}$ | $\begin{array}{r} 2,210 \\ \$ 112,683,464 \end{array}$ | $\begin{array}{r} 2,545 \\ \$ 149,102,102 \end{array}$ | $\begin{array}{r} 729 \\ \$ 43,795,055 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ \$ 162,953 \end{array}$ |  | $\begin{array}{r} 12,223 \\ \$ 583,492,905 \\ \hline \end{array}$ |
| 50-54 | $\begin{array}{r} 318 \\ \$ 12,670,358 \end{array}$ | $\begin{array}{r} 1,549 \\ \$ 58,169,995 \end{array}$ | $\begin{array}{r} 1,774 \\ \$ 69,248,315 \end{array}$ | $\begin{array}{r} 1,868 \\ \$ 77,234,481 \end{array}$ | $\begin{array}{r} 1,853 \\ \$ 82,444,732 \end{array}$ | $\begin{array}{r} 1,781 \\ \$ 90,545,899 \end{array}$ | $\begin{array}{r} 2,107 \\ \$ 125,067,141 \end{array}$ | $\begin{array}{r} 106 \\ \$ 6,768,837 \end{array}$ |  | $\begin{array}{r} 11,356 \\ \$ 522,149,758 \\ \hline \end{array}$ |
| 55-59 | $\begin{array}{r} 249 \\ \$ 10,737,137 \end{array}$ | $\begin{array}{r} 1,122 \\ \$ 42,251,116 \end{array}$ | $\begin{array}{r} 1,327 \\ \$ 52,000,011 \end{array}$ | $\begin{array}{r} 1,445 \\ \$ 58,145,300 \end{array}$ | $\begin{array}{r} 1,745 \\ \$ 74,507,155 \end{array}$ | $\begin{array}{r} 1,615 \\ \$ 75,633,111 \end{array}$ | $\begin{array}{r} 326 \\ \$ 18,134,110 \end{array}$ | $\begin{array}{r} 122 \\ \$ 7,717,564 \\ \hline \end{array}$ | $\begin{array}{r} 32 \\ \$ 2,365,910 \\ \hline \end{array}$ | $\begin{array}{r} 7,983 \\ \$ 341,491,414 \\ \hline \end{array}$ |
| 60-64 | $\begin{array}{r} 141 \\ \$ 6,780,970 \\ \hline \end{array}$ | $\begin{array}{r} 584 \\ \$ 23,449,343 \\ \hline \end{array}$ | $\begin{array}{r} 796 \\ \$ 33,915,283 \\ \hline \end{array}$ | $\begin{array}{r} 852 \\ \$ 37,358,330 \\ \hline \end{array}$ | $\begin{array}{r} 845 \\ \$ 37,653,601 \\ \hline \end{array}$ | $\begin{array}{r} 921 \\ \$ 43,359,607 \\ \hline \end{array}$ | $\begin{array}{r} 362 \\ \$ 18,952,180 \\ \hline \end{array}$ | $\begin{array}{r} 137 \\ \$ 10,066,082 \\ \hline \end{array}$ | $\begin{array}{r} 121 \\ \$ 10,808,651 \\ \hline \end{array}$ | $\begin{array}{r} 4,759 \\ \$ 222,344,047 \\ \hline \end{array}$ |
| 65-69 | $\begin{array}{r} 39 \\ \$ 1,284,572 \\ \hline \end{array}$ | $\begin{array}{r} 217 \\ \$ 8,842,345 \\ \hline \end{array}$ | $\begin{array}{r} 338 \\ \$ 14,734,491 \\ \hline \end{array}$ | $\begin{array}{r} 315 \\ \$ 14,347,549 \\ \hline \end{array}$ | $\begin{array}{r} 287 \\ \$ 13,642,834 \\ \hline \end{array}$ | $\begin{array}{r} 277 \\ \$ 13,045,967 \\ \hline \end{array}$ | $\begin{array}{r} 249 \\ \$ 13,517,925 \\ \hline \end{array}$ | $\begin{array}{r} 114 \\ \$ 8,035,606 \\ \hline \end{array}$ | $\begin{array}{r} 73 \\ \$ 7,119,201 \\ \hline \end{array}$ | $\begin{array}{r} 1,909 \\ \$ 94,570,490 \\ \hline \end{array}$ |
| 70+ | $\begin{array}{r} 19 \\ \$ 886,787 \\ \hline \end{array}$ | $\begin{array}{r} 46 \\ \$ 1,912,691 \\ \hline \end{array}$ | $\begin{array}{r} 115 \\ \$ 4,515,605 \\ \hline \end{array}$ | $\begin{array}{r} 89 \\ \$ 4,649,953 \\ \hline \end{array}$ | $\begin{array}{r} 71 \\ \$ 3,270,842 \\ \hline \end{array}$ | $\begin{array}{r} 74 \\ \$ 3,377,529 \\ \hline \end{array}$ | $\begin{array}{r} 66 \\ \$ 3,786,819 \\ \hline \end{array}$ | $\begin{array}{r} 71 \\ \$ 6,027,982 \\ \hline \end{array}$ | $\begin{array}{r} 61 \\ \$ 5,690,475 \\ \hline \end{array}$ | $\begin{array}{r} 612 \\ \$ 34,118,683 \\ \hline \end{array}$ |
| Total | $\begin{array}{r} 4,993 \\ \$ 209,285,266 \\ \hline \end{array}$ | $\begin{array}{r} 21,465 \\ \$ 866,971,702 \\ \hline \end{array}$ | $\begin{array}{r} 17,325 \\ \$ 747,939,771 \\ \hline \end{array}$ | $\begin{array}{r} 13,864 \\ \$ 645,167,882 \\ \hline \end{array}$ | $\begin{array}{r} 11,145 \\ \$ 552,821,852 \\ \hline \end{array}$ | $\begin{array}{r} 8,000 \\ \$ 420,463,347 \\ \hline \end{array}$ | $\begin{array}{r} 3,840 \\ \$ 223,286,122 \\ \hline \end{array}$ | $\begin{array}{r} 554 \\ \$ 38,779,024 \end{array}$ | $\begin{array}{r} 287 \\ \$ 25,984,237 \end{array}$ | $\begin{array}{r} 81,473 \\ \$ 3,730,699,203 \end{array}$ |


| AVERAGES | --- | Attained Age | 44.31 |
| :--- | :---: | :---: | :---: |
|  |  | Service Years | 10.65 |
|  | Active Salary | $\$ 45,791$ |  |

## TRSL MEMBERSHIP PROFILE ACTIVE - REGULAR K-12

CELLS DEPICT - MEMBER COUNT
VALUATION DATE 6/30/2016

| Age/Years | <1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<25$ | $\begin{array}{r} 558 \\ \$ 22,823,368 \end{array}$ | $\begin{array}{r} 1,117 \\ \$ 45,720,665 \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 1,675 \\ \$ 68,544,033 \end{array}$ |
| 25-29 | $\begin{array}{r} 830 \\ \$ 32,920,465 \end{array}$ | $\begin{array}{r} 4,875 \\ \$ 205,887,352 \end{array}$ | $\begin{array}{r} 911 \\ \$ 41,191,395 \end{array}$ | $\begin{array}{r} 2 \\ \$ 70,623 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 6,618 \\ \$ 280,069,835 \end{array}$ |
| 30-34 | $\begin{array}{r} 627 \\ \$ 24,474,538 \end{array}$ | $\begin{array}{r} 3,297 \\ \$ 132,529,153 \end{array}$ | $\begin{array}{r} \hline 3,892 \\ \$ 178,643,676 \\ \hline \end{array}$ | $\begin{array}{r} 1,038 \\ \$ 51,920,899 \end{array}$ | $\begin{array}{r} 2 \\ \$ 42,213 \end{array}$ |  |  |  |  | $\begin{array}{r} \hline 8,856 \\ \$ 387,610,479 \end{array}$ |
| 35-39 | $\begin{array}{r} 564 \\ \$ 21,205,749 \\ \hline \end{array}$ | $\begin{array}{r} 2,562 \\ \$ 94,947,235 \end{array}$ | $\begin{array}{r} \hline 2,728 \\ \$ 118,594,824 \\ \hline \end{array}$ | $\begin{array}{r} 3,405 \\ \$ 172,528,529 \\ \hline \end{array}$ | $\begin{array}{r} 1,008 \\ \$ 54,695,187 \end{array}$ | $\begin{array}{r} 2 \\ \$ 61,319 \end{array}$ |  |  |  | $\begin{array}{r} 10,269 \\ \$ 462,032,843 \end{array}$ |
| 40-44 | $\begin{array}{r} 414 \\ \$ 15,835,341 \\ \hline \end{array}$ | $\begin{array}{r} 1,988 \\ \$ 73,567,643 \end{array}$ | $\begin{array}{r} 2,165 \\ \$ 89,079,125 \end{array}$ | $\begin{array}{r} \hline 2,195 \\ \$ 103,638,679 \\ \hline \end{array}$ | $\begin{array}{r} \hline 2,993 \\ \$ 165,614,115 \end{array}$ | $\begin{array}{r} 772 \\ \$ 44,614,633 \end{array}$ | $\begin{array}{r} 1 \\ \$ 32,892 \end{array}$ |  |  | $\begin{array}{r} \hline 10,528 \\ \$ 492,382,428 \\ \hline \end{array}$ |
| 45-49 | $\begin{array}{r} 360 \\ \$ 13,263,340 \\ \hline \end{array}$ | $\begin{array}{r} 1,655 \\ \$ 59,765,651 \end{array}$ | $\begin{array}{r} 1,885 \\ \$ 71,897,988 \end{array}$ | $\begin{array}{r} 1,890 \\ \$ 80,674,166 \\ \hline \end{array}$ | $\begin{array}{r} \hline 2,065 \\ \$ 103,794,519 \end{array}$ | $\begin{array}{r} \hline 2,436 \\ \$ 142,118,288 \\ \hline \end{array}$ | $\begin{array}{r} 715 \\ \$ 42,885,226 \end{array}$ | $\begin{array}{r} 4 \\ \$ 162,953 \end{array}$ |  | $\begin{array}{r} \hline 11,010 \\ \$ 514,562,131 \\ \hline \end{array}$ |
| 50-54 | $\begin{array}{r} \hline 256 \\ \$ 8,748,133 \end{array}$ | $\begin{array}{r} 1,229 \\ \$ 41,946,295 \end{array}$ | $\begin{array}{r} 1,465 \\ \$ 53,788,908 \end{array}$ | $\begin{array}{r} 1,620 \\ \$ 62,944,378 \end{array}$ | $\begin{array}{r} 1,698 \\ \$ 74,763,670 \end{array}$ | $\begin{array}{r} 1,676 \\ \$ 84,536,206 \end{array}$ | $\begin{array}{r} \hline 2,032 \\ \$ 119,697,700 \end{array}$ | $\begin{array}{r} 95 \\ \$ 6,266,859 \end{array}$ |  | $\begin{array}{r} \hline 10,071 \\ \$ 452,692,149 \end{array}$ |
| 55-59 | $\begin{array}{r} 180 \\ \$ 6,479,451 \end{array}$ | $\begin{array}{r} 857 \\ \$ 27,542,716 \end{array}$ | $\begin{array}{r} 1,037 \\ \$ 36,370,109 \end{array}$ | $\begin{array}{r} 1,236 \\ \$ 46,359,099 \end{array}$ | $\begin{array}{r} 1,581 \\ \$ 66,208,668 \end{array}$ | $\begin{array}{r} 1,486 \\ \$ 68,245,268 \end{array}$ | $\begin{array}{r} 258 \\ \$ 14,251,515 \end{array}$ | $\begin{array}{r} 98 \\ \$ 6,121,830 \end{array}$ | $\begin{array}{r} 29 \\ \$ 2,254,635 \end{array}$ | $\begin{array}{r} 6,762 \\ \$ 273,833,291 \end{array}$ |
| 60-64 | $\begin{array}{r} 97 \\ \$ 3,943,226 \\ \hline \end{array}$ | $\begin{array}{r} 424 \\ \$ 13,752,563 \end{array}$ | $\begin{array}{r} 611 \\ \$ 21,933,428 \end{array}$ | $\begin{array}{r} 696 \\ \$ 27,197,469 \end{array}$ | $\begin{array}{r} 769 \\ \$ 33,521,088 \end{array}$ | $\begin{array}{r} 855 \\ \$ 39,256,461 \end{array}$ | $\begin{array}{r} 304 \\ \$ 14,522,437 \end{array}$ | 74 \$4,159,177 | $\begin{array}{r} 86 \\ \$ 6,788,934 \\ \hline \end{array}$ | $\begin{array}{r} 3,916 \\ \$ 165,074,783 \\ \hline \end{array}$ |
| 65-69 | $\begin{array}{r} 31 \\ \$ 960,475 \end{array}$ | $\begin{array}{r} 146 \\ \$ 5,098,666 \\ \hline \end{array}$ | 246 $\$ 8,985,314$ | $\begin{array}{r} 244 \\ \$ 9,186,166 \\ \hline \end{array}$ | 237 \$10,536,876 | 237 $\$ 10,553,455$ | 199 $\$ 9,404,998$ | 73 $\$ 3,729,107$ | 24 $\$ 1,821,428$ | $\begin{array}{r} 1,437 \\ \$ 60,276,485 \end{array}$ |
| 70+ | $\begin{array}{r} 12 \\ \$ 362,607 \end{array}$ | 26 $\$ 920,155$ | 73 $\$ 2,207,903$ | 54 | 50 $\$ 1,906,160$ | 58 $\$ 2,280,493$ | 47 $\$ 2,114,594$ | 32 $\$ 1,416,724$ | 17 $\$ 564,159$ | 369 $\$ 13,619,207$ |
| Total | $\begin{array}{r} \hline 3,929 \\ \$ 151,016,692 \end{array}$ | $\begin{array}{r} \hline 18,176 \\ \$ 701,678,094 \end{array}$ | $\begin{array}{r} \hline 15,013 \\ \$ 622,692,670 \\ \hline \end{array}$ | $\begin{array}{r} 12,380 \\ \$ 556,366,420 \end{array}$ | $\begin{array}{r} 10,403 \\ \$ 511,082,496 \end{array}$ | $\begin{array}{r} 7,522 \\ \$ 391,666,123 \end{array}$ | $\begin{array}{r} 3,556 \\ \$ 202,909,362 \end{array}$ | $\begin{array}{r} 376 \\ \$ 21,856,650 \end{array}$ | $\begin{array}{r} 156 \\ \$ 11,429,156 \end{array}$ | 71,511 |


| AVERAGES | -- | Attained Age |
| :---: | :---: | :---: |
|  | Service Years | 10.91 |
|  | Active Salary | $\$ 44,339$ |

## TRSL MEMBERSHIP PROFILE ACTIVE - HIGHER EDUCATION

MEMBER COUNT
TOTAL SALARY

| Age/Years | <1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<25$ | $\begin{array}{r} 98 \\ \$ 4,130,989 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ \$ 2,225,264 \\ \hline \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 163 \\ \$ 6,356,253 \end{array}$ |
| 25-29 | $\begin{array}{r} 214 \\ \$ 9,794,635 \end{array}$ | $\begin{array}{r} 467 \\ \$ 18,924,347 \end{array}$ | $\begin{array}{r} 37 \\ \$ 1,710,575 \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 718 \\ \$ 30,429,557 \end{array}$ |
| 30-34 | $\begin{array}{r} 198 \\ \$ 11,192,059 \end{array}$ | $\begin{array}{r} 611 \\ \$ 31,192,349 \end{array}$ | $\begin{array}{r} 320 \\ \$ 15,770,462 \end{array}$ | $\begin{array}{r} 29 \\ \$ 1,529,387 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 1,158 \\ \$ 59,684,257 \end{array}$ |
| 35-39 | $\begin{array}{r} 146 \\ \$ 8,921,361 \\ \hline \end{array}$ | $\begin{array}{r} 515 \\ \$ 28,671,644 \\ \hline \end{array}$ | $\begin{array}{r} 387 \\ \$ 22,065,955 \end{array}$ | $\begin{array}{r} 233 \\ \$ 13,129,529 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ \$ 1,565,646 \\ \hline \end{array}$ |  |  |  |  | $\begin{array}{r} 1,308 \\ \$ 74,354,135 \end{array}$ |
| 40-44 | $\begin{array}{r} 99 \\ \$ 6,551,620 \\ \hline \end{array}$ | $\begin{array}{r} \hline 360 \\ \$ 21,535,162 \end{array}$ | $\begin{array}{r} 284 \\ \$ 17,019,687 \end{array}$ | $\begin{array}{r} 230 \\ \$ 13,974,816 \end{array}$ | $\begin{array}{r} 100 \\ \$ 6,618,933 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ \$ 709,133 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 1,085 \\ \$ 66,409,351 \end{array}$ |
| 45-49 | $\begin{array}{r} 76 \\ \$ 4,931,335 \\ \hline \end{array}$ | $\begin{array}{r} 253 \\ \$ 14,303,765 \end{array}$ | $\begin{array}{r} 249 \\ \$ 15,331,440 \end{array}$ | $\begin{array}{r} 218 \\ \$ 14,848,608 \end{array}$ | $\begin{array}{r} 128 \\ \$ 8,501,988 \\ \hline \end{array}$ | $\begin{array}{r} 102 \\ \$ 6,811,881 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ \$ 870,272 \end{array}$ |  |  | $\begin{array}{r} 1,038 \\ \$ 65,599,289 \end{array}$ |
| 50-54 | $\begin{array}{r} \hline 55 \\ \$ 3,793,483 \\ \hline \end{array}$ | $\begin{array}{r} 245 \\ \$ 14,936,866 \end{array}$ | $\begin{array}{r} 235 \\ \$ 14,115,813 \end{array}$ | $\begin{array}{r} 197 \\ \$ 13,275,446 \end{array}$ | $\begin{array}{r} 102 \\ \$ 6,611,896 \end{array}$ | $\begin{array}{r} 85 \\ \$ 5,617,250 \end{array}$ | $\begin{array}{r} 70 \\ \$ 5,261,435 \end{array}$ | $\begin{array}{r} 5 \\ \$ 354,490 \end{array}$ |  | $\begin{array}{r} 994 \\ \$ 63,966,679 \end{array}$ |
| 55-59 | $\begin{array}{r} 52 \\ \$ 3,857,448 \end{array}$ | $\begin{array}{r} 209 \\ \$ 13,763,239 \end{array}$ | $\begin{array}{r} 226 \\ \$ 14,512,265 \end{array}$ | $\begin{array}{r} 165 \\ \$ 10,932,492 \end{array}$ | $\begin{array}{r} 116 \\ \$ 7,248,228 \end{array}$ | $\begin{array}{r} 94 \\ \$ 6,635,152 \end{array}$ | $\begin{array}{r} 43 \\ \$ 3,315,874 \end{array}$ | $\begin{array}{r} 21 \\ \$ 1,529,003 \end{array}$ | $\begin{array}{r} 1 \\ \$ 61,478 \end{array}$ | $\begin{array}{r} 927 \\ \$ 61,855,179 \end{array}$ |
| 60-64 | $\begin{array}{r} 41 \\ \$ 2,785,347 \\ \hline \end{array}$ | $\begin{array}{r} 133 \\ \$ 9,250,322 \end{array}$ | $\begin{array}{r} 157 \\ \$ 11,483,587 \end{array}$ | $\begin{array}{r} 138 \\ \$ 9,841,181 \end{array}$ | $\begin{array}{r} 64 \\ \$ 3,903,525 \end{array}$ | $\begin{array}{r} 59 \\ \$ 3,872,944 \end{array}$ | $\begin{array}{r} 53 \\ \$ 4,327,222 \end{array}$ | $\begin{array}{r} 59 \\ \$ 5,835,046 \end{array}$ | $\begin{array}{r} 34 \\ \$ 3,989,074 \end{array}$ | $\begin{array}{r} 738 \\ \$ 55,288,248 \end{array}$ |
| 65-69 | $\begin{array}{r} 5 \\ \$ 272,192 \end{array}$ |  | $\begin{array}{r} 80 \\ \$ 5,543,155 \end{array}$ | $\begin{array}{r} 67 \\ \$ 5,079,269 \end{array}$ |  | $\begin{array}{r} 39 \\ \$ 2,407,013 \end{array}$ | $\begin{array}{r} 48 \\ \$ 4,011,476 \end{array}$ | 41 $\$ 4,306,499$ | 49 $\$ 5,297,773$ | 436 $\$ 33,541,207$ |
| 70+ |  |  |  | 33 $\$ 2,770,537$ | 21 $\$ 1,364,682$ | 16 $\$ 1,097,036$ | 17 $\$ 1,636,543$ | 38 $\$ 4,592,519$ | 42 $\$ 5,073,923$ | 227 $\$ 20,216,020$ |
| Total | $\begin{array}{r} 991 \\ \$ 56,754,648 \end{array}$ | $\begin{array}{r} \hline 2,936 \\ \$ 159,340,815 \end{array}$ | $\begin{array}{r} 2,010 \\ \$ 119,742,724 \\ \hline \end{array}$ | $\begin{array}{r} 1,310 \\ \$ 85,381,265 \end{array}$ | $\begin{array}{r} 605 \\ \$ 38,867,686 \end{array}$ | $\begin{array}{r} 407 \\ \$ 27,150,409 \end{array}$ | $\begin{array}{r} 243 \\ \$ 19,422,822 \end{array}$ | 164 \$16,617,557 | $\begin{array}{r} 126 \\ \$ 14,422,248 \end{array}$ | $\begin{array}{r} 8,792 \\ \$ 537,700,174 \end{array}$ |


| AVERAGES | --- | Attained Age | 45.79 |
| :---: | :---: | :---: | :---: |
|  |  | Service Years | 8.64 |
|  | Active Salary | $\$ 61,158$ |  |

## TRSL MEMBERSHIP PROFILE ACTIVE - LUNCH PLAN A

CELLS DEPICT - MEMBER COUNT TOTAL SALARY

| 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 |  |  |  |  |  |  |  |  | $\begin{array}{r} 1 \\ \$ 24,816 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ \$ 24,816 \\ \hline \end{array}$ |
| 60-64 |  |  |  |  |  |  |  | $\begin{array}{r} 2 \\ \$ 34,719 \end{array}$ | $\begin{array}{r} 1 \\ \$ 30,643 \end{array}$ | 3 $\$ 65,362$ |
| 65-69 |  |  |  |  |  |  | $\begin{array}{r} 1 \\ \$ 27,795 \end{array}$ |  |  | $\begin{array}{r} 1 \\ \$ 27,795 \end{array}$ |
| 70+ |  |  |  |  |  |  |  | $\begin{array}{r} 1 \\ \$ 18,739 \end{array}$ | 2 $\$ 52,393$ | $\begin{array}{r}3 \\ \$ 71,132 \\ \hline\end{array}$ |
| Total |  |  |  |  |  |  | $\begin{array}{r} 1 \\ \$ 27,795 \end{array}$ | $\begin{array}{r} 3 \\ \$ 53,458 \end{array}$ | 4 $\$ 107,852$ | 8 $\$ 189,105$ |


| AVERAGES | --- | Attained Age | 64.41 |
| :--- | :---: | :---: | :---: |
|  |  | Service Years | 33.29 |
|  | Active Salary | $\$ 23,638$ |  |

## TRSL MEMBERSHIP PROFILE ACTIVE - LUNCH PLAN B

| Age/Years | <1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<25$ | $\begin{array}{r} 9 \\ \$ 168,898 \end{array}$ | $\begin{array}{r} 4 \\ \$ 61,186 \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 13 \\ \$ 230,084 \end{array}$ |
| 25-29 | $\begin{array}{r} 7 \\ \$ 176,513 \end{array}$ | $\begin{array}{r} 15 \\ \$ 263,353 \end{array}$ | $\begin{array}{r} 1 \\ \$ 18,481 \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 23 \\ \$ 458,347 \end{array}$ |
| 30-34 | $\begin{array}{r} 5 \\ \$ 127,238 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ \$ 460,357 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ \$ 236,866 \\ \hline \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 46 \\ \$ 824,461 \\ \hline \end{array}$ |
| 35-39 | $\begin{array}{r} 5 \\ \$ 82,936 \end{array}$ | $\begin{array}{r} 49 \\ \$ 841,227 \end{array}$ | $\begin{array}{r} 19 \\ \$ 376,575 \end{array}$ | $\begin{array}{r} 8 \\ \$ 156,230 \end{array}$ | $\begin{array}{r} 1 \\ \$ 22,197 \end{array}$ |  |  |  |  | $\begin{array}{r} 82 \\ \$ 1,479,165 \end{array}$ |
| 40-44 | $\begin{array}{r} 4 \\ \$ 78,795 \end{array}$ | $\begin{array}{r} 38 \\ \$ 655,263 \end{array}$ | $\begin{array}{r} 27 \\ \$ 531,600 \end{array}$ | $\begin{array}{r} 16 \\ \$ 326,041 \end{array}$ | $\begin{array}{r} 3 \\ \$ 60,933 \end{array}$ | $\begin{array}{r} 1 \\ \$ 14,047 \end{array}$ |  |  |  | $\begin{array}{r} 89 \\ \$ 1,666,679 \end{array}$ |
| 45-49 | $\begin{array}{r} 13 \\ \$ 246,264 \\ \hline \end{array}$ | $\begin{array}{r} 48 \\ \$ 794,596 \\ \hline \end{array}$ | $\begin{array}{r} 57 \\ \$ 1,057,417 \\ \hline \end{array}$ | $\begin{array}{r} 31 \\ \$ 634,762 \\ \hline \end{array}$ | $\begin{array}{r} 17 \\ \$ 386,957 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ \$ 171,933 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ \$ 39,557 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 175 \\ \$ 3,331,486 \\ \hline \end{array}$ |
| 50-54 | $\begin{array}{r} 7 \\ \$ 128,742 \\ \hline \end{array}$ | $\begin{array}{r} 75 \\ \$ 1,286,834 \\ \hline \end{array}$ | $\begin{array}{r} 74 \\ \$ 1,343,594 \\ \hline \end{array}$ | $\begin{array}{r} 51 \\ \$ 1,014,657 \\ \hline \end{array}$ | $\begin{array}{r} 53 \\ \$ 1,069,166 \\ \hline \end{array}$ | $\begin{array}{r} 20 \\ \$ 392,443 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ \$ 108,006 \end{array}$ | $\begin{array}{r} 6 \\ \$ 147,488 \\ \hline \end{array}$ |  | $\begin{array}{r} 291 \\ \$ 5,490,930 \\ \hline \end{array}$ |
| 55-59 | $\begin{array}{r} 17 \\ \$ 400,239 \\ \hline \end{array}$ | $\begin{array}{r} 56 \\ \$ 945,161 \\ \hline \end{array}$ | $\begin{array}{r} 64 \\ \$ 1,117,637 \\ \hline \end{array}$ | $\begin{array}{r} 44 \\ \$ 853,709 \\ \hline \end{array}$ | $\begin{array}{r} 48 \\ \$ 1,050,259 \\ \hline \end{array}$ | $\begin{array}{r} 35 \\ \$ 752,691 \\ \hline \end{array}$ | $\begin{array}{r} 25 \\ \$ 566,721 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ \$ 66,731 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ \$ 24,981 \\ \hline \end{array}$ | $\begin{array}{r} 293 \\ \$ 5,778,129 \\ \hline \end{array}$ |
| 60-64 | $\begin{array}{r} 3 \\ \$ 52,398 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ \$ 446,458 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ \$ 498,268 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ \$ 319,680 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ \$ 228,988 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ \$ 230,202 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ \$ 102,521 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ \$ 37,140 \\ \hline \end{array}$ |  | $\begin{array}{r} 102 \\ \$ 1,915,655 \\ \hline \end{array}$ |
| 65-69 | $\begin{array}{r} 3 \\ \$ 51,905 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ \$ 172,637 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ \$ 206,022 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ \$ 82,114 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ \$ 53,170 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ \$ 85,499 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ \$ 73,656 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 35 \\ \$ 725,003 \\ \hline \end{array}$ |
| 70+ |  | $\begin{array}{r} 2 \\ \$ 25,721 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ \$ 117,917 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ \$ 33,004 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 2 \\ \$ 35,682 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 13 \\ \$ 212,324 \\ \hline \end{array}$ |
| Total | $\begin{array}{r} 73 \\ \$ 1,513,926 \end{array}$ | $\begin{array}{r} 353 \\ \$ 5,952,793 \end{array}$ | $\begin{array}{r} 302 \\ \$ 5,504,377 \end{array}$ | $\begin{array}{r} 174 \\ \$ 3,420,197 \end{array}$ | $\begin{array}{r} 137 \\ \$ 2,871,670 \end{array}$ | $\begin{array}{r} 71 \\ \$ 1,646,815 \end{array}$ | $\begin{array}{r} 40 \\ \$ 926,143 \end{array}$ | $\begin{array}{r} 11 \\ \$ 251,359 \end{array}$ | $\begin{array}{r} 1 \\ \$ 24,981 \end{array}$ | $\begin{array}{r} 1,162 \\ \$ 22,112,261 \end{array}$ |


| AVERAGES | --- | Attained Age |
| :--- | :---: | :---: |
|  | Service Years | 51.25 |
|  | Active Salary | $\$ 19,41$ |
|  |  |  |

## TRSL MEMBERSHIP PROFILE DROP PARTICIPANTS

MEMBER COUNT TOTAL BENEFITS

| Age/Years | <1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-15 | 15-20 | 20+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<40$ |  |  |  |  |  |  |  |  |  |  |
| 40-44 |  |  |  |  |  |  |  |  |  |  |
| 45-49 | $\begin{array}{r} 3 \\ \$ 96,408 \end{array}$ | $\begin{array}{r} 1 \\ \$ 20,196 \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} \hline 4 \\ \$ 116,604 \end{array}$ |
| 50-54 | $\begin{array}{r} 211 \\ \$ 9,456,252 \\ \hline \end{array}$ | $\begin{array}{r} 215 \\ \$ 9,236,736 \\ \hline \end{array}$ | $\begin{array}{r} 116 \\ \$ 4,877,520 \\ \hline \end{array}$ | $\begin{array}{r} \hline 4 \\ \$ 158,568 \\ \hline \end{array}$ |  |  |  |  |  | $\begin{array}{r} 546 \\ \$ 23,729,076 \\ \hline \end{array}$ |
| 55-59 | $\begin{array}{r} 458 \\ \$ 15,827,988 \end{array}$ | $\begin{array}{r} 442 \\ \$ 15,039,636 \end{array}$ | $\begin{array}{r} 392 \\ \$ 14,725,776 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ \$ 766,956 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 1,307 \\ \$ 46,360,356 \end{array}$ |
| 60-64 | $\begin{array}{r} \hline 188 \\ \$ 3,878,772 \\ \hline \end{array}$ | $\begin{array}{r} 217 \\ \$ 4,640,316 \\ \hline \end{array}$ | $\begin{array}{r} 224 \\ \$ 5,075,436 \\ \hline \end{array}$ | $\begin{array}{r} \hline 4 \\ \$ 120,036 \\ \hline \end{array}$ |  |  |  |  |  | $\begin{array}{r} 633 \\ \$ 13,714,560 \\ \hline \end{array}$ |
| 65-69 | $\begin{array}{r} 3 \\ \$ 17,196 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ \$ 25,944 \end{array}$ | $\begin{array}{r} 4 \\ \$ 35,796 \end{array}$ | $\begin{array}{r} 1 \\ \$ 20,352 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 13 \\ \$ 99,288 \end{array}$ |
| 70-74 |  | $\begin{array}{r} 1 \\ \$ 3,168 \\ \hline \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 1 \\ \$ 3,168 \end{array}$ |
| 75-79 |  |  |  |  |  |  |  |  |  |  |
| 80-84 |  |  |  |  |  |  |  |  |  |  |
| 85-89 |  |  |  |  |  |  |  |  |  |  |
| 90+ |  |  |  |  |  |  |  |  |  |  |
| Total | $\begin{array}{r} 863 \\ \$ 29,276,616 \end{array}$ | $\begin{array}{r} 881 \\ \$ 28,965,996 \end{array}$ | $\begin{array}{r} 736 \\ \$ 24,714,528 \end{array}$ | $\begin{array}{r} 24 \\ \$ 1,065,912 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 2,504 \\ \$ 84,023,052 \end{array}$ |


| AVERAGES | -- | Attained Age | 57.40 |
| :--- | :---: | ---: | :---: |
|  | Years Retired | 1.36 |  |
|  | Annual Benefit | $\$ 33,556$ |  |

## TRSL MEMBERSHIP PROFILE ACTIVE AFTER DROP

MEMBER COUNT TOTAL BENEFITS DROP BENEFITS

| Age/Years | <1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-15 | 15-20 | 20+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| < 44 |  |  |  |  |  |  |  |  |  |  |
| 45-49 |  |  |  |  |  |  |  |  |  |  |
| 50-54 | $\begin{array}{r} 13 \\ \$ 118,966 \\ \$ 482,124 \end{array}$ |  | $\begin{array}{r} 3 \\ \$ 99,720 \\ \$ 71,136 \end{array}$ | $\begin{array}{r} 2 \\ \$ 76,950 \\ \$ 53,904 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 22 \\ \$ 490,501 \\ \$ 737,064 \end{array}$ |
| 55-59 | $\begin{array}{r} 255 \\ \$ 7,057,126 \\ \$ 10,042,380 \end{array}$ | $\begin{array}{r} 194 \\ \$ 11,819,268 \\ \$ 7,824,672 \end{array}$ | $\begin{array}{r} 98 \\ \$ 5,817,750 \\ \$ 3,973,920 \end{array}$ | 75 $\$ 4,797,082$ $\$ 3,169,812$ | $\begin{array}{r} 50 \\ \$ 2,936,672 \\ \$ 1,895,124 \end{array}$ | $\begin{array}{r} 29 \\ \$ 1,626,913 \\ \$ 966,156 \end{array}$ |  |  |  | $\begin{array}{r} 701 \\ \$ 34,054,811 \\ \$ 27,872,064 \end{array}$ |
| 60-64 | 139 $\$ 3,240,547$ $\$ 3,284,460$ | $\begin{array}{r} 163 \\ \$ 7,191,224 \\ \$ 3,632,784 \\ \hline \end{array}$ | $\begin{array}{r} 125 \\ \$ 6,860,584 \\ \$ 4,057,572 \\ \hline \end{array}$ | $\begin{array}{r} 136 \\ \$ 7,853,717 \\ \$ 4,698,792 \\ \hline \end{array}$ | $\begin{array}{r} 106 \\ \$ 6,923,801 \\ \$ 4,115,784 \\ \hline \end{array}$ | $\begin{array}{r} 363 \\ \$ 24,471,498 \\ \$ 13,220,436 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 1044 \\ \$ 57,401,307 \\ \$ 33,407,436 \\ \hline \end{array}$ |
| 65-69 | $\begin{array}{r} 2 \\ \$ 20,600 \\ \$ 6,996 \end{array}$ |  | $\begin{array}{r} 68 \\ \$ 2,760,890 \\ \$ 1,143,108 \\ \hline \end{array}$ | $\begin{array}{r} \hline 78 \\ \$ 3,670,791 \\ \$ 1,621,860 \\ \hline \end{array}$ | $\begin{array}{r} \hline 65 \\ \$ 2,809,140 \\ \$ 1,070,280 \\ \hline \end{array}$ | $\begin{array}{r} 261 \\ \$ 15,204,238 \\ \$ 6,859,992 \\ \hline \end{array}$ | $\begin{array}{r} 82 \\ \$ 6,285,950 \\ \$ 2,809,056 \\ \hline \end{array}$ | \$103,452 <br> \$36,984 |  | $\begin{array}{r} 570 \\ \$ 31,294,065 \\ \$ 13,664,568 \\ \hline \end{array}$ |
| 70+ | $\begin{array}{r} 2 \\ \$ 132,761 \\ \$ 101,544 \end{array}$ | \$46,021 <br> \$8,856 | $\begin{array}{r} 2 \\ \$ 38,331 \\ \$ 7,080 \\ \hline \end{array}$ | \$208,521 <br> \$36,480 | \$115,461 \$19,284 | $\begin{array}{r} 83 \\ \$ 3,700,399 \\ \$ 1,205,508 \\ \hline \end{array}$ | $\begin{array}{r} 114 \\ \$ 7,467,744 \\ \$ 2,725,548 \end{array}$ | $\begin{array}{r} \hline 44 \\ \$ 3,673,479 \\ \$ 1,304,868 \\ \hline \end{array}$ | \$407,421 <br> \$157,572 | $\begin{array}{r} 258 \\ \$ 15,790,138 \\ \$ 5,566,740 \\ \hline \end{array}$ |
| Total | $\begin{array}{r} 411 \\ \$ 10,570,000 \\ \$ 13,917,504 \\ \hline \end{array}$ | $\begin{array}{r} 375 \\ \$ 19,690,382 \\ \$ 11,712,504 \end{array}$ | $\begin{array}{r} 296 \\ \$ 15,577,275 \\ \$ 9,252,816 \end{array}$ | $\begin{array}{r} 295 \\ \$ 16,607,061 \\ \$ 9,580,848 \\ \hline \end{array}$ | 224 $\$ 12,785,074$ $\$ 7,100,472$ | $\begin{array}{r} 736 \\ \$ 45,003,048 \\ \$ 22,252,092 \end{array}$ | $\begin{array}{r} 208 \\ \$ 14,613,630 \\ \$ 5,932,212 \\ \hline \end{array}$ | $\begin{array}{r} 46 \\ \$ 3,776,931 \\ \$ 1,341,852 \end{array}$ |  | 2595 $\$ 139,030,822$ $\$ 81,247,872$ |


| AVERAGES | --- | Attained Age |
| :--- | :---: | :---: |
| Post Drop Years | 63.18 |  |
|  | Active Salary | $\$ 53,576$ |
|  | Annual Benefit | $\$ 31,309$ |

## TRSL MEMBERSHIP PROFILE REGULAR RETIREES

| Age/Years | <1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-15 | 15-20 | 20+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<40$ |  |  |  |  |  |  |  |  |  |  |
| 40-44 | $\begin{array}{r} 30 \\ \$ 637,524 \end{array}$ | $\begin{array}{r} 14 \\ \$ 297,804 \end{array}$ | $\begin{array}{r} 12 \\ \$ 214,164 \end{array}$ | $\begin{array}{r} 4 \\ \$ 99,840 \\ \hline \end{array}$ |  | $\begin{array}{r} 1 \\ \$ 14,904 \\ \hline \end{array}$ |  | $\begin{array}{r} 1 \\ \$ 27,276 \end{array}$ |  | $\begin{array}{r} 62 \\ \$ 1,291,512 \\ \hline \end{array}$ |
| 45-49 | $\begin{array}{r} 78 \\ \$ 1,793,568 \end{array}$ | $\begin{array}{r} 91 \\ \$ 2,159,268 \end{array}$ | $\begin{array}{r} 94 \\ \$ 2,014,464 \end{array}$ | $\begin{array}{r} 109 \\ \$ 2,392,992 \end{array}$ | $\begin{array}{r} 64 \\ \$ 1,368,612 \end{array}$ | $\begin{array}{r} 54 \\ \$ 1,085,136 \end{array}$ | $\begin{array}{r} 4 \\ \$ 39,744 \end{array}$ |  |  | $\begin{array}{r} 494 \\ \$ 10,853,784 \end{array}$ |
| 50-54 | $\begin{array}{r} 155 \\ \$ 5,081,772 \end{array}$ | $\begin{array}{r} 160 \\ \$ 4,852,140 \end{array}$ | $\begin{array}{r} 147 \\ \$ 3,826,272 \end{array}$ | $\begin{array}{r} 181 \\ \$ 4,440,672 \end{array}$ | $\begin{array}{r} 132 \\ \$ 3,091,320 \end{array}$ | $\begin{array}{r} 250 \\ \$ 5,175,336 \end{array}$ | $\begin{array}{r} 104 \\ \$ 1,618,896 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ \$ 14,160 \end{array}$ | $\begin{array}{r} 1 \\ \$ 1,416 \end{array}$ | $\begin{array}{r} 1,133 \\ \$ 28,101,984 \end{array}$ |
| 55-59 | $\begin{array}{r} 596 \\ \$ 21,625,056 \end{array}$ | $\begin{array}{r} 675 \\ \$ 24,997,968 \end{array}$ | $\begin{array}{r} 612 \\ \$ 22,518,108 \end{array}$ | $\begin{array}{r} 577 \\ \$ 20,940,216 \end{array}$ | $\begin{array}{r} 353 \\ \$ 12,153,048 \end{array}$ | $\begin{array}{r} 557 \\ \$ 15,340,224 \end{array}$ | $\begin{array}{r} 468 \\ \$ 7,815,888 \end{array}$ | $\begin{array}{r} 176 \\ \$ 2,226,816 \end{array}$ | $\begin{array}{r} 6 \\ \$ 38,832 \end{array}$ | $\begin{array}{r} \hline 4,020 \\ \$ 127,656,156 \end{array}$ |
| 60-64 | $\begin{array}{r} 789 \\ \$ 20,548,896 \end{array}$ | $\begin{array}{r} 921 \\ \$ 26,267,448 \end{array}$ | $\begin{array}{r} 1,172 \\ \$ 36,917,316 \end{array}$ | $\begin{array}{r} 1,336 \\ \$ 44,526,672 \end{array}$ | $\begin{array}{r} 1,208 \\ \$ 40,863,624 \end{array}$ | $\begin{array}{r} 3,669 \\ \$ 122,816,112 \end{array}$ | $\begin{array}{r} 1,338 \\ \$ 31,365,240 \end{array}$ | $\begin{array}{r} 705 \\ \$ 10,007,736 \end{array}$ | $\begin{array}{r} 286 \\ \$ 3,298,968 \end{array}$ | $\begin{array}{r} \hline 11,424 \\ \$ 336,612,012 \end{array}$ |
| 65-69 | $\begin{array}{r} 497 \\ \$ 12,893,472 \end{array}$ | $\begin{array}{r} 610 \\ \$ 16,803,204 \end{array}$ | $\begin{array}{r} 783 \\ \$ 21,603,840 \end{array}$ | $\begin{array}{r} 1,080 \\ \$ 30,664,788 \end{array}$ | $\begin{array}{r} 1,094 \\ \$ 30,613,548 \end{array}$ | $\begin{array}{r} \hline 4,759 \\ \$ 137,743,728 \end{array}$ | $\begin{array}{r} 4,950 \\ \$ 150,432,888 \end{array}$ | $\begin{array}{r} 1,064 \\ \$ 20,683,056 \end{array}$ | $\begin{array}{r} 1,040 \\ \$ 13,938,912 \end{array}$ | $\begin{array}{r} 15,877 \\ \$ 435,377,436 \end{array}$ |
| 70-74 | $\begin{array}{r} 88 \\ \$ 2,754,096 \end{array}$ | $\begin{array}{r} 169 \\ \$ 5,284,008 \end{array}$ | $\begin{array}{r} 214 \\ \$ 6,502,164 \end{array}$ | $\begin{array}{r} 259 \\ \$ 7,747,356 \end{array}$ | $\begin{array}{r} 346 \\ \$ 10,076,664 \end{array}$ | $\begin{array}{r} 2,156 \\ \$ 57,620,532 \end{array}$ | $\begin{array}{r} 4,402 \\ \$ 114,992,916 \end{array}$ | $\begin{array}{r} 2,744 \\ \$ 76,561,836 \end{array}$ | $\begin{array}{r} 1,385 \\ \$ 22,810,392 \end{array}$ | $\begin{array}{r} 11,763 \\ \$ 304,349,964 \end{array}$ |
| 75-79 | $\begin{array}{r} 38 \\ \$ 1,251,852 \\ \hline \end{array}$ | $\begin{array}{r} 55 \\ \$ 1,849,680 \\ \hline \end{array}$ | $\begin{array}{r} 55 \\ \$ 1,865,112 \\ \hline \end{array}$ | $\begin{array}{r} 73 \\ \$ 2,169,528 \\ \hline \end{array}$ | $\begin{array}{r} 92 \\ \$ 2,880,264 \\ \hline \end{array}$ | $\begin{array}{r} 648 \\ \$ 19,223,736 \end{array}$ | $\begin{array}{r} 2,049 \\ \$ 49,972,992 \end{array}$ | $\begin{array}{r} 2,889 \\ \$ 70,510,200 \end{array}$ | $\begin{array}{r} 2,689 \\ \$ 63,108,444 \end{array}$ | $\begin{array}{r} 8,588 \\ \$ 212,831,808 \\ \hline \end{array}$ |
| 80-84 | $\begin{array}{r} 16 \\ \$ 327,888 \end{array}$ | $\begin{array}{r} 15 \\ \$ 200,400 \end{array}$ | $\begin{array}{r} 11 \\ \$ 303,096 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ \$ 456,912 \end{array}$ | $\begin{array}{r} 19 \\ \$ 832,140 \end{array}$ | $\begin{array}{r} 174 \\ \$ 5,517,984 \\ \hline \end{array}$ | $\begin{array}{r} 543 \\ \$ 14,495,316 \end{array}$ | $\begin{array}{r} 1,391 \\ \$ 32,565,588 \end{array}$ | $\begin{array}{r} 3,934 \\ \$ 88,310,448 \end{array}$ | $\begin{array}{r} \hline 6,117 \\ \$ 143,009,772 \end{array}$ |
| 85-89 | $\begin{array}{r} 13 \\ \$ 247,728 \end{array}$ | $\begin{array}{r} 3 \\ \$ 211,536 \end{array}$ | $\begin{array}{r} 3 \\ \$ 41,568 \end{array}$ | 2 $\$ 45,120$ | 3 $\$ 72,228$ | 40 $\$ 1,608,288$ | $\begin{array}{r} 102 \\ \$ 2,896,236 \end{array}$ | $\begin{array}{r} 326 \\ \$ 8,341,836 \end{array}$ | $\begin{array}{r} 2,921 \\ \$ 58,155,492 \end{array}$ | $\begin{array}{r} 3,413 \\ \$ 71,620,032 \end{array}$ |
| 90+ | $\begin{array}{r} 2 \\ \$ 37,980 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 3 \\ \$ 77,268 \\ \hline \end{array}$ | 2 $\$ 43,212$ | 5 $\$ 82,344$ | 13 $\$ 397,560$ | 40 $\$ 885,660$ | $\begin{array}{r} 1,637 \\ \$ 28,230,456 \end{array}$ | $\begin{array}{r} 1,702 \\ \$ 29,754,480 \end{array}$ |
| Total | $\begin{array}{r} 2,302 \\ \$ 67,199,832 \end{array}$ | $\begin{array}{r} 2,713 \\ \$ 82,923,456 \end{array}$ | $\begin{array}{r} 3,103 \\ \$ 95,806,104 \end{array}$ | $\begin{array}{r} \hline 3,638 \\ \$ 113,561,364 \end{array}$ | $\begin{array}{r} 3,313 \\ \$ 101,994,660 \end{array}$ | $\begin{array}{r} 12,313 \\ \$ 366,228,324 \end{array}$ | $\begin{array}{r} 13,973 \\ \$ 374,027,676 \end{array}$ | $\begin{array}{r} 9,339 \\ \$ 221,824,164 \end{array}$ | $\begin{array}{r} \hline 13,899 \\ \$ 277,893,360 \end{array}$ | $\begin{array}{r} 64,593 \\ \$ 1,701,458,940 \end{array}$ |


| AVERAGES --- | Attained Age | 70.97 |
| :--- | :---: | :---: | :---: |
|  | Years Retired | 12.85 |
|  | Annual Benefit | $\$ 26,341$ |

## TRSL MEMBERSHIP PROFILE DISABILITY RETIREES

CELLS DEPICT - MEMBER COUNT TOTAL BENEFITS

| Age/Years | <1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-15 | 15-20 | 20+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<40$ | $\begin{array}{r} 15 \\ \$ 249,516 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ \$ 208,860 \end{array}$ | $\begin{array}{r} 7 \\ \$ 128,544 \end{array}$ | $\begin{array}{r} 3 \\ \$ 51,768 \end{array}$ | $\begin{array}{r} 4 \\ \$ 47,472 \end{array}$ | $\begin{array}{r} 7 \\ \$ 97,428 \end{array}$ |  |  |  | $\begin{array}{r} 49 \\ \$ 783,588 \end{array}$ |
| 40-44 | $\begin{array}{r} 12 \\ \$ 277,200 \end{array}$ | $\begin{array}{r} 8 \\ \$ 193,608 \end{array}$ | $\begin{array}{r} 11 \\ \$ 243,660 \end{array}$ | $\begin{array}{r} 6 \\ \$ 111,324 \end{array}$ | $\begin{array}{r} 8 \\ \$ 126,012 \end{array}$ | $\begin{array}{r} 23 \\ \$ 339,924 \end{array}$ | $\begin{array}{r} 3 \\ \$ 33,612 \end{array}$ |  |  | $\begin{array}{r} 71 \\ \$ 1,325,340 \end{array}$ |
| 45-49 | $\begin{array}{r} 27 \\ \$ 620,268 \end{array}$ | $\begin{array}{r} 28 \\ \$ 732,132 \end{array}$ | $\begin{array}{r} 27 \\ \$ 560,568 \end{array}$ | $\begin{array}{r} 21 \\ \$ 459,372 \end{array}$ | $\begin{array}{r} 15 \\ \$ 373,284 \end{array}$ | $\begin{array}{r} 40 \\ \$ 649,524 \end{array}$ | $\begin{array}{r} 24 \\ \$ 303,816 \end{array}$ | $\begin{array}{r} 7 \\ \$ 64,728 \end{array}$ | $\begin{array}{r} 2 \\ \$ 22,236 \end{array}$ | $\begin{array}{r} 191 \\ \$ 3,785,928 \end{array}$ |
| 50-54 | $\begin{array}{r} 48 \\ \$ 719,568 \\ \hline \end{array}$ | $\begin{array}{r} 43 \\ \$ 736,572 \\ \hline \end{array}$ | $\begin{array}{r} 22 \\ \$ 422,664 \end{array}$ | $\begin{array}{r} \hline 39 \\ \$ 637,128 \\ \hline \end{array}$ | $\begin{array}{r} 23 \\ \$ 357,864 \end{array}$ | $\begin{array}{r} 89 \\ \$ 1,494,276 \\ \hline \end{array}$ | $\begin{array}{r} 42 \\ \$ 472,284 \\ \hline \end{array}$ | $\begin{array}{r} 30 \\ \$ 299,136 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ \$ 94,164 \end{array}$ | $\begin{array}{r} 345 \\ \$ 5,233,656 \\ \hline \end{array}$ |
| 55-59 | $\begin{array}{r} \hline 54 \\ \$ 862,428 \\ \hline \end{array}$ | $\begin{array}{r} 42 \\ \$ 647,100 \\ \hline \end{array}$ | $\begin{array}{r} 41 \\ \$ 645,840 \end{array}$ | $\begin{array}{r} 44 \\ \$ 760,176 \\ \hline \end{array}$ | $\begin{array}{r} 40 \\ \$ 627,912 \end{array}$ | $\begin{array}{r} 134 \\ \$ 1,818,276 \\ \hline \end{array}$ | $\begin{array}{r} 117 \\ \$ 1,450,152 \end{array}$ | $\begin{array}{r} \hline 68 \\ \$ 776,148 \\ \hline \end{array}$ | $\begin{array}{r} 40 \\ \$ 406,944 \end{array}$ | $\begin{array}{r} 580 \\ \$ 7,994,976 \\ \hline \end{array}$ |
| 60-64 | $\begin{array}{r} 17 \\ \$ 252,372 \\ \hline \end{array}$ | $\begin{array}{r} \hline 33 \\ \$ 496,080 \\ \hline \end{array}$ | $\begin{array}{r} 40 \\ \$ 594,144 \end{array}$ | $\begin{array}{r} 41 \\ \$ 691,704 \\ \hline \end{array}$ | $\begin{array}{r} 32 \\ \$ 429,552 \end{array}$ | $\begin{array}{r} 185 \\ \$ 2,571,396 \\ \hline \end{array}$ | $\begin{array}{r} 176 \\ \$ 2,049,708 \end{array}$ | $\begin{array}{r} 99 \\ \$ 1,080,444 \\ \hline \end{array}$ | $\begin{array}{r} 126 \\ \$ 1,433,664 \\ \hline \end{array}$ | $\begin{array}{r} 749 \\ \$ 9,599,064 \\ \hline \end{array}$ |
| 65-69 | $\begin{array}{r} 5 \\ \$ 89,976 \end{array}$ | $\begin{array}{r} 11 \\ \$ 160,464 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ \$ 167,328 \\ \hline \end{array}$ | $\begin{array}{r} 19 \\ \$ 234,132 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ \$ 154,716 \end{array}$ | $\begin{array}{r} 165 \\ \$ 2,110,044 \\ \hline \end{array}$ | $\begin{array}{r} 242 \\ \$ 2,733,432 \\ \hline \end{array}$ | $\begin{array}{r} 158 \\ \$ 1,629,084 \\ \hline \end{array}$ | $\begin{array}{r} 231 \\ \$ 2,752,284 \\ \hline \end{array}$ | $\begin{array}{r} 850 \\ \$ 10,031,460 \end{array}$ |
| 70-74 | $\begin{array}{r} 2 \\ \$ 22,632 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ \$ 72,552 \end{array}$ | $\begin{array}{r} 1 \\ \$ 11,016 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ \$ 18,756 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ \$ 31,812 \\ \hline \end{array}$ | $\begin{array}{r} 36 \\ \$ 489,024 \end{array}$ | $\begin{array}{r} 130 \\ \$ 1,466,184 \\ \hline \end{array}$ | $\begin{array}{r} 182 \\ \$ 1,852,632 \\ \hline \end{array}$ | $\begin{array}{r} 263 \\ \$ 2,932,644 \\ \hline \end{array}$ | $\begin{array}{r} 623 \\ \$ 6,897,252 \\ \hline \end{array}$ |
| 75-79 |  |  | $\begin{array}{r} 1 \\ \$ 11,484 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 4 \\ \$ 48,144 \\ \hline \end{array}$ | $\begin{array}{r} 19 \\ \$ 203,568 \\ \hline \end{array}$ | $\begin{array}{r} 95 \\ \$ 863,844 \end{array}$ | $\begin{array}{r} 298 \\ \$ 3,026,940 \\ \hline \end{array}$ | $\begin{array}{r} 417 \\ \$ 4,153,980 \\ \hline \end{array}$ |
| 80-84 |  |  |  |  |  |  | $\begin{array}{r} 12 \\ \$ 103,932 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ \$ 80,304 \\ \hline \end{array}$ | $\begin{array}{r} 212 \\ \$ 2,201,112 \\ \hline \end{array}$ | $\begin{array}{r} 233 \\ \$ 2,385,348 \\ \hline \end{array}$ |
| 85-89 |  |  |  |  |  |  |  | $\begin{array}{r} 3 \\ \$ 52,200 \\ \hline \end{array}$ | $\begin{array}{r} 81 \\ \$ 784,848 \\ \hline \end{array}$ | $\begin{array}{r} 84 \\ \$ 837,048 \end{array}$ |
| 90+ |  |  |  |  |  |  |  |  | $\begin{array}{r} 46 \\ \$ 497,436 \\ \hline \end{array}$ | $\begin{array}{r}46 \\ \$ 497,436 \\ \hline\end{array}$ |
| Total | $\begin{array}{r} 180 \\ \$ 3,093,960 \end{array}$ | $\begin{array}{r} 182 \\ \$ 3,247,368 \end{array}$ | $\begin{array}{r} 160 \\ \$ 2,785,248 \end{array}$ | $\begin{array}{r} 175 \\ \$ 2,964,360 \end{array}$ | $\begin{array}{r} 134 \\ \$ 2,148,624 \end{array}$ | $\begin{array}{r} 683 \\ \$ 9,618,036 \end{array}$ | $\begin{array}{r} 765 \\ \$ 8,816,688 \end{array}$ | $\begin{array}{r} 651 \\ \$ 6,698,520 \end{array}$ | $\begin{array}{r} 1,308 \\ \$ 14,152,272 \end{array}$ | $\begin{array}{r} 4,238 \\ \$ 53,525,076 \end{array}$ |


| AVERAGES | --- | Attained Age | 65.58 |
| :--- | ---: | ---: | ---: |
|  | Years Retired | 14.92 |  |
|  | Annual Benefit | $\$ 12,630$ |  |

## TRSL MEMBERSHIP PROFILE SURVIVOR BENEFITS

MEMBER COUNT TOTAL BENEFITS

| Age/Years | <1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-15 | 15-20 | 20+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<40$ | 34 | 45 | 40 | 55 | 27 | 113 | 51 | 27 | 5 | 397 |
|  | \$446,580 | \$569,532 | \$519,228 | \$711,648 | \$345,492 | \$1,358,844 | \$458,796 | \$262,764 | \$58,308 | \$4,731,192 |
| 40-44 | 9 | 9 | 13 | 8 | 7 | 22 | 17 | 9 | 5 | 99 |
|  | \$132,804 | \$97,716 | \$157,908 | \$129,444 | \$154,032 | \$297,324 | \$246,780 | \$123,600 | \$56,328 | \$1,395,936 |
| 45-49 | 18 | 21 | 14 | 13 | 13 | 49 | 33 | 26 | 12 | 199 |
|  | \$295,548 | \$290,820 | \$146,592 | \$220,860 | \$192,996 | \$643,452 | \$409,140 | \$268,632 | \$133,788 | \$2,601,828 |
| 50-54 | 14 | 15 | 19 | 17 | 13 | 68 | 54 | 39 | 20 | 259 |
|  | \$181,092 | \$149,760 | \$210,744 | \$353,760 | \$127,944 | \$661,764 | \$806,424 | \$435,984 | \$315,000 | \$3,242,472 |
| 55-59 | 32 | 31 | 29 | 23 | 25 | 108 | 67 | 49 | 31 | 395 |
|  | \$602,880 | \$560,028 | \$427,272 | \$307,668 | \$473,364 | \$1,576,308 | \$1,008,816 | \$630,996 | \$337,056 | \$5,924,388 |
| 60-64 | 40 | 39 | 53 | 29 | 41 | 141 | 91 | 73 | 64 | 571 |
|  | \$911,604 | \$1,127,544 | \$1,641,864 | \$699,672 | \$927,000 | \$2,879,004 | \$1,581,012 | \$992,832 | \$765,780 | \$11,526,312 |
| 65-69 | 60 | 77 | 72 | 74 | 50 | 247 | 157 | 101 | 111 | 949 |
|  | \$1,772,424 | \$1,775,976 | \$1,843,644 | \$1,709,556 | \$1,154,496 | \$5,987,616 | \$3,024,288 | \$1,795,764 | \$1,617,684 | \$20,681,448 |
| 70-74 | 52 | 63 | 64 | 60 | 54 | 207 | 153 | 129 | 153 | 935 |
|  | \$1,524,000 | \$1,362,552 | \$1,671,480 | \$1,306,104 | \$1,245,816 | \$4,660,152 | \$3,391,140 | \$2,555,544 | \$2,399,448 | \$20,116,236 |
| 75-79 | 90 | 72 | 66 | 64 | 65 | 249 | 189 | 137 | 208 | 1,140 |
|  | \$2,025,672 | \$1,866,576 | \$1,666,404 | \$1,491,228 | \$1,661,508 | \$5,683,260 | \$3,946,272 | \$3,078,216 | \$3,601,020 | \$25,020,156 |
| 80-84 | 54 | 63 | 47 | 49 | 69 | 202 | 150 | 134 | 244 | 1,012 |
|  | \$1,090,416 | \$1,466,496 | \$1,254,972 | \$1,108,884 | \$1,308,012 | \$3,694,128 | \$3,065,364 | \$2,692,620 | \$4,104,288 | \$19,785,180 |
| 85-89 | 37 | 41 | 43 | 38 | 27 | 145 | 102 | 64 | 156 | 653 |
|  | \$726,336 | \$841,584 | \$592,944 | \$660,768 | \$435,300 | \$2,548,200 | \$1,896,048 | \$1,208,172 | \$2,621,484 | \$11,530,836 |
| 90+ | 14 | 17 | 17 | 18 | 16 | 63 | 66 | 53 | 124 | 388 |
|  | \$221,316 | \$270,408 | \$267,180 | \$276,984 | \$221,268 | \$942,000 | \$1,014,480 | \$822,168 | \$1,878,276 | \$5,914,080 |
| Total | 454 | 493 | 477 | 448 | 407 | 1,614 | 1,130 | 841 | 1,133 | 6,997 |
|  | \$9,930,672 | \$10,378,992 | \$10,400,232 | \$8,976,576 | \$8,247,228 | \$30,932,052 | \$20,848,560 | \$14,867,292 | \$17,888,460 | \$132,470,064 |


| AVERAGES | --- | Attained Age | 70.43 |
| :--- | :---: | :---: | :---: |
|  | Years Retired | 11.04 |  |
|  | Annual Benefit | $\$ 18,932$ |  |

## TRSL MEMBERSHIP PROFILE

## TERM-VESTED/RECIPROCAL

CELLS DEPICT - MEMBER COUNT TOTAL BENEFITS

| Age/Years | <1 | 1-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<20$ |  |  |  |  |  |  |  |  |  |  |
| 20-24 |  |  |  |  |  |  |  |  |  |  |
| 25-29 |  |  | $\begin{array}{r} 46 \\ \$ 280,007 \\ \hline \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 46 \\ \$ 280,007 \\ \hline \end{array}$ |
| 30-34 |  |  | $\begin{array}{r} 633 \\ \$ 4,653,977 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ \$ 173,101 \\ \hline \end{array}$ |  |  |  |  |  | $\begin{array}{r} 647 \\ \$ 4,827,077 \\ \hline \end{array}$ |
| 35-39 |  | $\begin{array}{r} 2 \\ \$ 8,750 \end{array}$ | $\begin{array}{r} 746 \\ \$ 5,736,535 \\ \hline \end{array}$ | $\begin{array}{r} 237 \\ \$ 3,355,956 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ \$ 167,210 \end{array}$ |  |  |  |  | $\begin{array}{r} 993 \\ \$ 9,268,451 \\ \hline \end{array}$ |
| 40-44 | $\begin{array}{r} 1 \\ \$ 537 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ \$ 13,302 \end{array}$ | $\begin{array}{r} 711 \\ \$ 5,180,830 \end{array}$ | $\begin{array}{r} 288 \\ \$ 3,983,019 \end{array}$ | $\begin{array}{r} 79 \\ \$ 1,453,113 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ \$ 63,556 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 1,087 \\ \$ 10,694,356 \end{array}$ |
| 45-49 |  | $\begin{array}{r} 5 \\ \$ 18,102 \end{array}$ | $\begin{array}{r} 691 \\ \$ 4,578,069 \\ \hline \end{array}$ | $\begin{array}{r} 334 \\ \$ 4,089,003 \\ \hline \end{array}$ | $\begin{array}{r} 107 \\ \$ 1,949,293 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ \$ 324,361 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 1,150 \\ \$ 10,958,828 \end{array}$ |
| 50-54 |  | $\begin{array}{r} 4 \\ \$ 9,016 \\ \hline \end{array}$ | $\begin{array}{r} 577 \\ \$ 3,726,068 \end{array}$ | $\begin{array}{r} 363 \\ \$ 3,943,613 \\ \hline \end{array}$ | $\begin{array}{r} 136 \\ \$ 2,081,894 \\ \hline \end{array}$ | $\begin{array}{r} 23 \\ \$ 534,311 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ \$ 395,687 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 1,115 \\ \$ 10,690,589 \\ \hline \end{array}$ |
| 55-59 |  | $\begin{array}{r} 4 \\ \$ 7,638 \end{array}$ | $\begin{array}{r} 550 \\ \$ 3,556,160 \end{array}$ | $\begin{array}{r} 416 \\ \$ 4,315,084 \\ \hline \end{array}$ | $\begin{array}{r} 167 \\ \$ 2,368,877 \\ \hline \end{array}$ | $\begin{array}{r} 17 \\ \$ 403,639 \end{array}$ | $\begin{array}{r} 7 \\ \$ 215,542 \end{array}$ | $\begin{array}{r} 1 \\ \$ 45,975 \end{array}$ |  | $\begin{array}{r} 1,162 \\ \$ 10,912,915 \end{array}$ |
| 60-64 | $\begin{array}{r} 2 \\ \$ 490 \end{array}$ | $\begin{array}{r} 2 \\ \$ 3,640 \end{array}$ | $\begin{array}{r} 169 \\ \$ 967,164 \end{array}$ | $\begin{array}{r} 94 \\ \$ 912,597 \end{array}$ | $\begin{array}{r} 40 \\ \$ 547,599 \end{array}$ | $\begin{array}{r} 16 \\ \$ 427,526 \end{array}$ | $\begin{array}{r} 5 \\ \$ 76,347 \end{array}$ |  |  | $\begin{array}{r} 328 \\ \$ 2,935,362 \end{array}$ |
| 65-69 |  | $\begin{array}{r} 2 \\ \$ 1,280 \end{array}$ | $\begin{array}{r} 45 \\ \$ 221,670 \end{array}$ | $\begin{array}{r} 29 \\ \$ 239,343 \end{array}$ | $\begin{array}{r} 9 \\ \$ 124,433 \end{array}$ | $\begin{array}{r} 4 \\ \$ 94,864 \\ \hline \end{array}$ | 2 $\$ 42,582$ | $\begin{array}{r} 1 \\ \$ 40,484 \\ \hline \end{array}$ |  | $\begin{array}{r} 92 \\ \$ 764,656 \end{array}$ |
| 70+ |  |  | $\begin{array}{r} 25 \\ \$ 133,603 \end{array}$ | $\begin{array}{r} 16 \\ \$ 96,556 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ \$ 82,687 \\ \hline \end{array}$ | 8 $\$ 210,009$ | 3 $\$ 81,006$ | 4 $\$ 86,618$ | 2 $\$ 63,664$ | $\begin{array}{r} 67 \\ \$ 754,143 \\ \hline \end{array}$ |
| Total | $\begin{array}{r} 3 \\ \$ 1,027 \end{array}$ | $\begin{array}{r} 24 \\ \$ 61,727 \end{array}$ | $\begin{array}{r} 4,193 \\ \$ 29,034,083 \end{array}$ | $\begin{array}{r} 1,791 \\ \$ 21,108,271 \end{array}$ | $\begin{array}{r} 555 \\ \$ 8,775,106 \\ \hline \end{array}$ | $\begin{array}{r} 84 \\ \$ 2,058,267 \\ \hline \end{array}$ | 29 $\$ 811,164$ | 6 $\$ 173,077$ | 2 $\$ 63,664$ | $\begin{array}{r} \hline 6,687 \\ \$ 62,086,385 \end{array}$ |


| AVERAGES | -- | Attained Age | 47.49 |
| :--- | :---: | :---: | :---: |
|  | Service Years | 9.52 |  |
|  | Annual Benefit | $\$ 9,285$ |  |

## EXHIBIT 5

## 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:

## EXHIBIT 5 (Continued)

## Plan Provisions

| Leave Earned Prior to 6/30/88 |  |
| :---: | :---: |
| Accumulated Sick <br> Days | Fraction of <br> 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 |
| 9 Month | 10 Month | 11 Month | 12 Month | Credit |
| $10-18$ | $11-20$ | $12-22$ | $13-24$ | 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 |
| $109-126$ | $121-140$ | $133-14$ | $145-168$ | 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 $10 \%$ 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 401a(17) compensation limit.

## EXHIBIT 5 (Continued)

## Plan Provisions

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

| Years of Participation | \% of Earnings to <br> be Included |
| :---: | :---: |
| 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 102 and 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 5 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.

## EXHIBIT 5 (Continued)

## Plan Provisions

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).
A. Annual benefit may not exceed $100 \%$ of average earnable compensation.
B. 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 Service Code and related Federal Regulations as adjusted for inflation and form of benefit other than life annuity or qualified joint and survivor annuity for retirement ages as follows:

| Age | Maximum | Age | Maximum | Age | Maximum |
| :---: | :---: | :---: | :---: | :---: | ---: |
| 48 | $\$ 63,236$ | 56 | $\$ 123,573$ | 64 | 210,000 |
| 49 | 68,621 | 57 | 134,737 | 65 | 210,000 |
| 50 | 74,504 | 58 | 147,011 | 66 | 210,000 |
| 51 | 80,937 | 59 | 160,525 | 67 | 210,000 |
| 52 | 87,975 | 60 | 175,424 | 68 | 210,000 |
| 53 | 95,683 | 61 | 191,862 | 69 | 210,000 |
| 54 | 104,132 | 62 | 210,000 | 70 | 210,000 |
| 55 | 113,401 | 63 | 210,000 |  |  |

## 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:

## EXHIBIT 5 (Continued)

## Plan Provisions

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

Permanent Benefit Increases: No increase can be granted if the legislature granted an increase in the preceding fiscal year, unless the system is $85 \%$ funded or greater. Additionally, PBI's are limited to the lesser of the increase in the CPI-U for the twelve month period ending on the system's valuation date, or an amount 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 10 years of service credit. All other members are eligible with 5 years of service; certification of disability by medical board (medical examination required once in every year for the first 5 years of disability retirement, and once in every 3 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, but 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.

## EXHIBIT 5 (Continued)

## Plan Provisions

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, and returns to active membership for at least three years starting no later than one year after recovery, then he 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 5 years of service with at least 2 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, but 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 10 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 10 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 either an active member with 10 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, but resumes 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.

## EXHIBIT 5 (Continued)

## Plan Provisions

## REFUND OF CONTRIBUTIONS:

Death prior to retirement - accumulated contributions credited to individual account in annuity savings fund are returnable to designated beneficiary, if any; otherwise, to his estate.

## TERMINATION WITH VESTED SERVICE:

Any member with credit for 5 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 l - 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 board.
Options 2A, 3A, 4A - Same as Options 2, 3, and 4, except that reduced benefit reverts back 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).

## EXHIBIT 5 (Continued)

## Plan Provisions

## 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 at any, 25 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 10 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 5 years at 60 may participate in DROP.

Members whose first employment making him eligible for membership in one of the state retirement system occurred on or before June 30, 2015, who has 30 years at age 55 or 10 years 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 5 years 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 ceases 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.

## Exhibit 5 (Continued)

Plan Provisions

## DESCRIPTION OF BENEFITS

FOR MERGED LSU EMPLOYEES

## GENERAL:

Eligibility for benefits 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)

| Calendar Year of Entry | Breakpoint Average |
| :---: | :---: |
| 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 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 (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, plus (2) 2.5\% (or 2\% if total service less than 20 years) times final average salary times years since January 1, 1979, plus \$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.

## Exhibit 5 (Continued)

Plan Provisions

## 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.

## EXHIBIT 5 (Continued)

Plan Provisions

## 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 4 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: $\quad 9.10 \%$ of monthly earnings
Plan B: 5\% of monthly earnings

## EMPLOYER CONTRIBUTIONS:

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

## EXHIBIT 5 (Continued)

Plan Provisions

## 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 5 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 $1 \%$ of average final compensation plus $\$ 2$ 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.
*These members are eligible to retire upon reaching age 70 , with less than 10 years of creditable service.
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.

## EXHIBIT 5 (Continued)

## Plan Provisions

## SURVIVOR'S BENEFITS:

## Eligibility:

1. Surviving spouse with minor children of a member with 5 years of service credit with at least 2 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 10 or more years of service credit with at least 2 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, but 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, but resume upon subsequent death or divorce of new spouse.
3. Return of member's accumulated contributions.

## EXHIBIT 5 (Continued)

Plan Provisions

## SCHOOL LUNCH PLAN B

## NORMAL RETIREMENT:

## Eligibility:

1. Age 60 and 5 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 therefore; 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: Twenty or more years of creditable service.
Benefit: Option 2 benefit.

## EXHIBIT 5 (Continued)

Plan Provisions

## 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 5 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.

## EXHIBIT 6

## ACTUARIAL COST METHODS AND ASSUMPTIONS

## COST METHOD:

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

## ASSET VALUATION:

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

## ACCOUNTING DISCLOSURE:

The Statements of Fiduciary Net Position and 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 not explicitly assumed but rather funded in accordance with R.S. 11:102, which by omission of language regarding the funding of administrative expenses precludes funding of these expenses by a direct allocation through the employer contribution rate. These expenses are instead funded through the employer rate as an experience loss which is amortized over a 30 -year period. Per Actuarial Standard of Practice Statement 27, (paragraph 3.8.3.e.) the investment return assumption includes a 10 basis point reduction to reflect administrative expenses that are paid from plan assets and not otherwise recognized. Therefore, these losses are expected to be offset by long-term investment earnings.

## 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, 2013. The study was based on an observation period of 2008-2012. 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, School Lunch Plan A, and School Lunch Plan B. The experience study report, dated March 27, 2013, provides further information regarding the rationale for these assumptions. The current rate tables are illustrated at the end of this exhibit.

## EXHIBIT 6 (Continued)

## Cost Methods \& Assumptions

## DISCOUNT RATE / INVESTMENT EARNINGS:

The Board of Trustees adopted a discount rate of $7.75 \%$, effective June 30, 2014. The Board of Trustees adopted a plan to gradually reduce the discount rate to $7.50 \%$, in $0.05 \%$ increments annually, beginning July 1, 2017. Therefore, the projected contribution requirements for fiscal year 2017/18 were determined using a discount rate of $7.70 \%$.

The discount rate for funding purposes reflects the assumed investment rate of return, net of investment and administrative expenses, and net of investment gains expected to be deferred to the experience account to fund future permanent benefit increases. Therefore, by excluding investment returns to be used to fund expenses and permanent benefit increases, the discount rate represents the expected return on investments to be used to fund regular plan benefits.

Based on a historical review of administrative expenses relative to pan assets, it is assumed that 10 basis points will be used to offset administrative expenses. Based on a historical review of investment earnings, with modifications for the current statutory provisions regarding transfers to the experience account and future allowable benefit increases, it is expected that a long-term average of approximately 25 basis points will be transferred to the experience account. A forward looking projection using historical volatility and the plan's projected assets confirmed this conclusion. The analysis is supported by the system's expected long-term rate of return based on capital market assumptions provided by the Board's investment consultant, with a $2.50 \%$ inflation component, which results in an expected long-term geometric average nominal rate of return of $8.23 \%$. Exhibit 3 of this report provides expected real rates of return by asset class.

## MORTALITY ASSUMPTIONS:

The mortality table for non-disabled retirees is based upon the RP-2000 table with mortality improvement projected through 2025 using scale AA. The adjustment for mortality improvement anticipates future improvements in mortality beyond the measurement date, based on actual plan experience. This table was determined to be appropriate relative to actual experience and adopted by the Board following the most recent experience study.

Mortality assumptions for disability benefits are based upon the RP-2000 disability table with no projection of mortality improvement.

## DISABILITY ASSUMPTION:

Rates for total and permanent disability, based on attained age, are projected using rates developed from 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, based on the most recent experience study. Retirement and DROP rates are developed in combination, and include an age and service component.

## EXHIBIT 6 (Continued)

## Cost Methods \& Assumptions

## TERMINATION ASSUMPTIONS:

Voluntary termination or withdrawal rates are 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 upon the member's years of service based on the most recent experience study. The rates include anticipated productivity growth, merit adjustments, and a $2.5 \%$ inflation component. 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 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.

|  | Prior Rates | Current Rates |
| :---: | :---: | :---: |
| Regular Teachers | $2.5 \%$ | $1.5 \%$ |
| Higher Education | $2.8 \%$ | $1.5 \%$ |
| Lunch Plan A | $1.5 \%$ | $1.0 \%$ |
| Lunch Plan B | $1.5 \%$ | $1.0 \%$ |

## FAMILY STATISTICS:

The composition of the family is based on Current Population Reports published by the United States Census Bureau. Seventy-five percent 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 <br> Children | Years for Youngest Child <br> 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, effective July 1, 2013 Regular Teachers

| AGE | DEATH RATES |  | DISABILITYRATES | TERMINATION RATES |  |  |  | $\begin{gathered} \text { RETIREMENT/DROP } \\ \text { RATES } \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MALE | FEMALE |  | $\begin{gathered} \hline<1 \\ \text { YEAR } \end{gathered}$ | $\begin{array}{c\|} \hline 1-2 \\ \text { YEARS } \end{array}$ | $\begin{gathered} 2-3 \\ \text { YEARS } \end{gathered}$ | $\begin{gathered} 4+ \\ \text { YEARS } \end{gathered}$ | $\begin{aligned} & <25 \\ & \text { YOS } \end{aligned}$ | $\begin{gathered} \hline 25-29 \\ \text { Yos } \end{gathered}$ | $\begin{aligned} & \hline \text { 30+ } \\ & \text { YOS } \end{aligned}$ |
| 18 | 0.00020 | 0.00013 | 0.0000 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 19 | 0.00021 | 0.00013 | 0.0000 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 20 | 0.00021 | 0.00013 | 0.0000 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 21 | 0.00023 | 0.00013 | 0.0000 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 22 | 0.00024 | 0.00013 | 0.0000 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 23 | 0.00026 | 0.00013 | 0.0001 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 24 | 0.00027 | 0.00014 | 0.0001 | 0.200 | 0.200 | 0.095 | 0.180 | 0.000 | 0.000 | 0.000 |
| 25 | 0.00029 | 0.00015 | 0.0001 | 0.180 | 0.126 | 0.095 | 0.090 | 0.000 | 0.000 | 0.000 |
| 26 | 0.00033 | 0.00016 | 0.0001 | 0.180 | 0.126 | 0.095 | 0.060 | 0.000 | 0.000 | 0.000 |
| 27 | 0.00034 | 0.00017 | 0.0001 | 0.190 | 0.126 | 0.095 | 0.060 | 0.000 | 0.000 | 0.000 |
| 28 | 0.00035 | 0.00017 | 0.0001 | 0.190 | 0.126 | 0.095 | 0.055 | 0.000 | 0.000 | 0.000 |
| 29 | 0.00036 | 0.00018 | 0.0001 | 0.190 | 0.126 | 0.095 | 0.053 | 0.000 | 0.000 | 0.000 |
| 30 | 0.00039 | 0.00021 | 0.0001 | 0.190 | 0.120 | 0.109 | 0.053 | 0.000 | 0.000 | 0.000 |
| 31 | 0.00044 | 0.00025 | 0.0003 | 0.190 | 0.120 | 0.109 | 0.050 | 0.000 | 0.000 | 0.000 |
| 32 | 0.00050 | 0.00029 | 0.0003 | 0.190 | 0.120 | 0.109 | 0.045 | 0.000 | 0.000 | 0.000 |
| 33 | 0.00056 | 0.00031 | 0.0003 | 0.190 | 0.120 | 0.109 | 0.045 | 0.000 | 0.000 | 0.000 |
| 34 | 0.00062 | 0.00034 | 0.0003 | 0.190 | 0.120 | 0.109 | 0.045 | 0.000 | 0.000 | 0.000 |
| 35 | 0.00068 | 0.00036 | 0.0006 | 0.180 | 0.117 | 0.095 | 0.040 | 0.000 | 0.000 | 0.000 |
| 36 | 0.00074 | 0.00038 | 0.0010 | 0.180 | 0.117 | 0.095 | 0.040 | 0.000 | 0.000 | 0.000 |
| 37 | 0.00080 | 0.00040 | 0.0007 | 0.180 | 0.117 | 0.095 | 0.040 | 0.000 | 0.000 | 0.000 |
| 38 | 0.00083 | 0.00042 | 0.0007 | 0.180 | 0.117 | 0.095 | 0.040 | 0.050 | 0.000 | 0.000 |
| 39 | 0.00086 | 0.00044 | 0.0011 | 0.180 | 0.117 | 0.095 | 0.040 | 0.040 | 0.000 | 0.000 |
| 40 | 0.00088 | 0.00048 | 0.0011 | 0.165 | 0.123 | 0.090 | 0.037 | 0.040 | 0.000 | 0.000 |
| 41 | 0.00091 | 0.00053 | 0.0013 | 0.165 | 0.123 | 0.090 | 0.037 | 0.025 | 0.000 | 0.000 |
| 42 | 0.00095 | 0.00058 | 0.0016 | 0.165 | 0.123 | 0.090 | 0.037 | 0.025 | 0.000 | 0.000 |
| 43 | 0.00099 | 0.00064 | 0.0016 | 0.165 | 0.123 | 0.090 | 0.037 | 0.025 | 0.000 | 0.000 |
| 44 | 0.00103 | 0.00071 | 0.0016 | 0.165 | 0.123 | 0.090 | 0.040 | 0.025 | 0.000 | 0.000 |
| 45 | 0.00109 | 0.00075 | 0.0022 | 0.163 | 0.099 | 0.090 | 0.040 | 0.025 | 0.020 | 0.000 |
| 46 | 0.00114 | 0.00080 | 0.0022 | 0.163 | 0.099 | 0.090 | 0.040 | 0.025 | 0.020 | 0.000 |
| 47 | 0.00119 | 0.00084 | 0.0022 | 0.163 | 0.099 | 0.090 | 0.040 | 0.025 | 0.020 | 0.000 |
| 48 | 0.00124 | 0.00091 | 0.0022 | 0.163 | 0.099 | 0.090 | 0.040 | 0.030 | 0.020 | 0.700 |
| 49 | 0.00130 | 0.00098 | 0.0022 | 0.163 | 0.099 | 0.090 | 0.040 | 0.030 | 0.020 | 0.600 |
| 50 | 0.00136 | 0.00109 | 0.0025 | 0.175 | 0.112 | 0.090 | 0.040 | 0.030 | 0.050 | 0.300 |
| 51 | 0.00152 | 0.00124 | 0.0025 | 0.175 | 0.112 | 0.090 | 0.040 | 0.030 | 0.170 | 0.600 |
| 52 | 0.00161 | 0.00142 | 0.0025 | 0.175 | 0.112 | 0.090 | 0.040 | 0.030 | 0.280 | 0.600 |
| 53 | 0.00176 | 0.00163 | 0.0030 | 0.175 | 0.112 | 0.090 | 0.040 | 0.100 | 0.280 | 0.500 |
| 54 | 0.00193 | 0.00189 | 0.0030 | 0.175 | 0.112 | 0.090 | 0.040 | 0.150 | 0.450 | 0.400 |
| 55 | 0.00224 | 0.00222 | 0.0040 | 0.175 | 0.106 | 0.090 | 0.040 | 0.150 | 0.750 | 0.300 |
| 56 | 0.00267 | 0.00266 | 0.0050 | 0.175 | 0.106 | 0.090 | 0.040 | 0.150 | 0.330 | 0.200 |
| 57 | 0.00306 | 0.00307 | 0.0055 | 0.155 | 0.106 | 0.090 | 0.040 | 0.150 | 0.250 | 0.200 |
| 58 | 0.00352 | 0.00346 | 0.0055 | 0.200 | 0.106 | 0.090 | 0.040 | 0.250 | 0.250 | 0.200 |
| 59 | 0.00397 | 0.00392 | 0.0055 | 0.200 | 0.106 | 0.090 | 0.040 | 0.250 | 0.300 | 0.200 |
| 60 | 0.00451 | 0.00446 | 0.0055 | 0.200 | 0.106 | 0.090 | 0.040 | 0.250 | 0.300 | 0.200 |
| 61 | 0.00526 | 0.00513 | 0.0050 | 0.200 | 0.106 | 0.090 | 0.040 | 0.150 | 0.300 | 0.200 |
| 62 | 0.00600 | 0.00587 | 0.0050 | 0.200 | 0.106 | 0.090 | 0.040 | 0.150 | 0.220 | 0.250 |
| 63 | 0.00704 | 0.00675 | 0.0050 | 0.200 | 0.106 | 0.090 | 0.040 | 0.150 | 0.170 | 0.150 |
| 64 | 0.00793 | 0.00760 | 0.0035 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.200 | 0.300 |
| 65 | 0.00895 | 0.00856 | 0.0035 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.200 | 0.300 |
| 66 | 0.01039 | 0.00966 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.200 | 0.300 |
| 67 | 0.01159 | 0.01073 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.200 | 0.200 |
| 68 | 0.01256 | 0.01186 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.300 |
| 69 | 0.01392 | 0.01311 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.300 |
| 70 | 0.01522 | 0.01477 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.400 |
| 71 | 0.01684 | 0.01598 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.200 |
| 72 | 0.01870 | 0.01778 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.250 |
| 73 | 0.02083 | 0.01927 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.250 |
| 74 | 0.02323 | 0.02136 | 0.0020 | 0.200 | 0.106 | 0.090 | 0.040 | 0.200 | 0.300 | 0.250 |


| DUR | SALARY INCREASE |
| :---: | :---: |
| 0 | 0.0575 |
| 1 | 0.0575 |
| 2 | 0.0575 |
| 3 | 0.0575 |
| 4 | 0.0575 |
| 5 | 0.0500 |
| 6 | 0.0500 |
| 7 | 0.0500 |
| 8 | 0.0500 |
| 9 | 0.0500 |
| 10 | 0.0475 |
| 11 | 0.0475 |
| 12 | 0.0475 |
| 13 | 0.0475 |
| 14 | 0.0475 |
| 15 | 0.0450 |
| 16 | 0.0450 |
| 17 | 0.0450 |
| 18 | 0.0450 |
| 19 | 0.0450 |
| 20 | 0.0400 |
| 21 | 0.0400 |
| 22 | 0.0400 |
| 23 | 0.0400 |
| 24 | 0.0400 |
| 25 | 0.0375 |
| 26 | 0.0375 |
| 27 | 0.0375 |
| 28 | 0.0375 |
| 29 | 0.0375 |
| 30 | 0.0425 |
| 31 | 0.0425 |
| 32 | 0.0425 |
| 33 | 0.0425 |
| 34 | 0.0425 |
| 35 | 0.0425 |
| 36 | 0.0425 |
| 37 | 0.0425 |
| 38 | 0.0425 |
| 39 | 0.0425 |
| 40 | 0.0425 |
| 41 | 0.0425 |
| 42 | 0.0425 |
| 43 | 0.0425 |
| 44 | 0.0425 |
| 45 | 0.0425 |
| 46 | 0.0425 |
| 47 | 0.0425 |
| 48 | 0.0425 |
| 49 | 0.0425 |
| 50 | 0.0425 |
| 51 | 0.0425 |
| 52 | 0.0425 |
| 53 | 0.0425 |
| 54 | 0.0425 |
| 55 | 0.0425 |
| 56 | 0.0425 |

## Actuarial Assumptions, effective July 1, 2013 Higher Education

|  | DEATH RATES |  | DISABILITYRATES | TERMINATION RATES |  |  |  | $\begin{gathered} \text { RETIREMENT/DROP } \\ \text { RATES } \\ \hline \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | MALE | FEMALE |  | $\begin{gathered} \hline<1 \\ \text { YEAR } \end{gathered}$ | $\begin{gathered} 1-2 \\ \text { YEARS } \end{gathered}$ | $\begin{gathered} 2-3 \\ \text { YEARS } \end{gathered}$ | $\begin{gathered} 4+ \\ \text { YEARS } \end{gathered}$ | $\begin{aligned} & <25 \\ & \text { YOS } \end{aligned}$ | $\begin{gathered} 25-29 \\ \text { YOS } \end{gathered}$ | $\begin{gathered} \hline \text { 30+ } \\ \text { YOS } \\ \hline \end{gathered}$ |
| 18 | 0.00020 | 0.00013 | 0.0000 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 19 | 0.00021 | 0.00013 | 0.0000 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 20 | 0.00021 | 0.00013 | 0.0000 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 21 | 0.00023 | 0.00013 | 0.0000 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 22 | 0.00024 | 0.00013 | 0.0000 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 23 | 0.00026 | 0.00013 | 0.0001 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 24 | 0.00027 | 0.00014 | 0.0001 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 25 | 0.00029 | 0.00015 | 0.0001 | 0.250 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 26 | 0.00033 | 0.00016 | 0.0001 | 0.210 | 0.250 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 27 | 0.00034 | 0.00017 | 0.0001 | 0.210 | 0.220 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 28 | 0.00035 | 0.00017 | 0.0001 | 0.220 | 0.220 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 29 | 0.00036 | 0.00018 | 0.0001 | 0.240 | 0.220 | 0.170 | 0.120 | 0.000 | 0.000 | 0.000 |
| 30 | 0.00039 | 0.00021 | 0.0001 | 0.250 | 0.160 | 0.170 | 0.180 | 0.000 | 0.000 | 0.000 |
| 31 | 0.00044 | 0.00025 | 0.0001 | 0.220 | 0.178 | 0.170 | 0.100 | 0.000 | 0.000 | 0.000 |
| 32 | 0.00050 | 0.00029 | 0.0001 | 0.220 | 0.190 | 0.160 | 0.100 | 0.000 | 0.000 | 0.000 |
| 33 | 0.00056 | 0.00031 | 0.0001 | 0.190 | 0.170 | 0.150 | 0.120 | 0.000 | 0.000 | 0.000 |
| 34 | 0.00062 | 0.00034 | 0.0001 | 0.230 | 0.155 | 0.100 | 0.120 | 0.000 | 0.000 | 0.000 |
| 35 | 0.00068 | 0.00036 | 0.0001 | 0.220 | 0.175 | 0.130 | 0.120 | 0.000 | 0.000 | 0.000 |
| 36 | 0.00074 | 0.00038 | 0.0001 | 0.220 | 0.160 | 0.150 | 0.120 | 0.000 | 0.000 | 0.000 |
| 37 | 0.00080 | 0.00040 | 0.0001 | 0.220 | 0.108 | 0.150 | 0.120 | 0.000 | 0.000 | 0.000 |
| 38 | 0.00083 | 0.00042 | 0.0001 | 0.190 | 0.180 | 0.150 | 0.100 | 0.100 | 0.080 | 0.600 |
| 39 | 0.00086 | 0.00044 | 0.0001 | 0.190 | 0.140 | 0.150 | 0.100 | 0.100 | 0.080 | 0.600 |
| 40 | 0.00088 | 0.00048 | 0.0001 | 0.230 | 0.185 | 0.150 | 0.100 | 0.100 | 0.080 | 0.600 |
| 41 | 0.00091 | 0.00053 | 0.0001 | 0.165 | 0.108 | 0.150 | 0.100 | 0.100 | 0.080 | 0.600 |
| 42 | 0.00095 | 0.00058 | 0.0001 | 0.230 | 0.115 | 0.150 | 0.100 | 0.100 | 0.080 | 0.600 |
| 43 | 0.00099 | 0.00064 | 0.0001 | 0.155 | 0.168 | 0.150 | 0.100 | 0.070 | 0.080 | 0.600 |
| 44 | 0.00103 | 0.00071 | 0.0001 | 0.195 | 0.135 | 0.150 | 0.100 | 0.070 | 0.080 | 0.600 |
| 45 | 0.00109 | 0.00075 | 0.0001 | 0.190 | 0.116 | 0.150 | 0.100 | 0.070 | 0.080 | 0.600 |
| 46 | 0.00114 | 0.00080 | 0.0008 | 0.162 | 0.170 | 0.150 | 0.080 | 0.070 | 0.080 | 0.600 |
| 47 | 0.00119 | 0.00084 | 0.0008 | 0.210 | 0.140 | 0.150 | 0.090 | 0.070 | 0.080 | 0.600 |
| 48 | 0.00124 | 0.00091 | 0.0008 | 0.135 | 0.180 | 0.150 | 0.090 | 0.070 | 0.080 | 0.600 |
| 49 | 0.00130 | 0.00098 | 0.0008 | 0.135 | 0.125 | 0.150 | 0.090 | 0.070 | 0.080 | 0.600 |
| 50 | 0.00136 | 0.00109 | 0.0008 | 0.185 | 0.108 | 0.060 | 0.090 | 0.070 | 0.080 | 0.600 |
| 51 | 0.00152 | 0.00124 | 0.0008 | 0.145 | 0.070 | 0.050 | 0.090 | 0.070 | 0.160 | 0.600 |
| 52 | 0.00161 | 0.00142 | 0.0008 | 0.155 | 0.110 | 0.095 | 0.090 | 0.070 | 0.160 | 0.600 |
| 53 | 0.00176 | 0.00163 | 0.0008 | 0.220 | 0.130 | 0.125 | 0.090 | 0.070 | 0.160 | 0.600 |
| 54 | 0.00193 | 0.00189 | 0.0008 | 0.220 | 0.075 | 0.017 | 0.090 | 0.150 | 0.280 | 0.400 |
| 55 | 0.00224 | 0.00222 | 0.0008 | 0.200 | 0.104 | 0.140 | 0.090 | 0.150 | 0.350 | 0.200 |
| 56 | 0.00267 | 0.00266 | 0.0020 | 0.135 | 0.122 | 0.100 | 0.080 | 0.150 | 0.200 | 0.050 |
| 57 | 0.00306 | 0.00307 | 0.0020 | 0.250 | 0.055 | 0.140 | 0.080 | 0.150 | 0.130 | 0.050 |
| 58 | 0.00352 | 0.00346 | 0.0020 | 0.100 | 0.115 | 0.200 | 0.100 | 0.150 | 0.130 | 0.050 |
| 59 | 0.00397 | 0.00392 | 0.0005 | 0.100 | 0.210 | 0.125 | 0.080 | 0.150 | 0.130 | 0.050 |
| 60 | 0.00451 | 0.00446 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.150 | 0.130 | 0.050 |
| 61 | 0.00526 | 0.00513 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.120 | 0.120 |
| 62 | 0.00600 | 0.00587 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.120 | 0.120 |
| 63 | 0.00704 | 0.00675 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.120 | 0.120 |
| 64 | 0.00793 | 0.00760 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.120 | 0.120 |
| 65 | 0.00895 | 0.00856 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.200 |
| 66 | 0.01039 | 0.00966 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.180 |
| 67 | 0.01159 | 0.01073 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.180 |
| 68 | 0.01256 | 0.01186 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.180 |
| 69 | 0.01392 | 0.01311 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.280 |
| 70 | 0.01522 | 0.01477 | 0.0005 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.280 |
| 71 | 0.01684 | 0.01598 | 0.0000 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.200 |
| 72 | 0.01870 | 0.01778 | 0.0000 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.200 |
| 73 | 0.02083 | 0.01927 | 0.0000 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.200 |
| 74 | 0.02323 | 0.02136 | 0.0000 | 0.150 | 0.160 | 0.090 | 0.060 | 0.120 | 0.160 | 0.200 |


|  |  |
| :---: | :---: |
| DUR | SALARY <br> INCREASE |
| $\mathbf{0}$ | 0.100 |
| $\mathbf{1}$ | 0.100 |
| $\mathbf{2}$ | 0.090 |
| $\mathbf{3}$ | 0.080 |
| $\mathbf{4}$ | 0.040 |
| $\mathbf{5}$ | 0.070 |
| $\mathbf{6}$ | 0.050 |
| $\mathbf{7}$ | 0.070 |
| $\mathbf{8}$ | 0.070 |
| $\mathbf{9}$ | 0.045 |
| $\mathbf{1 0}$ | 0.045 |
| $\mathbf{1 1}$ | 0.045 |
| $\mathbf{1 2}$ | 0.045 |
| $\mathbf{1 3}$ | 0.045 |
| $\mathbf{1 4}$ | 0.040 |
| $\mathbf{1 5}$ | 0.040 |
| $\mathbf{1 6}$ | 0.040 |
| $\mathbf{1 7}$ | 0.040 |
| $\mathbf{1 8}$ | 0.040 |
| $\mathbf{1 9}$ | 0.040 |
| $\mathbf{2 0}$ | 0.040 |
| $\mathbf{2 1}$ | 0.040 |
| $\mathbf{2 2}$ | 0.040 |
| $\mathbf{2 3}$ | 0.040 |
| $\mathbf{2 4}$ | 0.040 |
| $\mathbf{2 5}$ | 0.040 |
| $\mathbf{2 6}$ | 0.040 |
| $\mathbf{2 7}$ | 0.035 |
| $\mathbf{2 8}$ | 0.035 |
| $\mathbf{2 9}$ | 0.035 |
| $\mathbf{3 0}$ | 0.035 |
| $\mathbf{3 1}$ | 0.035 |
| $\mathbf{3 2}$ | 0.035 |
| $\mathbf{3 3}$ | 0.035 |
| $\mathbf{3 4}$ | 0.035 |
| $\mathbf{3 5}$ | 0.035 |
| $\mathbf{3 6}$ | 0.035 |
| $\mathbf{3 7}$ | 0.035 |
| $\mathbf{3 8}$ | 0.035 |
| $\mathbf{3 9}$ | 0.035 |
| $\mathbf{4 0}$ | 0.035 |
| $\mathbf{4 1}$ | 0.035 |
| $\mathbf{4 2}$ | 0.035 |
| $\mathbf{4 3}$ | 0.035 |
| $\mathbf{4 4}$ | 0.035 |
| $\mathbf{4 5}$ | 0.035 |
| $\mathbf{4 6}$ | 0.035 |
| $\mathbf{4 7}$ | 0.035 |
| $\mathbf{4 8}$ | 0.035 |
| $\mathbf{4 9}$ | 0.035 |
| $\mathbf{5 0}$ | 0.035 |
| $\mathbf{5 1}$ | 0.035 |
| $\mathbf{5 2}$ | 0.035 |
| $\mathbf{5 3}$ | 0.035 |
| $\mathbf{5 4}$ | 0.035 |
| $\mathbf{5 5}$ | 0.035 |
| $\mathbf{5 6}$ | 0.035 |
|  |  |

## Actuarial Assumptions, effective July 1, 2013 Lunch Plan A

| AGE | DEATH RATES |  | $\begin{aligned} & \text { DISABILITY } \\ & \text { RATES } \end{aligned}$ | RETIREMENT/DROP RATES |  | DUR | TERMINATION RATES | SALARY INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MALE | FEMALE |  | < 30 YOS | $\begin{gathered} >=30 \\ \text { YOS } \end{gathered}$ |  |  |  |
| 18 | 0.00020 | 0.00013 | 0.0000 | 0.000 | 0.000 | 0 | 0.14 | 0.06 |
| 19 | 0.00021 | 0.00013 | 0.0000 | 0.000 | 0.000 | 1 | 0.14 | 0.06 |
| 20 | 0.00021 | 0.00013 | 0.0000 | 0.000 | 0.000 | 2 | 0.14 | 0.06 |
| 21 | 0.00023 | 0.00013 | 0.0000 | 0.000 | 0.000 | 3 | 0.14 | 0.06 |
| 22 | 0.00024 | 0.00013 | 0.0000 | 0.000 | 0.000 | 4 | 0.14 | 0.06 |
| 23 | 0.00026 | 0.00013 | 0.0000 | 0.000 | 0.000 | 5 | 0.14 | 0.06 |
| 24 | 0.00027 | 0.00014 | 0.0000 | 0.000 | 0.000 | 6 | 0.14 | 0.06 |
| 25 | 0.00029 | 0.00015 | 0.0000 | 0.000 | 0.000 | 7 | 0.14 | 0.06 |
| 26 | 0.00033 | 0.00016 | 0.0000 | 0.000 | 0.000 | 8 | 0.14 | 0.06 |
| 27 | 0.00034 | 0.00017 | 0.0000 | 0.000 | 0.000 | 9 | 0.14 | 0.06 |
| 28 | 0.00035 | 0.00017 | 0.0000 | 0.000 | 0.000 | 10 | 0.14 | 0.06 |
| 29 | 0.00036 | 0.00018 | 0.0000 | 0.000 | 0.000 | 11 | 0.14 | 0.06 |
| 30 | 0.00039 | 0.00021 | 0.0000 | 0.000 | 0.000 | 12 | 0.14 | 0.05 |
| 31 | 0.00044 | 0.00025 | 0.0001 | 0.000 | 0.000 | 13 | 0.14 | 0.05 |
| 32 | 0.00050 | 0.00029 | 0.0001 | 0.000 | 0.000 | 14 | 0.14 | 0.05 |
| 33 | 0.00056 | 0.00031 | 0.0001 | 0.000 | 0.000 | 15 | 0.14 | 0.06 |
| 34 | 0.00062 | 0.00034 | 0.0001 | 0.000 | 0.000 | 16 | 0.14 | 0.06 |
| 35 | 0.00068 | 0.00036 | 0.0001 | 0.000 | 0.000 | 17 | 0.14 | 0.07 |
| 36 | 0.00074 | 0.00038 | 0.0001 | 0.000 | 0.000 | 18 | 0.14 | 0.07 |
| 37 | 0.00080 | 0.00040 | 0.0001 | 0.000 | 0.000 | 19 | 0.14 | 0.04 |
| 38 | 0.00083 | 0.00042 | 0.0001 | 0.600 | 0.300 | 20 | 0.14 | 0.04 |
| 39 | 0.00086 | 0.00044 | 0.0001 | 0.600 | 0.300 | 21 | 0.14 | 0.04 |
| 40 | 0.00088 | 0.00048 | 0.0001 | 0.600 | 0.300 | 22 | 0.14 | 0.04 |
| 41 | 0.00091 | 0.00053 | 0.0001 | 0.600 | 0.300 | 23 | 0.14 | 0.06 |
| 42 | 0.00095 | 0.00058 | 0.0001 | 0.600 | 0.300 | 24 | 0.14 | 0.06 |
| 43 | 0.00099 | 0.00064 | 0.0001 | 0.600 | 0.300 | 25 | 0.14 | 0.04 |
| 44 | 0.00103 | 0.00071 | 0.0001 | 0.600 | 0.300 | 26 | 0.14 | 0.04 |
| 45 | 0.00109 | 0.00075 | 0.0001 | 0.600 | 0.300 | 27 | 0.14 | 0.04 |
| 46 | 0.00114 | 0.00080 | 0.0001 | 0.600 | 0.300 | 28 | 0.14 | 0.04 |
| 47 | 0.00119 | 0.00084 | 0.0001 | 0.600 | 0.300 | 29 | 0.14 | 0.04 |
| 48 | 0.00124 | 0.00091 | 0.0001 | 0.600 | 0.300 | 30 | 0.14 | 0.04 |
| 49 | 0.00130 | 0.00098 | 0.0100 | 0.600 | 0.300 | 31 | 0.14 | 0.04 |
| 50 | 0.00136 | 0.00109 | 0.0100 | 0.600 | 0.300 | 32 | 0.14 | 0.04 |
| 51 | 0.00152 | 0.00124 | 0.0100 | 0.600 | 0.300 | 33 | 0.14 | 0.04 |
| 52 | 0.00161 | 0.00142 | 0.0150 | 0.600 | 0.700 | 34 | 0.14 | 0.04 |
| 53 | 0.00176 | 0.00163 | 0.0175 | 0.600 | 0.700 | 35 | 0.14 | 0.04 |
| 54 | 0.00193 | 0.00189 | 0.0175 | 0.600 | 0.700 | 36 | 0.14 | 0.04 |
| 55 | 0.00224 | 0.00222 | 0.0175 | 0.800 | 0.700 | 37 | 0.14 | 0.04 |
| 56 | 0.00267 | 0.00266 | 0.0002 | 0.350 | 0.700 | 38 | 0.14 | 0.04 |
| 57 | 0.00306 | 0.00307 | 0.0002 | 0.350 | 0.700 | 39 | 0.14 | 0.04 |
| 58 | 0.00352 | 0.00346 | 0.0002 | 0.350 | 0.700 | 40 | 0.14 | 0.04 |
| 59 | 0.00397 | 0.00392 | 0.0002 | 0.600 | 0.700 | 41 | 0.14 | 0.04 |
| 60 | 0.00451 | 0.00446 | 0.0002 | 0.450 | 0.700 | 42 | 0.14 | 0.04 |
| 61 | 0.00526 | 0.00513 | 0.0002 | 0.200 | 0.500 | 43 | 0.14 | 0.04 |
| 62 | 0.00600 | 0.00587 | 0.0002 | 0.200 | 0.500 | 44 | 0.14 | 0.04 |
| 63 | 0.00704 | 0.00675 | 0.0002 | 0.350 | 0.500 | 45 | 0.14 | 0.04 |
| 64 | 0.00793 | 0.00760 | 0.0002 | 0.100 | 0.500 | 46 | 0.14 | 0.04 |
| 65 | 0.00895 | 0.00856 | 0.0002 | 0.100 | 0.500 | 47 | 0.14 | 0.04 |
| 66 | 0.01039 | 0.00966 | 0.0002 | 0.100 | 0.250 | 48 | 0.14 | 0.04 |
| 67 | 0.01159 | 0.01073 | 0.0002 | 0.200 | 0.250 | 49 | 0.14 | 0.04 |
| 68 | 0.01256 | 0.01186 | 0.0002 | 0.200 | 0.250 | 50 | 0.14 | 0.04 |
| 69 | 0.01392 | 0.01311 | 0.0000 | 0.200 | 0.250 | 51 | 0.14 | 0.04 |
| 70 | 0.01522 | 0.01477 | 0.0000 | 0.200 | 0.250 | 52 | 0.14 | 0.04 |
| 71 | 0.01684 | 0.01598 | 0.0000 | 0.200 | 0.250 | 53 | 0.14 | 0.04 |
| 72 | 0.01870 | 0.01778 | 0.0000 | 0.200 | 0.250 | 54 | 0.14 | 0.04 |
| 73 | 0.02083 | 0.01927 | 0.0000 | 0.200 | 0.250 | 55 | 0.14 | 0.04 |
| 74 | 0.02323 | 0.02136 | 0.0000 | 0.200 | 0.250 | 56 | 0.14 | 0.04 |

## Actuarial Assumptions, effective July 1, 2013 Lunch Plan B

| AGE | DEATH RATES |  | $\begin{gathered} \hline \text { DISABILITY } \\ \text { RATES } \\ \hline \end{gathered}$ | RETIREMENT/DROP RATES |
| :---: | :---: | :---: | :---: | :---: |
|  | MALE | FEMALE |  |  |
| 18 | 0.00020 | 0.00013 | 0.0000 | 0.00 |
| 19 | 0.00021 | 0.00013 | 0.0000 | 0.00 |
| 20 | 0.00021 | 0.00013 | 0.0000 | 0.00 |
| 21 | 0.00023 | 0.00013 | 0.0000 | 0.00 |
| 22 | 0.00024 | 0.00013 | 0.0000 | 0.00 |
| 23 | 0.00026 | 0.00013 | 0.0000 | 0.00 |
| 24 | 0.00027 | 0.00014 | 0.0000 | 0.00 |
| 25 | 0.00029 | 0.00015 | 0.0000 | 0.00 |
| 26 | 0.00033 | 0.00016 | 0.0000 | 0.00 |
| 27 | 0.00034 | 0.00017 | 0.0000 | 0.00 |
| 28 | 0.00035 | 0.00017 | 0.0000 | 0.00 |
| 29 | 0.00036 | 0.00018 | 0.0000 | 0.00 |
| 30 | 0.00039 | 0.00021 | 0.0000 | 0.00 |
| 31 | 0.00044 | 0.00025 | 0.0000 | 0.00 |
| 32 | 0.00050 | 0.00029 | 0.0000 | 0.00 |
| 33 | 0.00056 | 0.00031 | 0.0000 | 0.00 |
| 34 | 0.00062 | 0.00034 | 0.0000 | 0.00 |
| 35 | 0.00068 | 0.00036 | 0.0000 | 0.00 |
| 36 | 0.00074 | 0.00038 | 0.0010 | 0.00 |
| 37 | 0.00080 | 0.00040 | 0.0010 | 0.00 |
| 38 | 0.00083 | 0.00042 | 0.0010 | 0.00 |
| 39 | 0.00086 | 0.00044 | 0.0010 | 0.00 |
| 40 | 0.00088 | 0.00048 | 0.0050 | 0.00 |
| 41 | 0.00091 | 0.00053 | 0.0050 | 0.00 |
| 42 | 0.00095 | 0.00058 | 0.0050 | 0.00 |
| 43 | 0.00099 | 0.00064 | 0.0050 | 0.00 |
| 44 | 0.00103 | 0.00071 | 0.0050 | 0.00 |
| 45 | 0.00109 | 0.00075 | 0.0050 | 0.00 |
| 46 | 0.00114 | 0.00080 | 0.0050 | 0.00 |
| 47 | 0.00119 | 0.00084 | 0.0050 | 0.00 |
| 48 | 0.00124 | 0.00091 | 0.0050 | 0.00 |
| 49 | 0.00130 | 0.00098 | 0.0050 | 0.00 |
| 50 | 0.00136 | 0.00109 | 0.0130 | 0.00 |
| 51 | 0.00152 | 0.00124 | 0.0130 | 0.00 |
| 52 | 0.00161 | 0.00142 | 0.0130 | 0.00 |
| 53 | 0.00176 | 0.00163 | 0.0130 | 0.00 |
| 54 | 0.00193 | 0.00189 | 0.0130 | 0.00 |
| 55 | 0.00224 | 0.00222 | 0.0175 | 0.80 |
| 56 | 0.00267 | 0.00266 | 0.0175 | 0.80 |
| 57 | 0.00306 | 0.00307 | 0.0225 | 0.80 |
| 58 | 0.00352 | 0.00346 | 0.0225 | 0.80 |
| 59 | 0.00397 | 0.00392 | 0.0150 | 0.60 |
| 60 | 0.00451 | 0.00446 | 0.0050 | 0.50 |
| 61 | 0.00526 | 0.00513 | 0.0050 | 0.25 |
| 62 | 0.00600 | 0.00587 | 0.0050 | 0.25 |
| 63 | 0.00704 | 0.00675 | 0.0050 | 0.25 |
| 64 | 0.00793 | 0.00760 | 0.0010 | 0.25 |
| 65 | 0.00895 | 0.00856 | 0.0010 | 0.15 |
| 66 | 0.01039 | 0.00966 | 0.0010 | 0.15 |
| 67 | 0.01159 | 0.01073 | 0.0010 | 0.30 |
| 68 | 0.01256 | 0.01186 | 0.0010 | 0.45 |
| 69 | 0.01392 | 0.01311 | 0.0010 | 0.20 |
| 70 | 0.01522 | 0.01477 | 0.0010 | 0.20 |
| 71 | 0.01684 | 0.01598 | 0.0010 | 0.20 |
| 72 | 0.01870 | 0.01778 | 0.0010 | 0.20 |
| 73 | 0.02083 | 0.01927 | 0.0010 | 0.20 |
| 74 | 0.02323 | 0.02136 | 0.0010 | 0.20 |


| DUR | TERMINATION RATES | SALARY INCREASE |
| :---: | :---: | :---: |
| 0 | 0.100 | 0.055 |
| 1 | 0.090 | 0.055 |
| 2 | 0.080 | 0.055 |
| 3 | 0.070 | 0.055 |
| 4 | 0.060 | 0.055 |
| 5 | 0.050 | 0.055 |
| 6 | 0.050 | 0.055 |
| 7 | 0.045 | 0.055 |
| 8 | 0.045 | 0.055 |
| 9 | 0.045 | 0.055 |
| 10 | 0.045 | 0.055 |
| 11 | 0.045 | 0.045 |
| 12 | 0.040 | 0.045 |
| 13 | 0.030 | 0.045 |
| 14 | 0.030 | 0.045 |
| 15 | 0.030 | 0.045 |
| 16 | 0.050 | 0.050 |
| 17 | 0.050 | 0.050 |
| 18 | 0.050 | 0.050 |
| 19 | 0.030 | 0.040 |
| 20 | 0.040 | 0.040 |
| 21 | 0.040 | 0.040 |
| 22 | 0.040 | 0.040 |
| 23 | 0.040 | 0.040 |
| 24 | 0.040 | 0.040 |
| 25 | 0.040 | 0.040 |
| 26 | 0.040 | 0.040 |
| 27 | 0.040 | 0.040 |
| 28 | 0.040 | 0.040 |
| 29 | 0.040 | 0.040 |
| 30 | 0.040 | 0.040 |
| 31 | 0.040 | 0.040 |
| 32 | 0.040 | 0.040 |
| 33 | 0.040 | 0.040 |
| 34 | 0.040 | 0.040 |
| 35 | 0.040 | 0.040 |
| 36 | 0.040 | 0.040 |
| 37 | 0.040 | 0.040 |
| 38 | 0.040 | 0.040 |
| 39 | 0.040 | 0.040 |
| 40 | 0.040 | 0.040 |
| 41 | 0.040 | 0.040 |
| 42 | 0.040 | 0.040 |
| 43 | 0.040 | 0.040 |
| 44 | 0.040 | 0.040 |
| 45 | 0.040 | 0.040 |
| 46 | 0.040 | 0.040 |
| 47 | 0.040 | 0.040 |
| 48 | 0.040 | 0.040 |
| 49 | 0.040 | 0.040 |
| 50 | 0.040 | 0.040 |
| 51 | 0.040 | 0.040 |
| 52 | 0.040 | 0.040 |
| 53 | 0.040 | 0.040 |
| 54 | 0.040 | 0.040 |
| 55 | 0.040 | 0.040 |
| 56 | 0.040 | 0.040 |

## Exhibit 7-A

## AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY June 30, 2016

| Date | Description | Amtz. <br> Method | Amtz. <br> Period | Initial <br> Liability | Years <br> Remain | Remaining Balance | Mid-Year <br> Payment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | OAB | Note 1 | 15 | $2,537,864,619$ | 13 | $2,315,374,153$ | $261,202,822$ |
| 2014 | EAAB | Note 2,3 | 26 | $3,996,568,647$ | 24 | $3,694,542,686$ | $344,217,565$ |
| 2014 | 2009 Experience G/L | L | 25 | $2,830,242,246$ | 23 | $2,746,828,480$ | $249,988,498$ |
| 2014 | 2010 Experience G/L | L | 26 | $1,106,465,512$ | 24 | $1,076,594,214$ | $96,461,424$ |
| 2014 | 2011 Experience G/L | L | 27 | $(170,316,807)$ | 25 | $(166,100,327)$ | $(14,671,243)$ |
| 2014 | 2012 Experience G/L | L | 28 | $123,507,827$ | 26 | $120,701,146$ | $10,522,700$ |
| 2014 | 2013 Experience G/L | L | 29 | $(246,366,627)$ | 27 | $(241,222,916)$ | $(20,779,159)$ |
| 2014 | 2013 Assump/Method Change | L | 29 | $838,527,326$ | 54 | $821,020,320$ | $70,723,428$ |
| 2014 | 2014 Investment Experience | L | 5 | $(423,997,917)$ | 3 | $(273,099,957)$ | $(101,629,570)$ |
| 2014 | 2014 Assump/Meth Change | L | 30 | $1,452,120,642$ | 28 | $1,424,243,499$ | $121,343,619$ |
| 2014 | 2014 Other Experience G/L | L | 30 | $(162,364,784)$ | 28 | $(159,247,780)$ | $(13,567,695)$ |
| 2015 | 2015 Experience G/L | L | 30 | $(376,727,393)$ | 29 | $(373,246,171)$ | $(31,480,487)$ |
| 2016 | 2016 Experience G/L | L | 30 | $26,612,533$ | 30 | $26,612,533$ | $2,223,824$ |

Total Outstanding Balance
\$ 11,012,999,880 \$ 974,555,726

Employers Credit Balance

| 2014 | 2012 Contribution Variance | Note 3 | - | - | - |  | - |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | 2013 Contribution Variance | L | 4 | 9,457,295 | 2 |  | 5,080,956 |  | 2,735,460 |
| 2014 | 2014 Contribution Variance | Note 3 | - | - |  |  | - |  | - |
| 2015 | 2015 Contribution Variance | Note 3 | - | - | - |  | - |  | - |
| 2016 | 2016 Contribution Variance | Note 3 | - | - | - |  |  |  |  |
|  | Total Credit Balance |  |  |  |  | \$ | 5,080,956 | \$ | 2,735,460 |
|  | Total Unfunded Actuarial Accrued Liability |  |  |  |  | \$ 11,018,080,836 |  | \$ | 7,291,186 |

See Exhibit 7-D for Notes.

## Exhibit 7-B

## AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY June 30, 2017 - Projected

| Date | Description | Amtz. <br> Method | Amtz. <br> Period | Years <br> Initial Liability |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | Remain | Note 1 | 12 | $2,223,680,075$ | 12 | $2,223,680,075$ | $277,558,112$ |
| 2017 | EAAB | Note 2,3 | 23 | $3,669,519,961$ | 23 | $3,623,562,627$ | $365,395,967$ |
| 2017 | 2009 Experience G/L | L | 22 | $2,700,212,883$ | 22 | $2,700,212,883$ | $249,046,832$ |
| 2017 | 2010 Experience G/L | L | 23 | $1,059,900,706$ | 23 | $1,059,900,706$ | $96,087,157$ |
| 2017 | 2011 Experience G/L | L | 24 | $(163,743,956)$ | 24 | $(163,743,956)$ | $(14,612,723)$ |
| 2017 | 2012 Experience G/L | L | 25 | $119,132,639$ | 25 | $119,132,639$ | $10,479,627$ |
| 2017 | 2013 Experience G/L | L | 26 | $(238,348,365)$ | 26 | $(238,348,365)$ | $(20,692,015)$ |
| 2017 | 2013 Assump/Method Chg | L | 26 | $811,236,568$ | 26 | $811,236,568$ | $70,426,828$ |
| 2017 | 2014 Investment Experience | L | 2 | $(188,770,969)$ | 2 | $(188,770,969)$ | $(101,583,287)$ |
| 2017 | 2014 Assump/Method Change | L | 27 | $1,408,664,420$ | 27 | $1,408,664,420$ | $120,823,022$ |
| 2017 | 2014 Other Experience G/L | L | 27 | $(157,505,849)$ | 27 | $(157,505,849)$ | $(13,509,486)$ |
| 2017 | 2015 Experience G/L | L | 28 | $(369,495,154)$ | 28 | $(369,495,154)$ | $(31,342,513)$ |
| 2017 | 2016 Experience G/L | L | 29 | $26,366,615$ | 29 | $26,366,615$ | $2,213,880$ |
| 2017 | 2017 DR Change | L | 30 | $134,115,300$ | 30 | $134,115,300$ | $11,156,015$ |

Total Outstanding Balance
\$ 10,989,007,540 \$ 1,021,447,416

## Employers Credit Balance

| 2017 | 2013 Contribution Variance | L | 1 | 2,635,249 | 1 |  | 2,635,249 |  | 2,734,825 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | 2014 Contribution Variance | Note 3 | - | - | - |  | - |  | - |
| 2017 | 2015 Contribution Variance | Note 3 | - | - | - |  | - |  | - |
| 2017 | 2016 Contribution Variance | Note 3 | - | - | - |  | - |  | - |
| 2017 | 2017 Contribution Variance | L | 5 | 19,493,198 | 5 |  | 19,493,198 |  | 4,667,297 |
|  | Total Credit Balance |  |  |  |  | \$ | 22,128,447 | \$ | 7,402,122 |
|  | Total Unfunded Actuarial Ac | ued Liab |  |  |  | \$ | ,011,135,987 | \$ | 28,849,538 |

See Exhibit 7-D for Notes.

## Exhibit 7-C

UAL Outstanding Balance and Payment Schedule Based on June 30, 2017 Projected UAL Schedules*

| FY | UAL <br> Outstanding Balance | UAL Mid-Year Payments | Payment \% | FY | UAL <br> Outstanding Balance | UAL MidYear Payments | $\begin{gathered} \text { Payment } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning | (Millions) | (Millions) | Change | Beginning | (Millions) | (Millions) | Change |
| 2016 | 11,018 | 977 | 1.4\% | 2032 | 3,968 | 845 | 0.0\% |
| 2017 | 11,011 | 1,029 | 5.3\% | 2033 | 3,396 | 845 | 0.0\% |
| 2018 | 10,791 | 1,032 | 0.3\% | 2034 | 2,781 | 825 | -2.4\% |
| 2019 | 10,552 | 1,139 | 10.4\% | 2035 | 2,138 | 480 | -41.8\% |
| 2020 | 10,182 | 1,145 | 0.5\% | 2036 | 1,804 | 480 | 0.0\% |
| 2021 | 9,778 | 1,151 | 0.5\% | 2037 | 1,445 | 480 | 0.0\% |
| 2022 | 9,337 | 1,152 | 0.1\% | 2038 | 1,058 | 480 | 0.0\% |
| 2023 | 8,861 | 1,158 | 0.5\% | 2039 | 642 | 231 | -51.9\% |
| 2024 | 8,341 | 1,164 | 0.5\% | 2040 | 451 | 135 | -41.6\% |
| 2025 | 7,775 | 1,171 | 0.5\% | 2041 | 346 | 150 | 10.8\% |
| 2026 | 7,159 | 1,177 | 0.6\% | 2042 | 217 | 139 | -7.0\% |
| 2027 | 6,488 | 1,072 | -8.9\% | 2043 | 90 | 89 | -35.8\% |
| 2028 | 5,875 | 845 | -21.1\% | 2044 | 4 | -18 | -120.1\% |
| 2029 | 5,450 | 845 | 0.0\% | 2045 | 23 | 13 | -174.4\% |
| 2030 | 4,992 | 845 | 0.0\% | 2046 | 11 | 11 | -16.6\% |
| 2031 | 4,499 | 845 | 0.0\% | 2047 | 0 | 0 | -100.0\% |

* Includes the projected 2017 contribution variance and amortized with $7.70 \%$ discount rate



## Exhibit 7-D

## 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.

All schedules shown in Exhibit 7-A were re-amortized on July, 1, 2014, using a rate of 7.75\%. All schedules shown in Exhibit 7-B, projected for July 1, 2017, were re-amortized as of July 1, 2017 using a discount rate of 7.70\%.

Note 1: Act 497 of 2009 created the Original Amortization Base, effective July 1, 2010, which combines the following schedules: 1993-1996, 1998-2000, and 2005-2008. The combined balance was reduced by applying funds from the IUAL Fund, excluding the subaccount of this fund. In addition to regular payments, the schedule was reduced by $\$ 100$ million on June 30, 2013 and re-amortized, by $\$ 50$ million and $\$ 100$ million on June 30, 2014 and 2015, respectively, and not re-amortized, per Act 399 of 2014. The schedule was credited appropriations from Act 55 of 2014 and Act 56 of 2015. Future payments will increase by $6.5 \%$ for 3 years, then by $2.0 \%$ until paid off in 2029.

Note 2: Act 497 of 2009 created the Experience Account Amortization Base, which combines the following schedules shown in Exhibit A-1: 1997, 2001-2003, 2004 (the liability resulting from Act 588 of 2004 which zeroed out the Experience Account), and 2008. 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 increase by $6.5 \%$ for 3 years and then will be level until paid off in 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, 2015, and 2016 contribution variance surpluses of $\$ 40,289,648, \$ 91,284,653$, and $\$ 64,452,206$, respectively, were used to reduce the EAAB, with no re-amortization, per Act 399 of 2014.

## Exhibit 7-E

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

|  | Annual Outstanding Balance |  |  |  |  | Annual Payments |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Employer |  |  |  | Employer |  |  |  |  |
|  | IUAL | Other Schedules | IUAL <br> Acct | Credit <br> Account | Total <br> OAB | IUAL | Other Schedules | IUAL <br> Acct | Credit <br> Account | Total OAB |
| 2016 | 6,424.5 | $(3,622.0)$ | (389.5) | (97.6) | 2,315.4 | 724.8 | (408.6) | (43.9) | (11.0) | 261.2 |
| 2017 | 6,170.1 | $(3,478.6)$ | (374.1) | (93.8) | 2,223.7 | 771.9 | (435.2) | (46.8) | (11.7) | 278.2 |
| 2018 | 5,847.1 | $(3,296.4)$ | (354.5) | (88.9) | 2,107.3 | 787.3 | (443.9) | (47.7) | (12.0) | 283.7 |
| 2019 | 5,483.0 | $(3,091.2)$ | (332.4) | (83.3) | 1,976.0 | 803.1 | (452.7) | (48.7) | (12.2) | 289.4 |
| 2020 | 5,074.3 | $(2,860.8)$ | (307.7) | (77.1) | 1,828.8 | 819.1 | (461.8) | (49.7) | (12.4) | 295.2 |
| 2021 | 4,617.3 | $(2,603.1)$ | (279.9) | (70.2) | 1,664.0 | 835.5 | (471.0) | (50.7) | (12.7) | 301.1 |
| 2022 | 4,107.8 | $(2,315.9)$ | (249.1) | (62.4) | 1,480.4 | 852.2 | (480.5) | (51.7) | (13.0) | 307.1 |
| 2023 | 3,541.6 | $(1,996.7)$ | (214.7) | (53.8) | 1,276.4 | 869.3 | (490.1) | (52.7) | (13.2) | 313.3 |
| 2024 | 2,913.7 | $(1,642.7)$ | (176.7) | (44.3) | 1,050.1 | 886.6 | (499.9) | (53.8) | (13.5) | 319.5 |
| 2025 | 2,219.2 | $(1,251.1)$ | (134.6) | (33.7) | 799.8 | 904.4 | (509.9) | (54.8) | (13.7) | 325.9 |
| 2026 | 1,452.4 | (818.8) | (88.1) | (22.1) | 523.4 | 922.5 | (520.1) | (55.9) | (14.0) | 332.5 |
| 2027 | 607.4 | (342.5) | (36.8) | (9.2) | 218.9 | 630.5 | (355.5) | (38.2) | (9.6) | 227.2 |
| 2028 | - | - | - | - | - | - | - | - | - | - |
| 2029 | - | - | - | - | - | - | - | - | - | - |

## GLOSSARY

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

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

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

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

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

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

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

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

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

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

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

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

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

Discount Rate - The interest rate used in developing present values to reflect the time value of money.
Decrements - Events which result in the termination of membership 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 on Exhibit 7-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 funding method used to determine the liabilities.

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

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

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

Original Amortization Base (OAB) - Amortization base created in 2010 by Act 497 of 2009. Consolidated and re-amortized schedules created in the following valuation years, which existed prior to Act 497: 1993 (Initial Unfunded Accrued Liability), 1993 (Change in Liability), 1994-1996, 1998-2000, and 2005-2008. See Note 1 on Exhibit 7-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 insure orderly and consistent strategies for continuing development and growth that will attain and maintain the soundness of the public retirement systems, plans and funds 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.


[^0]:    1 Dollar Amounts reflect estimated payments due mid-year on January 1st per Act 81. Constitutional Minimum is ll.8\% without regard to the statutory minimum of $15.5 \%$.
    2 Normal costs, normal cost rates, and UAL payments projected for FY 2017/18 were determined using a discount rate of 7.70\%.
    3 The ORP salary adjustment factor is used to convert amortization payments to percentage of payroll.

[^1]:    1 The Employer Credit Account was created by ACT 588 of 2004.
    2 The 2015 Experience Account interest credit was calculated to be $\$ 24,553,922$, but the total account balance is limited to $\$ 226,356,559$, or the cost of one PBI. The remaining interest was credited to valuation assets to be used for regular plan funding.

[^2]:    ${ }^{1}$ Plan Fiduciary Net Position excludes side-fund assets held for the LSU Agriculture and Extension Service

[^3]:    ${ }^{1}$ Amounts shown exclude side-fund assets held for the LSU Agriculture and Extension Service and associated contributions and benefits.

