

**LOUISIANA SCHOOL EMPLOYEES'
RETIREMENT SYSTEM**

ACTUARIAL VALUATION AS OF
JUNE 30, 2016

G. S. CURRAN & COMPANY, LTD.

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October 11, 2016

Board of Trustees
Louisiana School Employees' Retirement System
8660 United Plaza Boulevard.
Baton Rouge, Louisiana 70809

Ladies and Gentlemen:

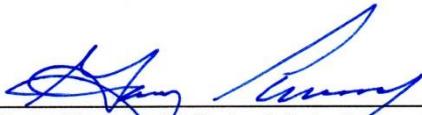
We are pleased to present our report on the actuarial valuation of the Louisiana School Employees' Retirement System for the fiscal year ending June 30, 2016. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrators and accountants. This report was prepared at the request of the Board of Trustees of Louisiana School Employees' Retirement System of the State of Louisiana. The primary purposes of the report are to determine the actuarially required contribution for the retirement system for the fiscal year ending June 30, 2017, and to recommend the net direct employer contribution rate for Fiscal 2018. This report does not contain the information necessary for accounting disclosures as required by Governmental Accounting Standards Board (GASB) Statements 67 and 68; that information is included in a separate report. This report was prepared exclusively for Louisiana School Employees' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

In our opinion, all of the assumptions on which this valuation is based are reasonable individually and in the aggregate. Both economic and demographic assumptions are based on our expectations for future experience for the fund. This report has been prepared in accordance with generally accepted actuarial principles and practices, and to the best of our knowledge and belief, fairly reflects the actuarial present values and costs stated herein. The undersigned actuaries are members of the American Academy of Actuaries and have met the qualification standards for the American Academy of Actuaries to render the actuarial opinions incorporated in this report, and are available to provide further information or answers to any questions with respect to this valuation.

Sincerely,

G. S. CURRAN & COMPANY, LTD.

By:



Gary Curran, F.C.A., M.A.A.A., A.S.A.



Gregory Curran, F.C.A., M.A.A.A., A.S.A.

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SUMMARY OF VALUATION RESULTS
LOUISIANA SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Valuation Date:	June 30, 2016	June 30, 2015
Census Summary:		
Active Members	12,075	12,061
Retired Members and Survivors	13,148	13,024
DROP Participants	676	660
Terminated Due a Deferred Benefit	275	276
Terminated Due a Refund	3,898	3,940
Payroll (excluding DROP accruals):	\$ 284,835,111	\$ 276,949,800
Benefits in Payment:	\$ 159,448,329	\$ 154,831,625
Present Value of Future Benefits	\$ 2,803,586,774	\$ 2,781,790,344
Actuarial Accrued Liability (EAN):	\$ 2,522,157,498	\$ 2,485,583,187
Unfunded Actuarial Accrued Liability:	\$ 692,561,828	\$ 728,150,981
Experience Account:	\$ 633,076	\$ 23,058,055
Amortization Conversion Account:	\$ 15,719,788	\$ 19,079,106
Actuarial Value of Assets (Net of side funds):	\$ 1,829,595,670	\$ 1,757,432,206
Market Value of Assets (Includes side funds):	\$ 1,767,810,247	\$ 1,851,456,181
Ratio of AVA to Actuarial Accrued Liability:	72.54%	70.71%

	Fiscal 2017	Fiscal 2016
Employers' Normal Cost (Mid-year):	\$ 26,201,992	\$ 27,815,696
Amortization Cost (Mid-year):	\$ 55,587,510	\$ 57,714,437
Projected Administrative Expenses:	\$ 4,716,018	N/A
Amortization Conversion Account Supplement:	\$ (4,613,318)	\$ (3,359,318)
Net Direct Employer Actuarially Required Contributions:	\$ 81,892,202	\$ 82,170,815
Projected Payroll:	\$ 293,693,467	\$ 286,161,805
Market Rate of Return (Excluding Money Market DROP funds):	-0.59%	3.00%
Actuarial Rate of Return (Excluding Money Market DROP funds):	6.90%	11.63%
Non-Money Market DROP Account Interest Credit Rate:	6.40%	11.13%
Actuarially Required Net Direct Employer Contribution Rate:	27.9%	28.7%
Actual Employee Contribution Rate:		
Employees whose first state service occurred before July 1, 2010:	7.50%	7.50%
Employees whose first state service occurred on or after July 1, 2010:	8.00%	8.00%
Actual Net Direct Employer Contribution Rate:	27.3%	30.2%

	Fiscal 2018	Fiscal 2017
Minimum Recommended Net Direct Employer Cont. Rate:	27.6%	27.3%

GENERAL COMMENTS

The values and calculations in this report were determined by applying statistical analysis and projections to system data and the assumptions listed. There is sometimes a tendency for readers to either dismiss results as mere “guesses” or alternatively ascribe absolute accuracy. In fact, neither of these descriptions is valid. Actuarial calculations by their very nature involve estimations. As such, it is likely that eventual results will differ from those presented. The degree to which such differences evolve will depend on several factors including the completeness and accuracy of data used; the degree to which assumptions approximate future experience and the extent to which the mathematical model accurately describes the plan’s design and future outcomes.

Data quality varies from system to system and year to year. The data inputs involve both asset information and census information of plan participants. In both cases, the actuary must rely on third parties; nevertheless, steps are taken to reduce the probability and degree of errors. The development of assumptions is primarily the task of the actuary; however, information and advice from plan administrators, staff and other professionals may be factored into the formation of assumptions. The process of setting assumptions is based primarily on analysis of past trends, but modification and historical experience is often required when the actuary has reason to believe that future circumstances may vary significantly from the past. Setting assumptions includes but is not limited to collecting past plan experience and studying general population demographics and economic factors from the past. The actuary will also consider current and future macro-economic and financial expectations as well as factors that are likely to impact the particular group under consideration. Hence, assumptions will also reflect the actuary’s judgment in such areas as expectation of population increase and turnover for the plan in view of the particular factors which impact participants. Thus, the process of setting assumptions is not mere “guess work” but rather a process of mathematical analysis of past experience and of those factors likely to impact the future.

One area where the actuary is limited in his ability to develop accurate estimates is the projection of future investment earnings. The difficulties here are significant. First, the future is rarely like the past, and the data points available to develop stochastic trials are far fewer than the amount required for statistical significance. In this area, some guess work is inevitable. However, there are tools available to lay a foundation for making estimates with an expectation of reliability. Although past data is limited, that which is available is likely to provide some insight into the future. This data consists of general economic and financial values such as past rates of inflation, rates of return variance, and correlations of returns among various asset classes along with the actual asset experience of the plan. In addition, the actuary can review the current asset market environment as well as economic forecasts from governmental and investment research groups to form a reasonable opinion with regard to probable future investment experience for the plan.

All of the above process would be in vain if the assumption process was static, and the plan would have to deal with the consequences of actual experience differing from assumptions after forty or fifty years of compounded errors. Fortunately, actuarial funding methods for pension plans all allow for periodic corrections of assumptions to conform with reality as it unfolds. This process of repeated correction of estimates produces results which although imperfect are nevertheless a reasonable approach to determine the level of funding and to provide for the future benefits of plan participants.

COMMENTS ON DATA

For the valuation, the system's administration furnished a census derived from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, sex, as well as option categories and benefit amounts, was provided in like manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit VIII, there are 12,075 active contributing members in the system of whom 5,226 have vested retirement benefits; in addition, there are 676 participants in the Deferred Retirement Option Plan (DROP); 13,148 former members or their beneficiaries are receiving retirement benefits. An additional 4,173 terminated members have contributions remaining on deposit with the system; of this number 275 have vested rights for future retirement benefits.

Census data submitted to our office is tested for errors. Several types of census data errors are possible; to ensure that the valuation results are as accurate as possible, a significant effort is made to identify and correct these errors. 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. Changes in status, new records, and previous records that have no corresponding current record are identified. This portion of the review indicates the annual flow of members from one status to another and is used to check some of the actuarial assumptions such as retirement rates, rates of withdrawal, and mortality. In addition, the census is checked for reasonableness in several areas such as age, service, salary, and current benefits. The records identified by this review as questionable are checked against data from prior valuations; those not recently verified are included in a detailed list of items sent to the system's administrative staff for verification and/or correction. Once the identified data has been researched and verified or corrected, it is returned to us for use in the valuation. Occasionally some requested information is either unavailable or impractical to obtain. In such cases, values may be assigned to missing data. The assigned values are based on information from similar records or based on information implied from other data in the record.

In addition to the statistical information provided on the system's participants, the system's administrator furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the Louisiana Legislative Auditor's office. As indicated in the system's financial statements, the net market value of system's assets was \$1,767,810,247 as of June 30, 2016. Net investment income for Fiscal 2016 measured on a market value basis amounted to a loss of \$10,422,226. Contributions to the system for the fiscal year totaled \$109,436,269; benefits and expenses amounted to \$182,659,977.

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. Our review of submitted information is limited to validation of reasonableness and consistency. Verification of submitted data to source information is beyond the scope of our efforts.

COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

This valuation is based on the Individual Entry Age Normal actuarial cost method. The unfunded accrued liability is amortized with level payments over various periods as specified in Louisiana Revised Statute R.S. 11:102. Effective with the June 30, 2014 valuation, the system's outstanding amortization

bases were consolidated and re-amortized over thirty years with level payments. For fiscal 2015 and 2016, amortization bases for actuarial asset and liability gains or losses (except as noted below) or changes in assumptions were set to be amortized over 30 years. Since this valuation indicates that the funded ratio of the plan (based on the actuarial value of assets) will exceed 72%, such amortization periods for new amortization bases beginning with the fiscal 2017 valuation will be twenty years. All contribution shortfalls and excesses are amortized as a level dollar amount over 5 years. In each valuation, the first \$15,000,000 of any asset gain (adjusted pro-rata for increases in the Actuarial Value of Assets) is used to immediately reduce the system's oldest outstanding amortization base without re-amortization. After the system's funded percentage reaches 80%, the remaining balance of the consolidated amortization base after application of the first level of asset gains by \$15,000,000 will be re-amortized over the remaining amortization period. Fifty percent of the asset gains which exceed the adjusted \$15,000,000 threshold will be used to fund the system's Experience Account which may be allocated to future permanent benefit increases (commonly referred to cost of living adjustments), subject to certain limitations. Effective with the first system valuation following June 30, 2015 valuation, any such allocation will be amortized as a loss with level payments over ten years. The funding methodology for the plan also includes the application of LSERS "side funds" defined by R.S. 11:102. The funds include the "Amortization Conversion Account" and the system's "Experience Account." For funding purposes, the actuarial value of assets excludes both the Amortization Conversion Account and the Experience Account.

The Amortization Conversion Account was initially funded from the residual balance in the Experience Account as of June 30, 2013. Payments from the account are made as an offset to employer contributions based on the provisions of Act 478 of the 2014 Regular Legislative Session each year through Fiscal 2019. Any balances in the account as of 2019 will be amortized as an experience gain.

The system's Experience Account is funded by 50% of any investment gains above \$15,000,000 (adjusted pro-rata for increases in the Actuarial Value of Assets) subject to the limits on the account value. In addition, each year the balance in the account is credited with investment earnings or debited with investment losses, shown in this report as the rate of return on the Actuarial Value of Assets. The balance in the account cannot exceed the reserve necessary to grant one (two if the system is funded 80% or greater) cost-of-living adjustment (or permanent benefit increase) as otherwise authorized by law. Any funds credited to the Experience Account reduce those allocated to the Investment Gain/Loss Experience base.

Beginning with the fiscal 2015 actuarial valuation, the general economic and non-economic assumptions used by the prior actuary for the June 30, 2014 valuation were reviewed and a determination was made to retain them with the exception of the statistics related to family composition and rates of remarriage. The change was made in these categories to better accommodate the software model used in this valuation. We do not believe that these changes will have any material effect. The valuation interest rate was determined by reviewing recent and long-term historical economic data as well as forward looking estimates provided by the fund's investment consultant, Segal Rogerscasey, and other consulting groups. Consideration was also given to expected investment costs. For fiscal 2016, inherent in the determination of future expected nominal returns was an assumption of future long-term inflation of 2.625%.

For fiscal 2015, decrement levels and salary scale were based on those values used by the prior actuary. Since no experience was available to set these assumptions, they were reviewed for reasonableness. In addition, a review was made of the prior actuary's experience report, dated April 5, 2013. This report detailed the experience for the plan over the prior five year period. In particular, a review of the

mortality as given in the experience report indicated that even though the RP2000 table without projection was utilized, it included significant margins for mortality improvement; hence no projection was made to the table.

For the June 30, 2015 valuation, although the assumed rate of return was maintained at 7.25%, the interest rate used to discount plan liabilities was reduced to 7.00%. This reduction was made to implicitly account for administrative expenses as an offset to investment gains or an increase to investment losses. Based on Act 94 of the 2016 Regular Session of the Legislature, beginning with the June 30, 2016 actuarial valuation, the explicit cost of projected noninvestment related administrative expenses will be included in the calculation of the actuarially required contribution for the system. With this change, the valuation of plan liabilities based on a valuation interest rate set 0.25% below the assumed long-term rate of return is no longer necessary. Instead, for the June 30, 2016 actuarial valuation, the assumed long-term rate of return was reduced from 7.25% to 7.125% and the valuation interest rate was set equal to the long-term rate of return. This resulted in an increase in the valuation interest rate from 7% to 7.125%. To maintain consistent economic assumptions, with the reduction in the long-term rate of return of 0.125%, the long term expected rate of inflation and the salary scale assumption were also reduced by 0.125%.

RISK FACTORS

Defined benefit pension plans are subject to a number of risks. These can be related either to plan assets or liabilities. In order to pay benefits, the plan must have sufficient assets. Several factors can lead to asset levels which are below those required to pay promised benefits. The first risk in this regard is the failure to contribute adequate funds to the plan. In some ways, this is the greatest risk, since other risks can usually be addressed by adequate actuarial funding.

All pension plans are subject to asset performance risk. Asset performance is comprised of the real rates of return earned on the portfolio of investments plus the underlying inflation rate. High levels of inflation or deflation can present the plan with problems by either reducing the purchasing power of plan benefits or impairing asset values in the trust. Asset performance over the long run depends not only on average returns but also on the volatility of returns. Two portfolios of identical size with identical average rates of return will accumulate different levels of assets if the volatility of returns differs since increased volatility reduces the accumulation of assets. Another element of asset risk is reinvestment risk. Recent interest rate declines have subjected pension plans to an increase in this risk. As fixed income securities have matured, investment managers have been forced to reinvest funds at decreasing rates of return. For pension plans which require significant net cash flow above contributions to fund benefit payments, the risk of insufficient liquidity is another risk component which can create problems if it becomes necessary to sell securities under unfavorable market conditions in order to raise cash necessary to pay retirement benefits. Even for individual securities, insolvency and performance risk can subject a plan to stress if these investments comprise a significant portion of plan assets. Security insolvency or severe underperformance can result in steep increases in sponsor contributions where individual investments comprise more than a de minimis amount of the investment portfolio.

In addition to asset risk, the plan is also subject to risks related to liabilities. These risks include longevity risk (the risk that retirees will live longer than expected), termination risk (the risk that fewer than the anticipated number of members will terminate service prior to retirement), and other factors that may have an impact on the liability structure of the plan. Final average compensation plans are

vulnerable to unexpectedly large increases in salary for individual members near retirement. Conversely, in cases where plans have large unfunded liabilities, payroll contraction is a risk insofar as contributions which are typically reported as a percentage of payroll may increase as payrolls decline.

Liability risk also includes items such as data errors. Significant errors in plan data can distort or disguise plan liabilities. When data corrections are made, the plan may experience unexpected increases or decreases in liabilities. Even natural disasters and dislocations in the economy or other unforeseen events can present risks to the plan. These events can affect member payroll and plan demographics, both of which impact costs.

Recommended actuarial contributions are based on expectations related to asset and liability performance; all of the above mentioned factors can produce unexpected changes in the future cost structures of the plan. For this reason, future costs may differ significantly from current levels. Ordinarily, variations in these factors will offset to some extent. However, even with the expectation that not all variations in costs will likely travel in the same direction, certain factors have the potential on their own accord to pose a significant risk to future cost levels and solvency.

Beyond identifying risk categories, it is possible to quantify some risk factors. One fairly well known risk metric is the funded ratio of the plan. The rate is given as plan assets divided by plan liabilities. However, the definition of each of these terms may vary. The two typical alternatives used for assets are the market and actuarial value of assets. There are a number of alternative measures of liability depending on the funding method employed. The Governmental Accounting Standards Board (GASB) specifies that for financial reporting purposes, the funded ratio is determined by using the market value of assets divided by the entry age normal accrued liability. This value is given in the system's financial report. Alternatively, we have calculated the ratio of the actuarial value of assets to the entry age normal accrued liability based on the funding methodology used to fund the plan. The ratio is 72.54% as of June 30, 2016. This value gives some indication of the financial strength of the plan; however, it does not guarantee the ability of the fund to pay benefits in the future or indicate that in the future, contributions are likely to be less than or greater than current contributions. In addition, the ratio cannot be used in isolation to compare the relative strength of different retirement systems. However, the trend of this ratio over time can give some insight into the financial health of the plan. Even in this regard, caution is warranted since market fluctuations in asset values and changes in plan assumptions can distort underlying trends in this value. One additional risk measure is the sensitivity of the plan's cost structure to asset gains and losses. For this plan, we have determined that based on current assets and demographics, for each percentage under (over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (reduction) in the actuarially required contribution as a percentage of projected payroll of 0.57% for the fund.

The ability of a system to recover from adverse asset or liability performance is related to the maturity of the plan population. In general, plans with increasing active membership are less sensitive to asset and liability gains and losses than mature plans since changes in plan costs can be partially allocated to new members. If the plan has a large number of active members compared to retirees, asset or liability losses can be more easily addressed. As more members retire, contributions can only be collected from a smaller segment of the overall plan population. Often, population ratios of actives to annuitants are used to measure the plan's ability to adjust or recover from adverse events since contributions are made by or on behalf of active members but not for retirees. Thus, if the plan suffers a mortality loss through increased longevity, this will affect both actives and retirees, but the system can only fund this loss by contributions related to active members. A measure of risk related to plan maturity is the ratio of total benefit payments to active payroll. For Fiscal 2016 this ratio is 56%; ten years ago this ratio was 46%.

One other area of risk is the risk that plan assumptions will need to be revised to conform to changing actual or expected plan experience. Such assumption revisions could relate to demographic or economic factors. With regard to the economic assumptions, we have determined that a reduction in the valuation interest rate by 1% (without any change to other collateral factors) would increase the actuarially required employer contribution rate for fiscal 2017 by 9.5% of payroll.

There is a risk that future actuarial measurements may differ significantly from current measurements presented in this report due to factors such as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumption, completion of amortization payment and credit schedules, and changes in plan provisions or applicable law. Analysis of the effect of all these factors and additional risk metrics is beyond the scope of this report.

CHANGES IN PLAN PROVISIONS

The following legislative changes directly affecting the retirement system were enacted during the 2016 Regular Session of the Louisiana Legislature.

ACT 93 authorizes each state system board of trustees to grant a COLA, payable July 1, 2016, to the retirees and beneficiaries who would qualify for a COLA under prior law and uses the funds from the experience account to fund the COLA. Without regard to the consumer price index, new law provides that the amount of the COLA shall be an amount supported by the funds in the system's experience account, after all required credits and debits to the account under prior law. Also provides that, in accordance with the funded ratio of each system, the maximum amount payable shall be 2% of the benefit subject to the increase and that the benefit increase shall be paid only on the first \$60,000 of a retiree or beneficiary's benefit. Also provides that any cost of new law not funded by payments made from the system experience account shall be funded with additional employer contributions.

ACT 94 adds the explicit cost of projected noninvestment related administrative expenses to the calculation of the actuarially required contribution for the system. This component shall begin to be included in the calculation 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 defines "funded percentage" for state systems and provides that, except as otherwise provided by law, "funded percentage" means valuation assets used to determine contributions divided by accrued liability. The act also states that the funded percentage shall be determined before any allocation to the experience account. The act also reduces from 85% to 72% the trigger which reduces the gain and loss amortization period from 30 to 20 years. The law sets a 10 year period for level amortization of losses resulting from allocating actuarial gains to the experience account beginning with first valuation following June 30, 2015, in which an allocation is made to the experience account. Prior law provided that, after a hurdle payment is made, the net remaining debt to which the payment is applied shall not be reamortized unless the system is 85% funded. Beginning in the 2020-2021 Fiscal Year, new law provides for reamortization of the net remaining outstanding amortization base liability when moving to level-dollar payments ending in 2029 results in annual payments that are not more than the next annual payment otherwise required under prior law. The act also provides that after a system first achieves a funded percentage of 80%, the debt to which any future hurdle payment is applied shall be reamortized over the remainder of the originally established amortization period. Until a system is 80% funded, the act further provides for reamortization of the net remaining liability on the consolidated amortization

base after application of the hurdle payments in the 2019-2020 Fiscal Year and in every fifth fiscal year thereafter. The act requires the review of volatility of amortization payment schedules to be done following the close of Fiscal Year 2016-2017 and the report to be submitted by Nov. 1, 2017. In addition the act also specifies for the experience account credits and debits to the account, a schedule of maximum PBIs based on funded status, payment of "partial" PBIs in certain circumstances when funds are not available for a "full" PBI and PBIs only every other year until a threshold of funding is attained.

ACT 176 provides that the actuarial note for any bill prefiled at least 45 days prior to a regular session of the legislature shall be completed and filed at least five days prior to the convening of that session.

ACT 319 specifies that the notification to members who terminate from the system shall include information on their right to use the contributions for a transfer of service credit and any rights they may have to receive a retirement allowance pursuant to prior law. Prior law provided that in the event the system does not receive any response to the notification within 90 days of mailing, the contributions shall be credited to the pension accumulation fund. The act removes the requirement to credit contributions to the pension accumulation fund.

ACT 320 allows any person who has been a member of LSERS to purchase credit in the system for service rendered as an employee. Prior law allowed the purchase of service credit if the member does not have service credit in any other public retirement system. New law clarifies that the member may not have credit in any Louisiana public retirement system. The act retains the prior requirement that the member have rendered service as an employee for at least 90 days. New law deletes the requirement that the member purchase a minimum of 90 days service.

ACT 321 deletes the requirement in the LSERS retirement system that disbursements from the DROP be systematic.

ACT 410 requires the executive director, or person holding the equivalent position, of each state or statewide retirement system to file a Tier 2.1 personal financial statement with the Board of Ethics.

ACT 460 requires that at least every five years the legislative auditor report comparative summaries of each system's reported actuarial assumptions and funded ratio and his findings as to the appropriateness of each system's assumptions.

ACT 512 authorizes, notwithstanding existing law limitations, payment of a COLA for the retirees and beneficiaries of each of the four state retirement systems. The act requires use of experience accounts to fund such payments. It provides that retirees and beneficiaries who would qualify for a COLA under existing law qualify for receipt of the COLA authorized by new law. It further provides and clarifies that a disability retiree or a person who receives benefits from the system based on the death of a disability retiree is eligible for a COLA if benefits have been paid to the retiree or the beneficiary or both combined for at least one year. The act sets the amount of the COLA at an amount supported by the funds in the system's experience account 2% of the benefit amount of the first \$60,000 of a retiree's or beneficiary's benefit.

ACT 621 places a member of the House Committee on Retirement appointed by the speaker of the House of Representatives as a trustee on each such board, instead of the chairman of the House Committee on Retirement.

ASSET EXPERIENCE

The actuarial and market rates of return for the past ten years are given below. These investment rates of return were determined by assuming a uniform distribution of income and expense throughout the fiscal year.

	<u>Market Value</u> †	<u>Actuarial Value</u> †
2007	14.90%	9.85%
2008	-4.74%	5.87%
2009	-16.94%	-7.08%
2010	13.02%	0.55%
2011	23.28%	4.35%
2012	2.27%	9.07%
2013	13.73%	12.04%
2014	16.96%	13.63%
2015	3.00%	11.63%
2016	-0.59%	6.90%

† Rates of return calculated based on assets inclusive of Amortization Conversion Account and Experience Account but exclusive of money market DROP assets and income.

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income. The rate of return is calculated on assets invested in the system's portfolio. DROP and IBRP assets invested in money market investments have been excluded from the rate of return calculation. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2016, the fund earned \$23,654,567 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital losses and non-recurring income on investments of \$28,886,321. In addition, the Fund had investment expenses of \$5,190,472. The geometric mean of the market value rate of return measured over the last ten years was 5.84%.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.25% used for the valuation (7.125% beginning with July 1, 2016). DROP accounts that are credited with earnings based on the actual rate of return of the system should be credited with 6.40% (i.e. 6.90% less 0.5% as detailed in R.S. 11:1152(F)(3)). The actuarial rate of return is calculated based on the actuarial value of assets net of DROP and IBRP assets invested in money market accounts and includes all interest, dividends, and recognized capital gains as given in Exhibit VI net of money market income earned by DROP and IBRP assets. Investment income used to calculate this yield is based upon a smoothing of investment returns above or below the valuation interest rate over a five year period, subject to constraints. The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate. Beginning with Fiscal 2017, yields in excess of the 7.125% assumption will reduce cost while yields below 7.125% will increase costs. For Fiscal 2016, the system experienced net actuarial investment earnings of \$7,620,492 below the actuarial assumed earnings rate of 7.25% which produced an actuarial loss and increased the interest-adjusted amortization payments on the system's UAL by \$600,802 or 0.20% of projected payroll.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

The average active contributing member is 52 years old with 9.9 years of service credit and an annual salary of \$23,589. The system's active contributing membership experienced an increase of 14 members during Fiscal 2016; over the last five years, the number of active contributing members decreased by 779. The number of DROP participants increased by 16 during Fiscal 2016.

The average service retiree is 72 years old with a monthly benefit of \$1,060. The number of retirees and beneficiaries receiving benefits from the system increased by 124 during the fiscal year. Over the last five years, the number of retirees increased by 431 with annual benefits in payment increasing by \$30,459,069.

Liability experience for the year was favorable. The total number of retirements and disabilities were below projected levels. Salary increases were also below expected levels. Withdrawals and deaths were above projected levels. These factors tend to reduce costs. DROP entries were above projected levels. This partially offset other gains. Net plan liability experience gains totaled \$366,508. The interest adjusted amortization payment on this gain was \$28,895, or 0.01% of projected payroll.

FUNDING ANALYSIS AND RECOMMENDATIONS

Actuarial funding of a retirement system is a process whereby funds are accumulated over the working lifetimes of employees in such a manner as to have sufficient assets available at retirement to pay for the lifetime benefits accrued by each member of the system. The required contributions are determined by an actuarial valuation based on rates of mortality, termination, disability, and retirement, as well as investment return and other statistical measures specific to the particular group. Each year a determination is made of two cost components, and the actuarially required contributions are based on the sum of these two components. These two components are the normal cost and the amortization payments on the unfunded actuarial accrued liability. The normal cost refers to the annual cost for active members allocated to each year by the particular cost method utilized. The term unfunded accrued liability (UAL) refers to the excess of the present value of plan benefits over the sum of current assets and future normal costs. Each year the UAL grows with interest and is reduced by payments. In addition it may be increased or diminished by plan experience, changes in assumptions, or changes in benefits including COLA's. Contributions in excess of or less than the actuarially required amount can also decrease or increase the UAL balance. New entrants to the system can also increase or lower costs as a percent of payroll depending upon their demographic distribution. Finally, payroll growth affects plan costs since payments on the system's unfunded accrued liability are on a fixed, level dollar schedule. If payroll increases, these costs are reduced as a percentage of payroll. Conversely, if payroll decreases, these costs are increased as a percentage of payroll.

In order to establish the actuarially required contribution in any given year, it is necessary to define the assumptions, funding method, and method of amortizing the UAL. Thus, the determination of what contribution is actuarially required depends upon the funding method and amortization schedules employed. Regardless of the method selected, the ultimate cost of providing benefits is dependent upon the benefits, expenses, and investment earnings. Only to the extent that some methods accumulate assets more rapidly and thus produce greater investment earnings does the funding method affect the ultimate cost.

An explanation of the change in costs related to asset and liability gains and losses as well as changes in demographics and assumptions is given in prior sections of the report. In addition to these components, variances in contribution levels and payroll also affect costs. For Fiscal 2016 contributions totaled \$4,417,900 more than required; the interest-adjusted amortization credit based on the contribution surplus for Fiscal 2017 is \$1,044,523, or 0.36% of projected payroll. In addition, for Fiscal 2017 the net effect of the change in payroll on amortization costs was to decrease such costs by 0.52% of projected payroll.

A reconciliation of the change in costs is given below. Values listed in dollars are interest adjusted for payment throughout the fiscal year. Percentages are based on the projected payroll for Fiscal 2017 except for those items labeled Fiscal 2016.

	Dollars	Percentage of Payroll
Employer Normal Cost for Fiscal 2016	\$ 27,815,696	9.72%
Cost of Assumption Changes	\$ (1,496,364)	(0.51%)
Cost of Demographic and Salary Changes	\$ (117,340)	(0.29%)
Employer Normal Cost for Fiscal 2017	\$ 26,201,992	8.92%
UAL Payments for Fiscal 2016	\$ 57,714,437	20.17%
Change due to increase in valuation interest rate	\$ 686,894	0.23%
Change due to change in payroll	N/A	(0.52%)
Additional Amortization Expenses for Fiscal 2017:		
Liability Assumption Gain	\$ (2,357,882)	(0.80%)
Asset Experience Loss	\$ 600,802	0.20%
Asset Assumption Loss	\$ 16,677	0.01%
Liability Experience Gain	\$ (28,895)	(0.01%)
Contribution Gain	\$ (1,044,523)	(0.36%)
Total Amortization Expense (Credit) for Fiscal 2017	\$ 55,587,510	18.92%
Amortization Conversion Account Supplement for Fiscal 2017	\$ (4,613,318)	(1.57%)
Projected Administrative Expenses for Fiscal 2017	\$ 4,716,018	1.61%
Total Normal Cost & Amortization Payments	\$ 81,892,202	27.88%

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The employer's normal cost for Fiscal 2017, interest adjusted for mid-year payment is \$26,201,992. The amortization payments on the system's unfunded actuarial accrued liability total \$55,587,510. The total actuarially required contribution is determined by adding these two values. The net direct actuarially required employer contribution for Fiscal 2017 is determined based on the sum of employer normal cost and amortization payments on the unfunded actuarial accrued liability together with projected administrative expenses of \$4,716,018 less a payment from the system's Amortization Conversion Account set at \$4,613,318 for Fiscal 2017. As given in line 14 of Exhibit I, the total actuarially required employer contribution for Fiscal 2017 is \$81,892,202, or 27.9% of projected payroll.

Since the actual employer contribution rate for Fiscal 2017 is 27.3% of payroll, there will be a contribution deficit of 0.6% of payroll. This deficit will increase the actuarially required contribution recommended for Fiscal 2018. In order to determine a minimum recommended net direct employer contribution rate for Fiscal 2018, the Employer Normal Cost and Amortization Payments were estimated

for Fiscal 2018, adjusted for the impact of the estimated contribution surplus for Fiscal 2017 and the scheduled payment from the Amortization Conversion Account. As given in line 25 of Exhibit I, the minimum recommended net direct employer contribution for Fiscal 2018 is \$83,607,515, or 27.6% of projected payroll.

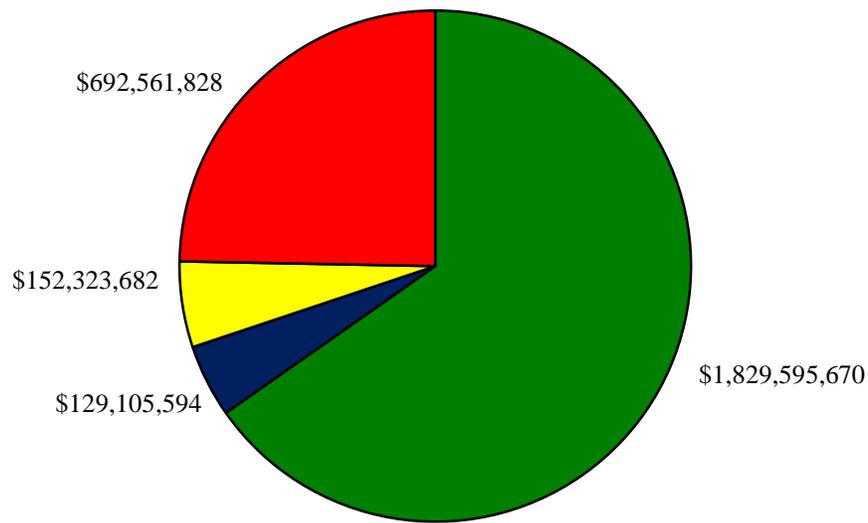
COST OF LIVING ADJUSTMENTS

During Fiscal 2016, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 1.01%. Cost of living provisions for the system are detailed in R.S. 11:1145.1 within the statutes relative to the Experience Account. The Experience Account cannot be credited with funds that would cause the balance in the account to exceed the reserve of one cost of living adjustment if the system is less than 80% funded or two cost of living adjustments if the system is at least 80% funded.

R.S. 11:1145.1(2) sets forth the basis for determining the maximum percentage increase in the benefits permissible. The maximum percentage increase is based upon the funded percentage of the system as of the most recent actuarial valuation, and is limited to an amount ranging from between 1.5% and 3.0% depending upon the system's funded ratio and the actuarial rate of return.

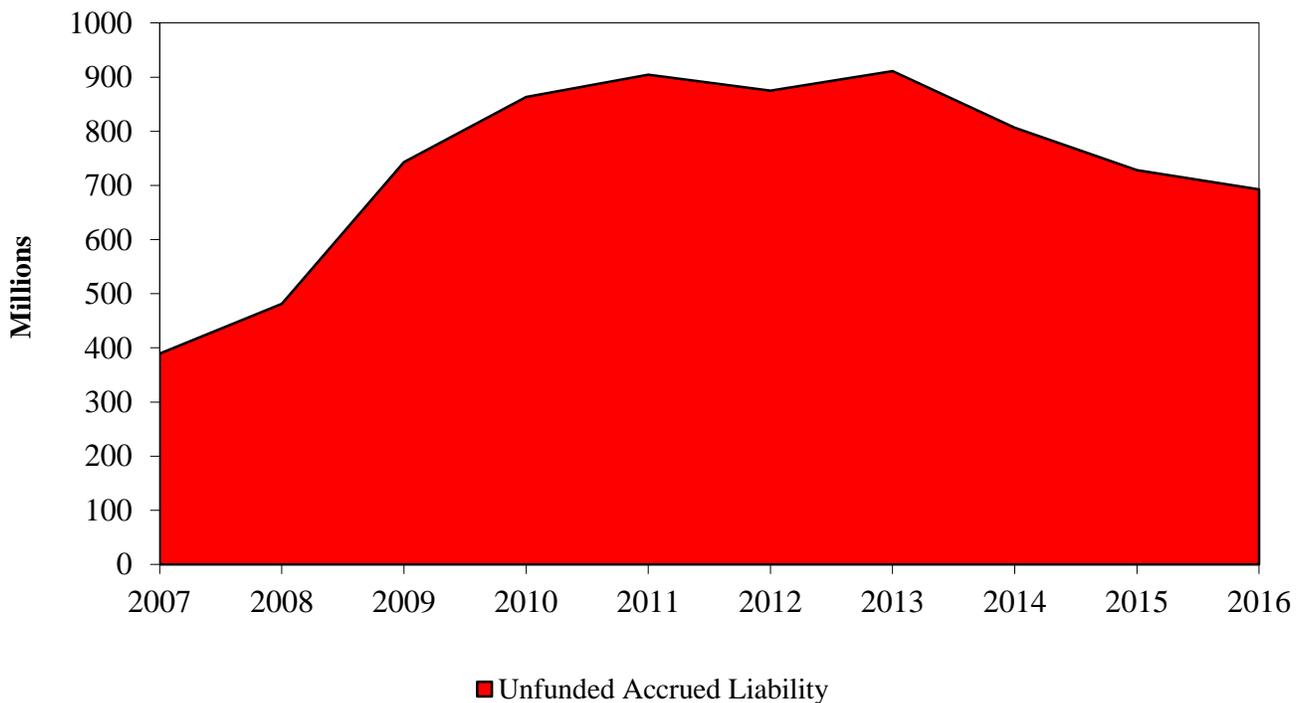
If there are sufficient funds in the Experience Account and the system met the necessary criteria to grant a cost of living adjustment, the Board of Trustees may recommend to the President of the Senate and the Speaker of the House of Representatives that the system be permitted to grant a cost of living adjustment. Cost of living adjustments are based on the benefit in payment at the time the adjustment is approved with a maximum adjustment based on the first \$60,000 of benefits, where the \$60,000 limit is increased annually by the consumer price index for all urban consumers from July 1, 2016. No cost of living adjustment can be paid in an amount greater than the increase in the Consumer Price Index for all urban consumers during the twelve month period ending on the system's valuation date. Cost of living adjustments may be provided only to retirees who have received benefits for at least one full year. In addition, non-disabled retirees may only receive a cost of living adjustment if they have attained age sixty.

Components of Present Value of Future Benefits June 30, 2016

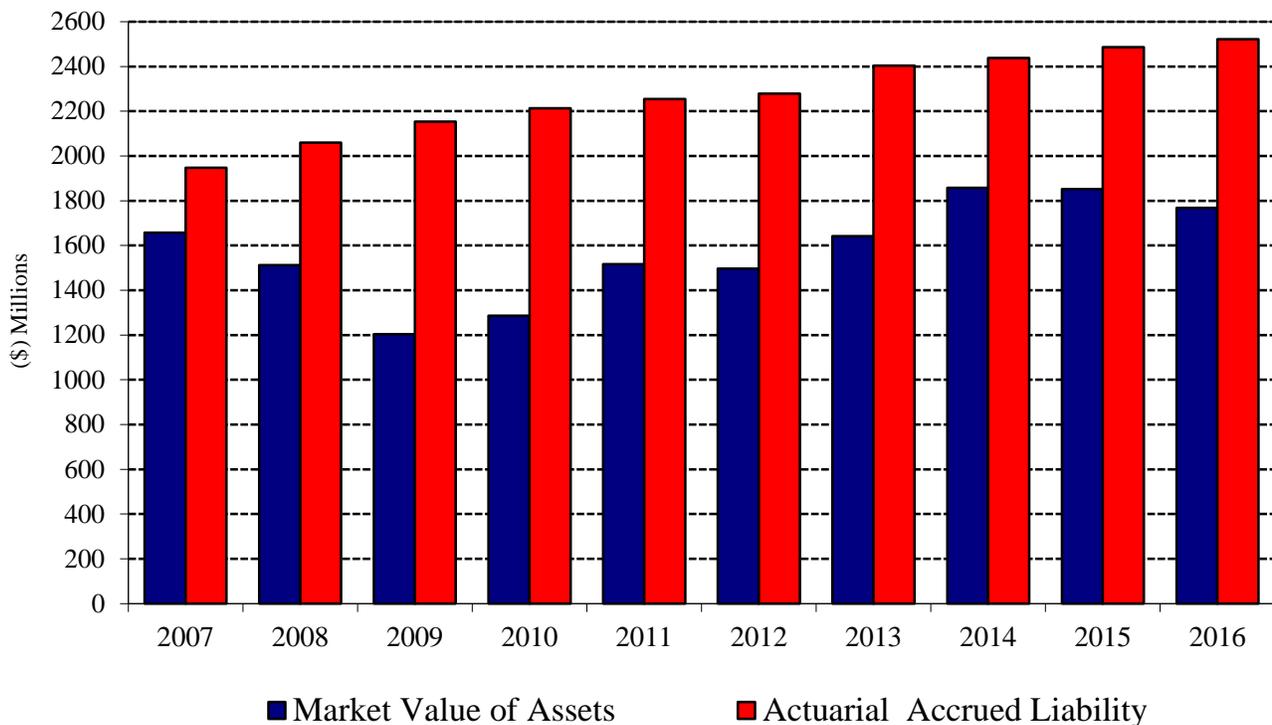


- Actuarial Value of Assets
- Present Value of Employee Contributions
- Present Value of Future Employer Normal Cost
- Unfunded Actuarial Accrued Liability

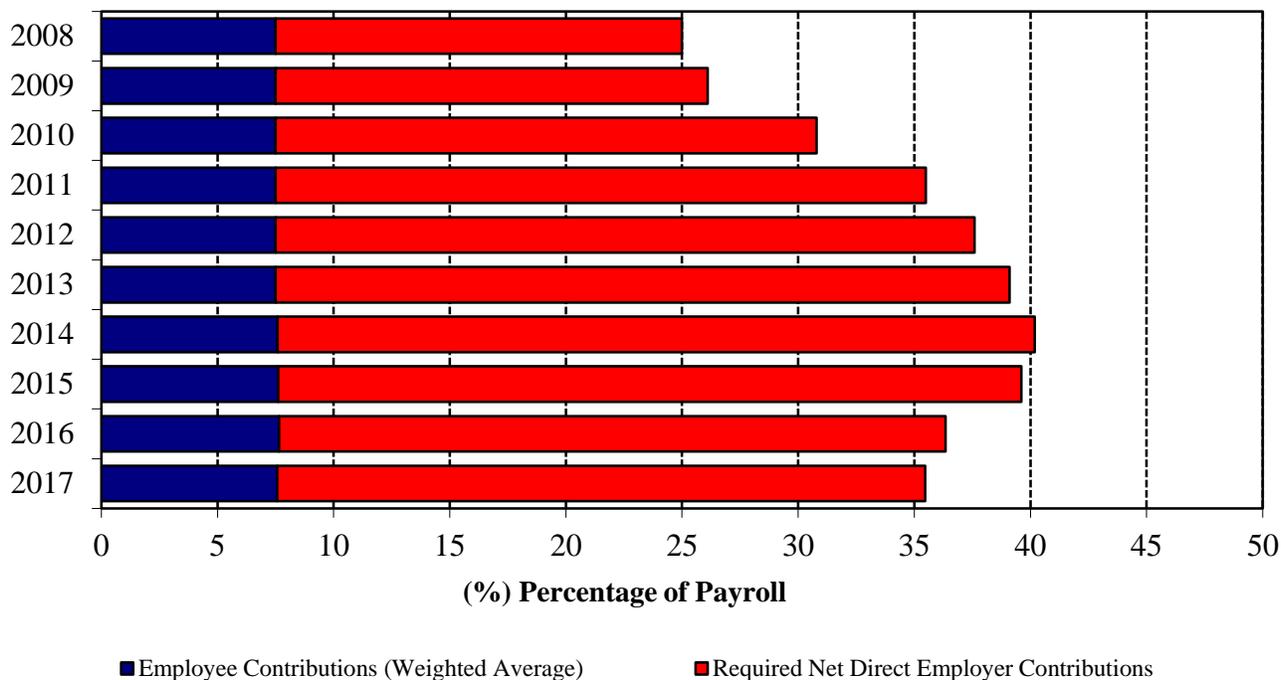
Unfunded Accrued Liability



Market Value of Assets vs. Actuarial Accrued Liability

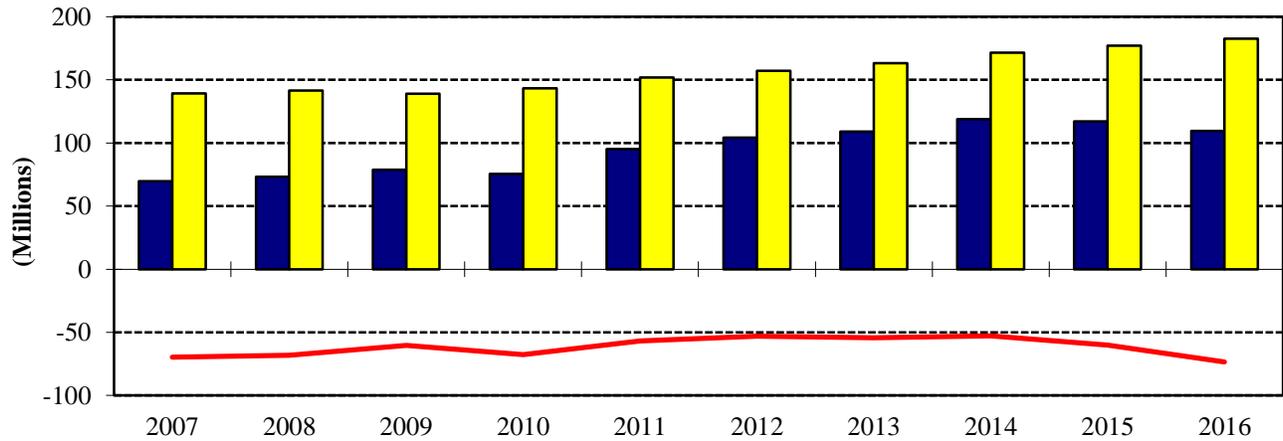


Components of Actuarial Funding



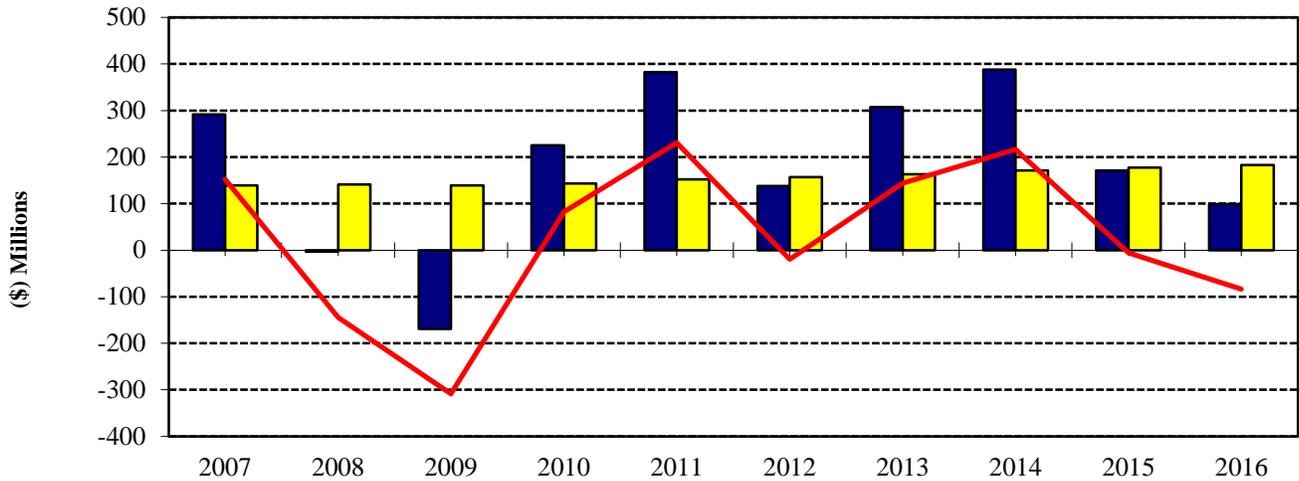
(2012 and later employee contribution level is a weighted average of rates paid by employees in different tiers)

Net Non-Investment Income



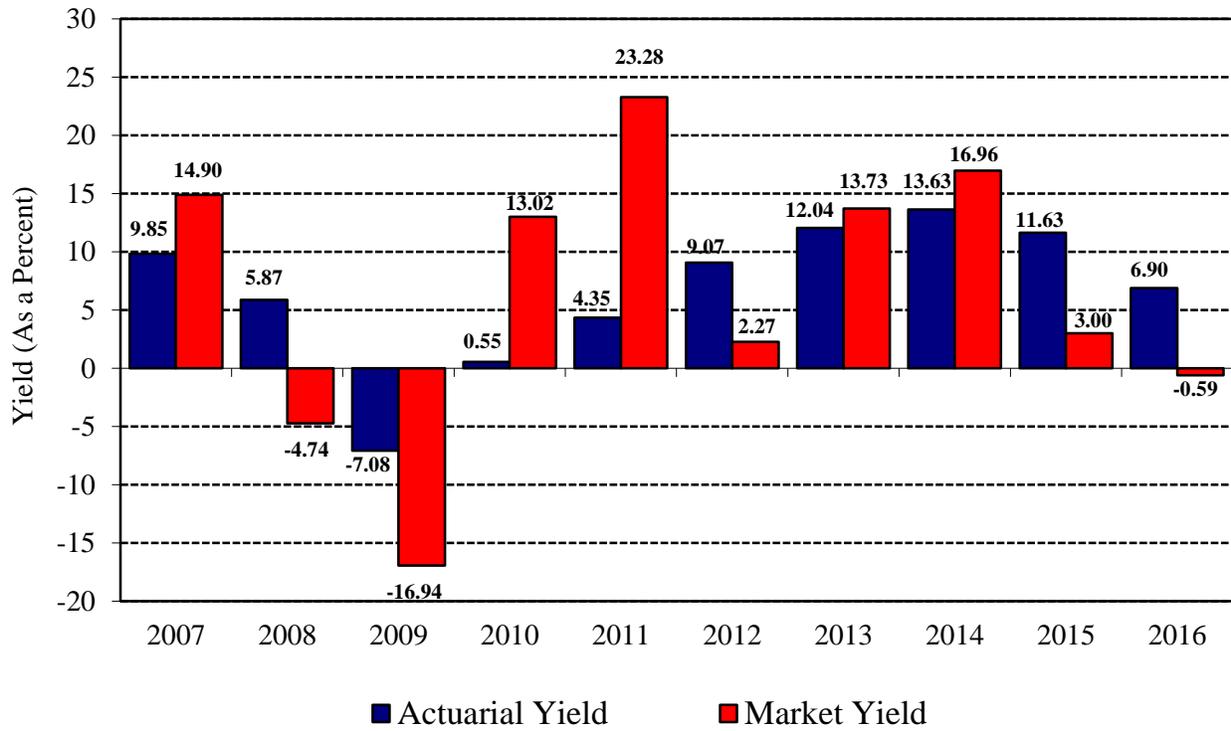
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Non-Investment Income (\$Mil)	■	69.7	73.2	78.7	75.6	95.1	104.3	109.0	118.9	117.1	109.4
Benefits and Expenses (\$Mil)	■	139.3	141.4	139.1	143.3	151.9	157.2	163.3	171.6	177.1	182.7
Net Non-Investment Income (\$Mil)	—	-69.6	-68.2	-60.4	-67.7	-56.8	-52.9	-54.3	-52.7	-60.0	-73.3

Total Income vs. Expenses (Based on Market Value of Assets)



		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Income (\$Mil)	■	291.5	-3.0	-169.5	225.5	382.7	137.7	307.3	387.8	171.2	99.0
Benefits and Expenses (\$Mil)	■	139.3	141.4	139.1	143.3	151.9	157.2	163.3	171.6	177.1	182.7
Net Change in MVA (\$Mil)	—	152.2	-144.4	-308.6	82.2	230.8	-19.5	144.0	216.2	-5.9	-83.7

Historical Asset Yields



EXHIBITS

EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1. Normal Cost of Retirement Benefits.....	\$	36,199,034
2. Normal Cost of Death Benefits.....	\$	1,789,090
3. Normal Cost of Disability Benefits.....	\$	1,792,621
4. Normal Cost of Deferred Retirement Benefits.....	\$	2,584,127
5. Normal Cost of Contribution Refunds.....	\$	4,445,842
6. TOTAL Normal Cost as of July 1, 2016 (1 + 2 + 3 + 4 + 5).....	\$	46,810,714
7. TOTAL Normal Cost Interest Adjusted for Midyear Payment.....	\$	48,449,654
8. Adjustment to Total Normal Cost for Employee Portion.....	\$	22,247,662
9. TOTAL Employer Normal Cost Adjusted for Midyear Payment (7 – 8).....	\$	26,201,992
10. Amortization Payments on Unfunded Accrued Liability at Midyear.....	\$	55,587,510
11. Projected Administrative Expenses for Fiscal 2017.....	\$	4,716,018
12. TOTAL Normal Cost & Amortization Payments (9 + 10 + 11).....	\$	86,505,520
13. Amortization Conversion Account Supplement for Fiscal 2017.....	\$	(4,613,318)
14. Net Direct Actuarially Required Employer Contribution for Fiscal 2017 (12 + 13).....	\$	81,892,202
15. Projected Payroll for Contributing Members (Fiscal 2017).....	\$	293,693,467
16. Net Direct Actuarially Required Employer Contribution as a Percentage of Projected Payroll for Fiscal 2017 (14 ÷ 15).....		27.9%
17. Actual Net Direct Employer Contribution Rate for Fiscal 2017.....		27.3%
18. Projected Fiscal 2017 Contribution Loss (Gain) as a % of Payroll (16 – 17).....		0.6%
19. Projected Fiscal 2017 Employer Contribution Shortfall (Surplus) (15 × 18).....	\$	1,762,161
20. Estimated Amortization of Fiscal 2017 Employer Contribution Shortfall (Surplus) Based on Midyear Payment in Fiscal 2018.....	\$	431,214
21. Estimated Fiscal 2018 Employer Normal Cost Adjusted for Midyear Payment.....	\$	27,016,873
22. Estimated Fiscal 2018 Amortization Payments based on Fiscal 2017 UAL.....	\$	55,587,510
23. Estimated Fiscal 2018 Administrative Expenses.....	\$	4,839,813
24. Amortization Conversion Account Supplement for Fiscal 2018.....	\$	(4,267,895)
25. Estimated Actuarially Required Employer Contributions for Fiscal 2018 (20 + 21 + 22 + 23 + 24).....	\$	83,607,515
26. Projected Payroll for Contributing Members (Fiscal 2018).....	\$	302,827,317
27. Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2018 (25 ÷ 26, Rounded to nearest 0.10%).....		27.6%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	\$ 1,103,695,085
Survivor Benefits	26,989,307
Disability Benefits	23,580,306
Vested Termination Benefits	61,808,496
Refunds of Contributions	34,526,995

TOTAL Present Value of Future Benefits for Active Members \$ 1,250,600,189

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement... \$	21,300,713
Terminated Members with Reciprocals	
Due Benefits at Retirement	523,626
Terminated Members Due a Refund	6,720,815

TOTAL Present Value of Future Benefits for Terminated Members \$ 28,545,154

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees	\$ 1,318,686,534
Disability Retirees	22,681,929
Survivors & Widows	131,595,443
Permanent Benefit Increase Payable July 1, 2016.....	24,015,985
DROP Account Balances Payable to Retirees	26,436,719
IBRP Account Balance	1,024,821

TOTAL Present Value of Future Benefits for Retirees & Survivors \$ 1,524,441,431

TOTAL Present Value of Future Benefits \$ 2,803,586,774

**EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS**

CURRENT ASSETS:

Cash in Banks	\$ 48,358,258
Contributions Receivable	16,208,994
Accrued interest and dividends	2,525,415
Investments Receivable	4,555,264
Other Current Assets	511,031

TOTAL CURRENT ASSETS \$ 72,158,962

Property Plant & Equipment..... \$ 3,104,897

INVESTMENTS:

Cash Equivalents	\$ 39,874,095
Equities	823,398,503
Fixed Income	529,610,281
Real Estate	202,689,531
Alternative Investments.....	103,345,999
Collateral for Securities Lending.....	94,214,928
Other Investments	429,220

TOTAL INVESTMENTS..... \$ 1,793,562,557

TOTAL ASSETS \$ 1,868,826,416

CURRENT LIABILITIES:

Accounts Payable.....	\$ 156,278
Investments Payable.....	1,407,173
Securities Lending Obligations.....	94,214,928
Other Post-Employment Benefits	3,360,413
Other Current Liabilities	1,877,377

TOTAL CURRENT LIABILITIES \$ 101,016,169

MARKET VALUE OF ASSETS..... \$ 1,767,810,247

**EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS**

Excess (Shortfall) of invested income for current and previous 4 years: †	
Fiscal year 2016	\$ (139,840,706)
Fiscal year 2015	(76,298,518)
Fiscal year 2014	153,829,757
Fiscal year 2013	89,907,429
Fiscal year 2012	<u>(76,675,989)</u>
Total for five years	\$ (49,078,027)
 Deferral of excess (shortfall) of invested income:	
Fiscal year 2016 (80%)	\$ (111,872,565)
Fiscal year 2015 (60%)	(45,779,111)
Fiscal year 2014 (40%)	61,531,903
Fiscal year 2013 (20%)	17,981,486
Fiscal year 2012 (0%)	<u>0</u>
Total deferred for year	\$ (78,138,287)
 Market value of plan net assets, end of year	\$ 1,767,810,247
 Preliminary actuarial value of plan assets, end of year	\$ 1,845,948,534
Experience Account Balance, end of year	\$ 633,076
Amortization Conversion Account Balance, end of year	\$ 15,719,788
Adjusted Actuarial Value of Plan Assets (Net of side funds), end of year	\$ 1,829,595,670
 Actuarial value of assets corridor	
85% of market value, end of year	\$ 1,502,638,710
115% of market value, end of year	\$ 2,032,981,784
 Final actuarial value of plan net assets, end of year	\$ 1,829,595,670

† Excess (shortfall) of actual investment income versus expected investment income is calculated based on assets and income adjusted to exclude the money market DROP accounts.

**EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS**

Employee Contributions to the Annuity Savings Fund	\$ 129,105,594
Employer Normal Contributions to the Pension Accumulation Fund	152,323,682
Employer Amortization Payments to the Pension Accumulation Fund	692,561,828
 TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS.....	 \$ 973,991,104

**EXHIBIT V – SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES**

LIABILITY FOR ACTIVE MEMBERS

Accrued Liability for Retirement Benefits	\$ 883,549,904
Accrued Liability for Survivor Benefits.....	16,616,147
Accrued Liability for Disability Benefits	13,250,392
Accrued Liability for Vested Termination Benefits.....	46,405,601
Accrued Liability for Refunds of Contributions	9,348,869

TOTAL Actuarial Accrued Liability for Active Members \$ 969,170,913

LIABILITY FOR TERMINATED MEMBERS \$ 28,545,154

LIABILITY FOR RETIREES AND SURVIVORS \$ 1,524,441,431

TOTAL ACTUARIAL ACCRUED LIABILITY \$ 2,522,157,498

ACTUARIAL VALUE OF ASSETS..... \$ 1,829,595,670

UNFUNDED ACTUARIAL ACCRUED LIABILITY \$ 692,561,828

EXHIBIT V – SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

PRIOR YEAR UNFUNDED ACCRUED LIABILITY		\$ 728,150,981
Interest on Unfunded Accrued Liability	\$ 50,970,569	
Investment Loss	7,620,492	
Asset Assumption Loss	211,528	
Transfer to Experience Account	0	
TOTAL Additions to UAL		\$ 58,802,589
Liability Assumption Gain.....	29,907,056	
Liability Experience Gain	366,508	
Contribution Excess with Accrued Interest	4,417,900	
Interest Adjusted Amortization Payments	59,700,278	
TOTAL Reductions to UAL		\$ 94,391,742
NET Change in Unfunded Accrued Liability		\$ (35,589,153)
CURRENT YEAR UNFUNDED ACCRUED LIABILITY		\$ 692,561,828

EXHIBIT V – SCHEDULE C
AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
June 30, 2016

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INITIAL BALANCE	YEARS REMAINING	REMAINING BALANCE	AMORT. PAYMENTS
2014	Cumulative Bases	30	\$904,498,330	28	\$856,705,634	\$68,897,690
2014	Asset Experience Gain (Allocated by Act 399 of 2014)	5	(7,500,000)	3	(4,805,374)	(1,713,213)
2014	Liability Experience Gain	30	(81,635,532)	28	(79,884,254)	(6,218,364)
2014	Contribution Shortfall	5	823,919	3	527,898	188,206
2015	Change in Data/Model	30	(42,073,134)	29	(41,627,730)	(3,204,087)
2015	Change in Assumptions Loss	30	53,611,596	29	53,044,042	4,082,801
2015	Net Investment Gain	30	(32,513,380)	29	(32,169,180)	(2,476,062)
2015	Liability Experience Gain	30	(29,473,558)	29	(29,161,539)	(2,244,564)
2015	Contribution Surplus	5	(3,883,540)	4	(3,208,228)	(886,659)
2016	Asset Experience Loss	30	7,620,492	30	7,620,492	580,478
2016	Liability Experience Gain	30	(366,508)	30	(366,508)	(27,918)
2016	Contribution Gain	5	(4,417,900)	5	(4,417,900)	(1,009,189)
2016	Liability Assumption Gain	30	(29,907,056)	30	(29,907,056)	(2,278,120)
2016	Asset Assumption Loss	30	211,528	30	211,528	16,113

TOTAL Unfunded Actuarial Accrued Liability \$ 692,561,828

TOTAL Fiscal 2017 Amortization Payments at Beginning of Year \$ 53,707,112

TOTAL Fiscal 2017 Amortization Payments Adjusted to Mid-Year \$ 55,587,510

† Balance reduced by application of investment gains assigned by Act 399 of 2014.

**EXHIBIT V – SCHEDULE D
CUMULATIVE AMORTIZATION BASE ADJUSTMENT**

2014 Initial Cumulative Amortization Base	\$ 905,696,581
Applied Base Reduction for Privatization Liability	<u>(1,198,251)</u>
2014 Net Initial Cumulative Amortization Base	904,498,330
2014 Priority Excess Interest Applied to Base	(7,500,000)
2014 PBI Cap Excess Applied to Base	<u>(3,252,257)</u>
2014 Adjusted Initial Amortization Base	\$ 893,746,073
Amortization Payment (Beginning of Year).....	(69,677,675)
Interest on Amortization Base net of Amortization Payment.....	<u>59,744,957</u>
Net Adjusted Balance	\$ 883,813,355
2015 Priority Excess Interest Applied to Base	<u>(15,000,000)</u>
Net Balance as of June 30, 2015 on 2014 Cumulative Base	\$ 868,813,355
Amortization Payment (Beginning of Year).....	(68,153,884)
Interest on Amortization Base net of Amortization Payment.....	<u>56,046,163</u>
Net Balance as of June 30, 2016 on 2014 Cumulative Base	\$ 856,705,634

EXHIBIT VI
ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2015)		\$ 1,757,432,206
INCOME:		
Member Contributions.....	\$ 21,590,258	
Employer Contributions	86,414,623	
Irregular Contributions	1,431,388	
Total Contributions		\$ 109,436,269
Net Depreciation of Investments	\$ (28,886,321)	
Interest & Dividends	17,684,247	
Alternative Investment Income	5,970,320	
Investment Expense	(5,190,472)	
Net Investment Income		\$ (10,422,226)
TOTAL Income		\$ 99,014,043
EXPENSES:		
Retirement Benefits	\$ 157,900,772	
DROP Disbursements	15,664,626	
Refunds of Contributions	4,139,711	
Transfers to Other Systems.....	105,715	
Administrative Expenses	4,849,153	
TOTAL Expenses		\$ 182,659,977
Net Market Value Income for Fiscal 2016 (Income – Expenses)		\$ (83,645,934)
Unadjusted Fund Balance as of June 30, 2016 (Fund Balance Previous Year + Net Income).....		\$ 1,673,786,272
Income Adjustment for Actuarial Smoothing.....		\$ 130,025,101
Change in Side Fund Balances		\$ 25,784,297
Actuarial Value of Assets: (June 30, 2016)		\$ 1,829,595,670

**EXHIBIT VII – SCHEDULE A
EXPERIENCE ACCOUNT**

1.	Experience Account Balance – June 30, 2015.....	\$	23,058,055
2.	Investment Gain, if any	\$	0
3.	Priority Excess Interest Allocated to Reduce UAL	\$	15,386,586
4.	Residual Investment Gain, if any (2 – 3).....	\$	0
5.	Investment Gain to Allocate to the Experience Account	\$	0
6.	Credit for Investment Earnings based on AVA rate of return, if positive	\$	1,591,006
7.	Total Preliminary Credits to be Allocated to Experience Account (5 + 6).....	\$	1,591,006
8.	Debit for Investment Losses based on AVA rate of return, if negative.....	\$	(0)
9.	Present Value of Permanent Benefit Increase Paid July 1, 2016.....	\$	(24,015,985)
10.	Total Preliminary Debits to be Allocated to Experience Account (8 + 9).....	\$	(24,015,985)
11.	Total Net Credit/Debit to be Allocated to Experience Account (7 + 10)	\$	(22,424,979)
12.	Limit to the Experience Account Balance – June 30, 2016..... (Present Value of PBI at CPI-U for fiscal 2016 or 1.01%)	\$	12,618,599
13.	Experience Account Balance – June 30, 2016 (Lesser of 1+11 & 12 - at least 0)	\$	633,076

**EXHIBIT VII – SCHEDULE B
AMORTIZATION CONVERSION ACCOUNT**

Amortization Conversion Account Balance as of June 30, 2015 \$ 19,079,106

Fiscal Year Supplemental Contributions to be funded by the Amortization Conversion Account:

2014-15	\$	560,927
2015-16		3,359,318
2016-17		4,613,318
2017-18		4,267,895
2018-19		<u>2,278,309</u>
Total	\$	15,079,767

Residual balance as of June 30, 2019 to be amortized as a gain \$ 4,560,266

Amortization Conversion Account Balance as of June 30, 2016 \$ 15,719,788

**EXHIBIT VIII
CENSUS DATA**

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2015	12,061	4,216	660	13,024	29,961
Additions to Census					
Initial membership	1,193	94			1,287
Omitted in error last year		6	1	3	10
Death of another member				147	147
Adjustment for multiple records	1	1			2
Change in Status during Year					
Actives terminating service	(381)	381			
Actives who retired	(370)			370	
Actives entering DROP	(252)	(2)	254		
Term. members rehired	59	(59)			
Term. members who retire		(32)		32	
Retirees who are rehired	1			(1)	
Refunded who are rehired	10	2			12
DROP participants retiring			(126)	126	
DROP returned to work	111		(111)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(327)	(271)			(598)
Deaths	(31)	(20)	(2)	(547)	(600)
Included in error last year		(143)		(6)	(149)
Adjustment for multiple records					
Number of members as of June 30, 2016	12,075	4,173	676	13,148	30,072

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	5	2	7	24,382	170,673
21 - 25	82	55	137	21,149	2,897,436
26 - 30	181	168	349	21,924	7,651,360
31 - 35	250	343	593	22,784	13,510,829
36 - 40	303	569	872	22,595	19,702,930
41 - 45	397	724	1,121	23,440	26,276,690
46 - 50	653	1,110	1,763	24,024	42,353,608
51 - 55	971	1,570	2,541	24,150	61,365,658
56 - 60	972	1,354	2,326	24,106	56,069,849
61 - 65	646	616	1,262	23,598	29,780,719
66 - 70	330	373	703	22,961	16,141,362
71 - 75	146	136	282	22,701	6,401,740
76 - 80	54	44	98	20,842	2,042,524
81 - 85	12	6	18	22,345	402,216
86 - 90	3	0	3	22,506	67,517
TOTAL	5,005	7,070	12,075	23,589	284,835,111

THE ACTIVE CENSUS INCLUDES 5,226 ACTIVES WITH VESTED BENEFITS (EXCLUDING CURRENT DROP PARTICIPANTS), INCLUDING 563 ACTIVE FORMER DROP PARTICIPANTS. THE 676 CURRENT DROP PARTICIPANTS ARE EXCLUDED.

DROP PARTICIPANTS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	3	0	3	34,449	103,348
51 - 55	30	12	42	31,124	1,307,188
56 - 60	94	107	201	21,579	4,337,365
61 - 65	171	205	376	14,634	5,502,472
66 - 70	16	21	37	6,839	253,055
71 - 75	8	4	12	6,308	75,692
76 - 80	4	0	4	6,402	25,606
81 - 85	1	0	1	4,043	4,043
TOTAL	327	349	676	17,173	11,608,769

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	3	0	3	9,081	27,243
36 - 40	4	3	7	10,195	71,366
41 - 45	10	5	15	10,580	158,699
46 - 50	23	27	50	10,232	511,622
51 - 55	34	38	72	10,642	766,249
56 - 60	43	49	92	11,677	1,074,242
61 - 65	7	15	22	8,641	190,098
66 - 70	3	6	9	5,619	50,573
71 - 75	1	2	3	6,351	19,052
76 - 80	1	1	2	1,712	3,423
TOTAL	129	146	275	10,446	2,872,567

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From To	Number	Total Contributions
0 - 99	774	36,676
100 - 499	1,127	288,115
500 - 999	510	364,836
1000 - 1999	526	760,059
2000 - 4999	575	1,864,214
5000 - 9999	290	2,039,862
10000 - 19999	91	1,173,762
20000 - 99999	5	108,313
TOTAL	3,898	6,635,837

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	0	1	1	13,446	13,446
46 - 50	15	2	17	13,247	225,203
51 - 55	117	56	173	21,555	3,729,101
56 - 60	373	303	676	20,274	13,704,964
61 - 65	729	949	1,678	15,752	26,432,348
66 - 70	1,005	1,412	2,417	14,061	33,986,524
71 - 75	857	1,327	2,184	11,482	25,076,799
76 - 80	720	1,142	1,862	9,634	17,939,068
81 - 85	519	771	1,290	9,423	12,155,255
86 - 90	285	314	599	9,674	5,794,540
91 - 99	84	109	193	10,421	2,011,263
TOTAL	4,704	6,386	11,090	12,720	141,068,511

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	2	7	9	9,191	82,722
46 - 50	11	20	31	8,192	253,961
51 - 55	34	53	87	8,596	747,837
56 - 60	42	84	126	8,033	1,012,134
61 - 65	2	2	4	7,449	29,797
66 - 70	1	0	1	4,286	4,286
71 - 75	0	1	1	5,269	5,269
TOTAL	92	167	259	8,247	2,136,006

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	18	18	36	10,483	377,390
26 - 30	2	4	6	13,480	80,877
31 - 35	4	1	5	5,397	26,983
36 - 40	1	9	10	7,833	78,327
41 - 45	4	13	17	7,826	133,044
46 - 50	15	20	35	9,367	327,856
51 - 55	7	58	65	10,379	674,607
56 - 60	23	105	128	10,988	1,406,506
61 - 65	26	133	159	10,332	1,642,778
66 - 70	46	204	250	9,709	2,427,194
71 - 75	55	230	285	8,837	2,518,465
76 - 80	53	251	304	7,976	2,424,812
81 - 85	38	223	261	8,124	2,120,308
86 - 90	13	153	166	8,396	1,393,781
91 - 99	2	70	72	8,485	610,884
TOTAL	307	1,492	1,799	9,029	16,243,812

ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	3	4										7
21 - 25	66	38	24	7	2							137
26 - 30	108	63	59	43	17	59						349
31 - 35	129	101	78	56	17	141	46	2				593
36 - 40	145	123	92	77	56	234	114	30	1			872
41 - 45	145	114	79	83	62	300	194	106	38			1,121
46 - 50	140	158	129	117	76	442	305	230	120	46		1,763
51 - 55	168	180	158	115	90	558	508	403	243	107	11	2,541
56 - 60	166	134	128	118	91	542	401	398	277	49	22	2,326
61 - 65	90	86	85	81	57	333	136	137	120	76	61	1,262
66 - 70	41	36	32	29	24	174	96	87	76	59	49	703
71 & Over	9	19	17	19	13	81	52	53	40	32	66	401
Totals	1210	1056	881	745	528	2864	1852	1446	915	369	209	12,075

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	24,514	24,283										24,382
21 - 25	21,289	21,267	20,540	22,085	18,341	25,521	28,960	38,877				21,149
26 - 30	19,718	21,196	23,485	20,763	23,663	24,194	25,912	32,697				21,924
31 - 35	20,604	21,861	21,137	22,858	22,376	23,556	25,912	32,697				22,784
36 - 40	20,499	20,728	21,195	20,981	21,065	23,294	24,512	29,168	35,632			22,595
41 - 45	19,681	21,603	21,148	21,388	21,232	23,294	24,512	29,168	35,856			23,440
46 - 50	20,922	21,014	21,727	21,854	22,316	23,596	24,321	25,788	30,853	34,077		24,024
51 - 55	20,017	21,583	23,066	22,238	22,282	23,367	24,236	25,681	26,925	29,527	46,245	24,150
56 - 60	19,342	21,290	21,466	22,357	22,133	23,594	24,852	25,442	27,182	31,720	29,230	24,106
61 - 65	19,681	20,158	20,687	21,765	22,133	22,836	23,850	25,916	26,907	27,895	28,618	23,598
66 - 70	20,442	18,712	18,271	22,509	18,511	21,919	23,585	24,372	25,171	25,415	27,286	22,961
71 & Over	16,596	23,059	18,109	18,576	20,067	20,076	23,801	22,457	21,286	25,188	25,656	22,229
Average	20,127	21,178	21,559	21,798	21,803	23,279	24,558	25,877	27,504	29,015	28,363	23,589

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility											Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 30													0
31 - 35												3	3
36 - 40									7				7
41 - 45								15					15
46 - 50	2						48						50
51 - 55	7					65							72
56 - 60	21	19	17	24	11								92
61 - 65	22												22
66 - 70	9												9
71 - 75	3												3
76 - 80	2												2
81 & Over													0
Totals	66	19	17	24	11	65	48	15	7	3	0		275

AVERAGE ANNUAL BENEFITS OF TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility											Average Benefit	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 30													0
31 - 35												9,081	9,081
36 - 40									10,195				10,195
41 - 45								10,580					10,580
46 - 50	2,422						10,558						10,232
51 - 55	7,322					11,000							10,642
56 - 60	17,055	10,223	10,837	9,850	9,204								11,677
61 - 65	8,641												8,641
66 - 70	5,619												5,619
71 - 75	6,351												6,351
76 - 80	1,712												1,712
81 & Over													0
Average	10,264	10,223	10,837	9,850	9,204	11,000	10,558	10,580	10,195	9,081	0		10,446

SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											Total		
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over			
0 - 50	5	3	3	3	2	2	23	4						18
51 - 55	30	23	21	26	15	31	132	73	10	2	1			173
56 - 60	100	96	53	62	67	130	320	23	10	2	1			676
61 - 65	203	192	155	184	129	388	320	73	24	7	3			1,678
66 - 70	102	128	160	179	187	791	659	130	52	24	5			2,417
71 - 75	43	30	52	58	70	534	916	342	99	37	3			2,184
76 - 80	17	26	24	20	39	177	573	701	216	53	16			1,862
81 - 85	4	7	3	7	12	56	132	427	469	146	27			1,290
86 - 90		3		4	2	7	30	64	187	252	50			599
91 & Over				1	1		3	9	21	70	89			193
Totals	504	508	471	543	524	2116	2788	1773	1078	591	194			11,090

AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											Average Benefit		
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over			
0 - 50	17,072	17,875	11,237	10,814	10,947	5,808	12,818	11,724						13,258
51 - 55	27,181	27,703	27,354	19,538	25,743	15,039	14,483	7,039	5,207	6,581	8,277			21,555
56 - 60	21,080	25,296	25,339	22,571	23,942	20,576	15,011	7,032	5,409	5,106	4,785			20,274
61 - 65	14,684	14,833	16,721	17,603	17,611	18,052	16,523	9,006	6,862	5,814	6,499			15,752
66 - 70	12,584	14,770	14,972	13,993	13,947	13,547	16,523	9,006	8,374	6,572	6,499			14,061
71 - 75	11,938	12,295	12,735	11,651	15,836	11,805	11,821	10,330	8,374	6,572	3,578			11,482
76 - 80	15,079	14,082	13,818	13,015	12,642	10,331	9,385	8,767	10,520	9,137	7,672			9,634
81 - 85	8,604	14,669	11,079	12,898	14,568	11,752	8,913	8,743	9,633	9,463	9,364			9,423
86 - 90		13,850		9,366	5,444	9,250	9,886	8,046	9,059	10,197	11,295			9,674
91 & Over					4,922		8,009	9,516	9,890	10,440	10,766			10,421
Average	16,026	17,199	16,912	16,109	16,573	14,049	12,770	8,971	9,331	9,472	10,126			12,720

DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement											Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 40													0
41 - 45	1	2	3	1	1	1							9
46 - 50	5	3	1	2	5	12	2		1				31
51 - 55	11	8	11	10	8	16	15	5	3				87
56 - 60	17	19	12	13	11	40	10	3		1			126
61 - 65	1	1				1	1						4
66 - 70													1
71 - 75										1			1
76 & Over													0
Totals	35	33	27	26	25	70	29	8	4	2	0		259

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement											Average Benefit	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 40													0
41 - 45	6,142	7,983	11,600	8,967	11,391	5,456							9,191
46 - 50	7,744	9,516	8,448	9,071	6,596	9,090	6,201		5,647				8,192
51 - 55	9,973	11,680	11,959	9,074	8,742	8,075	5,227	6,129	4,745				8,596
56 - 60	10,712	9,133	8,213	8,479	7,952	6,980	5,645	4,537		10,996			8,033
61 - 65	6,160	13,341				4,740	5,556						7,449
66 - 70							4,286						4,286
71 - 75										5,269			5,269
76 & Over													0
Average	9,795	9,843	10,124	8,772	8,071	7,538	5,417	5,532	4,971	8,132	0		8,247

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement											Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 20	7	2	3		2	6	3	1					24
21 - 25	1				2	4	3	2					12
26 - 30					2	1	3	1	1				6
31 - 35		1				1	3	2					5
36 - 40						2	3	3			1		10
41 - 45	1		2	1	1	4	3	3	2	1	1		17
46 - 50	3		4	2	1	1	10	5	6	2	1		35
51 - 55	3	1	4	2	6	9	22	9	8	2	3		65
56 - 60	5	8	4	3	9	35	34	18	10	2			128
61 - 65	2	6	4	6	4	35	45	28	26	7			159
66 - 70		2	1	9	10	51	85	56	21	9	6		250
71 - 75			1	1	3	29	89	76	50	29	7		285
76 - 80			1	2	2	12	50	99	89	37	13		304
81 - 85	1		1		2	3	24	52	81	65	34		261
86 - 90					1	1	3	9	40	65	47		166
91 & Over						1	1	2	6	20	43		72
Totals	23	20	16	26	40	194	378	363	341	241	157		1,799

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement											Average Benefit	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 20	10,491	19,180	4,452		21,506	7,527	9,979	13,135					10,683
21 - 25	7,594				12,044	11,307	9,837	7,284					10,083
26 - 30						26,406	10,228	20,700	3,087				13,479
31 - 35		10,867				7,429		2,954			2,779		5,397
36 - 40				8,516		10,779	6,141	8,519	10,718	6,178	6,758		7,833
41 - 45	3,943		7,369			11,929	8,552	5,142	1,985	17,940	3,655		7,826
46 - 50	13,386			20,411	13,707	4,925	11,449	6,159	6,918	7,500	1,822		9,367
51 - 55	5,271	10,337	12,655	11,345	12,969	12,124	12,386	7,239	6,402	5,325	5,891		10,379
56 - 60	14,192	14,518	8,941	9,227	20,293	10,003	11,736	7,671	6,476	10,664			10,988
61 - 65	16,132	14,146		11,879	13,390	13,573	9,972	8,544	6,525	9,732			10,332
66 - 70		12,187	7,279	13,050	10,969	11,971	9,805	8,519	6,901	6,914	6,705		9,709
71 - 75			43,668	15,650	10,801	9,381	8,808	8,490	8,682	8,874	4,872		8,837
76 - 80				8,100	8,807	7,731	7,195	7,895	8,225	9,109	6,759		7,976
81 - 85	9,678		8,202		4,274	10,098	8,741	6,956	8,823	8,018	7,788		8,124
86 - 90						8,834	10,965	5,362	8,877	9,045	7,586		8,396
91 & Over						8,834	19,732	10,615	8,329	8,360	8,203		8,484
Average	11,037	14,248	10,851	12,319	13,970	11,068	9,546	7,917	8,140	8,624	7,446		9,029

EXHIBIT IX
YEAR-TO-YEAR COMPARISON

	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Number of Active Members	12,075	12,061	12,054	12,184
Number of Retirees & Survivors	13,148	13,024	12,711	13,369
DROP Participants	676	660	537	559
Number of Terminated Due Deferred Benefits	275	276	413	355
Number Terminated Due Refunds	3,898	3,940	3,793	N/A
Active Lives Payroll (excludes DROP participants)	\$ 284,835,111	\$ 276,949,800	\$ 274,347,650	\$ 290,013,756
Retiree Benefits in Payment	\$ 159,448,329	\$ 154,831,624	\$ 146,084,220	\$ 142,752,516
Market Value of Assets (Includes Side Funds)	\$ 1,767,810,247	\$ 1,851,456,181	\$ 1,857,367,056	\$ 1,641,164,883
Ratio of Actuarial Value of Assets to Actuarial Accrued Liability	72.54%	70.71%	66.92%	62.10%
Actuarial Accrued Liability (EAN)	\$ 2,522,157,498	\$ 2,485,583,188	\$ 2,438,251,413	\$ 2,404,014,249
Actuarial Value of Assets (Net of Side Funds)	\$ 1,829,595,670	\$ 1,757,432,206	\$ 1,631,618,702	\$ 1,492,914,745
UAL (Funding Excess)	\$ 692,561,828	\$ 728,150,982	\$ 806,632,711	\$ 911,099,504
Experience Account	\$ 633,076	\$ 23,058,055	\$ 20,787,326	\$ 31,668,697
Amortization Conversion Account	\$ 15,719,788	\$ 19,079,106	\$ 19,640,033	\$ 0

	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
Employee Contribution Rate For Employees Hired Before July 1, 2010	7.50%	7.50%	7.50%	7.50%
Employee Contribution Rate For Employees Hired On Or After July 1, 2010	8.00%	8.00%	8.00%	8.00%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll	27.9%	28.7%	32.0%	32.6%
Actual Employer Contribution as a Percentage of Projected Payroll	27.3%	30.2%	33.0%	32.3%

Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
12,416	12,854	13,166	13,265	13,153	12,935
12,930	12,717	12,450	12,290	12,159	12,017
612	619	599	508	583	673
339	351	355	361	385	385
N/A	N/A	N/A	N/A	N/A	N/A
\$ 277,191,001	\$ 296,693,950	\$ 306,332,902	\$ 315,400,539	\$ 289,528,924	\$ 259,044,840
\$ 134,573,580	\$ 128,989,260	\$ 123,992,280	\$ 120,719,868	\$ 118,321,000	\$ 115,079,088
\$ 1,497,109,136	\$ 1,516,634,590	\$ 1,285,852,191	\$ 1,203,687,757	\$ 1,512,241,849	\$ 1,656,629,333
61.60%	59.88%	61.00%	65.49%	76.64%	80.01%
\$ 2,278,472,127	\$2,254,351,456	\$ 2,213,362,198	\$ 2,153,359,512	\$ 2,060,241,891	\$ 1,947,603,013
\$ 1,403,463,883	\$1,349,829,757	\$ 1,350,072,547	\$ 1,410,315,974	\$ 1,578,991,310	\$ 1,558,328,021
\$ 875,008,244	\$ 904,521,699	\$ 863,289,651	\$ 743,043,538	\$ 481,250,581	\$ 389,274,992
\$ 11,641,275	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
8.00%	8.00%	8.00%	N/A	N/A	N/A
31.6%	30.1%	28.0%	23.3%	18.6%	17.5%
30.8%	28.6%	24.3%	17.6%	17.8%	18.1%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Louisiana School Employees' Retirement System (LSERS) was established as of July 1, 1947, for the purpose of providing retirement allowances and other benefits as described under R.S. 11:1001 – 11:1206. The following summary of plan provisions covers many of the most important plan provisions covering LSERS, but is not a description of every plan provision and should only be used for general informational purposes. This summary does not constitute a guarantee of benefits. The provisions contained within this section are as of June 30, 2015.

MEMBERSHIP:

Any school bus driver, janitor, custodian, maintenance employee, bus aide, monitor or attendant or other regular school employee helping with the transportation of school children, and who is a legal employee of a parish or city school board of the State of Louisiana along with employees of the system.

CONTRIBUTION RATES:

Employees whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred before July 1, 2010 contribute 7.50% of salary and employees whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010 contribute 8.00% of salary. Employers contribute an actuarially determined "normal contribution" rate plus "accrued liability contribution" rate. Members are not required to contribute to the system once they have enough service to have accrued 100% of their final average compensation, but the employer is required to continue to contribute the employer's contribution until the member retires or enters DROP.

CONTRIBUTION REFUNDS:

Upon withdrawal from service, members not entitled to a retirement allowance may receive a refund of accumulated contributions. Refunds are payable ninety days after the effective date of withdrawal from service, if the member's employer has submitted all contributions.

FINAL AVERAGE COMPENSATION:

For members whose first employment making them eligible for membership in the system began on or before June 30, 2006, the final average compensation is based on the 36 highest successive or joined months of employment. The compensation used to determine the final average compensation cannot increase more than 10% per year, unless the raise is due to an increase in compensation by legislative act or city/parish system-wide salary increase.

For members whose first employment making them eligible for membership in the system began or after July 1, 2006, whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010, the final average compensation is based on the 60 highest successive or joined months of employment. The compensation used to determine the final average compensation cannot increase more than 10% per year, unless the raise is due to an increase in compensation by legislative act or city/parish system-wide salary increase.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems began on or after July 1, 2010, the final average compensation is based on the 60 highest successive or joined months of employment. The compensation used to determine the final

average compensation cannot increase more than 15% per year, unless the raise is due to an increase in compensation by legislative act or city/parish system-wide salary increase.

VESTED WITHDRAWAL BENEFITS:

Members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010, who have ten or more years of creditable service, may elect to leave accumulated contributions on deposit and after withdrawal from service receive a retirement allowance based on the creditable service and accrual rate for their period of membership upon reaching age sixty.

Members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010 and on or before June 30, 2015, who have five or more years of creditable service, may elect to leave accumulated contributions on deposit and after withdrawal from service receive a retirement allowance based on the creditable service and accrual rate for their period of membership upon reaching age sixty.

Members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2015, who have five or more years of creditable service, may elect to leave accumulated contributions on deposit and after withdrawal from service receive a retirement allowance based on the creditable service and accrual rate for their period of membership upon reaching age sixty-two.

NORMAL RETIREMENT BENEFITS:

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010, eligibility for normal retirement occurs upon the attainment of age 60 and 10 years of accredited service, or age 55 and 25 years of accredited service, or at any age and 30 years of accredited service. The retirement allowance is equal to three and one-third percent of the member's final average compensation multiplied by his years of creditable service.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010 and on or before June 30, 2015, eligibility for normal retirement occurs upon the attainment of age 60 and 5 years of accredited service. The retirement allowance is equal to two and one-half percent of the member's final average compensation multiplied by his years of creditable service.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2015, eligibility for normal retirement occurs upon the attainment of age 62 and 5 years of accredited service. The retirement allowance is equal to two and one-half percent of the member's final average compensation multiplied by his years of creditable service.

In addition to the normal retirement benefits, members receive a supplementary allowance equal to twenty-four dollars per annum, or two dollars per month, for each year of accredited service.

The retirement benefits provided by the system cannot annually exceed one hundred percent of average compensation.

EARLY RETIREMENT:

Members are eligible to retire under the early retirement provisions if they have at least twenty (20) years of service credit regardless of attained age, exclusive of military service and unused annual and sick leave.

The early retirement benefit is calculated, inclusive of military service credit and allowable unused annual and sick leave, actuarially reduced from the earliest age that the member would normally become eligible for a regular retirement benefit if they had continued in service to that age.

OPTIONAL ALLOWANCES:

Members may receive their benefits as a life annuity, or in lieu of such receive a reduced benefit according to the option selected which is the actuarial equivalent of the maximum benefit.

Option 1 – If the retiree dies before receiving in annuity payments the present value of their annuity as it was at the time of retirement the balance is paid to his beneficiary.

Option 2 – Upon retirement, the member receives a reduced benefit. Upon the retiree's death, the designated beneficiary will continue to receive the same reduced benefit.

Option 3 – Upon retirement, the member receives a reduced benefit. Upon the retiree's death, the designated beneficiary will receive one-half of the member's reduced benefit.

Option 4 – Upon retirement, the member elects to receive a reduced benefit and to provide a specified benefit to their designated beneficiary, which in total is actuarially equivalent to the maximum benefit. The form of benefit selected under Option 4 must be approved by the Board of Trustees.

NOTE: Under Option 4, the Board of Trustees has approved the "pop up" form of benefit which provides a benefit that reverts to the maximum benefit if the beneficiary predeceases the retiree. This feature requires additional reduction to the member's benefit. (The system refers to the available popup options as option 2A, providing a beneficiary benefit equal to the member's reduced benefit and option 3A, providing a beneficiary benefit equal to one-half of the member's reduced benefit)

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2½% annual compound increase in monthly retirement benefits based on the reduced benefit and commencing on the later of age fifty-five or retirement anniversary; this COLA is in addition to any ad hoc COLAs which are payable.

Initial Benefit Retirement Plan (IBRP): This plan is available only to members who have not participated in the Deferred Retirement Option Plan (DROP) and who meet regular retirement eligibility requirements. Under this plan, members may receive an initial benefit plus a reduced monthly retirement allowance which, when combined, equal the actuarially equivalent amount of the maximum or optional retirement allowance. The reduced monthly retirement allowance can be paid in the form of a maximum benefit or according to options 2, 3, or 4 as described above. The initial benefit may not exceed an amount equal to thirty-six payments of the member's maximum retirement allowance. The initial benefit is placed in an account called an "IBRP Account" where interest is credited annually and can be withdrawn as a lump-sum payment, monthly payments, or other periodic payments.

DISABILITY BENEFITS:

Any member who meets the minimum service requirement for disability and who has been officially certified as likely totally and permanently incapacitated, either mentally or physically, from the further performance of the duties being performed is entitled to disability benefits.

A member whose first employment making them eligible for membership in LSERS occurred on or before June 30, 2006, may apply for disability benefits if he is not eligible to receive a regular service retirement allowance and has five years of actual credited service. The disability retirement allowance is equal to two and one-half percent of final average compensation multiplied by the years of creditable service, but not less than thirty-three and one-third percent of final average compensation. Such members are not eligible to choose an optional allowance. Upon the death of such disability retiree who leaves a surviving spouse who had been married to the deceased for at least two years prior to death, the spouse receives a benefit equal to 75% of the benefit being received by the disability retiree at death. These benefits are payable for the life of the spouse unless the spouse remarries before age 55. In such a case, the benefit ceases upon the remarriage.

A member whose first employment making them eligible for membership in LSERS occurred on or after July 1, 2006 and whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010 may apply for disability benefits if he is not eligible to receive a regular service retirement allowance and has ten years of actual credited service. The disability retirement allowance is equal to three percent of final average compensation multiplied by the years of creditable service. Upon the death of such disability retiree who leaves a surviving spouse who had been married to the deceased for at least two years prior to the death of the disability retiree, the spouse receives a benefit equal to 75% of the benefit being received by the disability retiree at their death. These benefits are payable for the life of the spouse unless the spouse remarries before age 55. In such a case, the benefit ceases upon the remarriage.

A member whose first employment making them eligible for membership in LSERS occurred on or after July 1, 2010 may apply for disability benefits if he is not eligible to receive a regular service retirement allowance and has ten years of actual credited service. The disability retirement allowance is equal to the regular retirement formula without reduction by reason of age. A selection of retirement option must be made at the time of retirement and upon the death of the disabled retiree, the option amount selected is paid to the option beneficiary.

SURVIVOR BENEFITS:

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010:

In the case of a death of an active member with 5 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse with a minor child or children, the benefit payable is 75% of the deceased member's final average compensation or \$300 per month, whichever is greater. One-third of this benefit is designated to the spouse and two-thirds to the minor child or children. Child benefits cease at attainment of eighteen years, or upon marriage, except that benefits may continue until age twenty-three if the child remains a full-time student at a high school, vocational school, college, or university.

In the case of a death of an active member with 5 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has no surviving spouse but has a minor child or children, the benefit payable is 75% of the deceased member's final average compensation or \$300 per month, whichever is greater. These benefits are paid to the person having legal custody of the child and benefits cease at attainment of eighteen years, or upon marriage, except that benefits may continue until age twenty-three if the child remains a full-time student at a high school, vocational school, college, or university.

In the case of a death of an active member with 10 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse but has no minor child or children, the benefit payable is 50% of the deceased member's final average compensation or \$200 per month, whichever is greater. Such benefits will not be paid to any surviving spouse who has remarried since the death of the member prior to the age of 55 unless the member was eligible for regular retirement or had twenty years of service credit on the date of death.

Any surviving child of a deceased member, regardless of age, who has a total physical or mental disability and is dependent on the surviving spouse or other legal guardian, may continue to receive lifetime surviving child benefits equal to 75% of the deceased member's final average compensation or \$300 per month, whichever is greater. The total benefits are reduced to an amount which, when added to the other state assistance being received, does not exceed the maximum survivor benefits payable.

In the event of death of a member with no surviving spouse or child due benefits, the accumulated contributions are payable to the designated beneficiaries, or estate.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010:

In the case of a death of an active member with 5 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse with a minor child or children, a spousal survivor is paid a benefit equal to 50% of the benefit to which the member would have been entitled if he had retired on the date of his death using the member's applicable accrual rate regardless of years of service or age, or \$600 per month, whichever is greater.

These benefits are payable for the life of the spouse unless the spouse remarries before age 55. In such a case, the benefit ceases upon the remarriage, and resumes payment upon a subsequent divorce or death of a new spouse.

When all surviving children cease to be eligible for benefits, the surviving spouse is paid the benefits due to a surviving spouse without minor children or disabled children, as described below.

In addition to any benefits payable to a spouse or in cases where only surviving minor or disabled children are due benefits, each surviving eligible child, subject to a maximum of two children, is paid 50% percent of the benefit to which a spouse with children is entitled. These benefits are payable even if a member dies after retirement leaving an eligible minor or disabled child.

Any surviving child of a deceased member, regardless of age, who has a total physical or mental disability and is dependent on the surviving spouse or other legal guardian may continue to receive

surviving child benefits. The total benefits paid are reduced to an amount which, when added to the other state assistance being received does not exceed the maximum survivor benefits payable.

In the case of a death of an active member with 10 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse to whom they were married for at least one year prior to their death who has no minor child or children, a spousal survivor benefit equal to the accrued benefit that would have been due under option 2, or \$600 per month, whichever is greater, is payable. Unless the member was eligible to retire at the time of death, such spousal benefits cease upon remarriage and resume upon a subsequent divorce or death of the new spouse.

In the event of death of a member with no surviving spouse or child due benefits, the accumulated contributions are payable to the designated beneficiaries, or estate.

DEFERRED RETIREMENT OPTION PLAN (DROP):

In lieu of terminating employment and accepting a service retirement allowance, any member of the system who is eligible to receive a regular retirement allowance may elect within sixty calendar days after the member reaches eligibility to participate in the Deferred Retirement Option Plan for up to thirty-six months and defer the receipt of benefits. Members, who elect to participate in DROP within sixty days after first becoming eligible, can participate for a period up to thirty-six months. Members who elect to participate in DROP after more than sixty days after first becoming eligible must end their period of participation not more than three years and sixty calendar days from the date the member first becomes eligible for DROP. Upon commencement of participation in the plan, membership in the system terminates and neither the employee nor employer contributions are payable. Compensation and creditable service remain as they existed on the effective date of commencement of participation in the plan and creditable service excludes conversion of sick and annual leave. The monthly retirement benefits that would have been payable, had the member elected to cease employment and receive a service retirement allowance, are paid into the deferred retirement option plan account. Upon termination of employment at the end of the specified period of participation, a participant in the program may receive, at his option, a lump sum payment from the DROP account equal to the payments to the account or systematic disbursements based on the individual's subaccount in any manner approved by the Board. The monthly benefits that were being paid into the fund during the period of participation will begin to be paid to the retiree based on the option selected at DROP entry. If employment is not terminated at the end of the DROP period, payments into the account cease and employee and employer contributions resume. Monthly retirement benefits payable after termination of participation in the plan and employment include a "base benefit" equal to the participant's monthly credit to the account plus conversion of sick and annual leave, if any, based on the final average compensation rate used to calculate the monthly credit and an additional benefit if employment continues. The additional benefit is based on service credit for the period after plan participation. If the participant dies while still employed, the credits and benefits, if any, due beneficiaries are payable as if the member retired immediately prior to death.

NOTE: For anyone eligible to enter DROP prior to January 1, 2004, the DROP Account Balance earns interest at a rate of one-half of one percentage point below the percentage rate of return of the System's investment portfolio as certified by the actuary on an annual basis. For all others, DROP accounts are placed in liquid asset money market investments approved by the Board of Trustees.

COST OF LIVING ADJUSTMENTS:

Act 333 of 2007 established an Experience Account to be used to pay cost of living adjustments (COLAs), or permanent benefit increases (PBIs). The Experience Account is credited with 50% of the investment experience gain in excess of \$15 million (indexed based on increases in the actuarial value of assets after June 30, 2015) along with that portion of the net investment income, if any, attributable to the prior year balance, subject to maximum accumulation limitation based upon the Plan's funded percentage. The account is also debited with that portion of the system's net investment loss, if any, attributable to the prior year balance. In no event may the amount in the experience account fall below zero. Once the balance of the Experience Account accumulates a sum sufficient to grant retirees a COLA, the Board may recommend the granting of a COLA on benefits up to \$60,000 (indexed), not to exceed the lesser of the CPI-U or a percentage determined based on the funded level percentage attained by the system as described in R. S. 11:1145.1(C)(2), provided a COLA had not been granted in the prior year. Benefits are restricted to disability retirees and those retirees and beneficiaries who have attained the age of 60 and have been retired for at least one year. Maximum limitations are outlined in ACT 399 of 2014.

ACTUARIAL ASSUMPTIONS

In determining actuarial costs, certain assumptions must be made regarding future experience under the plan. These assumptions include the rate of investment return, mortality of plan members, rates of salary increase, rates of retirement, rates of termination, rates of disability, and various other factors that have an impact on the cost of the plan. To the extent that future experience varies from the assumptions selected for valuation, future costs will be either higher or lower than anticipated. The following chart illustrates the effect of emerging experience on the plan.

Factor	Increase in Factor Results in
Investment Earnings Rate	Decrease in Cost
Annual Rate of Salary Increase	Increase in Cost
Rates of Retirement	Increase in Cost
Rates of Termination	Decrease in Cost
Rates of Disability	Increase in Cost
Rates of Mortality	Decrease in Cost

ACTUARIAL COST METHOD: Individual Entry Age Normal With Allocation of Cost Based on Earnings. Entry and Attained Ages Calculated on an Age Near Birthday Basis.

VALUATION INTEREST RATE: 7.125% (Net of investment expenses)

ACTUARIAL ASSET VALUES: All assets are valued at market value adjusted to defer four-fifths of all earnings above or below the valuation interest rate in the valuation year, three-fifths of all earnings above or below the valuation interest rate in the prior year, two-fifths of all earnings above or below the valuation interest rate from two years prior, and one-fifth of all earnings above or below the valuation interest rate from three years prior. The resulting smoothed values are subject to a corridor of 85% to 115% of the market value of assets. If the smoothed value falls outside the corridor, the actuarial value is set equal to the average of the corridor limit and the smoothed value.

ACTIVE MEMBER MORTALITY: RP 2000 Combined Healthy Sex Distinct Tables

ANNUITANT AND BENEFICIARY MORTALITY: RP 2000 Combined Healthy Sex Distinct Tables

RETIREE COST OF LIVING INCREASES: The present value of future retirement benefits is based on benefits currently being paid by the system and includes previously granted cost of living increases. The present values do not include provisions for potential future increases not yet authorized by the Board of Trustees.

ANNUAL SALARY INCREASE RATE: The gross rates including inflation of 2.625% and merit increases are as follows:

<u>Years of Service</u>	<u>Salary Growth Rate</u>
1-2	5.375%
3-18	4.075%
19-26	3.875%
27-30	3.375%
Above 30	3.075%

RETIREMENT RATES: The table of these rates through age 75 is included later in the report. These rates apply only to those individuals eligible to retire.

ACCUMULATED LEAVE POLICIES: Retirements are monitored to determine the amount of leave converted to service credit. Leave credit is accrued throughout the duration of the member's career. The average service credit converted is expressed as 3% percent of the accrued benefit.

RETIREMENT LIMITATIONS: Projected retirement benefits are not subject to IRS Section 415 limits.

DROP ENTRY RATES: The table of these rates is included later in the report. These rates apply only to those individuals eligible to enter the DROP plan and are applied only in the year of earliest DROP eligibility.

DROP PARTICIPATION PERIOD: All DROP participants are assumed to participate for 3 years and retire at the end of this participation period.

RETIREMENT RATES FOR ACTIVE FORMER DROP PARTICIPANTS: Active former DROP participants retire according to the rates listed for all actives. The table of these rates through age 75 is included later in the report.

DISABILITY RATES: The table of these rates through age 75 is included later in this report.

WITHDRAWAL RATES: The table of these rates through age 75 is included later in the report.

MARRIAGE STATISTICS: 80% of the members are assumed to be married; husbands are assumed to be three years older than wives.

FAMILY STATISTICS: Assumptions utilized in determining the costs of various survivor benefits are listed below.

<u>Member's Age</u>	<u>% With Children</u>	<u>Number of Children</u>	<u>Average Age</u>
25	62%	1.66	6
30	74%	1.94	8
35	82%	2.06	10
40	81%	1.98	12
45	66%	1.75	13
50	40%	1.48	14
55	19%	1.35	15
60	6%	1.35	15
65	2%	1.35	15

DISABLED LIVES MORTALITY: RP-2000 Disabled Lives Mortality Tables for Males and Females

VESTING ELECTING PERCENTAGE: For members terminating with less than twenty years of service, it is assumed that 80% will withdraw their accumulated employee contributions. For members terminating with twenty or more years of service, it is assumed that only 30% will withdraw their accumulated employee contributions. The remaining are assumed to receive a deferred vested retirement benefit.

ACTUARIAL TABLES AND RATES

Age	Male Mortality Rates	Female Mortality Rates	Retirement Rates for those hired prior to 7/1/2010	Retirement Rates for those hired after 6/30/2010 and before 7/1/2015	Retirement Rates for those hired after 6/30/2015	DROP Rates for those hired prior to 7/1/2010	DROP Rates for those hired after 6/30/2010 and before 7/1/2015	DROP Rates for those hired after 6/30/2015	Disability Rates	Termination Rates
18	0.000316	0.000188	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
19	0.000331	0.000190	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
20	0.000345	0.000191	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
21	0.000357	0.000192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
22	0.000366	0.000194	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
23	0.000373	0.000197	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.13000
24	0.000376	0.000201	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.13000
25	0.000376	0.000207	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.13000
26	0.000378	0.000214	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
27	0.000382	0.000223	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
28	0.000393	0.000235	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
29	0.000412	0.000248	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
30	0.000444	0.000264	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
31	0.000499	0.000307	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
32	0.000562	0.000350	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
33	0.000631	0.000394	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.08000
34	0.000702	0.000435	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.08000
35	0.000773	0.000475	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00100	0.07000
36	0.000841	0.000514	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00100	0.07000
37	0.000904	0.000554	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00100	0.07000
38	0.000964	0.000598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00100	0.06500
39	0.001021	0.000648	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00100	0.06500
40	0.001079	0.000706	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00200	0.06500
41	0.001142	0.000774	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00200	0.05500
42	0.001215	0.000852	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00200	0.05500
43	0.001299	0.000937	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00300	0.05500
44	0.001397	0.001029	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00300	0.05500
45	0.001508	0.001124	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00300	0.04500
46	0.001616	0.001223	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00300	0.04500
47	0.001734	0.001326	0.80000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00400	0.04500
48	0.001860	0.001434	0.70000	0.00000	0.00000	0.35000	0.00000	0.00000	0.00400	0.04500
49	0.001995	0.001550	0.55000	0.00000	0.00000	0.35000	0.00000	0.00000	0.00500	0.04000
50	0.002138	0.001676	0.55000	0.00000	0.00000	0.35000	0.00000	0.00000	0.00500	0.04000
51	0.002449	0.001852	0.55000	0.00000	0.00000	0.30000	0.00000	0.00000	0.00600	0.04000
52	0.002667	0.002018	0.55000	0.00000	0.00000	0.30000	0.00000	0.00000	0.00600	0.04000
53	0.002916	0.002207	0.55000	0.00000	0.00000	0.20000	0.00000	0.00000	0.00600	0.04000
54	0.003196	0.002424	0.37000	0.00000	0.00000	0.20000	0.00000	0.00000	0.00600	0.04000
55	0.003624	0.002717	0.37000	0.00000	0.00000	0.50000	0.00000	0.00000	0.00700	0.04000
56	0.004200	0.003090	0.37000	0.00000	0.00000	0.15000	0.00000	0.00000	0.00700	0.04000
57	0.004693	0.003478	0.37000	0.00000	0.00000	0.15000	0.00000	0.00000	0.00600	0.04000
58	0.005273	0.003923	0.45000	0.00000	0.00000	0.15000	0.00000	0.00000	0.00600	0.04000
59	0.005945	0.004441	0.30000	0.00000	0.00000	0.15000	0.00000	0.00000	0.00300	0.04000
60	0.006747	0.005055	0.30000	0.48000	0.00000	0.45000	0.45000	0.00000	0.00300	0.04000
61	0.007676	0.005814	0.25000	0.25000	0.00000	0.10000	0.10000	0.00000	0.00300	0.04000
62	0.008757	0.006657	0.25000	0.25000	0.48000	0.05000	0.05000	0.45000	0.00300	0.04000
63	0.010012	0.007648	0.25000	0.25000	0.25000	0.05000	0.05000	0.10000	0.00300	0.04000
64	0.011280	0.008619	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
65	0.012737	0.009706	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
66	0.014409	0.010954	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
67	0.016075	0.012163	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
68	0.017871	0.013445	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
69	0.019802	0.014860	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
70	0.022206	0.016742	0.25000	0.25000	0.25000	0.05000	0.05000	0.05000	0.00300	0.04000
71	0.024570	0.018579	0.25000	0.25000	0.25000	0.00000	0.00000	0.00000	0.00300	0.04000
72	0.027281	0.020665	0.25000	0.25000	0.25000	0.00000	0.00000	0.00000	0.00300	0.04000
73	0.030387	0.022970	0.25000	0.25000	0.25000	0.00000	0.00000	0.00000	0.00300	0.04000
74	0.033900	0.025458	0.99000	0.99000	0.99000	0.00000	0.00000	0.00000	0.00300	0.04000
75	0.037834	0.028106	0.99000	0.99000	0.99000	0.00000	0.00000	0.00000	0.00300	0.04000

PRIOR YEAR ASSUMPTIONS

VALUATION INTEREST RATE: 7.00% (Net of investment and administrative expenses)

ANNUAL SALARY INCREASE RATE: The gross rates including inflation of 2.75% and merit increases are as follows:

<u>Years of Service</u>	<u>Salary Growth Rate</u>
1-2	5.5%
3-18	4.2%
19-26	4.0%
27-30	3.5%
Above 30	3.2%

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 – The actuarial present value of benefits payable to members of the fund less 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 mortality, withdrawal, disablement, and retirement. Also included are rates of investment earnings, changes in compensation, as well as statistics related to marriage and family composition.

Actuarial Cost Method – A procedure for determining the portion of the cost of a pension plan to be allocated to each year. Each cost method allocates a certain portion of the actuarial present value of benefits between the actuarial accrued liability and future normal costs. Once this allocation is made, a determination of the normal cost attributable to a specific year can be made along with the payment to amortize any unfunded actuarial accrued liability. To the extent that a particular funding method allocates a greater (lesser) portion of the actual present value of benefits to the actuarial accrued liability it will allocate less (more) to future normal costs.

Actuarial Equivalence – Payments or receipts with equal actuarial value on a given date when valued using the same set of actuarial assumptions.

Actuarial Gain (Loss) – The financial effect on the fund of the difference between the expected and actual experience of the fund. The experience may be related to investment earnings above (or below) those expected or changes in the liability structure due to fewer (or greater) than the expected numbers of retirements, deaths, disabilities, or withdrawals. In addition, other factors such as pay increases above (or below) those forecast can result in actuarial gains or losses. The effect of such gains (or losses) is to decrease (or increase) future costs.

Actuarial Present Value – The value, as of a specified date, of an amount or series of amounts payable or receivable thereafter, with each amount adjusted to reflect the time value of money (through accrual of interest) and the probability of payments. For example: if \$600 invested today will be worth \$1,000 in 10 years and there is a 50% probability that a person will live 10 years, then the actuarial present value of \$1,000 payable to that person if he should survive 10 years is \$300.

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 the book value, market value, or some modification involving either or both book and market value. Adjustments to market values are often made to reduce the volatility of asset values.

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 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 Shortfall (Excess) – The difference between contributions recommended in the prior valuation and the actual amount received.

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

Deferred Retirement Option Plan (DROP) Account – The account into which DROP accruals are paid and from which DROP lump sum balances are disbursed.

Employer Normal Cost – That portion of the normal cost not attributable to employee contributions. It includes both direct contributions made by the employer and contributions from other non-employee sources such as revenue sharing and revenues related to taxes.

Funded Ratio – A measure of the ratio of assets to liabilities of the system according to a specific definition of those two values. Typically the assets used in the measure are the actuarial value of assets; the liabilities are defined by reference to some recognized actuarial funding method. Thus the funded ratio of a plan depends not only on the financial strength of the plan but also on the funding method used to determine the liabilities and the asset valuation method used to determine the assets in the ratio.

Initial Benefit Retirement Plan (IBRP) Account – The account into which the initial benefit is deposited. Interest is credited thereto and monthly payments made from this account.

Normal Cost – That portion of the actuarial present value of pension plan benefits and expenses allocated to a valuation year by the actuarial cost method. This is analogous to one year's insurance premium.

Pension Benefit Obligation – The actuarial present value of benefits earned or credited to date based on the members expected final average compensation at retirement. For current retirees or terminated members this is equivalent to the actuarial present value of their accrued benefit.

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.

Side Funds – Legislatively created funds (such as the Experience Account and Amortization Conversion Account) which are excluded from the actuarial value of assets in the determination of the unfunded accrued liability and the actuarially required net direct employer contribution.

Unfunded Actuarial Accrued Liability – The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefits – Benefits that the members are entitled to even if they withdraw from service.

NOTES