REGISTRARS OF VOTERS EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2019

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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November 1, 2019

Board of Trustees
Registrars of Voters Employees' Retirement System
P.O. Box 1959
Gonzales, Louisiana 70707

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Registrars of Voters Employees' Retirement System for the fiscal year ending June 30, 2019. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrator and accountants. This report was prepared at the request of the Board of Trustees of the Registrars of Voters Employees' Retirement System. The primary purpose of this report is to determine the actuarially required contribution for the retirement system for the fiscal year ending June 30, 2020, and to recommend the net direct employer contribution rate for Fiscal 2021. 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 the Registrars of Voters 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 answer 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.

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

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SUMMARY OF VALUATION RESULTS
REGISTRARS OF VOTERS EMPLOYEES' RETIREMENT SYSTEM

Valuation Date:		June 30, 2019	June 30, 2018
Census Summary:	Active Members	238	238
	Retired Members and Survivors	160	155
	Terminated Due a Deferred Benefit	5	5
	Terminated Due a Refund	30	25
Payroll:		$ 13,486,619	$ 13,637,926
Benefits in Payment:		$ 5,552,865	$ 5,172,876
Present Value of Future Benefits		$ 151,252,706	$ 150,181,235
Actuarial Accrued Liability (EAN):		$ 119,488,829	$ 117,626,619
Funding Deposit Account Credit Balance		$ 2,801,029	$ 2,630,074
Actuarial Value of Assets (AVA):		$ 103,472,404	$ 99,281,861
Market Value of Assets (MVA):		$ 104,539,975	$ 97,863,964
Ratio of AVA to Actuarial Accrued Liability (EAN):		86.60%	84.40%

	Fiscal 2019	Fiscal 2018
Market Rate of Return:	7.4%	6.8%
Actuarial Rate of Return:	4.8%	5.5%

	Fiscal 2020	Fiscal 2019
Employers' Normal Cost (Mid-year):	$ 4,631,789	$ 4,977,415
Estimated Administrative Cost	$ 465,379	$ 412,134
Projected Ad Valorem Tax Contributions	$ 2,954,904	$ 2,894,150
Projected Revenue Sharing Funds	$ 110,079	$ 110,067
Net Direct Employer Actuarially Required Contributions:	$ 2,032,185	$ 2,385,332
Projected Payroll:	$ 14,072,994	$ 14,126,603
Statutory Employee Contribution Rate:	7.00%	7.00%
Board Approved Net Direct Employer Contribution Rate:	18.00%	17.00%
Actuarially Required Net Direct Employer Contribution Rate:	14.44%	16.89%

	Fiscal 2021	Fiscal 2020
Minimum Recommended Net Direct Employer Contribution Rate:	14.50%	17.00%

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 to ascribe a greater degree of accuracy to the results than is warranted. In fact, neither of these assessments 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 the data utilized, 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 of 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 with regard to future changes in plan population and decrements 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 number 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 efforts 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. However, 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 contribution levels which will provide for the future benefits of plan participants.

COMMENTS ON DATA

For the valuation, our office electronically downloaded census information 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, 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 IX, there are 238 active members, of whom, 138 members, including 23 participants in the Deferred Retirement Option Plan (DROP), have vested retirement benefits; 160 former members or their beneficiaries are receiving retirement benefits. An additional 35 former members have contributions remaining on deposit with the system; of this number 5 former members have vested rights for future retirement benefits. All individuals submitted were included in the valuation.

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, which 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 administrator 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. For this valuation, the number of such records with imputed data is de minimis. 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 administrative director 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 system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, L.L.P. As indicated in the system's audit report, the net market value of assets was $104,539,975 as of June 30, 2019. Net investment income for Fiscal 2019 measured on a market value basis was $7,262,222. Contributions to the system for the fiscal year totaled $7,251,641; benefits and expenses amounted to $7,837,852.

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 Aggregate Actuarial Cost Method. Under the Aggregate Cost Method, actuarial gains and losses are spread over future normal costs. Thus, favorable plan experience will lower future normal costs; unfavorable experience will cause future normal costs to increase. In addition, changes in benefits and assumptions are also spread over future normal costs.

The current year actuarial assumptions utilized for this report are based on the results of an actuarial experience study for the period July 1, 2009 – June 30, 2014 and include the reduction in valuation interest rate included in the 2018 valuation. The System's target asset allocation was reviewed based upon the G. S. Curran & Company consultant average return study for 2019. The study found that the 6.50% valuation interest rate remains within the reasonable range for a long-term assumed rate of return based on the Fund's target asset allocation. The reasonable range was set by developing 10,000 stochastic trials based on the consultant average expected long-term geometric return and standard deviation for the Fund's target asset allocation. Based on the results of this interest rate assumption review, the assumed rate of return for the valuation remains at 6.50%. An inflation rate of 2.40% was implicit in both the assumed rate of return and rate of salary increases. Additional details are given in the complete Experience Report for fiscal years 2010 through 2014.

Although the Board of Trustees has authority to grant ad hoc Cost of Living Increases (COLAs) under limited circumstances, these COLAs have not been shown to have a historical pattern, the amounts of the COLAs have not been relative to a defined cost-of-living or inflation index, and there is no evidence to conclude that COLAs will be granted on a predictable basis in the future. Therefore, for purposes of determining the present value of benefits, these COLAs were deemed not to be substantively automatic and the present value of benefits excludes COLAs not previously granted by the Board of Trustees.

The current year actuarial assumptions utilized for the report are outlined on pages thirty-seven through forty-one. All assumptions were the same as those used in the Fiscal 2018 valuation. All assumptions used are based on estimates of future long-term experience for the fund. All calculations, recommendations, and conclusions are based on the assumptions specified. To the extent that prospective experience differs from that assumed, adjustments to contribution levels will be required. Such differences will be revealed in future actuarial valuations.

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 86.60% as of June 30, 2019. 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 the assumed rate of return on the actuarial value of assets, there will be a corresponding increase in the actuarially required contribution as a percentage of projected payroll of 0.80% 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 2019, this ratio is 41%; ten years ago this ratio was 24%.

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 2020 by 12.91% 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 assumptions, 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

There were no legislative changes affecting the system which were enacted during the 2019 Regular Session of the Louisiana Legislature.

ASSET EXPERIENCE

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

	Market Value	Actuarial Value
2010	8.7%	3.8%
2011	16.4%	4.8%
2012	-5.0%	-0.3%
2013	10.1%	1.6%
2014	13.1%	7.9%
2015	-0.2%	6.1%
2016	-2.0%	3.0%
2017	12.4%	5.7%
2018	6.8%	5.5%
2019	7.4%	4.8%

Geometric Average Market Rates of Return

5 year average	(Fiscal 2015 – 2019)	4.7%
10 year average	(Fiscal 2010 – 2019)	6.6%
15 year average	(Fiscal 2005 – 2019)	4.4%
20 year average	(Fiscal 2000 – 2019)	4.1%
25 year average	(Fiscal 1995 – 2019)	5.4%

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 and dividends. 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 2019, the fund earned $2,536,674 dividends, interest and other recurring income. Net income was increased by realized and unrealized capital gains of $5,168,404. Investment expenses reduced income by $442,856.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 6.50% applicable for Fiscal 2019 (6.50% beginning July 1, 2019). This rate is calculated based on the actuarial value of assets and the market value income adjusted for actuarial smoothing as given in Exhibit VI. Investment income used to calculate this yield is based upon a smoothing of investment income above or below the valuation interest rate over a five year period subject to limits as described in the section detailing actuarial assumptions. The difference between rates of return on an actuarial and market value basis results from the smoothing utilized. In the future, yields in excess of the 6.50% assumption will reduce future costs; yields below 6.50% will increase future costs. For Fiscal 2019, the system earned net actuarial investment income totaling $1,657,815 less than the actuarial assumed earnings rate of 6.50% in effect for Fiscal 2019. This shortfall in earnings produced an actuarial loss, which increased the normal cost accrual rate by 1.2784%.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the plan is given in Exhibit X. The average active member (including DROP participants) is 52 years old with 13.33 years of service and an annual salary of $56,666. The system's active membership remained level during the fiscal year. The plan has experienced a decrease in the active plan population of 3 members over the last five years. A review of the active census by age indicates that, over the last ten years, the population in the below 60 age groups have decreased significantly while the proportion of active members in the 61 and above age group have increased. Over the same ten-year period, the proportion of members with 10-19 years of service increased with reductions in the proportion of members with fewer than 10 years of service.

The average service retiree is 73 years old with a monthly benefit of $3,385. The number of retirees and beneficiaries receiving benefits from the system increased by 5 during the fiscal year; over the last five years the number of retirees has increased by 9. During this same period, annual benefits in payment increased by $1,837,668.

Plan liability experience for Fiscal 2019 was somewhat favorable. Liability experience gains were produced primarily by salary increases less than projected levels. Withdrawals were above projected levels and retirements were below projected levels. These factors tend to reduce costs. DROP entries and disabilities were near projected levels. In aggregate, plan liability gains decreased the normal cost accrual rate by 1.2703%.

FUNDING ANALYSIS AND RECOMMENDATIONS
DEFINED BENEFIT PLAN

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 the normal cost, and the actuarially required contributions are based on the sum of this value and administrative expenses. Under the funding method used for the plan, changes in plan experience, benefits, or assumptions increase or decrease future normal costs. In addition excess or deficient contributions can decrease or increase future costs.

In order to establish the actuarially required contribution in any given year, it is necessary to define the assumptions and funding method. Thus, the determination of what contribution is actuarially required depends upon the funding method 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.

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for Fiscal 2020 is $4,488,218. The total actuarially required contribution is determined by adjusting the value for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given on line 12 of Exhibit I the total actuarially required contribution for Fiscal 2020 is $5,097,168. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for Fiscal 2020 is $2,032,185 or 14.44% of projected payroll.

Liability and asset experience as well as changes in assumptions and benefits can increase or decrease plan costs. In addition to these factors, any COLA granted in the prior fiscal year which is not funded by withdrawals from the Funding Deposit Account would increase required contributions. New entrants to the system can also increase or decrease costs as a percent of payroll depending upon their demographic distribution and other factors related to prior plan experience. Finally, contributions above or below requirements may reduce or increase future costs.

The effects of various factors on the fund's cost structure are outlined below:

Employer's Normal Cost Accrual Rate – Fiscal 2019	35.2224%
Factors Increasing the Normal Cost Accrual Rate:	
Asset Experience Loss	1.2784%
Contribution Loss	0.0190%
Factors Decreasing the Normal Cost Accrual Rate:	
Plan Liability Experience Gain	1.2703%
New Members	2.0817%
Employer's Normal Cost Accrual Rate – Fiscal 2020	33.1678%

In addition to the above factors, required net direct employer contributions are also affected by the projected ad valorem taxes and revenue sharing funds which the system is expected to receive each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. We estimate that these funds will increase by 0.51% of payroll in Fiscal 2020.

Although the actuarially required net direct employer contribution rate for Fiscal 2019 was 16.89%, the Board voted to maintain the employer contribution rate at 17.00%. Despite setting the rate above the minimum level for Fiscal 2019, the system experienced a contribution loss. Therefore, no additional contributions were credited to the system's Funding Deposit Account as of June 30, 2019. Although the actuarially required net direct employer contribution rate for Fiscal 2020 is 14.40%; the actual employer contribution rate for Fiscal 2020 is 18.00% of payroll. Since the contribution rate for Fiscal 2020 was set at 18.00% by the Board, any surplus in employer contributions collected during the fiscal year will be credited to the Funding Deposit Account.

R.S. 11:103 requires that the net direct employer contributions be rounded to the nearest 0.25%, hence we are recommending a minimum net direct employer contribution rate of 14.50% for Fiscal 2021. Under the provisions of RS 11:105, R.S. 11:106 and RS 11:107, the Board of Trustees may set the net direct employer contribution for Fiscal 2021 at any level between the minimum recommended employer contribution rate of 14.50% and 18.00%. If the Board sets the net direct employer contribution rate above the minimum rate, any excess funds collected will be deposited in the Funding Deposit Account. Funds in this account can be used to reduce either future required contributions in a particular year or the normal cost accrual rate. In addition, if the system may grant a cost of living increase to retirees, such increase may be paid from funds in the Funding Deposit Account.

FUNDING ANALYSIS AND RECOMMENDATIONS
DEFINED CONTRIBUTION PLAN

Funding for the retirement system's defined contribution account is contingent upon the availability of funds from ad valorem taxes and revenue sharing above the requirements of the defined benefit plan. The maximum amount of ad valorem taxes available to the system is 0.0625% of the ad valorem taxes shown to be collected each year. For Fiscal 2020, we project that the system will receive ad valorem taxes in an amount insufficient to meet the requirements of the defined benefit plan. Therefore, there is no funding available for the defined contribution account for Fiscal 2020.

COST OF LIVING INCREASES

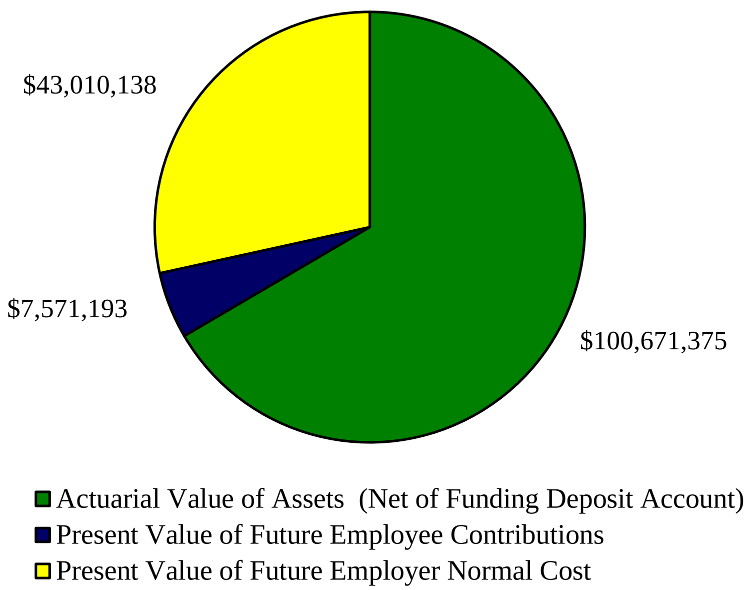
During Fiscal 2019 the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 1.6%. Cost of living provisions for the system are detailed in R.S. 11:2073, R.S. 11:246, and R.S. 11:241. R.S. 11:2073 allows the Board to grant annual cost of living increases of up to 3% of each retiree's original benefit. This applies only to members who have been retired for at least two years. R.S. 11:246 provides cost of living increases to retirees and beneficiaries over the age of 65 of up to 2% of the benefit in payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. R. S. 11:241 provides for cost of living benefits payable based on a formula equal to up to $1 times the total of the number of years of credited service accrued at retirement or at death of the member or retiree plus the number of years since retirement or since death of the member or retiree to the system's fiscal year end preceding the payment of the benefit increase.

Statutory requirements provide that such COLA's may be paid only when the system has investment earnings above the valuation interest rate or when sufficient funds are available in the Funding Deposit Account and the system complies with the provisions of R. S. 11:243(G)(3). R.S. 11:243 sets forth the funding criteria necessary in order to grant cost of living adjustments to regular retirees and beneficiaries (who are neither the surviving spouse nor children of the retiree). The criteria for the fund to qualify as eligible to grant any such increase is as follows: a funded ratio of at least 70% if the system has not granted a benefit increase to retirees, survivors, or beneficiaries in any of the three most recent fiscal years; a funded ratio of at least 80% if the system has not granted such an increase in any of the two most recent fiscal years; or a funded ratio of at least 90% if the system has not granted such an increase in the most recent fiscal year. The funded ratio at any fiscal year end is the ratio of the actuarial value of assets to the actuarial accrued liability under the funding method prescribed by the legislative auditor (currently the Projected Unit Credit Method for this system).

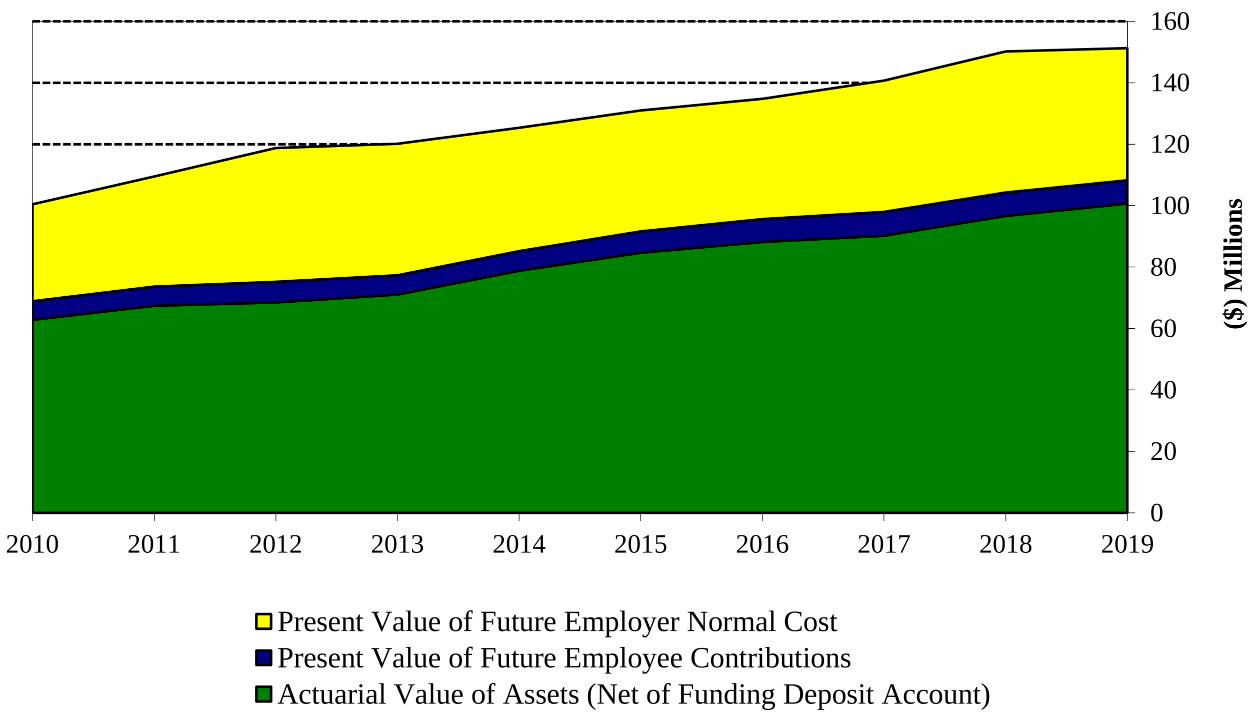
Because the plan's funded ratio for COLA purposes is 84.27% (i.e. the actuarial value of assets divided by the pension benefit obligation) and the system paid a COLA on January 1, 2018, the plan does not qualify for an increase under the requirements of R.S. 11:243 since the system has granted a benefit increase to retirees, survivors, and beneficiaries of the system within the prior two fiscal years.

Components of Present Value of Future Benefits

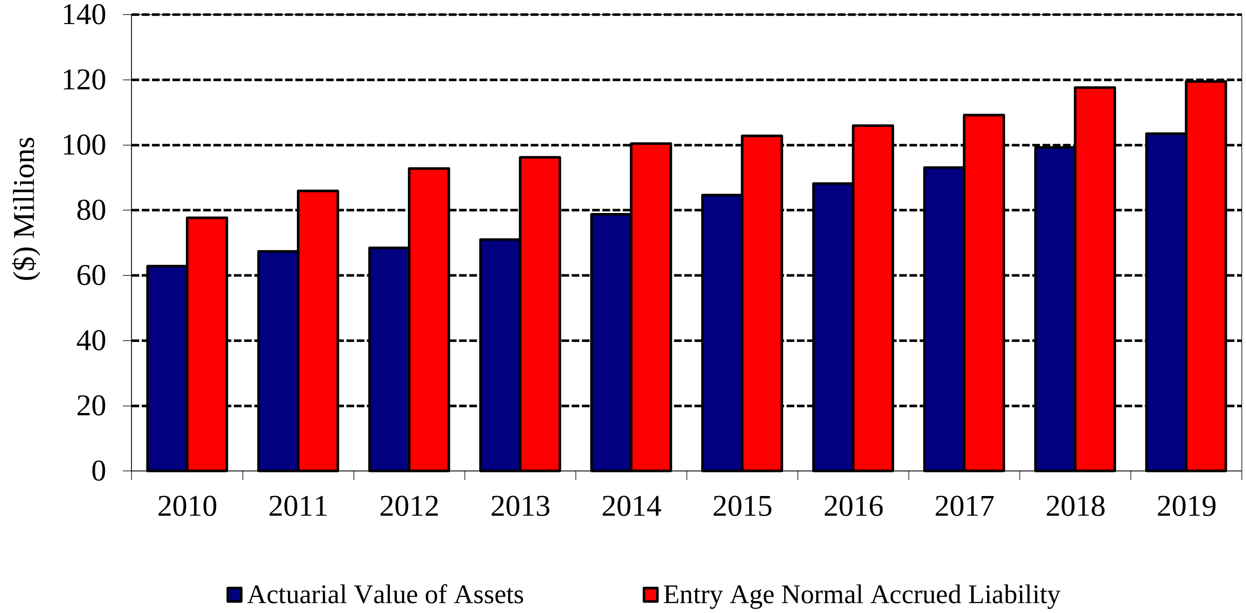
June 30, 2019



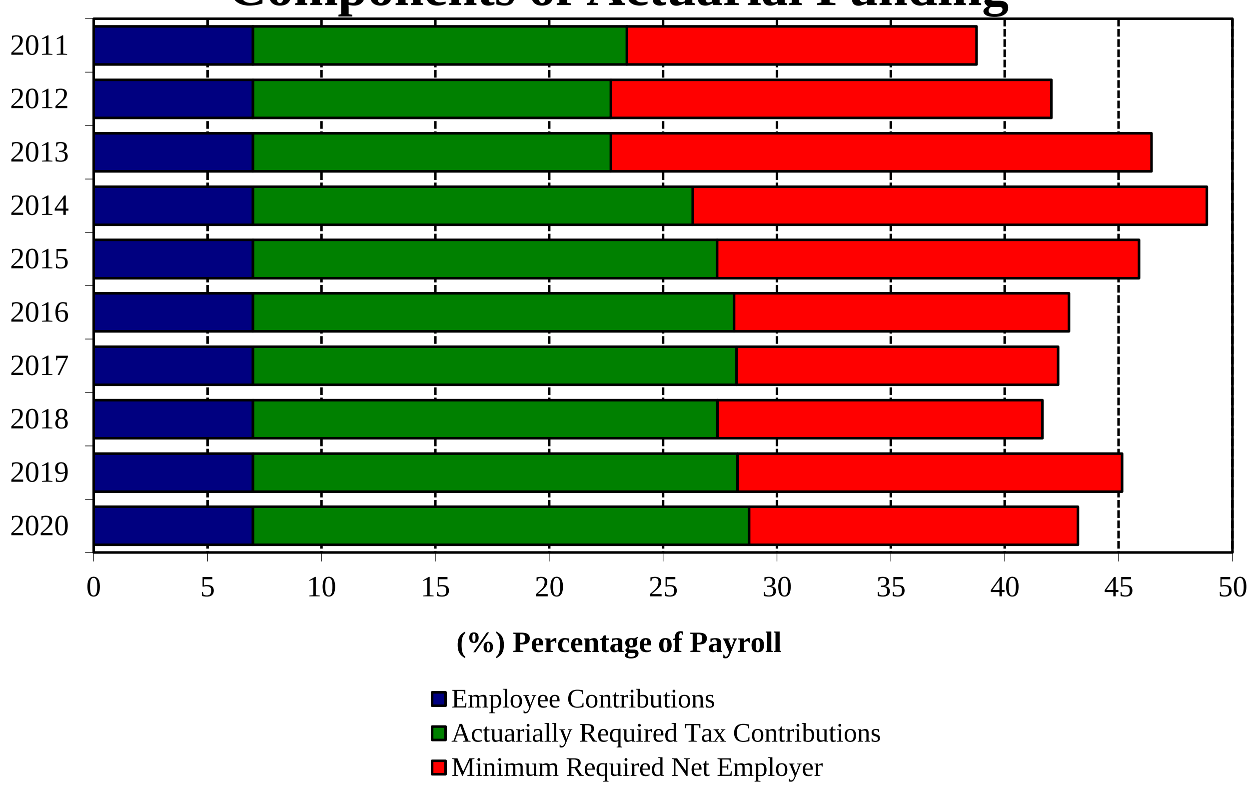
Components of Present Value of Future Benefits



Actuarial Value of Assets vs. EAN Accrued Liability

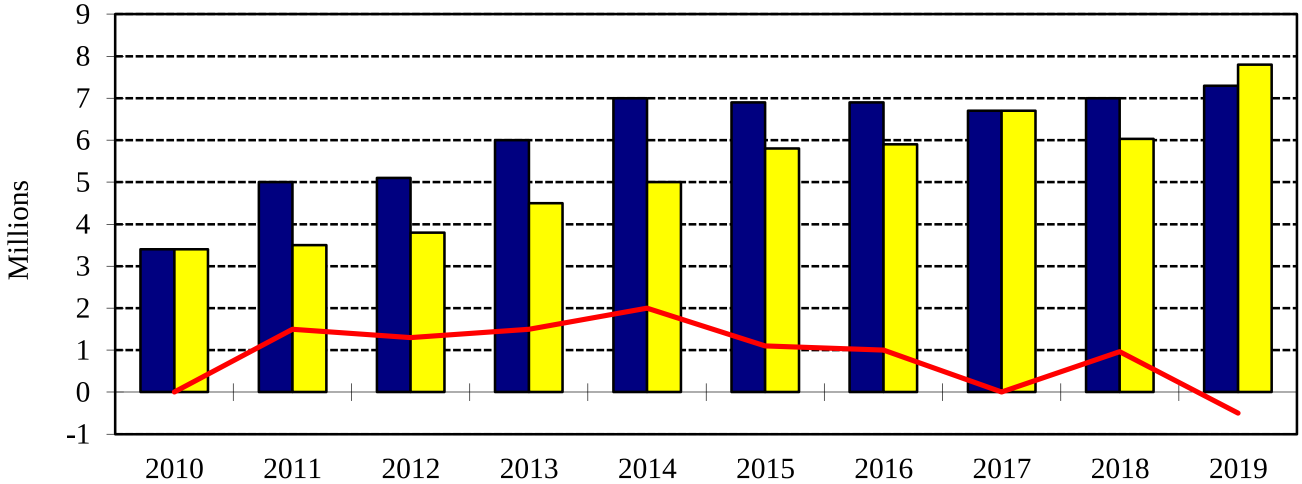


Components of Actuarial Funding



Actuarially Required Tax Contributions consist of the lesser of Actuarially Required Contributions and amount of taxes divided by the projected valuation payroll.

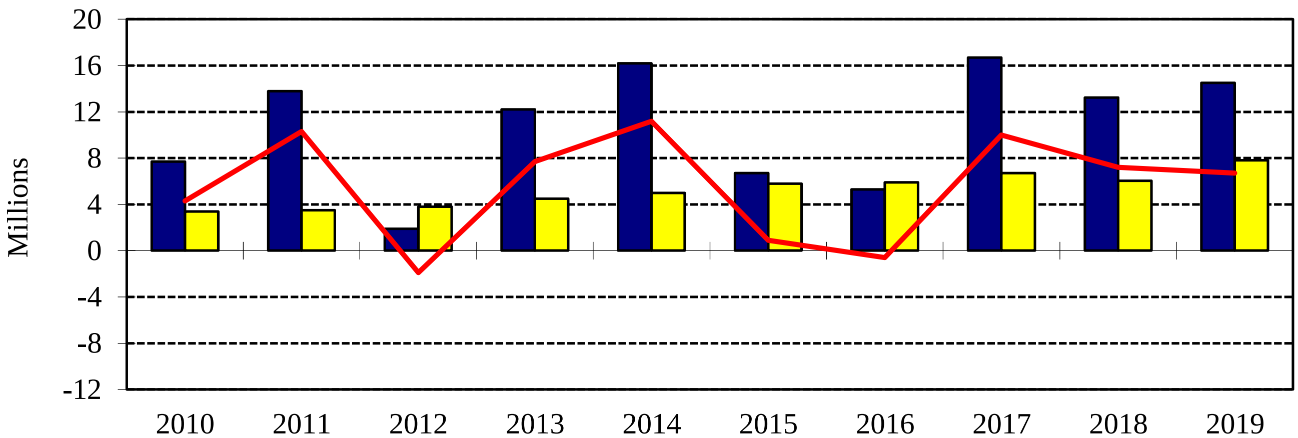
Net Non-Investment Income



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Non-Investment Income ($Mil)	3.4	5.0	5.1	6.0	7.0	6.9	6.9	6.7	7.0	7.3
Benefits and Expenses ($Mil)	3.4	3.5	3.8	4.5	5.0	5.8	5.9	6.7	6.0	7.8
Net Non-Investment Income ($Mil)	0.0	1.5	1.3	1.5	2.0	1.1	1.0	0.0	1.0	-0.5

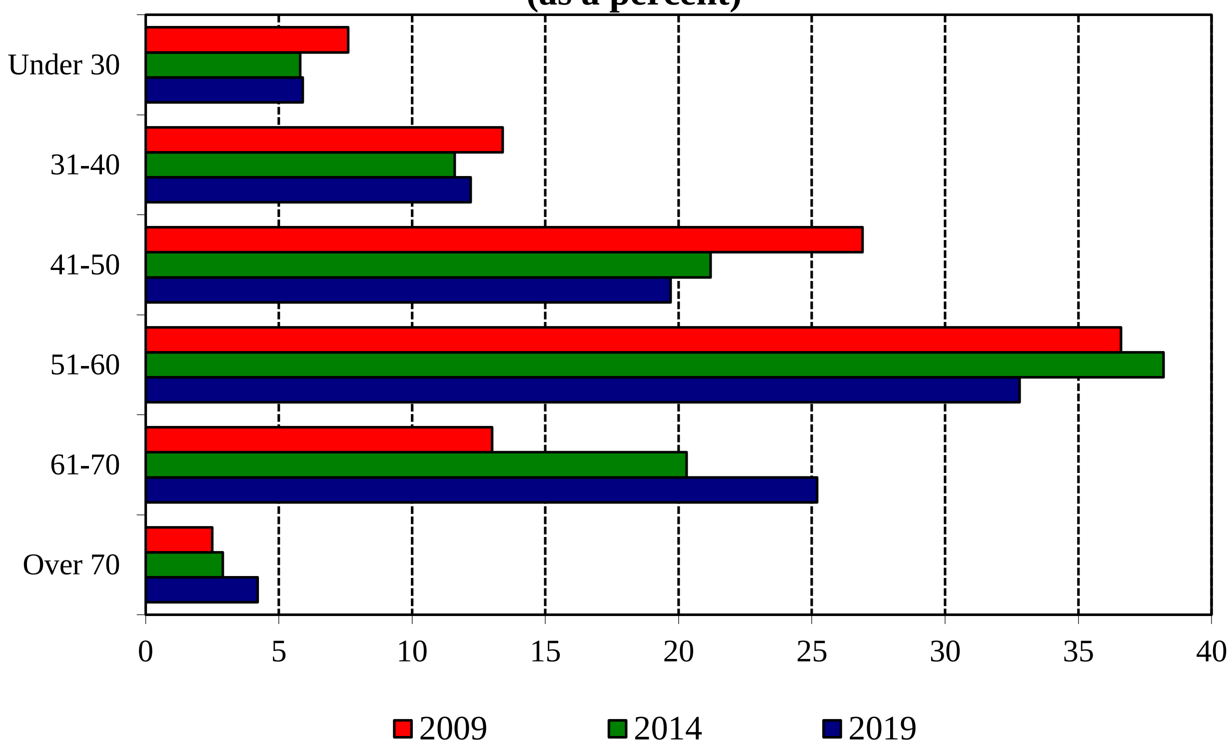
Total Income vs. Expenses

(Based on Market Value of Assets)

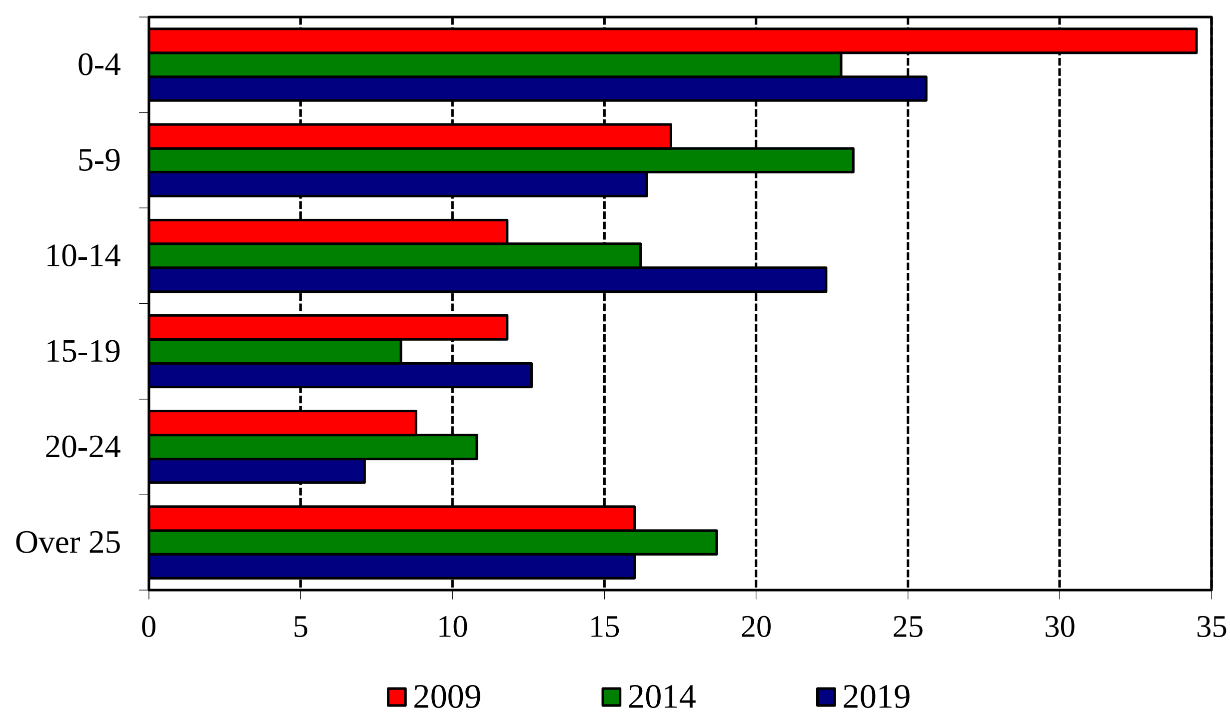


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Income ($Mil)	7.7	13.8	1.9	12.2	16.2	6.7	5.3	16.7	13.2	14.5
Benefits and Expenses ($Mil)	3.4	3.5	3.8	4.5	5.0	5.8	5.9	6.7	6.0	7.8
Net Change in MVA ($Mil)	4.3	10.3	-1.9	7.7	11.2	0.9	-0.6	10.0	7.2	6.7

Active – Census By Age
(as a percent)



Active – Census By Service
(as a percent)



Historical Asset Yield

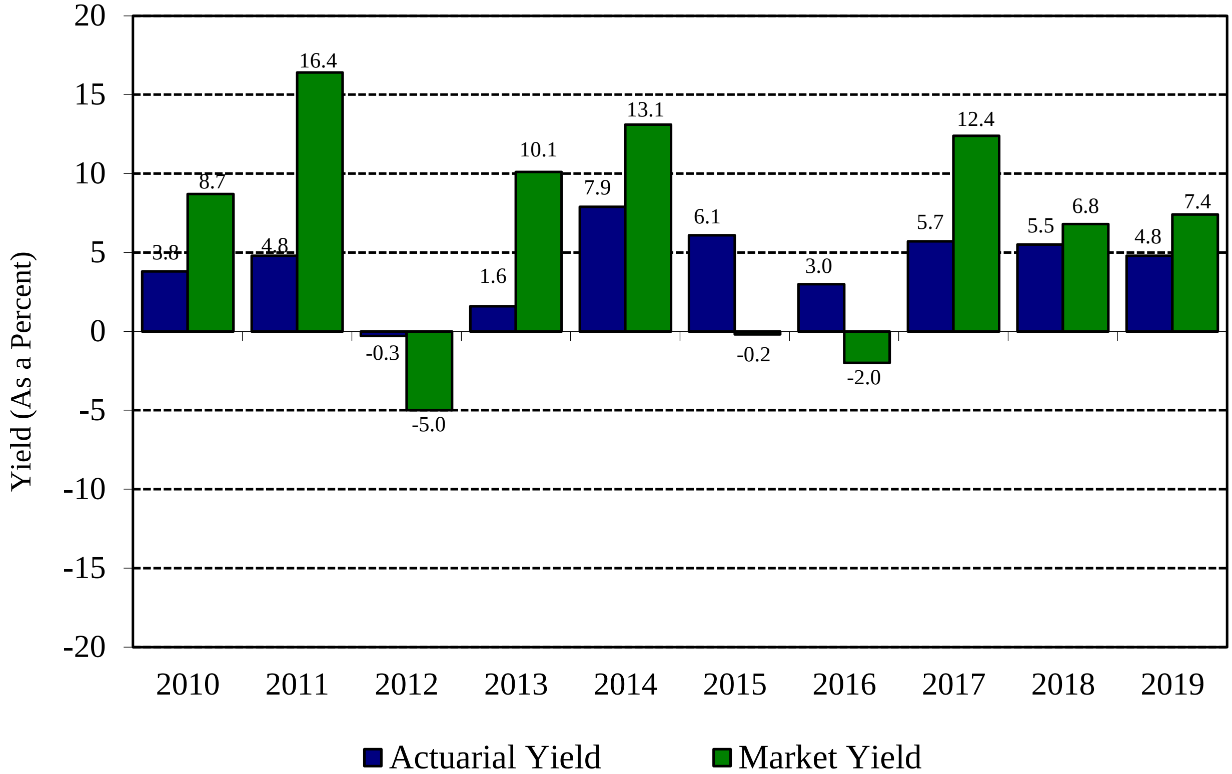


EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS TO THE DEFINED BENEFIT PLAN

1.	Present Value of Future Benefits	$	151,252,706
2.	Funding Deposit Account Credit Balance	$	2,801,029
3.	Actuarial Value of Assets	$	103,472,404
4.	Present Value of Future Employee Contributions	$	7,571,193
5.	Present Value of Future Employer Normal Costs (1 + 2 – 3 – 4)	$	43,010,138
6.	Present Value of Future Salaries	$	129,674,514
7.	Employer Normal Cost Accrual Rate (5 ÷ 6)		33.167765%
8.	Projected Fiscal 2020 Salary for Current Membership	$	13,531,866
9.	Employer Normal Cost as of July 1, 2019 (7 × 8)	$	4,488,218
10.	Employer Normal Cost Interest Adjusted for Mid-year Payment	$	4,631,789
11.	Estimated Administrative Cost for Fiscal 2020	$	465,379
12.	GROSS Employer Actuarially Required Contribution for Fiscal 2020 (10 + 11)	$	5,097,168
13.	Projected Ad Valorem Tax Contributions for Fiscal 2020	$	2,954,904
14.	Projected Revenue Sharing Funds for Fiscal 2020	$	110,079
15.	Net Direct Employer Actuarially Required Contribution for Fiscal 2020 (12 – 13 – 14)	$	2,032,185
16.	Projected Payroll for Fiscal 2020	$	14,072,994
17.	Employers' Minimum Net Direct Actuarially Required Contribution as a percentage of Projected Payroll for Fiscal 2020 (15 ÷ 16)		14.44%
18.	Board Approved Employer Contribution Rate for Fiscal 2020		18.00%
19.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2021 (17, Rounded to nearest 0.25%)		14.50%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 91,569,902	
Survivor Benefits	1,262,358	
Disability Benefits	578,431	
Vested Termination Benefits	1,498,168	
Refunds of Contributions	390,089	
TOTAL Present Value of Future Benefits for Active Members		$ 95,298,948

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 627,315	
Terminated Members with Reciprocals Due Benefits at Retirement	0	
Terminated Members Due a Refund	131,169	
TOTAL Present Value of Future Benefits for Terminated Members		$ 758,484

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees			
Maximum	$ 9,073,626		
Option 1	11,610,290		
Option 2	7,407,290		
Option 3	6,934,969		
Option 4	14,839,392		
TOTAL Regular Retirees		$ 49,865,567	
Disability Retirees		635,330	
Survivors & Widows		4,653,486	
Annuities Certain Payable to Retirees		40,891	
TOTAL Present Value of Future Benefits for Retirees & Survivors			$ 55,195,274

TOTAL Present Value of Future Benefits	$ 151,252,706

EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS

CURRENT ASSETS:				
Cash in Banks	$	1,573,495		
Contributions and Taxes Receivable		283,054		
Accrued Interest and Dividends		122,259		
Investments Receivable		68,524		
TOTAL CURRENT ASSETS			$	2,047,332
Property, Plant & Equipment			$	40,653
INVESTMENTS:				
Cash Equivalents	$	1,977,036		
Equities		67,177,197		
Fixed Income		26,022,649		
Real Estate		7,111,782		
Alternative Investments		300,846		
TOTAL INVESTMENTS			$	102,589,510
TOTAL ASSETS			$	104,677,495
CURRENT LIABILITIES:				
Accounts Payable	$	38,023		
Investments Payable		99,497		
TOTAL CURRENT LIABILITIES			$	137,520
MARKET VALUE OF ASSETS			$	104,539,975

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

Excess (Shortfall) of Invested Income
For Current and Previous 4 Years:

Fiscal year 2019	$	919,816
Fiscal year 2018		90,122
Fiscal year 2017		4,354,921
Fiscal year 2016		(7,321,613)
Fiscal year 2015		(5,871,517)
Total for Five Years	$	(7,828,271)

Deferral of Excess (Shortfall) of Invested Income:

Fiscal year 2019 (80%)	$	735,853
Fiscal year 2018 (60%)		54,073
Fiscal year 2017 (40%)		1,741,968
Fiscal year 2016 (20%)		(1,464,323)
Fiscal year 2015 (0%)		0
Total Deferred for Year	$	1,067,571

Market Value of Plan Net Assets, End of Year	$	104,539,975
Preliminary Actuarial Value of Plan Assets, End of Year	$	103,472,404

Actuarial Value of Assets Corridor

85% of market value, end of year	$	88,858,979
115% of market value, end of year	$	120,220,971

Final Actuarial Value of Plan Net Assets, End of Year	$	103,472,404

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	7,571,193
Employer Normal Contributions to the Pension Accumulation Fund		43,010,138
Funding Deposit Account Credit Balance		(2,801,029)
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	47,780,302

EXHIBIT V
RECONCILIATION OF CONTRIBUTIONS

Employer Normal Cost for Prior Year	$	4,823,131		
Interest on the Normal Cost		313,504		
Administrative Expenses		388,611		
Interest on Expenses		12,431		
TOTAL Interest Adjusted Actuarially Required Contributions			$	5,537,677
Direct Employer Contributions	$	2,349,733		
Interest on Employer Contributions		75,165		
Ad Valorem Taxes and Revenue Sharing		2,992,387		
Interest on Ad Valorem Taxes and Revenue Sharing Funds		95,723		
TOTAL Interest Adjusted Employer Contributions			$	5,513,008
CONTRIBUTION SURPLUS/(SHORTFALL)			$	(24,669)

EXHIBIT VI
ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2018)			$	99,281,861
INCOME:				
Member Contributions	$	836,475		
Employer Contributions		2,349,733		
Irregular Contributions		18,823		
Ad Valorem Taxes		2,882,113		
Revenue Sharing Funds		110,274		
Transfers From Other Systems		1,054,223		
Total Contributions			$	7,251,641
Net Appreciation (Depreciation) of Investments	$	5,161,240		
Interest & Dividends		2,347,116		
Alternative Investment Income		189,558		
Class Action Settlement		7,164		
Investment Expense		(442,856)		
Net Investment Income			$	7,262,222
TOTAL Income			$	14,513,863
EXPENSES:				
Retirement Benefits	$	5,314,669		
DROP Disbursements		2,045,332		
Refunds of Contributions		80,126		
Transfers to Other Systems		9,114		
Administrative Expenses		388,611		
TOTAL Expenses			$	7,837,852
Net Market Value Income for Fiscal 2019 (Income – Expenses)			$	6,676,011
Unadjusted Fund Balance as of June 30, 2019 (Fund Balance Previous Year + Net Income)			$	105,957,872
Adjustment for Actuarial Smoothing			$	(2,485,468)
Actuarial Value of Assets: (June 30, 2019)			$	103,472,404

EXHIBIT VII
FUNDING DEPOSIT ACCOUNT

Funding Deposit Account Balance as of June 30, 2018	$	2,630,074
Interest on Opening Balance at 6.50%		170,955
Contributions to the Funding Deposit Account		0
Withdrawals from the Funding Deposit Account		0
Funding Deposit Account Balance as of June 30, 2019	$	2,801,029

EXHIBIT VIII – Schedule A
PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees	$	66,834,985
Present Value of Benefits Payable to Terminated Employees		758,484
Present Value of Benefits Payable to Current Retirees and Beneficiaries		55,195,274
TOTAL PENSION BENEFIT OBLIGATION	$	122,788,743
NET ACTUARIAL VALUE OF ASSETS	$	103,472,404
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation		84.27%

EXHIBIT VIII – Schedule B
ENTRY AGE NORMAL ACCRUED LIABILITIES

Accrued Liability for Active Employees	$	63,535,071
Accrued Liability for Terminated Employees		758,484
Accrued Liability for Current Retirees and Beneficiaries		55,195,274
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY	$	119,488,829
NET ACTUARIAL VALUE OF ASSETS	$	103,472,404
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability		86.60%

EXHIBIT IX
CENSUS DATA

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2018	211	30	27	155	423
Additions to Census					
Initial membership	20	1			21
Omitted in error last year					
Death of another member				1	1
Adjustment for multiple records					
Change in Status during Year					
Actives terminating service	(6)	6			
Actives who retired	(3)			3	
Actives entering DROP	(5)		5		
Term. members rehired					
Term. members who retire					
Retirees who are rehired					
Refunded who are rehired	1	2			3
DROP participants retiring			(7)	7	
DROP returned to work	2		(2)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(4)	(4)			(8)
Deaths	(1)			(6)	(7)
Included in error last year					
Adjustment for multiple records					
Number of members as of June 30, 2019	215	35	23	160	433

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
21 - 25	1	3	4	37,964	151,855
26 - 30	1	9	10	38,162	381,615
31 - 35	2	16	18	38,971	701,472
36 - 40	1	10	11	43,456	478,011
41 - 45	3	17	20	51,805	1,036,094
46 - 50	3	24	27	51,412	1,388,126
51 - 55	3	36	39	61,970	2,416,848
56 - 60	3	36	39	61,483	2,397,831
61 - 65	4	37	41	54,280	2,225,475
66 - 70	3	16	19	67,678	1,285,879
71 - 75	6	4	10	102,341	1,023,413
TOTAL	30	208	238	56,666	13,486,619

THE ACTIVE CENSUS INCLUDES 138 ACTIVES WITH VESTED BENEFITS, INCLUDING 23 DROP PARTICIPANTS AND 14 ACTIVE FORMER DROP PARTICIPANTS.

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	0	1	1	18,621	18,621
46 - 50	0	2	2	24,350	48,700
56 - 60	1	1	2	12,907	25,814
TOTAL	1	4	5	18,627	93,135

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	8	272
100	-	499	9	2,159
500	-	999	4	2,988
1000	-	1999	2	3,407
2000	-	4999	1	2,909
5000	-	9999	3	23,627
10000	-	19999	1	12,524
20000	-	99999	2	62,672
		TOTAL	30	110,558

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
56 - 60	1	8	9	62,094	558,849
61 - 65	1	19	20	57,091	1,141,827
66 - 70	3	24	27	39,448	1,065,092
71 - 75	1	17	18	40,546	729,826
76 - 80	1	26	27	35,300	953,097
81 - 85	2	10	12	26,561	318,735
86 - 90	1	3	4	24,801	99,204
91 - 99	1	4	5	17,868	89,340
TOTAL	11	111	122	40,623	4,955,970

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
51 - 55	1	0	1	36,164	36,164
71 - 75	0	1	1	14,832	14,832
TOTAL	1	1	2	25,498	50,996

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	0	1	1	3,004	3,004
51 - 55	1	0	1	15,055	15,055
56 - 60	0	1	1	6,185	6,185
61 - 65	3	2	5	15,751	78,756
66 - 70	2	4	6	19,474	116,844
71 - 75	3	2	5	13,433	67,163
76 - 80	1	7	8	18,981	151,847
81 - 85	1	2	3	13,432	40,297
86 - 90	1	2	3	11,314	33,943
91 - 99	1	2	3	10,935	32,805
TOTAL	13	23	36	15,164	545,899

ACTIVE MEMBERS:

Attained Ages	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
	Completed Years of Service											
0 - 20												0
21 - 25	3	1										4
26 - 30	2	1	2	1	1	3						10
31 - 35	6	3	1	2		3	3					18
36 - 40			2	1		2	5	1				11
41 - 45	1			2	1	4	7	4	1			20
46 - 50	2	1	1	6	1	5	5	3	3			27
51 - 55	3	1	1		1	8	7	5	6	5	2	39
56 - 60	2	2	1	2		5	8	3	2	10	4	39
61 - 65	1	1		1	1	7	14	6	3	4	3	41
66 - 70	1		1	1		1	2	5	1	1	6	19
71 & Over						1	2	3	1		3	10
Totals	21	10	9	16	5	39	53	30	17	20	18	238

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Salary
	Completed Years of Service											
0 - 20												0
21 - 25	36,644	41,923										37,964
26 - 30	38,207	34,999	32,279	25,112	39,243	47,096						38,162
31 - 35	39,806	28,930	34,064	31,380		49,042	43,965					38,971
36 - 40			35,604	33,191		41,827	50,809	35,915				43,456
41 - 45	86,496			34,704	27,897	35,956	56,450	68,628	38,809			51,805
46 - 50	38,069	28,641	88,019	35,142	26,859	49,527	60,231	69,267	67,009			51,412
51 - 55	58,760	38,024	38,839		110,999	44,119	50,487	66,035	66,922	84,550	95,944	61,970
56 - 60	30,689	38,020	80,200	32,388		35,422	58,615	48,087	93,702	81,774	80,003	61,483
61 - 65	28,641	51,810		17,680	46,917	47,786	58,223	49,358	49,686	63,948	76,599	54,280
66 - 70	70,675		38,704	33,665		24,040	48,677	53,726	71,545	194,202	81,177	67,678
71 & Over						96,517	111,233	77,718	183,646		95,877	102,341
Average	44,038	35,823	46,177	32,340	50,383	44,837	57,349	59,687	72,531	84,524	84,244	56,666

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 40												0
41 - 45								1				1
46 - 50							2					2
51 - 55												0
56 - 60		1	1									2
61 & Over												0
Totals	0	1	1	0	0	0	2	1	0	0	0	5

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

Attained Ages	Years Until Retirement Eligibility											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 40												0
41 - 45								18,621				18,621
46 - 50							24,350					24,350
51 - 55												0
56 - 60		19,584	6,230									12,907
61 & Over												0
Average	0	19,584	6,230	0	0	0	24,350	18,621	0	0	0	18,627

SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 55												0
56 - 60	1	1	2		2	2	1					9
61 - 65	4	2	3	3	4	4						20
66 - 70	2	3	2	1	2	10	6	1				27
71 - 75	2		3	1	1	5	6					18
76 - 80	1	2	1	1	1	5	7	5	3	1		27
81 - 85						1	4	1	4	2		12
86 - 90						1		1		1	1	4
91 & Over									1	2	2	5
Totals	10	8	11	6	10	28	24	8	8	6	3	122

AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 55												0
56 - 60	54,871	60,367	67,277		51,175	78,199	50,311					62,094
61 - 65	74,584	77,429	56,938	47,156	53,600	40,488						57,091
66 - 70	47,131	35,847	40,456	41,724	59,185	41,429	30,419	25,482				39,448
71 - 75	19,159		38,245	97,401	100,694	34,789	34,123					40,546
76 - 80	40,358	97,858	37,534	96,193	76,704	37,967	25,756	16,541	13,454	13,401		35,300
81 - 85						51,329	29,786	19,798	20,854	22,523		26,561
86 - 90						55,096		13,803		20,386	9,919	24,801
91 & Over									14,195	20,685	16,888	17,868
Average	52,614	64,810	48,959	62,797	61,252	42,959	30,708	17,724	17,247	20,034	14,565	40,623

DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 50												0
51 - 55		1										1
56 - 60												0
61 - 65												0
66 - 70												0
71 - 75								1				1
76 & Over												0
Totals	0	1	0	0	0	0	0	1	0	0	0	2

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 50												0
51 - 55		36,164										36,164
56 - 60												0
61 - 65												0
66 - 70												0
71 - 75								14,832				14,832
76 & Over												0
Average	0	36,164	0	0	0	0	0	14,832	0	0	0	25,498

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 40												0
41 - 45					1							1
46 - 50												0
51 - 55											1	1
56 - 60						1						1
61 - 65						1	1		1		2	5
66 - 70						2	1			1	2	6
71 - 75							1	1		1	2	5
76 - 80				1			2	3			2	8
81 - 85									1	1	1	3
86 - 90										2	1	3
91 & Over	1					1					1	3
Totals	1	0	0	1	1	5	5	4	2	5	12	36

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 40												0
41 - 45					3,004							3,004
46 - 50												0
51 - 55											15,055	15,055
56 - 60						6,185						6,185
61 - 65						54,444	12,903		5,534		2,937	15,751
66 - 70						20,289	63,181			3,939	4,573	19,474
71 - 75							35,201	9,209		10,943	5,905	13,433
76 - 80				76,787			21,253	9,068			2,675	18,981
81 - 85									7,933	9,144	23,220	13,432
86 - 90										6,847	20,250	11,314
91 & Over	9,076					13,622					10,107	10,935
Average	9,076	0	0	76,787	3,004	22,966	30,758	9,103	6,733	7,544	8,401	15,164

EXHIBIT X
YEAR-TO-YEAR COMPARISON

	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016
Number of Active Members	238	238	244	246
Number of Retirees & Survivors	160	155	163	154
Number of Terminated Due Deferred Benefits	5	5	4	5
Number Terminated Due Refunds	30	25	20	33
Active Lives Payroll	$13,486,619	$13,637,926	$13,692,608	$13,643,192
Retiree Benefits in Payment	$5,552,865	$5,172,876	$4,927,865	$4,564,062
Market Value of Assets	$104,539,975	$97,863,964	$90,656,567	$80,683,761
Entry Age Normal Accrued Liability	$119,488,829	$117,626,619	$109,217,320	$105,994,592
Ratio of AVA to EAN Accrued Liability	86.60%	84.40%	85.27%	83.18%
Actuarial Value of Assets	$103,472,404	$99,281,861	$93,125,749	$88,165,103
Present Value of Future Employer Normal Cost	$43,010,138	$45,913,257	$42,728,816	$41,455,694
Present Value of Future Employee Contrib.	$7,571,193	$7,616,191	$7,763,556	$7,454,359
Funding Deposit Account Balance	$2,801,029	$2,630,074	$2,920,894	$2,068,558
Present Value of Future Benefits	$151,252,706	$150,181,235	$140,697,227	$135,006,598

	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017
Employee Contribution Rate	7.00%	7.00%	7.00%	7.00%
Estimated Tax Contribution as a % of Payroll	21.78%	21.27%	20.39%	21.23%
Actuarially Required Net Direct Employer Contribution Rate	14.44%	16.89%	14.27%	14.12%
Actual Employer Contribution Rate	18.00%	17.00%	17.00%	20.00%

Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010
231	241	241	245	248	247
156	151	146	143	147	140
5	5	5	6	6	6
32	30	35	29	29	20
$13,071,698	$13,079,549	$13,086,633	$13,386,956	$13,027,410	$12,333,966
$4,231,309	$3,715,197	$3,398,509	$3,145,379	$3,112,965	$2,877,232
$81,330,087	$80,478,691	$69,206,200	$61,490,163	$63,415,774	$53,081,300
$102,837,754	$100,506,025	$96,236,913	$92,853,873	$85,924,089	$77,674,661
82.35%	78.40%	73.83%	73.75%	78.45%	80.88%
$84,688,309	$78,797,020	$71,052,280	$68,481,599	$67,405,502	$62,823,395
$39,380,381	$40,146,082	$42,794,452	$43,553,440	$35,835,681	$31,548,014
$6,934,846	$6,396,240	$6,278,416	$6,721,009	$6,237,947	$6,064,371
$882,567	$ 0	$ 0	$ 0	$ 0	$ 0
$130,120,969	$125,339,342	$120,125,148	$118,756,048	$109,479,130	$100,435,780

Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011
7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
21.12%	20.38%	19.30%	15.71%	15.71%	16.41%
14.70%	18.52%	22.58%	23.73%	19.34%	15.35%
22.50%	24.25%	24.25%	19.75%	15.50%	14.25%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Registrars of Voters Employees' Retirement System was established as of the first day of January nineteen hundred and fifty-five for the purpose of providing retirement allowances and other benefits. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits.

MEMBERSHIP – Membership should include the Registrars of Voters in each parish of the State of Louisiana, their deputies, and their permanent employees. In addition, membership should include any qualifying employee of the retirement system or the Louisiana Registrars of Voters Association. Elected or appointed officials who have retired from service under any publicly funded retirement system within the state and who are currently receiving benefits are not eligible to become members of the system.

CONTRIBUTION RATES – Under the provisions of R.S. 11:62 and 11:103, the fund is financed by employee contributions of at least 7% but not more than 9% of earnable compensation as determined by the Board of Trustees. In addition, the fund receives revenue sharing funds as appropriated each year by the legislature. Also, under R.S. 11:82, each sheriff and ex-officio tax collector remits the employers' share of the actuarially required contribution to fund the system's defined benefit and defined contribution plans up to a maximum of one-sixteenth of one percent of the aggregate amount of the tax shown to be collected by the tax roll of each respective parish. Should employee contributions and tax funds collected from ad valorem taxes and revenue sharing funds be insufficient to provide for the gross employer actuarially required contribution, the employer is required to make direct contributions as determined by the Public Retirement Systems' Actuarial Committee. Under R.S. 11:106, the Board of Trustees is authorized to require a net direct contribution rate of up to three percent more than the rate determined under R.S. 11:103. Under R.S. 11:105 and R.S. 11:107, in any fiscal year during which the net direct employer contribution rates would otherwise be decreased, the Board of Trustees is authorized to set the employer contribution rate at any point between the previous year's employer contribution rate and the decreased rate that would otherwise occur. Any excess funds resulting from the additional contributions will be credited to the Funding Deposit Account defined in R.S. 11:107.1.

CONTRIBUTION REFUNDS – Upon withdrawal from service, members not entitled to a retirement allowance are paid a refund of accumulated contributions upon request. Receipt of such a refund cancels all accrued rights in the system.

FINAL AVERAGE COMPENSATION – For a member whose first employment making him eligible for membership in the system began on or before June 30, 2006, final average compensation is based on the average monthly earnings during the highest sixty consecutive months or joined months if service was interrupted, subject to certain transition rules. For those who retire on or before December 31, 2012, a thirty six month final average compensation period shall be used. For those retiring between January 1, 2013 and December 31, 2014 the number of months to be used in determining the final average compensation will be thirty-six plus the number of completed months since January 1, 2013. In no case shall the monthly final average compensation be less than the average monthly earnings during the member's highest thirty-six consecutive or joined months of service earned for employment before January 1, 2013. The earnings to be considered for each twelve month period within the sixty month period shall not exceed 115% of the preceding twelve month period.

For a member whose first employment making him eligible for membership in the system began after June 30, 2006, final average compensation is based on the average monthly earnings during the highest sixty consecutive months or joined months if service was interrupted.

RETIREMENT BENEFITS – Members whose first employment making them eligible for membership occurred prior to January 1, 2013 with ten years of creditable service may retire at age sixty; such members with twenty years of service may retire at age fifty-five; such members with thirty years of service may retire regardless of age. The annual retirement allowance for such members is equal to three and one-third percent of the member's average final compensation for each year of creditable service. Creditable service at retirement includes membership service, service as certified on prior service certificates, and any unused sick leave and any unused annual leave in excess of 300 hours at the date of retirement.

Members whose first employment making them eligible for membership occurred on or after January 1, 2013 with ten years of creditable service may retire at age sixty-two; such members with twenty years of service may retire at age sixty; such members with thirty years of service may retire at age fifty-five. The annual retirement allowance for such members is equal to three percent of the member's average final compensation for each year of creditable service. The annual amount of the retirement allowance for any member, who has at least thirty years of total creditable service, with at least twenty years of creditable service in this system, is three and one-third percent of the average final compensation for each year of creditable service. Creditable service at retirement includes membership service, service as certified on prior service certificates, and any unused sick leave and any unused annual leave in excess of 300 hours at the date of retirement.

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 that is the actuarial equivalent of the maximum benefit.

> **Option 1** – If the member dies before he has received in annuity payments the present value of his member's 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 member'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 member'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 Board-approved benefit which is actuarially equivalent to the maximum benefit.
>
> A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2 ½% 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.

DISABILITY BENEFITS – Ten years of creditable service are required in order to be eligible for disability benefits. Disabled members receive a normal retirement allowance if eligible. Otherwise, the member whose first employment making them eligible for membership occurred prior to January 1, 2013 receives the lesser of three and one-third percent of average final compensation multiplied by the number of years of creditable service (not to be less than fifteen years), or three and one-third percent of average final compensation multiplied by years of service assuming continued service to age sixty. Any member whose first employment making them eligible for membership occurred after January 1, 2013 receives the lesser of three percent of average final compensation multiplied by the number of years of creditable service (not to be less than fifteen years), or three percent of average final compensation multiplied by years of service assuming continued service to age sixty-two. Disability benefits may not exceed two-thirds of earnable compensation.

SURVIVOR BENEFITS – If a member has less than five years of service credit, the surviving spouse or minor children receive a refund of the member's contributions. If the member has at least five years of service credit and is not eligible to retire, the spouse receives an automatic option 2 benefit based on the accrued benefits at the time of death with option 2 factors based on the age that the member and spouse would have been had the member survived, continued in service, and then retired on earliest normal retirement date. If the member is eligible to retire at the date of death, the surviving spouse receives automatic option 2 benefits. If there are surviving minor or handicapped children with no surviving spouse and the member has five or more years of service credit the children receive eighty percent of the accrued retirement benefit in equal portions until the age of majority or for the duration of the handicap for a handicapped child. The retirement system pays a lump sum refund equal to the difference between total monthly survivor benefits paid and total accrued contributions, if any, upon the cessation of all eligible monthly payments.

DEFERRED RETIREMENT OPTION PLAN – In lieu of terminating employment and accepting a service retirement allowance, any member who is eligible for normal retirement may elect to participate in the Deferred Retirement Option Plan (DROP) for up to three years and defer the receipt of benefits. Upon commencement of participation in the plan, membership in the system terminates. During participation in the plan, monthly retirement benefits that would have been payable, had the person elected to cease employment and receive a service retirement allowance, are paid into the DROP fund. This fund does not earn interest. In addition, no cost of living increases are payable to participants until employment which made them eligible to become members of the system has been terminated for at least one full year.

Upon termination of employment prior to or at the end of the specified period of participation, a participant in the plan may receive, at his option, a lump sum from the account equal to the payments into the account, a true annuity based upon his account balance in that fund, or any other method of payment if approved by the Board of Trustees. The monthly benefits that were being paid into the DROP fund will begin to be paid to the retiree. If a participant dies during the participation in the plan, a lump sum equal to his account balance in the plan fund shall be paid to his named beneficiary or, if none, to his estate. If employment is not terminated at the end of the three years, payments into the plan fund cease and the person resumes active contributing membership in the system.

COST OF LIVING INCREASES – Under the provisions of 11:2073, the Board of Trustees is authorized to grant retired members and widows of members who have retired at least two years, an annual cost of living increase of up to 3% of their original benefit. In addition, R.S. 11:246 provides for a 2% increase in the original benefit (or the benefit being received on October 1, 1977 if they retired prior to that time) for retired members and widows who are sixty-five years of age and older. In order for the Board to grant either of these increases the system must meet certain criteria detailed in the statute related to funding status and interest earnings. In lieu of the prior provisions, R.S. 11:241 provides for cost of living benefits payable based on a formula equal to up to $1 times the total of the number of years of credited service accrued at retirement or at death of the member or retiree plus the number of years since retirement or since death of the member or retiree to the system's fiscal year end preceding the payment of the benefit increase.

DEFINED CONTRIBUTION PLAN – In accordance with R. S. 11:2139, dedicated taxes and revenue sharing funds contributed to the system in excess of those required contributions to the Pension Accumulation Fund, as established by the Public Retirement Systems Actuarial Committee, are deposited in the Members' Supplemental Savings Fund. The amount of funds deposited with the members' supplemental savings fund is three percent of the salaries paid to active contributing members during the prior fiscal year unless the Public Retirement Systems' Actuarial Committee recommends a lessor percentage based on available funds and the requirements of the Defined Benefit Plan. A member is entitled to payment of all contributions and interest credited to his account upon termination of employment. Payment to the member is made at the end of the calendar quarter following the quarter in which the member terminates. Interest and other earnings or losses are allocated at least once each year on the valuation date of the fund. Earnings or losses are allocated to members in proportion to their account balances as of the first day of the period for which earnings are credited.

The funds in the Member's Supplemental Savings Fund are invested separately from other funds held by the system and the funds constitute a separate trust. Payments, accruals, and allocations due to be made at the end of the fiscal year may be delayed until such time as the necessary financial information is available to the system's administrator, but in no event later than 6 months after the close of the fiscal year.

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 which 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: The Aggregate Actuarial Cost Method with allocation based on earnings.

VALUATION INTEREST RATE: 6.50% (Net of Investment Expense)

ACTUARIAL ASSET VALUES: 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.

ANNUAL SALARY INCREASE RATE: 6.00% (2.40% inflation / 3.60% merit)

ACTIVE MEMBER MORTALITY: RP 2000 Employee Table set back 4 years for males and set back 3 years for females

ANNUITANT AND BENEFICIARY MORTALITY: RP 2000 Healthy Annuitant Table set forward 1 year and projected to 2030 using Scale AA for males and projected to 2030 using Scale AA for females.

RETIREE COST OF LIVING INCREASE: 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.

RATES OF RETIREMENT: The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. The rate of retirement for persons who have completed DROP participation and have remained employed is 0.17.

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

RATES OF WITHDRAWAL: The rates of withdrawal are applied based upon completed years of service according to the following table:

Service Duration (≤)	Factor	Service Duration (≤)	Factor
1	0.100	8	0.030
2	0.080	9	0.030
3	0.060	10	0.020
4	0.050	11	0.020
5	0.040	12	0.020
6	0.040	13	0.020
7	0.030	>13	0.010

Note: Withdrawal rates for members eligible to retire are assumed to be zero.

RATES OF DROP ENTRY: A table of these rates is included later in the report. These rates apply only to those individuals eligible to enter DROP.

DROP PARTICIPATION: All persons who enter DROP are assumed to participate for the full three-year period and retire after completing 1 year of Post-DROP service.

MARRIAGE STATISTICS: 70% of the members are assumed to be married; husbands are assumed to be three years older than their wives.

FAMILY STATISTICS: Assumptions utilized in determining the costs of various survivor benefits as listed below, are derived from the information provided in the 2015 U. S. Census:

Member's Age	% With Children	Number of Children	Average Age
25	70%	1.84	5
35	86%	2.13	9
45	75%	1.70	12
55	22%	1.42	14
65	4%	1.45	15

RATES OF DISABILITY: 15% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10-19 years of service. The table of these rates is included later in the report.

DISABLED LIVES MORTALITY: RP-2000 Disabled Lives Mortality Tables set back 5 years for Males and set back 3 years for Females

VESTING ELECTING PERCENTAGE: 70% of those vested elect deferred benefits in lieu of contribution refunds**.**

SICK AND ANNUAL LEAVE: Members are assumed to accrue one year of unused sick and annual leave to be credited for retirement benefit accrual purposes for each 16.67 years of Pre-DROP creditable service. Members are assumed to convert 0.22 years of sick and annual leave for every year of DROP Participation service and Post-DROP service in their Post-DROP benefit.

ACTUARIAL TABLES AND RATES

Age	Disability Rates	Pre 2013 Hire Retirement Rates	Pre 2013 Hire DROP Entry Rates	Post 2012 Hire Retirement Rates	Post 2012 Hire DROP Entry Rates
18	0.00023	0.00000	0.00000	0.00000	0.00000
19	0.00023	0.00000	0.00000	0.00000	0.00000
20	0.00023	0.00000	0.00000	0.00000	0.00000
21	0.00023	0.00000	0.00000	0.00000	0.00000
22	0.00023	0.00000	0.00000	0.00000	0.00000
23	0.00023	0.00000	0.00000	0.00000	0.00000
24	0.00023	0.00000	0.00000	0.00000	0.00000
25	0.00023	0.00000	0.00000	0.00000	0.00000
26	0.00023	0.00000	0.00000	0.00000	0.00000
27	0.00023	0.00000	0.00000	0.00000	0.00000
28	0.00023	0.00000	0.00000	0.00000	0.00000
29	0.00023	0.00000	0.00000	0.00000	0.00000
30	0.00023	0.00000	0.00000	0.00000	0.00000
31	0.00023	0.00000	0.00000	0.00000	0.00000
32	0.00023	0.00000	0.00000	0.00000	0.00000
33	0.00023	0.00000	0.00000	0.00000	0.00000
34	0.00023	0.00000	0.00000	0.00000	0.00000
35	0.00025	0.00000	0.00000	0.00000	0.00000
36	0.00029	0.00000	0.00000	0.00000	0.00000
37	0.00031	0.00000	0.00000	0.00000	0.00000
38	0.00036	0.00000	0.00000	0.00000	0.00000
39	0.00041	0.00000	0.00000	0.00000	0.00000
40	0.00047	0.00000	0.00000	0.00000	0.00000
41	0.00053	0.00000	0.00000	0.00000	0.00000
42	0.00058	0.00000	0.00000	0.00000	0.00000
43	0.00066	0.00000	0.00000	0.00000	0.00000
44	0.00075	0.00000	0.00000	0.00000	0.00000
45	0.00086	0.00000	0.00000	0.00000	0.00000
46	0.00098	0.12000	0.40000	0.00000	0.00000
47	0.00110	0.12000	0.40000	0.00000	0.00000
48	0.00125	0.12000	0.40000	0.00000	0.00000
49	0.00141	0.12000	0.40000	0.00000	0.00000
50	0.00161	0.12000	0.40000	0.00000	0.00000
51	0.00183	0.12000	0.40000	0.00000	0.00000
52	0.00207	0.12000	0.40000	0.00000	0.00000
53	0.00236	0.12000	0.40000	0.00000	0.00000
54	0.00267	0.12000	0.40000	0.00000	0.00000
55	0.00303	0.06000	0.20000	0.12000	0.30000
56	0.00345	0.06000	0.20000	0.12000	0.30000
57	0.00392	0.06000	0.20000	0.12000	0.30000
58	0.00444	0.06000	0.20000	0.12000	0.30000
59	0.00505	0.06000	0.20000	0.12000	0.30000
60	0.00732	0.06000	0.20000	0.06000	0.20000
61	0.00732	0.06000	0.20000	0.06000	0.20000
62	0.00732	0.06000	0.20000	0.06000	0.20000
63	0.00732	0.06000	0.20000	0.06000	0.20000
64	0.00732	0.06000	0.20000	0.06000	0.20000
65	0.00732	0.06000	0.20000	0.06000	0.20000
66	0.00732	0.06000	0.20000	0.06000	0.20000
67	0.00732	0.06000	0.20000	0.06000	0.20000
68	0.00732	0.06000	0.20000	0.06000	0.20000
69	0.00732	0.06000	0.20000	0.06000	0.20000
70	0.00732	0.06000	0.20000	0.06000	0.20000
71	0.00732	0.06000	0.20000	0.06000	0.20000
72	0.00732	0.06000	0.20000	0.06000	0.20000
73	0.00732	0.06000	0.20000	0.06000	0.20000
74	0.00732	0.06000	0.20000	0.06000	0.20000
75	0.00732	0.06000	0.20000	0.06000	0.20000

ACTUARIAL TABLES AND RATES (Continued)

Age	Male Employee Mortality Rates	Female Employee Mortality Rates	Male Retired Mortality Rates	Female Retired Mortality Rates	Male Disabled Mortality Rates	Female Disabled Mortality Rates
18	0.00025	0.00017	0.00019	0.00012	0.02257	0.00745
19	0.00027	0.00018	0.00019	0.00012	0.02257	0.00745
20	0.00028	0.00018	0.00020	0.00012	0.02257	0.00745
21	0.00030	0.00019	0.00021	0.00011	0.02257	0.00745
22	0.00032	0.00019	0.00022	0.00012	0.02257	0.00745
23	0.00033	0.00019	0.00024	0.00012	0.02257	0.00745
24	0.00035	0.00019	0.00025	0.00013	0.02257	0.00745
25	0.00036	0.00019	0.00028	0.00014	0.02257	0.00745
26	0.00037	0.00020	0.00032	0.00015	0.02257	0.00745
27	0.00037	0.00020	0.00034	0.00016	0.02257	0.00745
28	0.00038	0.00021	0.00035	0.00016	0.02257	0.00745
29	0.00038	0.00021	0.00038	0.00017	0.02257	0.00745
30	0.00038	0.00022	0.00043	0.00020	0.02257	0.00745
31	0.00038	0.00024	0.00048	0.00024	0.02257	0.00745
32	0.00039	0.00025	0.00054	0.00028	0.02257	0.00745
33	0.00041	0.00026	0.00060	0.00030	0.02257	0.00745
34	0.00044	0.00031	0.00067	0.00032	0.02257	0.00745
35	0.00050	0.00035	0.00072	0.00034	0.02257	0.00745
36	0.00056	0.00039	0.00078	0.00036	0.02257	0.00745
37	0.00063	0.00044	0.00083	0.00037	0.02257	0.00745
38	0.00070	0.00047	0.00085	0.00039	0.02257	0.00745
39	0.00077	0.00051	0.00087	0.00041	0.02257	0.00745
40	0.00084	0.00055	0.00090	0.00045	0.02257	0.00745
41	0.00090	0.00060	0.00093	0.00049	0.02257	0.00745
42	0.00096	0.00065	0.00096	0.00054	0.02257	0.00745
43	0.00102	0.00071	0.00100	0.00060	0.02257	0.00745
44	0.00108	0.00077	0.00105	0.00065	0.02257	0.00745
45	0.00114	0.00085	0.00109	0.00069	0.02257	0.00745
46	0.00122	0.00094	0.00114	0.00073	0.02257	0.00745
47	0.00130	0.00103	0.00118	0.00077	0.02257	0.00745
48	0.00140	0.00112	0.00123	0.00083	0.02257	0.00745
49	0.00151	0.00122	0.00320	0.00090	0.02257	0.00818
50	0.00162	0.00133	0.00321	0.00140	0.02257	0.00896
51	0.00173	0.00143	0.00317	0.00152	0.02385	0.00978
52	0.00186	0.00155	0.00312	0.00173	0.02512	0.01063
53	0.00200	0.00168	0.00316	0.00202	0.02640	0.01154
54	0.00214	0.00181	0.00322	0.00236	0.02769	0.01248
55	0.00229	0.00197	0.00344	0.00277	0.02897	0.01346
56	0.00245	0.00213	0.00374	0.00328	0.03027	0.01446
57	0.00262	0.00232	0.00412	0.00377	0.03156	0.01550
58	0.00281	0.00253	0.00461	0.00423	0.03286	0.01654
59	0.00303	0.00276	0.00505	0.00476	0.03415	0.01760
60	0.00331	0.00301	0.00555	0.00533	0.03544	0.01865
61	0.00363	0.00329	0.00630	0.00595	0.03673	0.01971
62	0.00400	0.00360	0.00696	0.00662	0.03803	0.02077
63	0.00441	0.00393	0.00794	0.00732	0.03933	0.02184
64	0.00488	0.00429	0.00879	0.00808	0.04067	0.02294
65	0.00538	0.00466	0.00974	0.00892	0.04204	0.02408
66	0.00592	0.00504	0.01112	0.00982	0.04347	0.02529
67	0.00647	0.00543	0.01229	0.01079	0.04498	0.02660
68	0.00703	0.00582	0.01317	0.01185	0.04658	0.02803
69	0.00757	0.00621	0.01455	0.01304	0.04831	0.02959
70	0.00810	0.00658	0.01561	0.01440	0.05017	0.03132
71	0.00860	0.00695	0.01734	0.01551	0.05221	0.03323
72	0.00907	0.00729	0.01931	0.01725	0.05445	0.03533
73	0.00951	0.00761	0.02154	0.01861	0.05691	0.03764
74	0.00992	0.01858	0.02404	0.02062	0.05961	0.04014
75	0.02457	0.02067	0.02762	0.02209	0.06258	0.04285

GLOSSARY

Accrued Benefit – The pension benefit that an individual has earned as of a specific dated 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.

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.

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.

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.