MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2016

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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December 13, 2016

Board of Trustees
Municipal Employees' Retirement System
7937 Office Park Boulevard
Baton Rouge, Louisiana 70809

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Municipal 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 the Municipal Employees' Retirement System of the State of Louisiana. The primary purpose of this report is 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 the Municipal 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.

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

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SUMMARY OF VALUATION RESULTS
MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM – PLAN A

Valuation Date:		June 30, 2016	June 30, 2015
Census Summary:	Active Members	4,912	4,926
	Retired Members and Survivors	3,345	3,262
	Terminated Due a Deferred Benefit	186	182
	Terminated Due a Refund	2,826	2,731
Payroll:		$ 177,777,678	$ 172,033,158
Benefits in Payment:		$ 57,895,282	$ 54,791,332
Present Value of Future Benefits:		$ 1,254,687,419	$ 1,225,289,604
Actuarial Accrued Liability (EAN):		$ 1,063,558,257	$ 1,038,155,304
Frozen Unfunded Actuarial Accrued Liability:		$ 72,227,730	$ 73,553,869
Funding Deposit Account Credit Balance:		$ 8,421,235	$ 7,833,707
Actuarial Value of Assets (AVA):		$ 769,849,744	$ 770,402,847
Market Value of Assets (MVA):		$ 671,876,210	$ 698,984,365
Ratio of AVA to Actuarial Accrued Liability (EAN):		72.38%	74.21%

	Fiscal 2016	Fiscal 2015
Market Rate of Return:	-2.9%	-3.1%
Actuarial Rate of Return:	0.8%	3.7%

	Fiscal 2017	Fiscal 2016
Employers' Normal Cost (Mid-year):	$ 42,638,195	$ 38,954,501
Amortization Cost (Mid-year):	$ 6,880,152	$ 6,599,666
Estimated Administrative Cost:	$ 1,349,933	$ 1,092,216
Projected Ad Valorem Tax Contributions:	$ 6,050,719	$ 6,259,163
Projected Revenue Sharing Funds:	$ 113,679	$ 129,863
Net Direct Employer Actuarially Required Contributions:	$ 44,703,882	$ 40,257,357
Projected Payroll:	$ 181,404,638	$ 175,617,628
Actual Employee Contribution Rate:	9.50%	9.50%
Actual Net Direct Employer Contribution Rate:	23.25% †	19.75%
Actuarially Required Net Direct Employer Contribution Rate:	24.64%	22.92%

	Fiscal 2018	Fiscal 2017
Minimum Recommended Net Direct Employer Contribution Rate:	24.75%	23.25%

† Includes 0.5% withdrawal from the Funding Deposit Account

SUMMARY OF VALUATION RESULTS
MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM – PLAN B

		June 30, 2016	June 30, 2015
Valuation Date:		June 30, 2016	June 30, 2015
Census Summary:	Active Members	2,142	2,200
	Retired Members and Survivors	975	959
	Terminated Due a Deferred Benefit	71	71
	Terminated Due a Refund	1,258	1,218
Payroll:		$ 71,918,938	$ 69,909,530
Benefits in Payment:		$ 10,254,964	$ 9,917,685
Present Value of Future Benefits:		$ 270,056,042	$ 260,953,455
Actuarial Accrued Liability (EAN):		$ 221,633,353	$ 212,961,895
Frozen Unfunded Actuarial Accrued Liability:		$ 2,742,698	$ 3,088,551
Funding Deposit Account Credit Balance:		$ 3,233,725	$ 3,008,116
Actuarial Value of Assets (AVA):		$ 164,516,476	$ 165,154,609
Market Value of Assets (MVA):		$ 143,201,586	$ 149,268,995
Ratio of AVA to Actuarial Accrued Liability (EAN):		74.23%	77.55%

	Fiscal 2016	Fiscal 2015
Market Rate of Return:	-2.9%	-3.2%
Actuarial Rate of Return:	0.7%	3.5%

	Fiscal 2017	Fiscal 2016
Employers' Normal Cost (Mid-year):	$ 10,948,904	$ 9,543,351
Amortization Cost (Mid-year):	$ 545,845	$ 556,985
Estimated Administrative Cost:	$ 546,107	$ 443,847
Projected Ad Valorem Tax Contributions:	$ 2,447,784	$ 2,561,002
Projected Revenue Sharing Funds:	$ 45,988	$ 52,772
Net Direct Employer Actuarially Required Contributions:	$ 9,547,084	$ 7,930,409
Projected Payroll:	$ 73,117,227	$ 71,832,388
Actual Employee Contribution Rate:	5.00%	5.00%
Actual Net Direct Employer Contribution Rate:	11.25% †	9.50%
Actuarially Required Net Direct Employer Contribution Rate:	13.06%	11.04%

	Fiscal 2018	Fiscal 2017
Minimum Recommended Net Direct Employer Contribution Rate:	13.25%	11.25%

† Includes 0.25% withdrawal from the Funding Deposit Account

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 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 in such areas as the 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 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 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 administrative director of the system furnished a census on electronic media 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, 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 4,912 active members in Plan A, of whom, 1,816 members, including 230 participants in the Deferred Retirement Option Plan (DROP), have vested retirement benefits; 3,345 former Plan A members or their beneficiaries are receiving retirement benefits. An additional 3,012 former members of Plan A have contributions remaining on deposit with the system. This includes 186 former members who have vested rights or have filed reciprocal agreements for future retirement benefits. Census data on members of Plan B may be found in Exhibit XIX. There are 2,142 active members in Plan B, of whom, 814 members, including 89 DROP participants, have vested retirement benefits; 975 former members of Plan B or their beneficiaries are receiving retirement benefits. An additional, 1,329 former members of Plan B have contributions remaining on deposit with the system. Of this number, 71 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 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. For this valuation, the number of such records is de minimis.

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. Except as stated below, 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 Hawthorne, Waymouth, and Carroll, L.L.P. As indicated in the system's audit report, the net market value of Plan A's assets was $671,876,210 as of June 30, 2016. For Plan A, the net investment income for Fiscal 2016 measured on a market value basis amounted to a loss of $20,424,673. Contributions to Plan A for the fiscal year totaled $58,875,862; benefits and expenses amounted to $65,559,344.

The net market value of Plan B's assets was $143,201,586 as of June 30, 2016. For Plan B, the net investment income for Fiscal 2016 measured on a market value basis amounted to a loss of

$4,332,169. Contributions to Plan B for the fiscal year totaled $13,297,693; benefits and expenses amounted to $15,032,933.

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 Frozen Attained Age Normal actuarial cost method with the unfunded actuarial accrued liability frozen as of June 30, 1989. Under the provisions of Louisiana R.S. 11:103 the unfunded accrued liability for Plan A, which was determined to be $48,466,297 as of June 30, 1989, was amortized over forty years with payments increasing at 4.25% per year. The unfunded accrued liability for Plan B, which was determined to be $9,853,175 as of June 30, 1989, was amortized over forty years with payments decreasing at 2% per year. In Plan A, payroll growth less than 4.25% per year will increase future amortization payments as a percent of payroll. In Plan B, any payroll growth or payroll decline less than 2% per year will reduce future amortization payments as a percent of payroll. Under the Frozen Attained Age Normal 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.

Prior to the June 30, 2009 valuation, in any year in which the net direct employer contribution was set above the actuarially required employer contribution rate, excess funds collected, if any, were used to reduce the frozen unfunded actuarial accrued liability. In Plan B, the Board elected to freeze the employer contribution rate in Fiscal 2001. As a result of the additional contributions generated by this freeze in rates, the unfunded accrued liability will be fully amortized by June 30, 2023. Effective with the June 30, 2009 valuation, any excess funds collected as a result of a freeze in employer contributions are credited to the Funding Deposit Account. Funds deposited into the Funding Deposit Account can be used to reduce the unfunded accrued liability, reduce future normal costs, or offset net direct employer contributions as determined by the Board of Trustees.

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, unless otherwise specified in this report. In determining the valuation interest rate, consideration was given to several factors. First consensus estimates of rates of return, standard deviations, and correlation coefficients for asset classes derived from various asset consulting firms were developed. These factors were used to derive forward estimates of the Fund's portfolio earnings rate. Consideration was also given to a 2015 report of Meketa Investment Group on 30 year Return Projections of future expected rates of return for the current portfolio asset allocation. Based on the results of this interest rate assumption review, the assumed rate of return for the valuation was set at 7.5% for Plans A and B. An inflation rate of 2.875% 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 sixty-five through seventy-one. All assumptions 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 will be required to contribution levels. 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 72.38% for Plan A and 74.23% for Plan B 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 0.61% for Plan A and 0.31% for Plan B.

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 32.57% for Plan A and 14.26% for Plan B. Ten years ago this ratio was 22.96% for Plan A and 11.50% for Plan B.

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 9.07% of payroll for Plan A and 5.05% of payroll for Plan B.

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, changes in plan provisions or applicable law, or completion of amortization schedules. 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 changes in plan provisions were enacted during the 2016 Regular Session of the Louisiana Legislature:

Act 19 provides that the commissioner of administration and the state treasurer, or their designees serve as voting members of the MERS board.

ACT 99 adds the La. Local Government Environmental Facilities and Community Development Authority to the list of entities authorized to participate in MERS.

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 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.

ACT 460 requires that at least every five years the legislative auditor report to the legislature 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 621 places a member of the House Committee on Retirement appointed by the speaker of the House of Representatives as a trustee on each of the Boards of the state and statewide retirement systems, instead of the chairman of the House Committee on Retirement.

ACT 648 reduces from ten to six years the minimum creditable service for board members, and makes members ineligible for board reelection after serving one and one-half term. The act also provides that the commissioner of administration and the state treasurer, or their designees, serve as voting members of the MERS board. The act also provides that no trustee shall accept anything of economic value, including food and drink and complementary admission to, lodging at, or reasonable transportation to and from educational or professional development seminars and conferences from a person who has or is seeking to obtain contractual or other business or financial relationship with the board except that the prohibition on receipt of food and drink does not apply during educational or professional development seminars. The act requires the board to report, with the system's annual financial statement, an itemized schedule of all amounts paid by the system to or on behalf of the system's board members. The act provides that the board may not authorize the use of system funds to pay for board member attendance at more than one seminar or conference out of state per fiscal year, and that any seminar or conference paid for by the board shall be affiliated with an association related to state retirement systems.

ACT 649 requires that during the period of reemployment of a retiree who is first reemployed on or after July 1, 2016, the retiree and his employer make contributions to the retirement system. However, that the retiree shall not receive additional service credit or accrue additional benefits in the retirement system. The act further provides that upon termination of reemployment, employee contributions shall be refunded to the retiree without interest and provides that the retirement system retains the employer contributions and interest.

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.

Plan A	Market Value	Actuarial Value
2007	18.1% ‡	10.8%
2008	1.1%	9.0%
2009	-13.8% ‡	0.9% *
2010	11.0%	5.9%
2011	10.5%	4.2%
2012	-4.8% †	0.7%
2013	4.3%	0.7%
2014	12.3%	5.8%
2015	-3.1%	3.7%
2016	-2.9%	0.8%

Plan B	Market Value	Actuarial Value
2007	17.4% ‡	10.6%
2008	1.3%	8.8%
2009	-13.7% ‡	0.9% *
2010	10.9%	5.8%
2011	10.5%	4.2%
2012	-4.7% †	1.0%
2013	4.1%	0.9%
2014	11.7%	5.6%
2015	-3.2%	3.5%
2016	-2.9%	0.7%

*	Includes the effect of a change in asset valuation method.
ǂ	Includes the impact of inclusion of the prior period adjustment for investment income as income in fiscal year.
†	Based upon asset values which include an unaudited "best estimate" of the value of a receivable related to the FIA Leveraged Fund

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. 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, Plan A earned $1,442,222 and Plan B earned $306,262 of dividends and interest income; Plan A lost $1,499,540 and Plan B lost $318,084 in alternative investments. In addition, Plan A had net realized and unrealized capital losses on investments (offset by non-recurring income) of $17,559,073 while the total of such losses (offset by non-recurring income) for Plan B amounted to $3,724,652. Investment expenses were $2,808,282 for Plan A and $595,695 for Plan B. The geometric mean of the market value rates of return measured over the last ten years was 2.8% for Plan A and 2.7% for Plan B. For the last twenty-five years, the geometric mean returns were 5.8% for Plan A and 5.7% for Plan B.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.50% used for the prior valuation. This rate is calculated based on the smoothed value of assets subject to constraints as given in Exhibit VI for Plan A and Exhibit XVI for Plan B. Investment income used to calculate this yield is based upon a smoothing of investment income above or below the valuation interest rate. 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 7.50% assumption will reduce future costs; yields below 7.50% will increase future costs. For Plan A, the net actuarial investment earnings for Fiscal 2016 were $51,403,735 less than the actuarial assumed earnings rate of 7.50%, and were $11,225,594 less for Plan B. These actuarial losses increased the normal cost accrual rate by 4.0543% for Plan A and 2.1435% for Plan B.

At the end of each fiscal year, a review of the data is made to identify current members of Plan A and Plan B who have consecutive service credit in both plans that have not been addressed in previous transfers of assets and liabilities between the Plan A and Plan B trust funds pursuant to the provisions of R.S. 11: 1862(F). In the course of reviewing data for the June 30, 2016 valuation we found 3 members of Plan A with Plan B service credit and 4 such members of Plan B with Plan A service. Based upon a valuation of the liabilities for service in the previous plan, we recommend a transfer of $24,758 with accrued interest thereon from June 30, 2016 be made from the Plan A trust to the Plan B trust for Fiscal 2016.

PLAN A – DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the plan is given in Exhibit IX. The average active member is 48 years old with 9.76 years of service and an annual salary of $36,193. The plan's active membership, inclusive of DROP participants, decreased by 14 members during the fiscal year. The plan has experienced a decrease in the active plan population of 117 members over the last five years. A review of the active census by age indicates that over the last ten years the population under age thirty and above age fifty has increased while the proportion of active members age thirty-one through fifty has decreased. Over the same ten-year period the plan showed an increase in members with less than five years of service and more than twenty-five years of service. The average regular retiree is 70 years old with a monthly benefit of $1,633. The number of retirees and beneficiaries receiving benefits from the system increased by 83 during the fiscal year; over the last five years the number of retirees has increased by 344 and benefit payments have increased by $13,676,573 per year.

Plan liability experience for Fiscal 2016 was favorable. Withdrawals and deaths were above projected levels; disabilities and retirements were below projected levels. All of these factors generally reduce costs. DROP entries were above projected levels and salary increases were above projected levels. These would tend to partially offset the plan's positive experience. Plan liability gains decreased the normal cost accrual rate by 1.2573%.

PLAN B – DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the plan is given in Exhibit XIX. The average active member is 50 years old with 9.83 years of service and an annual salary of $33,576. The plan's active membership, inclusive of DROP participants, decreased by 58 members during the fiscal year. The plan has experienced an decrease in the active plan population of 33 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 under fifty age group has decreased while the proportion of active members over age fifty increased. Over the same ten-year period the plan showed no significant shift in the proportion of the active membership by service group. The average regular retiree is 73 years old with a monthly benefit of $973. The number of retirees and beneficiaries receiving benefits from the system increased by 16 during the fiscal year; over the last five years the number of retirees has increased by 110 with an increase of $2,301,169 in annual benefits.

Plan liability experience for Fiscal 2016 was slightly favorable. Disabilities were below projected levels and withdrawals and retiree deaths were above projected levels. These factors tend to reduce costs. Retirements and DROP entries were above projected levels. Salary increases were also above projected levels. These factors offset the plan's positive experience. Plan liability gains decreased the normal cost accrual rate by 0.0248%.

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 plus administrative expenses. These two components are the normal cost and the amortization payment on the unfunded actuarial accrued liability. The normal cost refers to the portion of annual cost based on the salary of active participants. 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. Under the funding method used for both plans, changes in plan experience, benefits, or assumptions do not affect the unfunded actuarial accrued liability. These items increase or decrease future normal costs.

In order to establish the actuarially require 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.

Under the provisions of R.S. 11:103, excess or deficient contributions typically decrease or increase future normal costs. However, if the minimum net direct employer contribution is scheduled to decrease, the Board may maintain the contribution rate at some level above the minimum recommended rate. Pursuant to R. S. 11:105 and R. S. 11:107, such excess contributions are credited to the Funding Deposit Account. In addition, in accordance with R.S. 11:106, the Board may set the employer contribution rate up to 3% more than the minimum required contribution rate; any additional funds collected are credited to the Funding Deposit Account.

For Plan A, the derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for Fiscal 2017 adjusted for mid-year payment is $42,638,195. The amortization payment on the plan's frozen unfunded actuarial accrued liability adjusted for mid-year payment is $6,880,152. The total actuarially required contribution is determined by adding estimated administrative expenses to these two values. As given on line 16 of Exhibit I the total actuarially required contribution for Fiscal 2017 is $50,868,280. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for Fiscal 2017 is $44,703,882. This is 24.64% of the projected Plan A payroll for Fiscal 2017.

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 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 cost structure for Plan A are outlined below:

Employer's Normal Cost Accrual Rate – Fiscal 2016	23.4712%
Factors Increasing the Normal Cost Accrual Rate:	
Asset Experience Loss	4.0543%
Contribution Loss	0.4012%
Factors Decreasing the Normal Cost Accrual Rate:	
Plan Liability Experience Gain	1.2573%
New Members	1.8047%
Employer's Normal Cost Accrual Rate – Fiscal 2017	24.8646%

Required net direct employer contributions are also affected by the available ad valorem taxes and revenue sharing funds which the system receives each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. We estimate that for Plan A these funds collected in Fiscal 2017 will decrease by 0.24% of payroll. We also estimate the amortization payment on the fund's UAL will increase by 0.03% of projected payroll. The net effect of the above changes in the cost structure of the system resulted in a minimum actuarially required net direct employer contribution rate for Fiscal 2017 for Plan A of 24.64%; the actual employer contribution rate for Fiscal 2017 is 23.25% of payroll (inclusive of funds withdrawn from the Funding Deposit Account). R.S. 11:103 requires that the net direct employer contributions be rounded to the nearest 0.25%, hence, after accounting for the anticipated contribution shortfall, we are recommending a minimum net direct employer contribution rate for Plan A of 24.75% for Fiscal 2018.

For Plan B, the derivation of the actuarially required contribution for the current fiscal year is given in Exhibit XI. The normal cost for Fiscal 2017 adjusted for mid-year payment is $10,948,904. The amortization payment on the plan's frozen unfunded actuarial accrued liability adjusted for mid-year payment is $545,845. The total actuarially required contribution is determined by adding estimated administrative expenses to these two values. As given on line 16 of Exhibit XI the total actuarially required contribution for Fiscal 2017 is $12,040,856. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for Fiscal 2017 is $9,547,084. This is 13.06% of the projected Plan B payroll for Fiscal 2017.

The effects of various factors on the cost structure for Plan B are outlined below:

Employer's Normal Cost Accrual Rate – Fiscal 2016	14.1856%
Factors Increasing the Normal Cost Accrual Rate:	
Asset Experience Loss	2.1435%
Contribution Loss	0.2224%
Factors Decreasing the Normal Cost Accrual Rate:	
Plan Liability Experience Gain	0.0248%
New Members	0.6948%
Employer's Normal Cost Accrual Rate – Fiscal 2017	15.8320%

We estimate that for Plan B the funds collected from ad valorem taxes and revenue sharing funds in Fiscal 2017 will decrease by 0.23% of payroll. We also estimate that the amortization payment on the fund's UAL will decrease by 0.03% of projected payroll. The net effect of the above changes in the cost structure of the system resulted in a minimum actuarially required net direct employer contribution rate for Fiscal 2017 for Plan B of 13.06%; the actual employer contribution rate for Fiscal 2017 is 11.25% of payroll (inclusive of funds withdrawn from the Funding Deposit Account). R.S. 11:103 requires that the net direct employer contributions be rounded to the nearest 0.25%, hence, after accounting for the anticipated contribution shortfall, we are recommending a minimum net direct employer contribution rate for Plan B of 13.25% for Fiscal 2018.

Both Plan A and Plan B have Funding Deposit Account Credit Balances. Since no contribution deposits or withdrawals were made to the accounts during Fiscal 2016, the outstanding balances were credited with interest at the valuation interest rate. Pursuant to board action, $907,023 will be withdrawn from the Plan A Funding Deposit Account and $182,793 from the Plan B Funding Deposit Account to offset employer contributions for Fiscal 2017. The remaining funds in these accounts may be used to reduce the outstanding unfunded accrued liability, reduce the future normal costs, or reduce contributions for specified fiscal years.

COST OF LIVING INCREASES

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. 11:1761 and R.S. 11:246. The former statute allows the Board to use interest earnings in excess of the normal requirements to grant annual cost of living increases of 2% of each retiree's original benefit. R.S. 11:246 provides cost of living increases of retirees and beneficiaries over the age of 65 equal 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 that cost of living benefits shall be in the form (unless the Board otherwise specifies) of $X×(A+B) where X is at most $1 and "A" represents the number of years of credited service accrued at retirement or at death of the member or retiree and "B" is equal to the number of years since retirement or since death of the member or retiree to June 30th of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict.

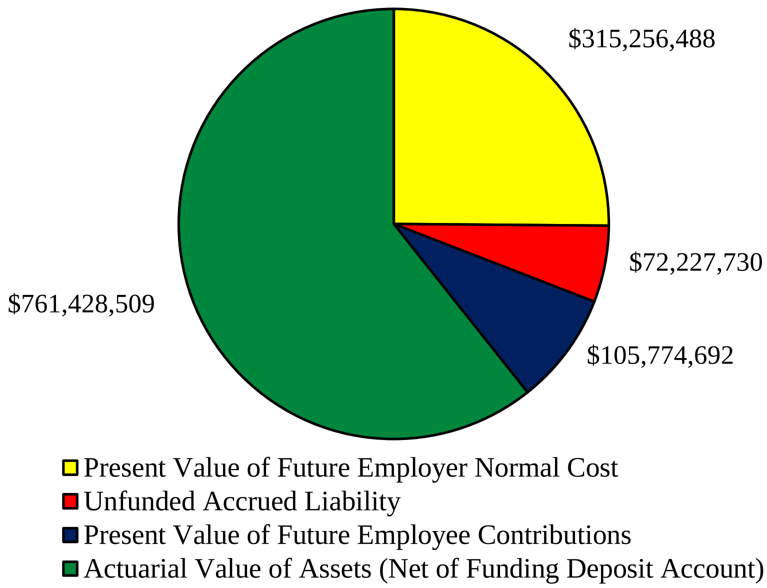
In addition, Act 113 of the 2008 Regular Legislation Session provides for a COLA of 3% of the normal monthly benefit but not less than $20 per month. Although this COLA is permanent, it may only be granted once. This one-time cost of living increase may only be paid from excess interest earnings.

Based upon the irrevocable election of the Board of Trustees to accept the alternative method for determining eligibility to authorize cost of living increases under Act 170 of the 2013 Legislative Session, the ratio of the plan's assets to benefit obligations must meet the criteria established in R.S. 11:243. Under this section, the system would only be authorized to grant a COLA under R. S. 11:241, R.S. 11:246, or R. S. 11: 1761 in fiscal years in which the rate of return on an actuarial basis exceeds the valuation interest rate and one of the following applies:

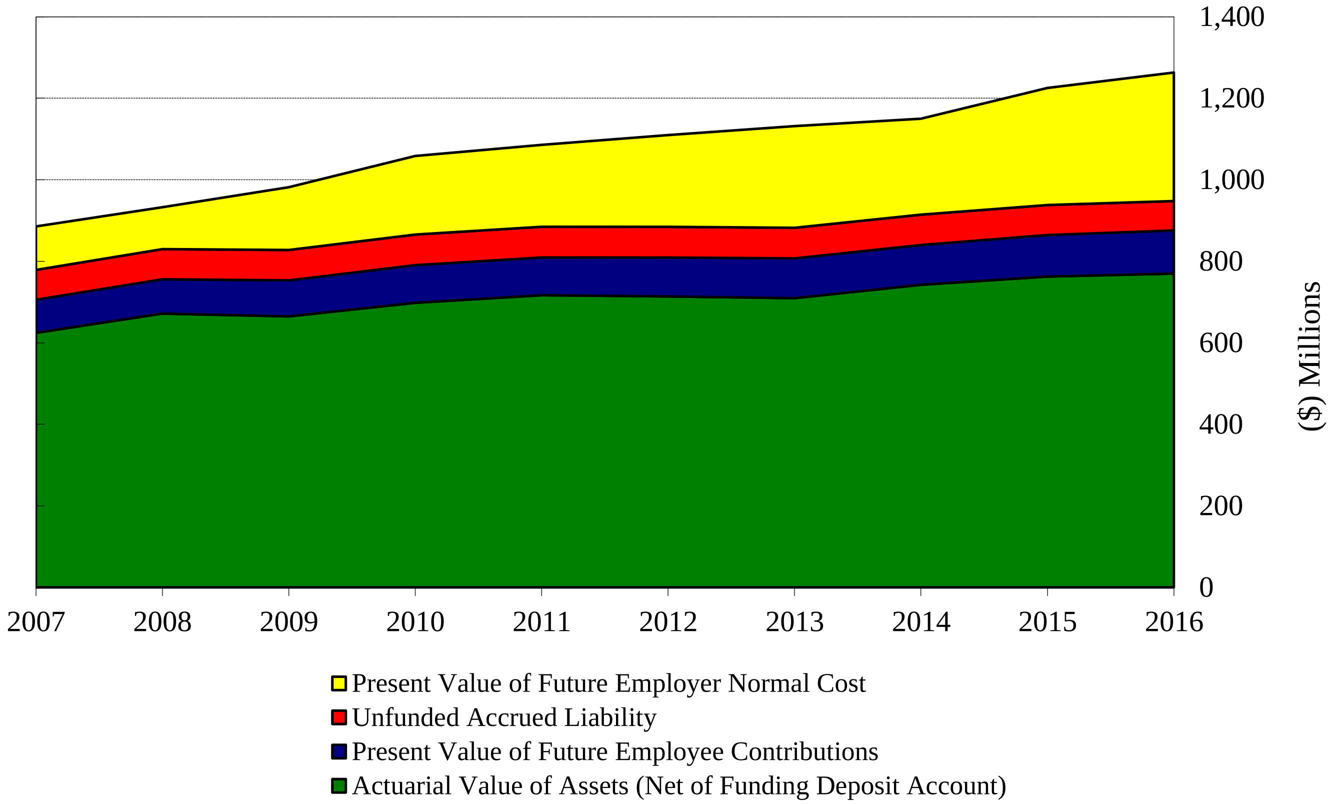
1. The system has a funded ratio of 90% or more and has not granted a benefit increase to retirees, survivors, and beneficiaries in the most recent fiscal year.
2. The system has a funded ratio of 80% or more and has not granted a benefit increase to retirees, survivors, and beneficiaries in the two most recent fiscal years.
3. The system has a funded ratio of 70% or more and has not granted a benefit increase to retirees, survivors, and beneficiaries in the three most recent fiscal years.

We have determined that for Fiscal 2016, neither plan had excess interest earnings; hence no cost of living increase is payable to regular retirees.

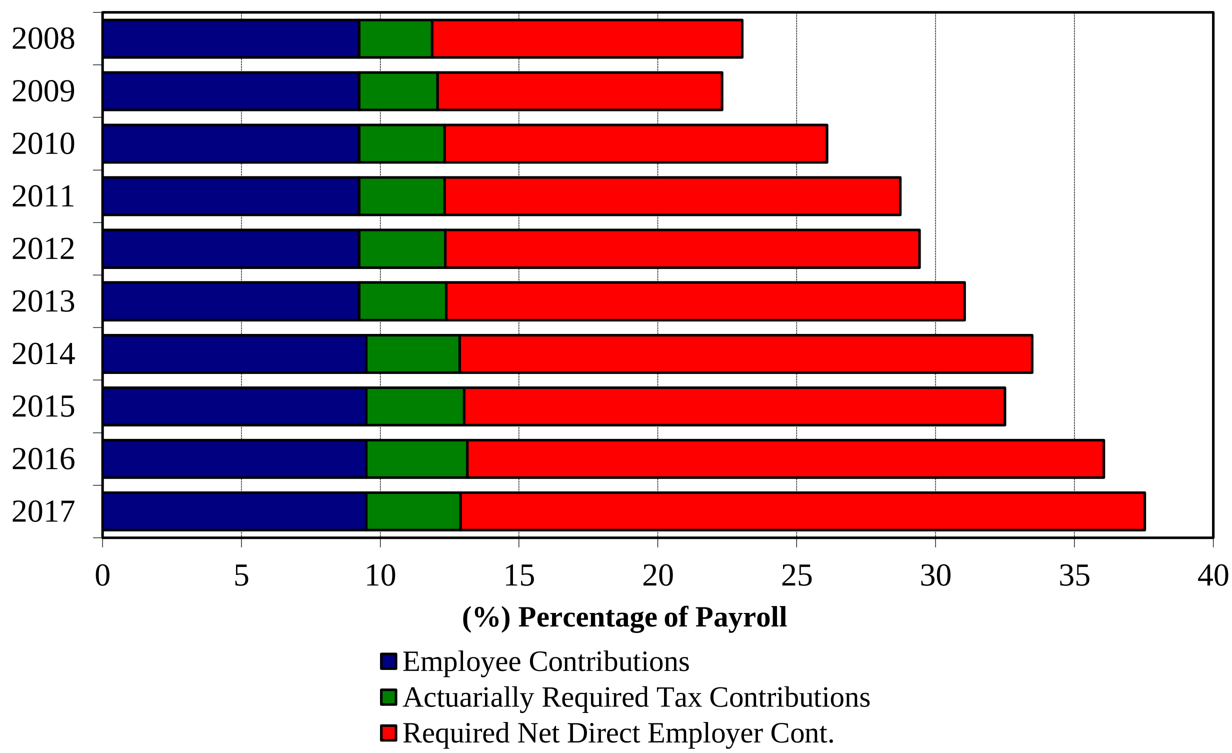
Plan A – Components of Present Value of Future Benefits
June 30, 2016



Plan A – Components of Present Value of Future Benefits

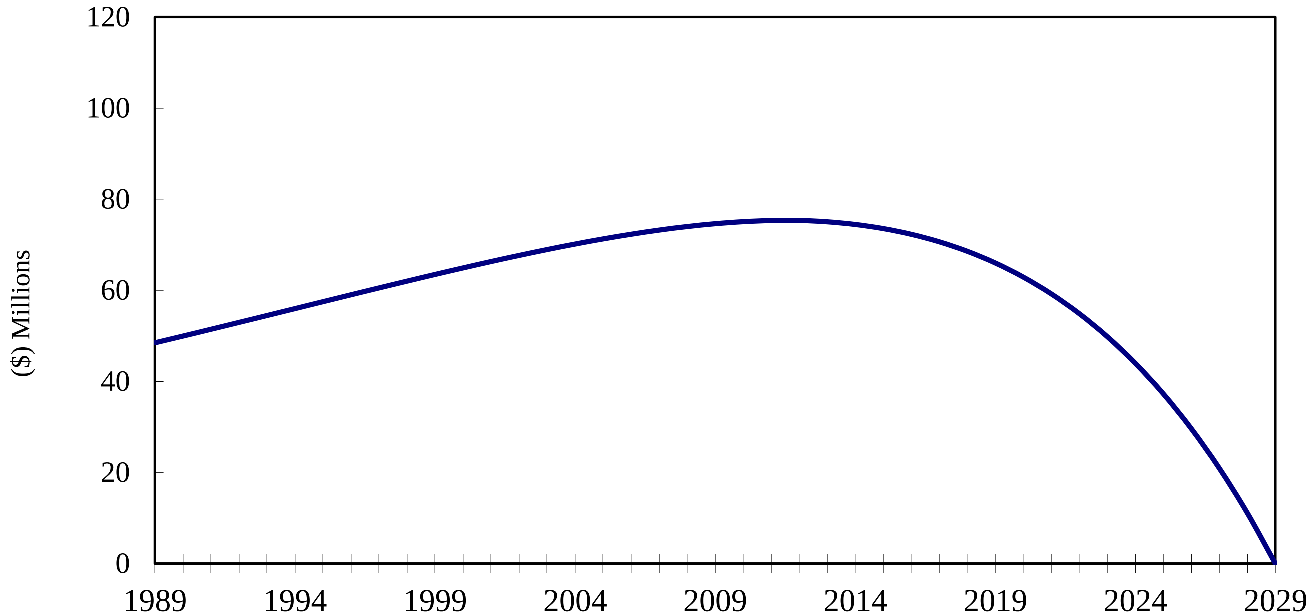


Plan A – Components of Actuarial Funding

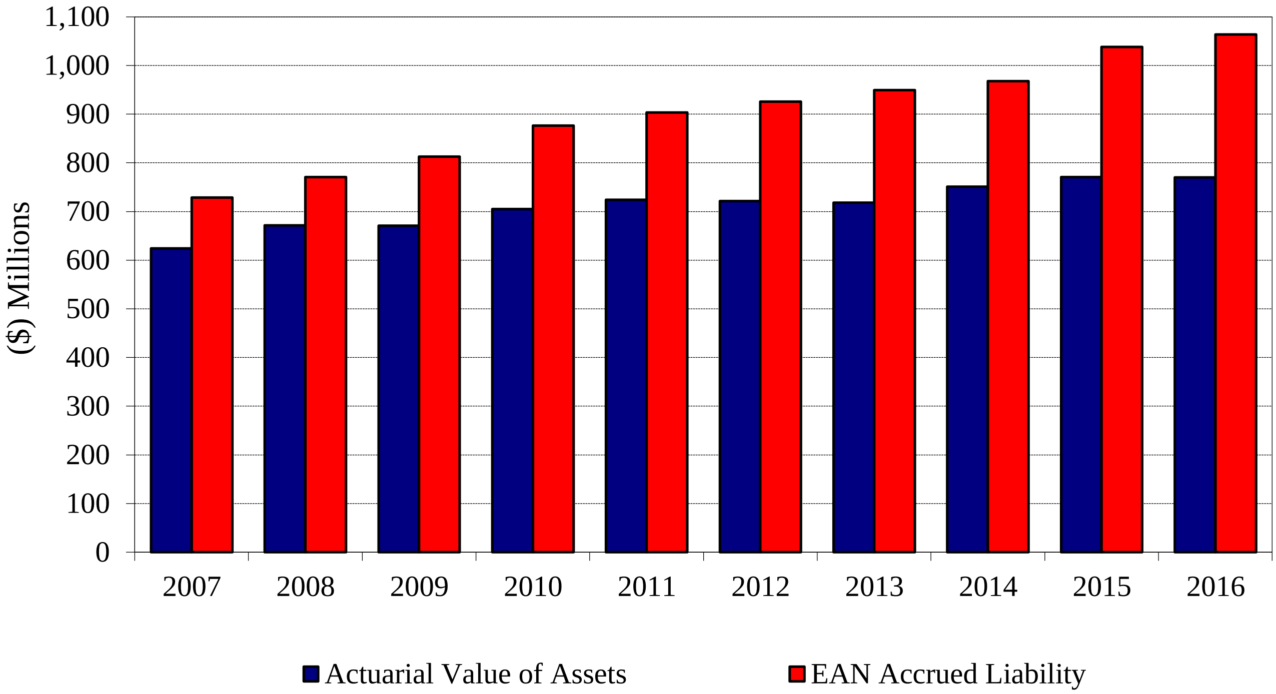


Projected Tax Contributions consist of Projected Ad Valorem and Revenue Sharing Funds as a percent of payroll

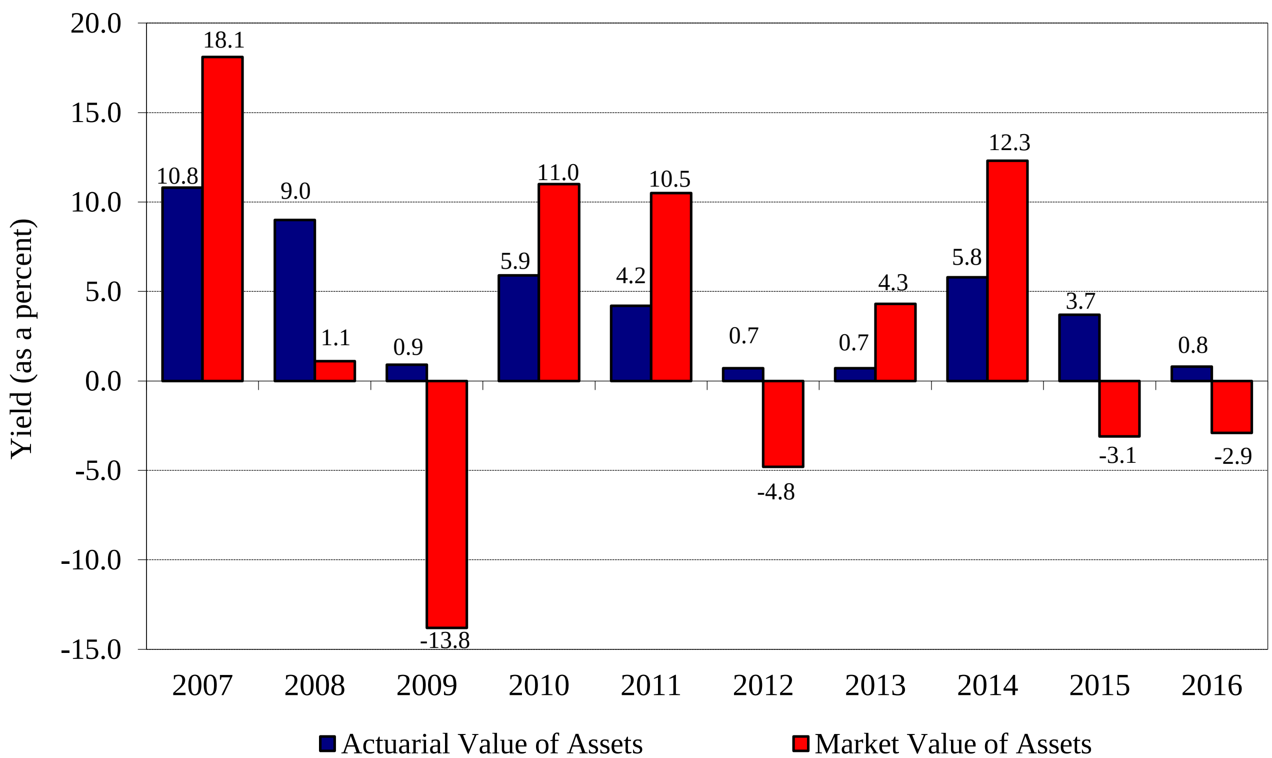
Plan A – Frozen Unfunded Accrued Liability



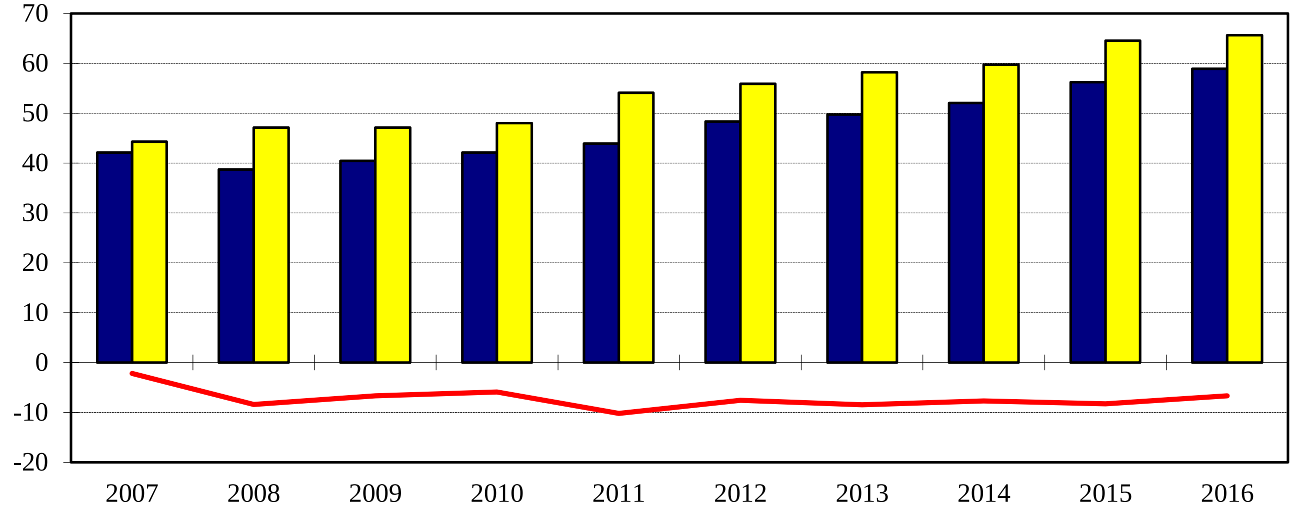
Plan A – Actuarial Value of Assets vs. EAN Accrued Liability



Plan A – Historical Asset Yield

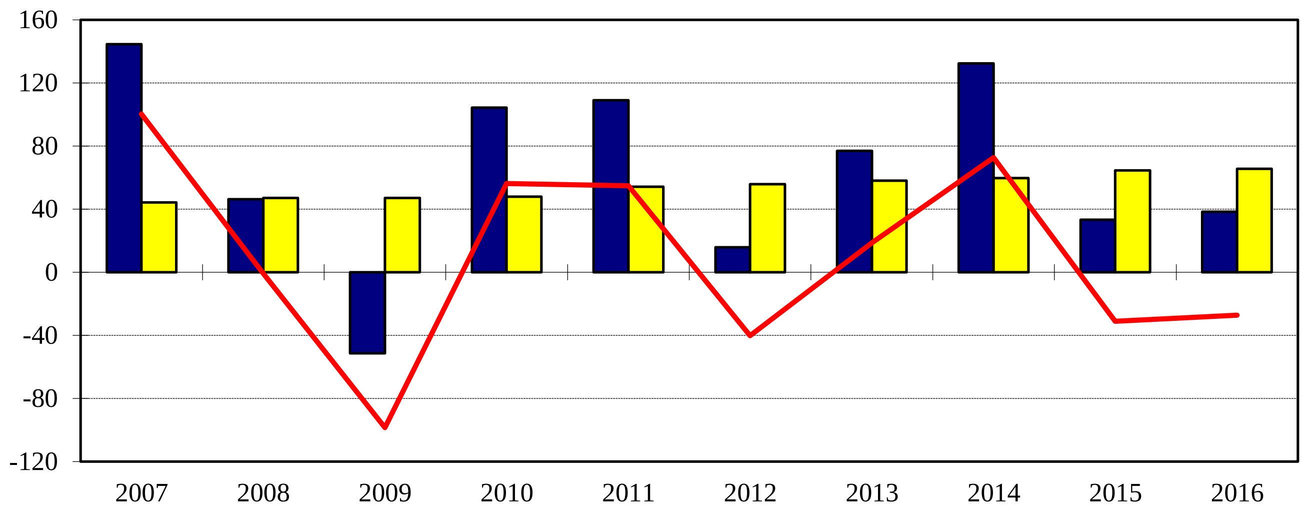


Plan A – Net Non-Investment Income



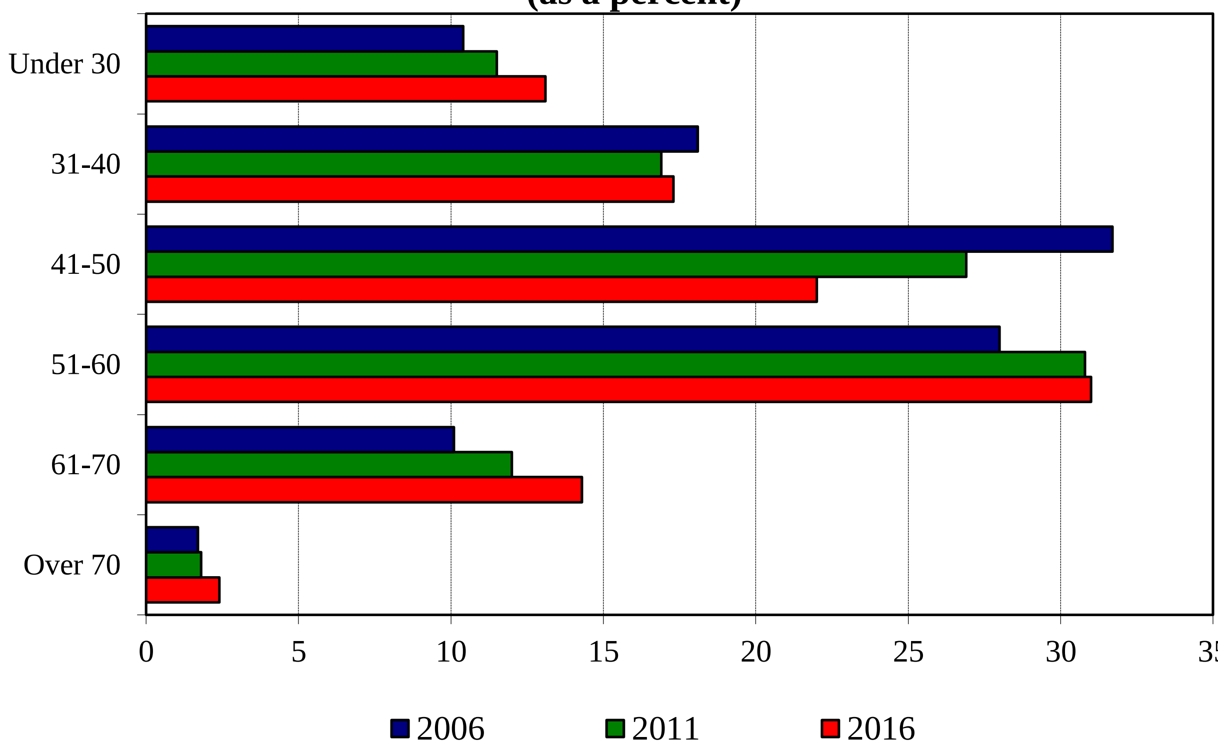
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Non-Investment Income ($Mil)		42.1	38.7	40.4	42.1	43.9	48.3	49.7	52.0	56.2	58.9
Benefits and Expenses ($Mil)		44.3	47.1	47.1	48.0	54.1	55.9	58.2	59.7	64.5	65.6
Net Non-Investment Income ($Mil)		-2.2	-8.4	-6.7	-5.9	-10.2	-7.6	-8.5	-7.7	-8.3	-6.7

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

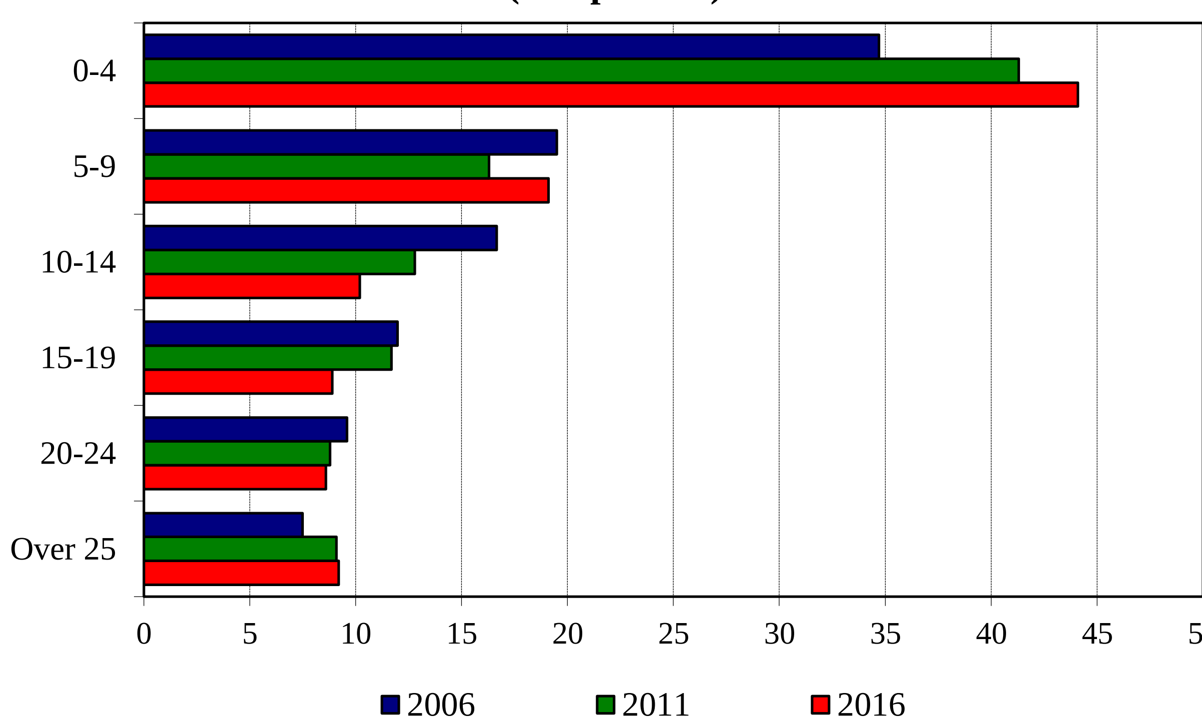


		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Income ($Mil)		144.6	46.3	-51.3	104.3	108.9	15.8	77.0	132.4	33.4	38.5
Benefits and Expenses ($Mil)		44.3	47.1	47.1	48.0	54.1	55.9	58.2	59.7	64.5	65.6
Net Change in MVA ($Mil)		100.3	-0.8	-98.4	56.3	54.8	-40.1	18.8	72.7	-31.1	-27.1

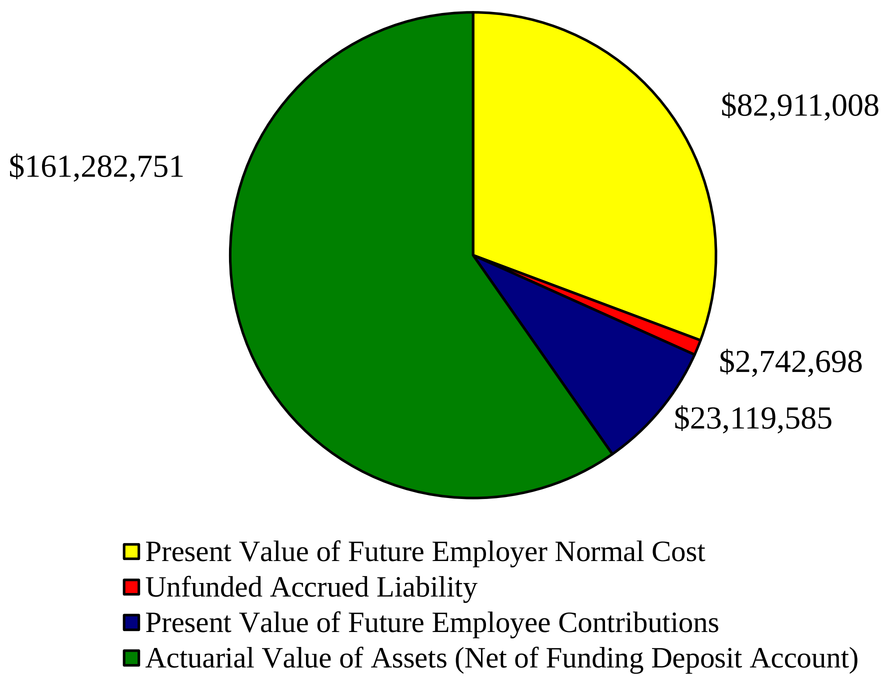
Plan A – Active – Census By Age
(as a percent)



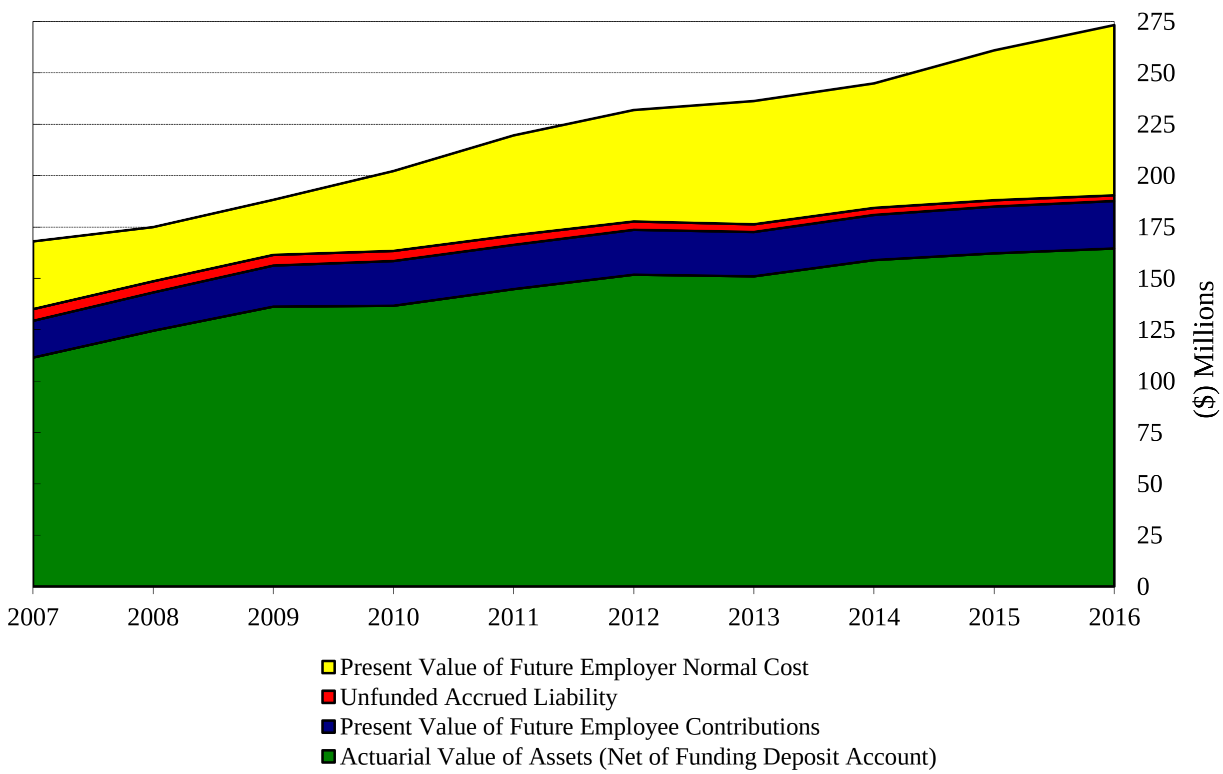
Plan A – Active – Census By Service
(as a percent)



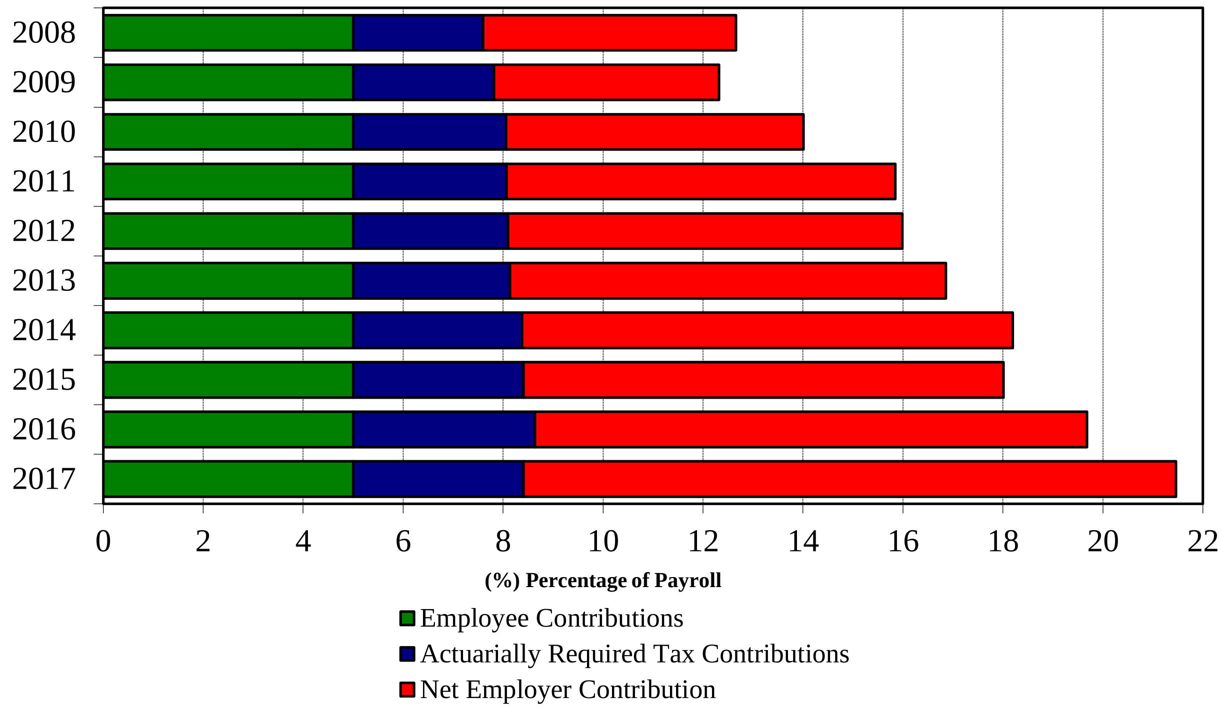
Plan B – Components of Present Value of Future Benefits
June 30, 2016



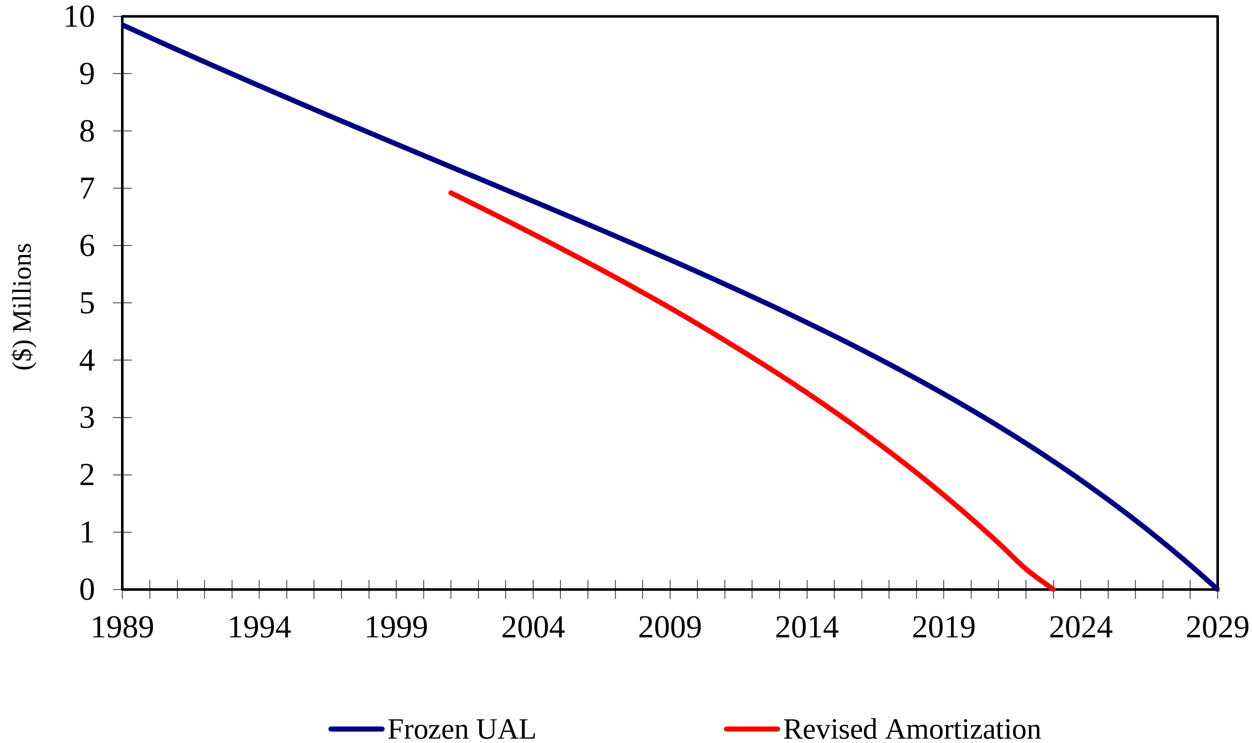
Plan B – Components of Present Value of Future Benefits



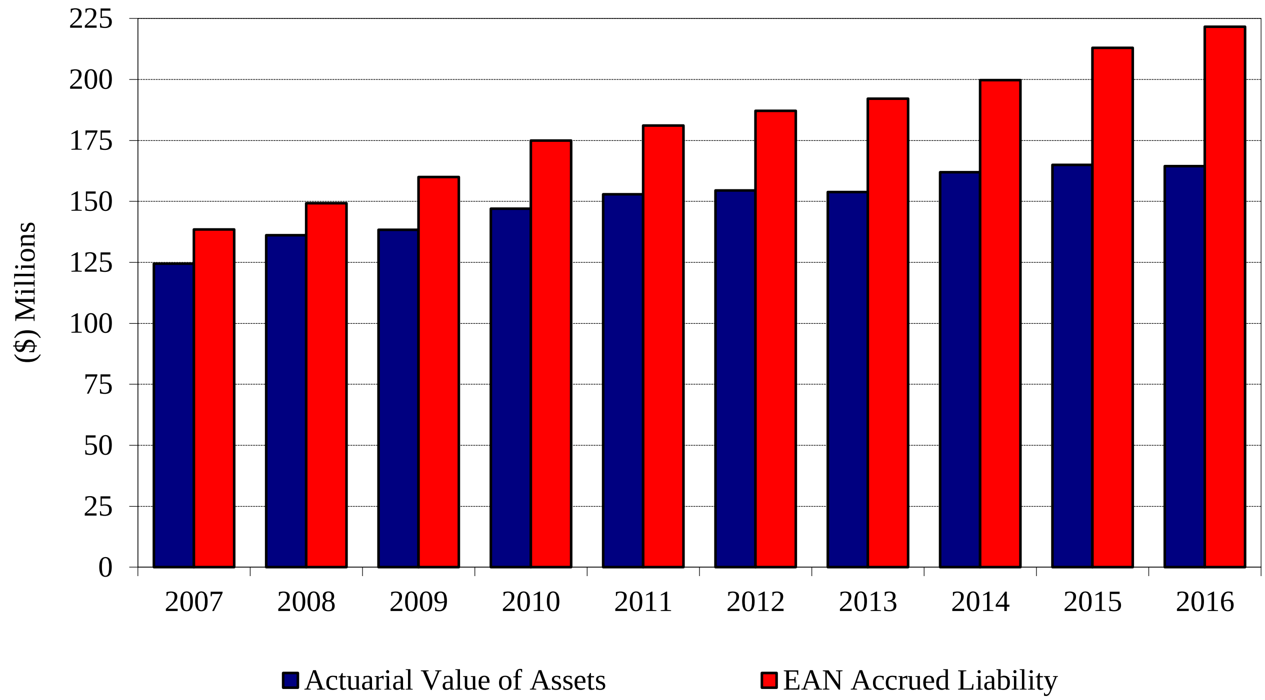
Plan B – Components of Actuarial Funding



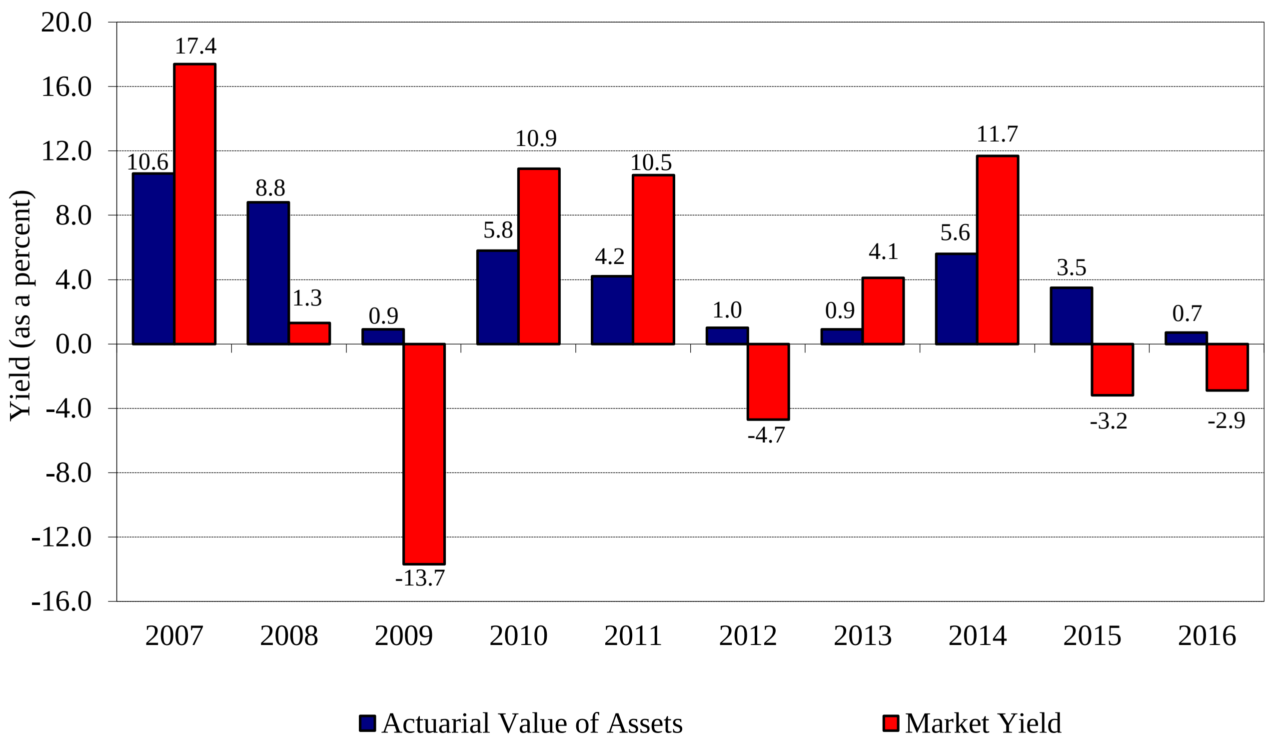
Plan B – Frozen Unfunded Accrued Liability



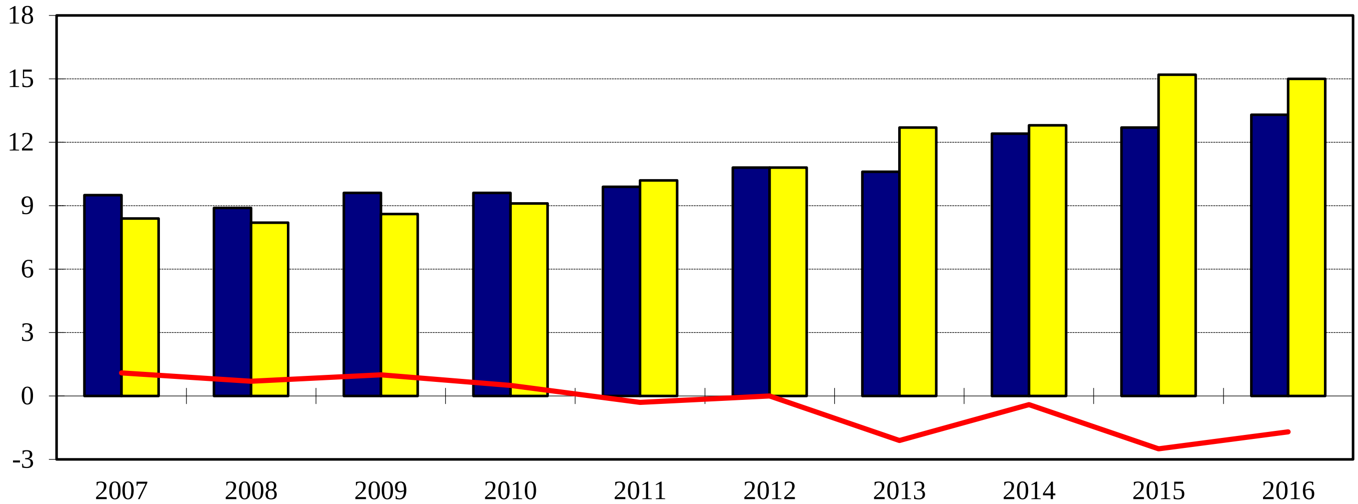
Plan B – Actuarial Value of Assets vs. EAN Accrued Liability



Plan B – Historical Asset Yield



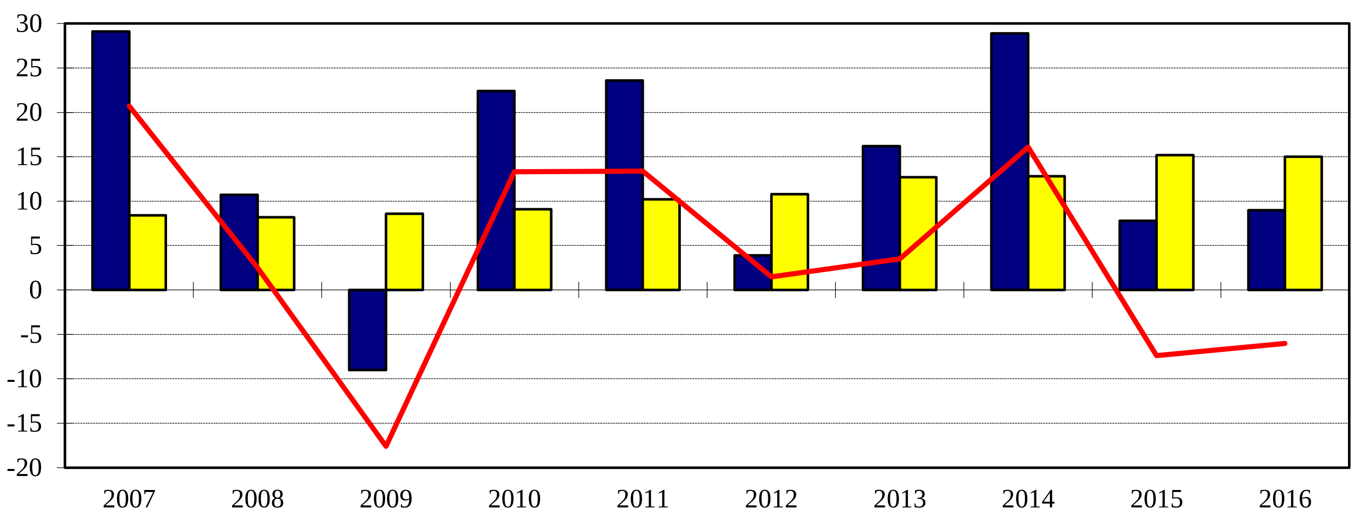
Plan B – Net Non-Investment Income



		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Non-Investment Income ($Mil)		9.5	8.9	9.6	9.6	9.9	10.8	10.6	12.4	12.7	13.3
Benefits and Expenses ($Mil)		8.4	8.2	8.6	9.1	10.2	10.8	12.7	12.8	15.2	15.0
Net Non-Investment Income ($Mil)		1.1	0.7	1.0	0.5	-0.3	0.0	-2.1	-0.4	-2.5	-1.7

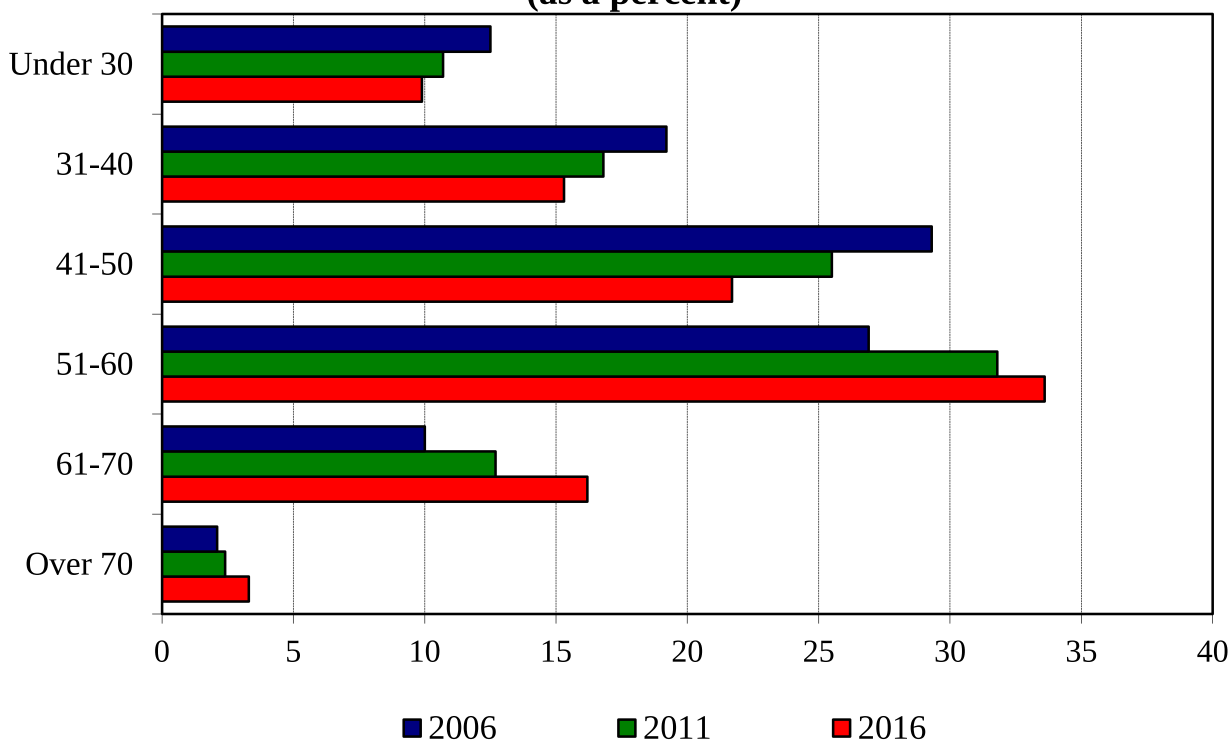
Plan B – Total Income vs. Expenses

(Based on Market Value of Assets)



		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Income ($Mil)		29.1	10.7	-9.0	22.4	23.6	3.9	16.2	28.9	7.8	9.0
Benefits and Expenses ($Mil)		8.4	8.2	8.6	9.1	10.2	10.8	12.7	12.8	15.2	15.0
Net Change in MVA ($Mil)		20.7	2.5	-17.6	13.3	13.4	1.5	3.5	16.1	-7.4	-6.0

Plan B – Active – Census By Age
(as a percent)



Plan B – Active – Census By Service
(as a percent)

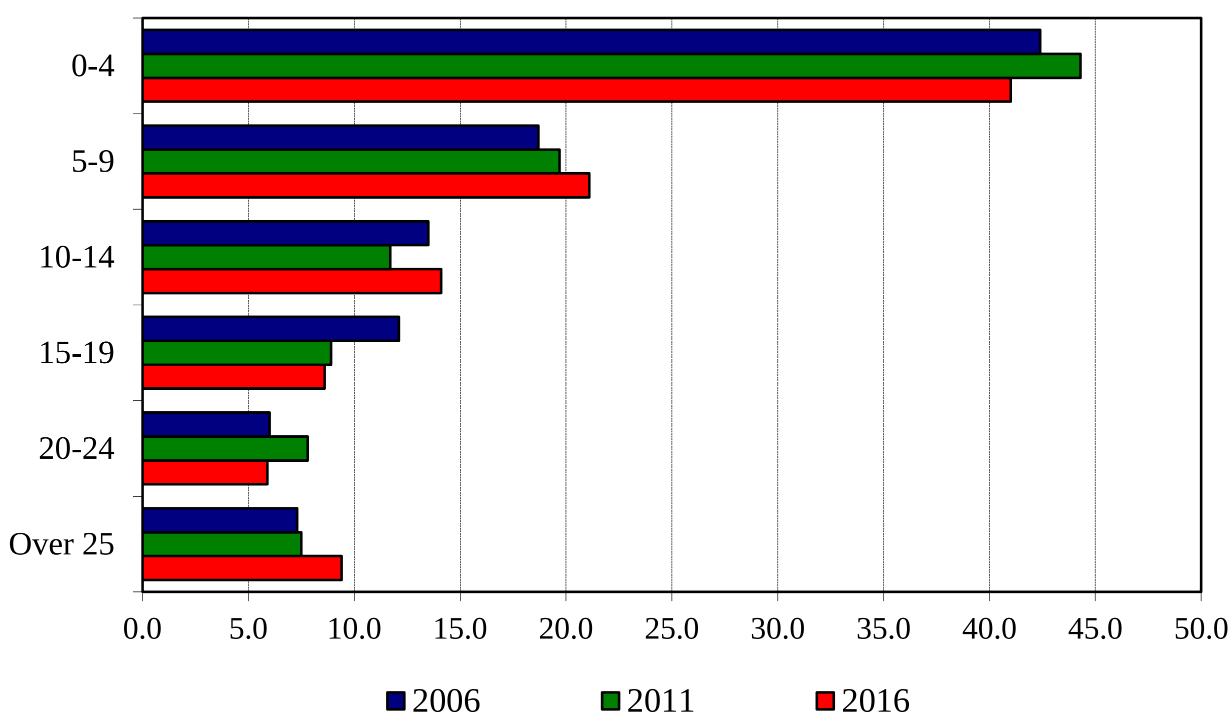


EXHIBIT I
PLAN A: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Present Value of Future Benefits	$	1,254,687,419
2.	Funding Deposit Account Credit Balance	$	8,421,235
3.	Frozen Unfunded Actuarial Accrued Liability	$	72,227,730
4.	Actuarial Value of Assets	$	769,849,744
5.	Present Value of Future Employee Contributions	$	105,774,692
6.	Present Value of Future Employer Normal Costs (1 + 2 – 3 – 4 – 5)	$	315,256,488
7.	Present Value of Future Salaries	$	1,267,893,867
8.	Employer Normal Cost Accrual Rate (6 ÷ 7)		24.864580%
9.	Projected Fiscal 2017 Salary for Current Membership	$	165,391,602
10.	Employer Normal Cost as of July 1, 2016 (8 × 9)	$	41,123,927
11.	Employer Normal Cost Interest Adjusted for Mid-year Payment	$	42,638,195
12.	Amortization Payment on Frozen Unfunded Accrued Liability with Payments Increasing at 4.25% per year	$	6,635,808
13.	Amortization Payment Interest Adjust for Mid-year Payment	$	6,880,152
14.	TOTAL Employer Normal Cost & Amortization Payment (11 + 13)	$	49,518,347
15.	Estimated Administrative Cost for Fiscal 2017	$	1,349,933
16.	Gross Employer Actuarially Required Contribution for Fiscal 2017 (14 + 15)	$	50,868,280
17.	Projected Ad Valorem Tax Contributions for Fiscal 2017	$	6,050,719
18.	Projected Revenue Sharing Funds for Fiscal 2017	$	113,679
19.	Employers' Minimum Net Direct Actuarially Required Contribution for Fiscal 2017 (16 – 17 – 18)	$	44,703,882
19.	Projected Payroll for Fiscal 2017	$	181,404,638
20.	Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2017 (18 ÷ 19)		24.64%
21.	Actual Employer Contribution Rate for 2017 (includes FDA Contribution)		23.25%
22.	Contribution Shortfall (Excess) as a Percentage of Payroll (20 – 21)		1.39%
23.	Increase (Reduction) to Following Year Payment for Contribution Shortfall (Excess)		0.18%
24.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2018 (20 + 23, Rounded to the nearest 0.25%)		24.75%

EXHIBIT II
PLAN A: PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 614,459,919		
Survivor Benefits	10,015,153		
Disability Benefits	10,671,616		
Vested Termination Benefits	29,591,965		
Refunds of Contributions	18,162,712		
TOTAL Present Value of Future Benefits for Active Members		$ 682,901,365	

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 15,743,399	
Terminated Members with Reciprocals Due Benefits at Retirement	1,100,591	
Terminated Members Due a Refund	3,456,575	
TOTAL Present Value of Future Benefits for Terminated Members		$ 20,300,565

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees			
Maximum	$ 205,681,604		
Option 2	202,155,948		
Option 3	70,326,408		
Option 4	2,183,762		
TOTAL Regular Retirees		$ 480,347,722	
Disability Retirees		11,983,578	
Survivors & Widows		53,782,194	
Reserve for Accrued Retiree DROP Account Balances		5,371,995	
TOTAL Present Value of Future Benefits for Retirees & Survivors			$ 551,485,489
TOTAL Present Value of Future Benefits			$ 1,254,687,419

EXHIBIT III – SCHEDULE A
PLAN A: MARKET VALUE OF ASSETS

CURRENT ASSETS:				
Cash in Banks	$	27,484,356		
Contributions and Taxes Receivable		4,306,784		
Accrued Interest and Dividends		1,587,679		
Investments Receivable		46,328,071		
Due (to) from Other Funds		4,217,088		
Other Current Assets		1,434		
TOTAL CURRENT ASSETS			$	83,925,412
Property Plant & Equipment			$	1,511,682
INVESTMENTS:				
Cash Equivalents	$	27,836,555		
Equities		297,373,350		
Fixed Income		98,036,094		
Real Estate		72,869,602		
Alternative Investments		90,738,248		
TOTAL INVESTMENTS			$	586,853,849
TOTAL ASSETS			$	672,290,943
CURRENT LIABILITIES:				
Accounts Payable	$	107,553		
Refunds Payable		234,518		
Due to other Plans		24,758		
Other Current Liabilities		47,904		
TOTAL CURRENT LIABILITIES			$	414,733
MARKET VALUE OF ASSETS			$	671,876,210

EXHIBIT III – SCHEDULE B
PLAN A – ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2016	$	(72,602,401)
Fiscal year 2015		(79,045,238)
Fiscal year 2014		29,763,811
Fiscal year 2013		(21,849,970)
Fiscal year 2012		(86,502,955)
Total for Five Years	$	(230,236,753)

Deferral of Excess (Shortfall) of Invested Income:

Fiscal year 2016 (80%)	$	(58,081,921)
Fiscal year 2015 (60%)		(47,427,143)
Fiscal year 2014 (40%)		11,905,524
Fiscal year 2013 (20%)		(4,369,994)
Fiscal year 2012 (0%)		0
Total Deferred for Year	$	(97,973,534)

Market Value of Plan Net Assets, End of Year	$	671,876,210
Preliminary Actuarial Value of Plan Assets, End of Year	$	769,849,744

Actuarial Value of Assets Corridor

85% of Market Value, End of Year	$	571,094,779
115% of Market Value, End of Year	$	772,657,642

Final Actuarial Value of Plan Net Assets, End of Year	$	769,849,744

EXHIBIT IV
PLAN A: PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	105,774,692
Employer Normal Contributions to the Pension Accumulation Fund		315,256,488
Employer Amortization Payments to the Pension Accumulation Fund		72,227,730
Funding Deposit Account Debit (Credit) Balance		(8,421,235)
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	484,837,675

EXHIBIT V
PLAN A: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Frozen Unfunded Accrued Liability			$	73,553,869
Interest on Frozen Unfunded Accrued Liability	$	5,516,540		
TOTAL Interest Adjusted Cost Elements			$	5,516,540
Amortization Payment on the Unfunded Accrued Liability	$	6,365,283		
Interest on Amortization Payment		477,396		
Credited Withdrawals from Funding Deposit Account		0		
TOTAL Interest Adjusted Employer Contributions			$	6,842,679
NET Change in Frozen Unfunded Accrued Liability			$	(1,326,139)
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY			$	72,227,730

EXHIBIT VI
PLAN A: ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2015)			$	770,402,847
INCOME:				
Member Contributions	$	16,147,447		
Employer Contributions		35,737,280		
Irregular Contributions		931,913		
Ad Valorem Taxes and Revenue Sharing		6,059,222		
Total Contributions			$	58,875,862
Net Depreciation in Fair Value of Investments	$	(19,895,645)		
Interest & Dividend Income		1,442,222		
Alternative Investment Income		(1,499,540)		
Miscellaneous Income		2,336,572		
Investment Expense		(2,808,282)		
Net Investment Income			$	(20,424,673)
TOTAL Income			$	38,451,189
EXPENSES:				
Retirement Benefits	$	56,308,909		
DROP Disbursements		5,984,385		
Refunds of Contributions		3,691,857		
Funds Transferred to another System		(1,574,107)		
Administrative Expenses		1,148,300		
TOTAL Expenses			$	65,559,344
Net Market Value Income for Fiscal 2016 (Income – Expenses)			$	(27,108,155)
Unadjusted Fund Balance as of June 30, 2016 (Fund Balance Previous Year + Net Income)			$	743,294,692
Adjustment for Actuarial Smoothing			$	26,555,052
Actuarial Value of Assets: (June 30, 2016)			$	769,849,744

EXHIBIT VII
PLAN A: FUNDING DEPOSIT ACCOUNT

Funding Deposit Account Balance as of June 30, 2015	$	7,833,707
Contributions to the Funding Deposit Account		0
Withdrawals from the Funding Deposit Account		0
Interest on Opening Balance at 7.50%		587,528
Funding Deposit Account Balance as of June 30, 2016	$	8,421,235

EXHIBIT VIII – SCHEDULE A
PLAN A: PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees	$	474,296,257
Present Value of Benefits Payable to Terminated Employees		20,300,565
Present Value of Benefits Payable to Current Retirees and Beneficiaries		551,485,489
TOTAL PENSION BENEFIT OBLIGATION	$	1,046,082,311
NET ACTUARIAL VALUE OF ASSETS	$	769,849,744
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation		73.59%

EXHIBIT VIII – SCHEDULE B
PLAN A: ENTRY AGE NORMAL ACCRUED LIABILITIES

Accrued Liability for Active Employees	$	491,772,203
Accrued Liability for Terminated Employees		20,300,565
Accrued Liability for Current Retirees and Beneficiaries		551,485,489
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY	$	1,063,558,257
ACTUARIAL VALUE OF ASSETS	$	769,849,744
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability		72.38%

EXHIBIT IX
CENSUS DATA – PLAN A

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2015	4,688	2,913	238	3,262	11,101
Additions to Census					
Initial membership	700	56			756
Omitted in error last year					
Death of another member				38	38
Adjustment for multiple records				1	1
Change in Status during Year					
Actives terminating service	(181)	181			
Actives who retired	(87)			87	
Actives entering DROP	(80)		80		
Term. members rehired	16	(16)			
Term. members who retire		(16)		16	
Retirees who are rehired					
Refunded who are rehired	14	4			18
DROP participants retiring			(60)	60	
DROP returned to work	28		(28)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(398)	(104)			(502)
Deaths	(18)	(6)		(118)	(142)
Included in error last year					
Adjustment for multiple records				(1)	(1)
Number of members as of June 30, 2016	4,682	3,012	230	3,345	11,269

PLAN A – ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 – 20	30	1	31	21,903	679,008
21 – 25	168	59	227	24,494	5,560,067
26 – 30	236	148	384	28,693	11,018,192
31 – 35	290	145	435	33,311	14,490,125
36 – 40	248	165	413	33,848	13,979,127
41 – 45	292	171	463	35,512	16,441,875
46 – 50	432	187	619	38,534	23,852,592
51 – 55	508	277	785	37,653	29,557,814
56 – 60	490	246	736	39,716	29,231,299
61 – 65	334	164	498	40,365	20,101,977
66 – 70	143	61	204	41,332	8,431,679
71 – 75	56	23	79	39,356	3,109,085
76 – 80	23	6	29	32,492	942,275
81 – 85	6	2	8	46,470	371,763
86 – 90	1	0	1	10,800	10,800
TOTAL	3,257	1,655	4,912	36,193	177,777,678

THE ACTIVE CENSUS INCLUDES 1,816 ACTIVES WITH VESTED BENEFITS, INCLUDING 230 DROP PARTICIPANTS AND 196 ACTIVE FORMER DROP PARTICIPANTS.

PLAN A – TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 – 35	3	0	3	15,580	46,739
36 – 40	6	2	8	15,136	121,088
41 – 45	10	3	13	11,858	154,151
46 – 50	13	14	27	13,922	375,899
51 – 55	36	24	60	14,686	881,157
56 – 60	31	30	61	13,774	840,195
61 – 65	3	3	6	9,443	56,655
66 – 70	1	2	3	7,578	22,734
71 – 75	3	2	5	3,496	17,478
TOTAL	106	80	186	13,527	2,516,096

PLAN A – TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	–	99	1,849	103,561
100	–	499	397	101,216
500	–	999	160	113,493
1000	–	1999	120	175,388
2000	–	4999	113	359,966
5000	–	9999	92	644,913
10000	–	19999	57	813,813
20000	–	99999	38	1,137,949
		TOTAL	2,826	3,450,299

PLAN A - REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	4	2	6	22,518	135,107
46 - 50	7	6	13	26,847	349,014
51 - 55	93	39	132	29,150	3,847,745
56 - 60	158	83	241	27,400	6,603,368
61 - 65	330	135	465	23,910	11,117,971
66 - 70	347	170	517	19,752	10,211,797
71 - 75	308	119	427	16,186	6,911,296
76 - 80	255	94	349	15,362	5,361,488
81 - 85	151	59	210	14,446	3,033,656
86 - 90	80	42	122	12,998	1,585,743
91 - 99	42	22	64	11,388	728,823
TOTAL	1,775	771	2,546	19,594	49,886,008

PLAN A - DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	1	0	1	10,379	10,379
41 - 45	3	0	3	12,659	37,978
46 - 50	5	3	8	11,158	89,267
51 - 55	10	1	11	13,288	146,166
56 - 60	32	8	40	12,995	519,782
61 - 65	12	4	16	10,769	172,296
66 - 70	11	4	15	8,107	121,608
71 - 75	3	4	7	7,141	49,989
76 - 80	7	1	8	6,920	55,363
81 - 85	2	0	2	7,118	14,236
86 - 90	0	2	2	4,614	9,228
TOTAL	86	27	113	10,852	1,226,292

PLAN A - SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	4	4	8	10,940	87,520
26 - 30	1	0	1	7,577	7,577
31 - 35	1	3	4	7,367	29,466
36 - 40	2	2	4	5,782	23,129
41 - 45	1	3	4	10,423	41,693
46 - 50	4	8	12	6,302	75,618
51 - 55	6	26	32	9,123	291,950
56 - 60	5	39	44	10,466	460,492
61 - 65	7	64	71	12,142	862,059
66 - 70	7	59	66	10,715	707,202
71 - 75	9	101	110	10,312	1,134,278
76 - 80	7	122	129	10,157	1,310,258
81 - 85	2	90	92	9,321	857,487
86 - 90	1	73	74	8,852	655,043
91 - 99	3	32	35	6,835	239,208
TOTAL	60	626	686	9,888	6,782,980

PLAN A - ACTIVE MEMBERS:

Attained Ages	Completed Years of Service: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	23	8										31
21 - 25	103	51	32	17	17	7						227
26 - 30	95	80	70	41	32	61	5					384
31 - 35	96	77	43	38	34	113	31	3				435
36 - 40	61	68	37	34	18	97	62	34	2			413
41 - 45	61	49	38	26	22	85	60	63	52	7		463
46 - 50	67	44	40	40	33	113	58	76	95	49	4	619
51 - 55	91	71	48	43	32	147	82	74	87	57	53	785
56 - 60	56	40	40	33	39	140	79	85	94	70	60	736
61 - 65	27	22	23	22	27	99	72	73	47	53	33	498
66 - 70	12	10	4	11	2	49	34	20	19	23	20	204
71 & Over	4	3	2	1	6	26	17	10	24	8	16	117
Totals	696	523	377	306	262	937	500	438	420	267	186	4,912

PLAN A - AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Salary
0 - 20	21,461	23,177										21,903
21 - 25	23,352	22,588	25,540	26,598	31,194	29,006						24,494
26 - 30	25,559	28,115	28,535	31,762	32,152	30,626	28,844					28,693
31 - 35	26,464	31,392	30,226	36,042	39,644	37,522	38,223	30,105				33,311
36 - 40	31,538	26,574	33,746	31,819	30,211	35,762	40,749	37,795	46,853			33,848
41 - 45	26,061	30,919	29,915	32,390	35,870	35,494	38,120	41,766	44,665	44,445		35,512
46 - 50	25,756	28,378	30,723	30,636	33,996	37,196	38,962	42,804	51,121	51,303	53,927	38,534
51 - 55	29,884	30,830	28,539	32,130	30,113	36,237	37,894	38,880	43,449	51,045	55,348	37,653
56 - 60	27,004	32,010	33,041	35,439	32,909	35,260	40,157	39,294	46,615	47,981	57,912	39,716
61 - 65	27,781	42,930	36,636	30,642	34,291	36,217	39,841	37,724	46,215	49,168	59,967	40,365
66 - 70	25,537	22,020	34,963	25,531	26,026	41,009	41,689	43,412	50,462	52,890	48,099	41,332
71 & Over	23,114	35,119	47,661	50,624	29,016	36,288	37,304	45,093	33,623	41,798	46,634	37,897
Average	26,562	29,281	30,499	32,124	33,439	36,075	39,205	40,068	46,125	49,625	55,435	36,193

PLAN A - 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 - 30												0
31 - 35										3		3
36 - 40									8			8
41 - 45								13				13
46 - 50							27					27
51 - 55					1	59						60
56 - 60	9	15	13	16	8							61
61 - 65	6											6
66 - 70	3											3
71 - 75	5											5
76 & Over												0
Totals	23	15	13	16	9	59	27	13	8	3	0	186

PLAN A - 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 - 30												0
31 - 35										15,580		15,580
36 - 40									15,136			15,136
41 - 45								11,858				11,858
46 - 50							13,922					13,922
51 - 55					17,295	14,642						14,686
56 - 60	14,091	14,649	12,557	14,157	12,988							13,774
61 - 65	9,443											9,443
66 - 70	7,578											7,578
71 - 75	3,496											3,496
76 & Over												0
Average	9,725	14,649	12,557	14,157	13,467	14,642	13,922	11,858	15,136	15,580	0	13,527

PLAN A - 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 - 50	6	9		1	1	2						19
51 - 55	26	18	15	16	6	36	13	2				132
56 - 60	23	24	27	24	19	89	32	2		1		241
61 - 65	61	54	58	34	34	124	73	15	8	3	1	465
66 - 70	29	42	28	42	43	199	83	40	8	3		517
71 - 75	4	13	15	16	24	145	142	45	19	3	1	427
76 - 80	3	8	1	5	6	56	104	98	43	22	3	349
81 - 85		3	1	3	4	10	26	68	64	25	6	210
86 - 90	2	1		1		6	8	16	37	40	11	122
91 & Over						3	3	4	2	30	22	64
Totals	154	172	145	142	137	670	484	290	181	127	44	2,546

PLAN A - 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 - 50	27,031	25,671		12,739	25,208	26,478						25,480
51 - 55	35,675	39,335	29,733	24,960	27,895	25,528	19,946	10,575				29,150
56 - 60	27,120	34,130	31,073	34,886	32,072	25,238	18,540	16,321		2,753		27,400
61 - 65	22,374	22,707	26,804	26,711	24,190	25,086	24,116	18,446	9,317	6,007	1,344	23,910
66 - 70	18,861	18,488	17,686	23,092	19,738	18,590	21,985	22,431	16,201	7,814		19,752
71 - 75	23,080	26,823	16,152	16,083	16,958	13,217	15,661	20,710	21,848	22,842	7,680	16,186
76 - 80	9,539	12,946	8,789	12,267	12,765	14,468	13,964	14,276	19,760	25,177	5,854	15,362
81 - 85		33,323	2,787	27,495	9,231	9,497	11,294	11,744	15,219	21,548	18,603	14,446
86 - 90	18,415	43,929		25,073		11,824	9,287	10,055	13,787	10,920	20,623	12,998
91 & Over						7,673	6,989	5,687	12,454	12,443	11,995	11,388
Average	24,565	25,332	24,750	25,026	21,852	19,319	17,568	15,659	16,453	15,869	14,294	19,594

PLAN A - 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 - 35												0
36 - 40	1											1
41 - 45						2		1				3
46 - 50	1		1		1	3		2				8
51 - 55		1	1	1	1	3		2	2			11
56 - 60	2	3	1	5	5	7	10	4	3			40
61 - 65	1	1	1	1	2	3	3	3	1			16
66 - 70				1		5	2	3	2		2	15
71 - 75						1	2	3	1			7
76 - 80				1		2	2		2		1	8
81 - 85				1					1			2
86 - 90									2			2
91 & Over												0
Totals	5	5	4	10	9	26	19	18	14	0	3	113

PLAN A - 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 - 35												0
36 - 40	10,379											10,379
41 - 45						14,741		8,496				12,659
46 - 50	9,088		11,499		10,663	10,605		13,101				11,158
51 - 55		12,102	12,927	16,685	15,571	20,206		5,919	8,213			13,288
56 - 60	15,032	13,321	5,937	12,039	13,762	16,311	12,386	11,526	10,221			12,995
61 - 65	10,607	12,585	7,567	9,473	23,568	11,491	8,417	6,378	6,069			10,768
66 - 70				6,473		8,256	5,516	9,106	14,598		3,154	8,107
71 - 75						4,190	5,141	7,848	11,974			7,141
76 - 80				8,368		5,564	7,267		6,089		9,154	6,920
81 - 85				8,244					5,992			7,118
86 - 90									4,614			4,614
91 & Over												0
Average	12,028	12,930	9,482	10,944	15,798	12,583	9,735	9,035	8,695	0	5,154	10,852

PLAN A - 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 - 20	2	1	1		1	2		1				8
21 - 25												0
26 - 30						1						1
31 - 35		1	1			1	1					4
36 - 40						3	1					4
41 - 45						1	2		1			4
46 - 50				1		4	3	1		1	2	12
51 - 55	1	1	1		2	6	9	6	4		2	32
56 - 60	1	3	1	1	3	8	10	5	7	3	2	44
61 - 65	5	2	1	2	2	10	20	14	7	7	1	71
66 - 70		2	1		3	9	15	19	8	7	2	66
71 - 75			3			22	23	28	17	11	6	110
76 - 80		1				12	22	32	31	21	10	129
81 - 85							7	21	24	25	15	92
86 - 90						2	4	5	12	25	26	74
91 & Over						1			1	8	25	35
Totals	9	11	9	4	11	82	117	132	112	108	91	686

PLAN A - 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 - 20	17,461	7,133	18,188		11,084	5,886		4,422				10,940
21 - 25												0
26 - 30						7,577						7,577
31 - 35		4,229	7,862			7,577	9,798					7,367
36 - 40						6,035	5,025					5,782
41 - 45						19,969	7,234		7,255			10,423
46 - 50				3,997		6,653	12,597	3,675		1,900	821	6,301
51 - 55	20,984	7,133	23,878		8,650	12,170	8,994	7,063	5,160		2,835	9,123
56 - 60	17,612	8,452	31,851	23,479	8,488	12,576	13,800	5,670	7,316	2,363	5,734	10,466
61 - 65	27,395	18,232	12,469	8,324	14,466	13,370	13,347	10,429	7,269	4,017	4,925	12,142
66 - 70		9,683	4,374		27,860	9,792	10,757	14,258	5,760	4,058	2,503	10,715
71 - 75			23,362			11,202	12,209	9,687	9,952	5,037	6,858	10,312
76 - 80		8,430				8,315	10,853	11,274	9,531	10,609	8,424	10,157
81 - 85							7,339	6,960	10,458	12,355	6,673	9,321
86 - 90						4,046	12,172	15,454	7,822	9,906	6,903	8,852
91 & Over						7,469			10,536	7,260	6,525	6,835
Average	23,388	9,828	18,745	11,031	15,124	10,352	11,401	10,236	8,894	8,873	6,558	9,888

EXHIBIT X
PLAN A: YEAR-TO-YEAR COMPARISON

	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Number of Active Members	4,912	4,926	4,894	4,939
Number of Retirees & Survivors	3,345	3,262	3,177	3,106
Number of Terminated Due Deferred Benefits	186	182	184	193
Number Terminated Due Refunds	2,826	2,731	2,667	2,672
Active Lives Payroll	$ 177,777,678	$ 172,033,158	$ 167,852,836	$ 167,422,222
Retiree Benefits in Payment	$ 57,895,282	$ 54,791,332	$ 51,636,071	$ 48,994,132
Market Value of Assets (MVA)	$ 671,876,210	$ 698,984,365	$ 730,072,543	$ 657,723,192
Actuarial Value of Assets (AVA)	$ 769,849,744	$ 770,402,847	$ 751,235,484	$ 717,816,409
Entry Age Normal Accrued Liability	$ 1,063,558,257	$ 1,038,155,304	$ 967,584,136	$ 948,970,683
Ratio of AVA to EAN Accrued Liability	72.38%	74.21%	77.64%	75.64%
Frozen Unfunded Actuarial Accrued Liability	$ 72,227,730	$ 73,553,869	$ 74,454,702	$ 75,038,341
Present Value of Future Employer Normal Cost	$ 315,256,488	$ 287,312,026	$ 235,357,990	$ 249,506,497
Present Value of Future Employee Contrib.	$ 105,774,692	$ 101,854,569	$ 97,716,362	$ 97,624,041
Funding Deposit Account Balance	$ 8,421,235	$ 7,833,707	$ 8,930,139	$ 8,287,832
Present Value of Future Benefits	$ 1,254,687,419	$ 1,225,289,604	$ 1,149,834,399	$ 1,131,697,456

	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
Employee Contribution Rate	9.50%	9.50%	9.50%	9.50%
Estimated Tax Contribution as a % of Payroll	3.40%	3.64%	3.52%	3.36%
Actuarially Required Net Direct Employer Contribution Rate	24.64%	22.92%	19.48%	20.62%
Actual Employer Contribution Rate	23.25% *	19.75%	20.75% †	18.75%

* Includes 0.5% from Funding Deposit Account
† Includes 1% from Funding Deposit Account

Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
5,021	5,029	5,068	5,052	5,030	4,965
3,040	3,001	2,907	2,861	2,794	2,721
181	174	183	172	184	209
2,632	2,594	2,590	2,596	2,561	2,553
$ 167,511,550	$ 164,262,655	$ 162,546,523	$ 157,082,727	$ 148,644,512	$ 141,232,448
$ 46,224,138	$ 44,218,709	$ 41,527,971	$ 39,834,118	$ 37,650,335	$ 34,978,923
$ 639,209,518	$ 679,285,361	$ 624,427,505	$ 568,167,813	$ 666,534,551	$ 667,345,480
$ 721,475,280	$ 723,942,801	$ 704,735,602	$ 670,910,030	$ 671,721,084	$ 624,442,059
$ 925,638,084	$ 903,431,729	$ 876,252,316	$ 812,467,140	$ 770,668,381	$ 728,638,097
77.94%	80.13%	80.43%	82.58%	87.16%	85.70%
$ 75,337,890	$ 75,313,546	$ 75,064,492	$ 74,616,607	$ 73,993,478	$ 73,216,582
$ 225,090,618	$ 201,003,138	$ 192,786,430	$ 154,002,240	$ 102,751,307	$ 106,821,650
$ 95,445,659	$ 92,535,571	$ 92,383,724	$ 88,362,181	$ 84,164,497	$ 81,084,751
$ 7,691,723	$ 7,121,966	$ 6,594,413	$ 6,105,938	$ N/A	$ N/A
$ 1,109,657,724	$ 1,085,673,090	$ 1,058,375,835	$ 981,785,120	$ 932,630,366	$ 885,565,042

Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
9.25%	9.25%	9.25%	9.25%	9.25%	9.25%
3.13%	3.09%	3.07%	3.07%	2.82%	2.62%
18.67%	17.08%	16.41%	13.78%	10.25%	11.17%
17.00%	16.75%	14.25%	13.50%	13.50%	13.50%

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EXHIBIT XI
PLAN B: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Present Value of Future Benefits	$	270,056,042
2.	Funding Deposit Account Credit Balance	$	3,233,725
3.	Frozen Unfunded Actuarial Accrued Liability	$	2,742,698
4.	Actuarial Value of Assets	$	164,516,476
5.	Present Value of Future Employee Contributions	$	23,119,585
6.	Present Value of Future Employer Normal Costs (1 + 2 – 3 – 4 – 5)	$	82,911,008
7.	Present Value of Future Salaries	$	523,692,751
8.	Employer Normal Cost Accrual Rate (6 ÷ 7)		15.831995%
9.	Projected Fiscal 2017 Salary for Current Membership	$	66,700,760
10.	Employer Normal Cost as of July 1, 2016 (8 × 9)	$	10,560,061
11.	Employer Normal Cost Interest Adjusted for Mid-year Payment	$	10,948,904
12.	Amortization Payment on Frozen Unfunded Accrued Liability with Payments Decreasing at 2% per year	$	526,460
13.	Amortization Payment Interest Adjust for Mid-year Payment	$	545,845
14.	TOTAL Employer Normal Cost & Amortization Payment (11 + 13)	$	11,494,749
15.	Estimated Administrative Cost for Fiscal 2017	$	546,107
16.	Gross Employer Actuarially Required Contribution for Fiscal 2017 (14 + 15)	$	12,040,856
17.	Projected Ad Valorem Tax Contributions for Fiscal 2017	$	2,447,784
18.	Projected Revenue Sharing Funds for Fiscal 2017	$	45,988
19.	Employers' Minimum Net Direct Actuarially Required Contribution for Fiscal 2017 (16 – 17 – 18)	$	9,547,084
19.	Projected Payroll for Fiscal 2017	$	73,117,227
20.	Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2017 (18 ÷ 19)		13.06%
21.	Actual Employer Contribution Rate for 2017 (includes FDA Contribution)		11.25%
22.	Contribution Shortfall (Excess) as a Percentage of Payroll (20 – 21)		1.81%
23.	Increase (Reduction) to Following Year Payment for Contribution Shortfall (Excess)		0.23%
21.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2018 (20, Rounded to the nearest 0.25%)		13.25%

EXHIBIT XII
PLAN B: PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 150,521,524		
Survivor Benefits	2,989,146		
Disability Benefits	7,332,957		
Vested Termination Benefits	7,645,658		
Refunds of Contributions	3,987,519		
TOTAL Present Value of Future Benefits for Active Members			$ 172,476,804

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 4,087,820		
Terminated Members with Reciprocals Due Benefits at Retirement	771,165		
Terminated Members Due a Refund	813,429		
TOTAL Present Value of Future Benefits for Terminated Members			$ 5,672,414

PRESENT VALUE OF FUTURE BENEFITS FOR PENSIONERS:

Regular Retirees by Option Selected:			
Maximum	$ 35,793,945		
Option 2	29,170,767		
Option 3	9,643,612		
TOTAL Regular Retirees		$ 74,608,324	
TOTAL Disability Retirees		$ 3,915,098	
TOTAL Survivors & Widows		$ 12,637,847	
Reserve for Accrued Retiree DROP Account Balances		$ 745,555	
TOTAL Present Value of Future Benefits for Retirees & Survivors			$ 91,906,824
TOTAL Present Value of Future Benefits			$ 270,056,042

EXHIBIT XIII – SCHEDULE A
PLAN B – MARKET VALUE OF ASSETS

CURRENT ASSETS:				
Cash in Banks	$	7,991,243		
Contributions and Taxes Receivable		906,887		
Accrued Interest and Dividends		349,295		
Investments Receivable		10,206,644		
Due (to) from Other Funds		(4,217,088)		
Other Income		583		
TOTAL CURRENT ASSETS			$	15,237,564
Property Plant & Equipment			$	573,242
INVESTMENTS:				
Cash Equivalents	$	8,898,663		
Equities		63,079,195		
Fixed Income		20,795,535		
Real Estate		15,457,188		
Alternative Investments		19,247,508		
TOTAL INVESTMENTS			$	127,478,089
TOTAL ASSETS			$	143,288,895
CURRENT LIABILITIES:				
Accounts Payable	$	(8,373)		
Refunds Payable		101,999		
Due to other Plans		(24,758)		
Other Current Liabilities		18,441		
TOTAL CURRENT LIABILITIES			$	87,309
MARKET VALUE OF ASSETS			$	143,201,586

EXHIBIT XIII – SCHEDULE B
PLAN B – ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2016	$	(15,463,450)
Fiscal year 2015		(16,980,623)
Fiscal year 2014		5,602,846
Fiscal year 2013		(4,984,469)
Fiscal year 2012		(18,345,178)
Total for Five Years	$	(50,170,874)

Deferral of Excess (Shortfall) of Invested Income:

Fiscal year 2016 (80%)	$	(12,370,760)
Fiscal year 2015 (60%)		(10,188,374)
Fiscal year 2014 (40%)		2,241,138
Fiscal year 2013 (20%)		(996,894)
Fiscal year 2012 (0%)		0
Total Deferred for Year	$	(21,314,890)

Market Value of Plan Net Assets, End of Year	$	143,201,586
Preliminary Actuarial Value of Plan Assets, End of Year	$	164,516,476

Actuarial Value of Assets Corridor

85% of Market Value, End of Year	$	121,721,348
115% of Market Value, End of Year	$	164,681,824

Final Actuarial Value of Plan Net Assets, End of Year	$	164,516,476

EXHIBIT XIV
PLAN B: PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	23,119,585
Employer Normal Contributions to the Pension Accumulation Fund		82,911,008
Employer Amortization Payments to the Pension Accumulation Fund		2,742,698
Funding Deposit Account Credit Balance		(3,233,725)
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	105,539,566

EXHIBIT XV
PLAN B: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Frozen Unfunded Accrued Liability			$	3,088,551
Interest on Frozen Unfunded Accrued Liability	$	231,641		
TOTAL Interest Adjusted Cost Elements			$	231,641
Amortization Payment on the Unfunded Accrued Liability	$	537,204		
Interest on Amortization Payment		40,290		
Credited Withdrawals from Funding Deposit Account		0		
TOTAL Interest Adjusted Employer Contributions			$	577,494
NET Change in Frozen Unfunded Accrued Liability			$	(345,853)
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY			$	2,742,698

EXHIBIT XVI
PLAN B: ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2015)			$	165,154,609
INCOME:				
Member Contributions	$	3,501,178		
Employer Contributions		6,979,682		
Irregular Contributions		354,541		
Tax Revenue		2,462,292		
Total Contributions			$	13,297,693
Net Depreciation in Fair Value of Investments	$	(4,220,288)		
Interest & Dividend Income		306,262		
Alternative Investment Income		(318,084)		
Miscellaneous Income		495,636		
Investment Expense		(595,695)		
Net Investment Income			$	(4,332,169)
TOTAL Income			$	8,965,524
EXPENSES:				
Retirement Benefits	$	9,952,845		
DROP Disbursements		910,733		
Refunds of Contributions		1,023,784		
Funds Transferred to another System		2,680,514		
Administrative Expenses		465,057		
TOTAL Expenses			$	15,032,933
Net Market Value Income for Fiscal 2016 (Income – Expenses)			$	(6,067,409)
Unadjusted Fund Balance as of June 30, 2016 (Fund Balance Previous Year + Net Income)			$	159,087,200
Adjustment for Actuarial Smoothing			$	5,429,276
Actuarial Value of Assets (June 30, 2016)			$	164,516,476

EXHIBIT XVII
PLAN B: FUNDING DEPOSIT ACCOUNT

Funding Deposit Account Balance as of June 30, 2015	$	3,008,116
Contributions to the Funding Deposit Account		0
Withdrawals from the Funding Deposit Account		0
Interest on Opening Balance at 7.50%		225,609
Funding Deposit Account Balance as of June 30, 2016	$	3,233,725

EXHIBIT XVIII – SCHEDULE A
PLAN B: PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees	$	117,106,560
Present Value of Benefits Payable to Terminated Employees		5,672,414
Present Value of Benefits Payable to Current Retirees and Beneficiaries		91,906,824
TOTAL PENSION BENEFIT OBLIGATION	$	214,685,798
NET ACTUARIAL VALUE OF ASSETS	$	164,516,476
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation		76.63%

EXHIBIT XVIII – SCHEDULE B
PLAN B: ENTRY AGE NORMAL ACCRUED LIABILITIES

Accrued Liability for Active Employees	$	124,054,115
Accrued Liability for Terminated Employees		5,672,414
Accrued Liability for Current Retirees and Beneficiaries		91,906,824
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY	$	221,633,353
ACTUARIAL VALUE OF ASSETS	$	164,516,476
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability		74.23%

EXHIBIT XIX
CENSUS DATA – PLAN B

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2015	2,124	1,289	76	959	4,448
Additions to Census					
Initial membership	266	27			293
Omitted in error last year					
Death of Another Member				12	12
Change in Status during Year					
Actives terminating service	(81)	81			
Actives who retired	(28)			28	
Actives entering DROP	(36)		36		
Term. members rehired	7	(7)			
Term. members who retire		(4)		4	
Retirees who are rehired					
Refunded who are rehired	5				5
DROP participants retiring			(11)	11	
DROP returned to work	11		(11)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(206)	(50)			(256)
Deaths	(9)	(8)	(1)	(39)	(57)
Included in error last year					
Adjustment for multiple records		1			1
Number of members as of June 30, 2016	2,053	1,329	89	975	4,446

PLAN B - ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	9	3	12	20,327	243,929
21 - 25	67	14	81	22,277	1,804,450
26 - 30	88	32	120	24,650	2,957,971
31 - 35	96	53	149	29,346	4,372,566
36 - 40	124	55	179	32,585	5,832,737
41 - 45	131	72	203	33,935	6,888,875
46 - 50	167	95	262	34,377	9,006,801
51 - 55	224	104	328	35,954	11,792,873
56 - 60	250	142	392	35,614	13,960,826
61 - 65	177	67	244	36,908	9,005,554
66 - 70	68	34	102	35,937	3,665,578
71 - 75	33	8	41	34,740	1,424,343
76 - 80	17	3	20	31,424	628,480
81 - 85	4	3	7	37,604	263,227
86 - 90	2	0	2	35,364	70,728
TOTAL	1,457	685	2,142	33,576	71,918,938

THE ACTIVE CENSUS INCLUDES 814 ACTIVES WITH VESTED BENEFITS, INCLUDING 89 DROP PARTICIPANTS AND 79 ACTIVE FORMER DROP PARTICIPANTS.

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	1	0	1	13,801	13,801
36 - 40	3	0	3	10,563	31,690
41 - 45	2	3	5	11,347	56,735
46 - 50	9	3	12	8,809	105,713
51 - 55	10	9	19	9,106	173,017
56 - 60	17	9	26	12,326	320,487
61 - 65	3	0	3	6,029	18,086
66 - 70	0	1	1	5,041	5,041
71 - 75	1	0	1	494	494
TOTAL	46	25	71	10,212	725,064

PLAN B - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	763	22,734
100	-	499	254	59,812
500	-	999	81	56,792
1000	-	1999	60	83,404
2000	-	4999	58	191,584
5000	-	9999	29	195,991
10000	-	19999	9	113,694
20000	-	99999	4	89,418
		TOTAL	1,258	813,429

PLAN B - REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
51 - 55	7	4	11	22,429	246,716
56 - 60	12	8	20	19,348	386,953
61 - 65	86	29	115	14,236	1,637,125
66 - 70	113	50	163	13,086	2,133,048
71 - 75	106	37	143	10,911	1,560,254
76 - 80	81	34	115	10,103	1,161,813
81 - 85	65	23	88	8,610	757,652
86 - 90	23	12	35	7,464	261,237
91 - 99	16	1	17	6,276	106,690
TOTAL	509	198	707	11,671	8,251,488

PLAN B - DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	1	0	1	6,324	6,324
46 - 50	3	0	3	8,394	25,181
51 - 55	6	0	6	8,213	49,275
56 - 60	17	6	23	11,812	271,671
61 - 65	1	0	1	15,975	15,975
66 - 70	1	0	1	12,210	12,210
TOTAL	29	6	35	10,875	380,636

PLAN B - SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
26 - 30	0	1	1	2,245	2,245
36 - 40	1	0	1	10,042	10,042
41 - 45	0	1	1	4,280	4,280
46 - 50	2	2	4	3,425	13,699
51 - 55	1	13	14	6,282	87,942
56 - 60	2	12	14	8,942	125,187
61 - 65	2	21	23	7,585	174,453
66 - 70	2	24	26	6,996	181,891
71 - 75	1	30	31	6,870	212,960
76 - 80	1	43	44	6,876	302,539
81 - 85	1	34	35	7,114	248,989
86 - 90	0	25	25	6,892	172,296
91 - 99	1	13	14	6,166	86,317
TOTAL	14	219	233	6,965	1,622,840

PLAN B - ACTIVE MEMBERS:

Attained Ages	Completed Years of Service 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	12											12
21 - 25	39	24	9	4	3	2						81
26 - 30	30	24	22	10	12	21	1					120
31 - 35	26	36	9	11	10	40	16	1				149
36 - 40	20	30	17	12	11	44	26	18	1			179
41 - 45	26	22	12	13	14	38	39	21	14	4		203
46 - 50	24	29	12	18	6	62	42	38	20	10	1	262
51 - 55	35	31	20	17	15	75	49	35	19	14	18	328
56 - 60	24	37	19	19	21	68	60	33	31	41	39	392
61 - 65	17	12	10	7	14	60	32	22	27	25	18	244
66 - 70	4	5	4	4		30	25	7	9	7	7	102
71 & Over	4	4	4	3	1	11	11	9	6	8	9	70
Totals	261	254	138	118	107	451	301	184	127	109	92	2,142

PLAN B - AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Salary
0 - 20	20,327											20,327
21 - 25	22,019	22,068	22,538	23,649	24,413	22,702						22,277
26 - 30	21,708	22,217	27,089	27,323	23,608	28,492	22,684					24,650
31 - 35	22,091	29,147	27,967	28,297	24,362	33,715	34,313	44,690				29,346
36 - 40	24,236	28,119	25,905	29,480	24,519	40,462	36,435	37,423	39,352			32,585
41 - 45	28,207	26,812	27,088	36,335	32,108	38,635	35,597	37,542	36,205	41,762		33,935
46 - 50	23,378	29,339	29,530	31,767	32,008	35,056	34,803	40,244	38,772	49,001	46,787	34,377
51 - 55	22,035	32,525	34,665	28,711	32,858	37,765	38,030	38,471	41,450	45,853	48,181	35,954
56 - 60	23,327	27,045	29,733	25,642	28,525	31,249	40,249	34,821	39,595	44,521	51,471	35,614
61 - 65	23,275	35,063	29,664	26,752	30,972	35,075	40,526	35,240	41,052	43,326	50,191	36,908
66 - 70	21,346	22,287	29,908	33,187		34,737	41,115	28,500	34,477	44,022	46,922	35,937
71 & Over	21,865	41,294	30,135	30,633	34,615	32,884	43,882	38,907	18,472	35,922	32,700	34,097
Average	23,016	27,963	28,734	29,358	28,706	35,211	38,056	37,263	38,316	44,065	48,343	33,576

PLAN B - 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 - 30												0
31 - 35										1		1
36 - 40									3			3
41 - 45								5				5
46 - 50							12					12
51 - 55						19						19
56 - 60	4	7	3	3	9							26
61 - 65	3											3
66 - 70	1											1
71 - 75	1											1
76 & Over												0
Totals	9	7	3	3	9	19	12	5	3	1	0	71

PLAN B - 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 - 30												0
31 - 35										13,801		13,801
36 - 40									10,563			10,563
41 - 45								11,347				11,347
46 - 50							8,809					8,809
51 - 55						9,106						9,106
56 - 60	8,163	11,106	5,822	8,513	18,566							12,326
61 - 65	6,029											6,029
66 - 70	5,041											5,041
71 - 75	494											494
76 & Over												0
Average	6,252	11,106	5,822	8,513	18,566	9,106	8,809	11,347	10,563	13,801	0	10,212

PLAN B - 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 - 50												0
51 - 55	4	1	1	1	1	3						11
56 - 60	2	3	3	2	1	8	1					20
61 - 65	21	31	6	13	12	24	4	3	1			115
66 - 70	10	23	13	19	15	66	12	4	1			163
71 - 75	3	10	3	10	5	56	44	10	1		1	143
76 - 80	1	4	1	1	1	20	43	38	4	1	1	115
81 - 85		1	1			10	9	37	26	3	1	88
86 - 90				1		3	1	2	13	14	1	35
91 & Over					1	1			3	4	8	17
Totals	41	73	28	47	36	191	114	94	49	22	12	707

PLAN B - 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 - 50												0
51 - 55	21,960	16,190	26,515	29,114	19,858	22,400						22,429
56 - 60	20,258	24,735	22,349	7,573	29,397	18,950	9,042					19,348
61 - 65	10,800	15,018	14,354	16,258	15,148	16,151	13,902	5,894	4,605			14,236
66 - 70	12,519	14,580	12,921	15,154	12,241	12,034	16,950	7,395	5,784			13,086
71 - 75	8,007	7,714	19,725	10,417	11,843	11,669	9,703	14,514	4,850		6,183	10,911
76 - 80	9,381	8,995	10,443	14,137	6,727	10,641	10,529	9,235	16,147	457	3,616	10,103
81 - 85		836	13,738			5,178	12,986	7,610	9,638	9,450	13,908	8,610
86 - 90				4,876		4,233	1,480	9,113	10,554	5,700	6,941	7,464
91 & Over					5,364	4,396			8,903	7,000	5,278	6,276
Average	12,531	13,770	15,393	14,186	13,499	12,229	11,106	8,970	10,088	6,210	6,073	11,671

PLAN B - 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 - 40												0
41 - 45						1						1
46 - 50			1	1		1						3
51 - 55		1		1	1	2	1					6
56 - 60	3	2	4	3		5	3	1	2			23
61 - 65						1						1
66 - 70									1			1
71 & Over												0
Totals	3	3	5	5	1	10	4	1	3	0	0	35

PLAN B - 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 - 40												0
41 - 45						6,324						6,324
46 - 50			10,215	8,094		6,872						8,394
51 - 55		8,016		11,013	6,138	8,445	7,217					8,212
56 - 60	15,161	14,775	13,352	6,944		15,821	9,211	5,821	4,919			11,812
61 - 65						15,975						15,975
66 - 70									12,210			12,210
71 & Over												0
Average	15,161	12,522	12,725	7,987	6,138	12,517	8,713	5,821	7,349	0	0	10,875

PLAN B - 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 - 25												0
26 - 30								1				1
31 - 35												0
36 - 40					1							1
41 - 45								1				1
46 - 50		1					2	1				4
51 - 55	1	1	2		2	2	2	2	1	1		14
56 - 60			1	1	1	4	3	1	1	2		14
61 - 65					2	4	7	5	3	2		23
66 - 70	1			2	3	4	8	3	3		2	26
71 - 75					1	4	8	12	5	1		31
76 - 80			1				12	11	12	7	1	44
81 - 85		1	1			2	4	7	8	9	3	35
86 - 90						1	2		4	11	7	25
91 & Over							1	2	1	5	5	14
Totals	2	3	5	3	10	21	49	46	38	38	18	233

PLAN B - 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 - 25												0
26 - 30								2,245				2,245
31 - 35												0
36 - 40					10,042							10,042
41 - 45								4,280				4,280
46 - 50		6,909					2,557	1,677				3,425
51 - 55	5,756	6,270	5,174		12,465	2,873	10,980	5,324	1,386	898		6,282
56 - 60			15,910	5,426	9,272	10,043	8,253	4,056	17,595	3,997		8,942
61 - 65					7,577	11,769	7,794	6,855	3,894	5,853		7,585
66 - 70	4,105			6,278	10,643	6,686	6,005	11,681	5,203		3,933	6,996
71 - 75					8,962	6,928	5,755	6,773	8,496	6,493		6,870
76 - 80			5,590				8,735	6,644	5,808	6,185	6,051	6,876
81 - 85		29,105	5,341			6,427	10,158	5,890	4,660	6,545	7,881	7,114
86 - 90						4,586	1,207		9,371	7,226	6,903	6,892
91 & Over							12,789	2,273	430	9,497	4,213	6,165
Average	4,931	14,095	7,438	5,994	10,029	7,852	7,370	6,356	6,148	6,744	5,942	6,965

EXHIBIT XX
PLAN B: YEAR-TO-YEAR COMPARISON

	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Number of Active Members	2,142	2,200	2,168	2,128
Number of Retirees & Survivors	975	959	916	900
Number of Terminated Due Deferred Benefits	71	71	74	61
Number Terminated Due Refunds	1,258	1,218	1,170	1,155
Active Lives Payroll	$ 71,918,938	$ 69,909,530	$ 67,939,158	$ 65,928,929
Retiree Benefits in Payment	$ 10,254,964	$ 9,917,685	$ 9,141,803	$ 8,793,050
Market Value of Assets	$ 143,201,586	$ 149,268,995	$ 156,659,396	$ 140,744,063
Actuarial Value of Assets	$ 164,516,476	$ 165,154,609	$ 161,992,280	$ 153,851,774
Entry Age Normal Accrued Liability	$ 221,633,353	$ 212,961,895	$ 199,762,726	$ 192,160,973
Ratio of AVA to EAN Accrued Liability	74.23%	77.55%	81.09%	80.06%
Frozen Unfunded Actuarial Accrued Liability	$ 2,742,698	$ 3,088,551	$ 3,421,001	$ 3,740,857
Present Value of Future Employer Normal Cost	$ 82,911,008	$ 72,948,195	$ 60,613,662	$ 60,012,141
Present Value of Future Employee Contrib.	$ 23,119,585	$ 22,770,216	$ 21,982,912	$ 21,589,199
Funding Deposit Account Balance	$ 3,233,725	$ 3,008,116	$ 3,126,521	$ 2,901,644
Present Value of Future Benefits	$ 270,056,042	$ 260,953,455	$ 244,883,334	$ 236,292,327

	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
Employee Contribution Rate	5.00%	5.00%	5.00%	5.00%
Estimated Tax Contribution as a % of Payroll	3.41%	3.64%	3.41%	3.38%
Actuarially Required Net Direct Employer Contribution Rate	13.06%	11.04%	9.60%	9.82%
Actual Employer Contribution Rate	11.25% *	9.50%	10.00% †	8.75%

* Includes 0.25% from Funding Deposit Account
† Includes 0.5% from Funding Deposit Account

	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
	2,155	2,175	2,197	2,269	2,191	2,153
	879	865	836	833	793	794
	61	62	72	67	68	74
	1,100	1,062	1,062	1,022	998	928
	$ 66,409,896	$ 65,427,477	$ 65,241,810	$ 64,816,945	$ 59,233,705	$ 54,572,935
	$ 8,285,257	$ 7,953,795	$ 7,339,269	$ 7,149,177	$ 6,625,934	$ 6,328,157
	$ 137,164,489	$ 144,028,034	$ 130,596,777	$ 117,258,410	$ 134,832,148	$ 132,326,073
	$ 154,451,871	$ 152,966,837	$ 147,046,143	$ 138,441,127	$ 136,207,119	$ 124,483,332
	$ 187,178,650	$ 181,142,563	$ 175,023,271	$ 159,960,891	$ 149,264,791	$ 138,533,272
	82.52%	84.45%	84.02%	86.55%	91.25%	89.86%
	$ 4,049,257	$ 4,346,525	$ 4,633,960	$ 4,912,541	$ 5,183,177	$ 5,446,715
	$ 54,153,087	$ 49,451,626	$ 48,645,557	$ 38,895,181	$ 26,827,388	$ 26,365,299
	$ 21,845,625	$ 21,582,459	$ 21,546,957	$ 21,769,886	$ 19,992,613	$ 18,627,179
	$ 2,692,941	$ 2,493,464	$ 2,308,763	$ 1,806,555	N/A	N/A
	$ 231,806,899	$ 225,853,983	$ 219,563,854	$ 202,212,180	$ 188,210,297	$ 174,922,525

	Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
	3.14%	3.10%	3.07%	3.06%	2.82%	2.60%
	8.72%	7.89%	7.78%	5.95%	4.50%	5.06%
	8.00%	8.00%	6.75%	6.75%	6.75%	6.75%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

All members of the Municipal Employees' Retirement System are participants in either Plan A or B according to the provisions of the agreement entered into by their employer. All employees of a participating employer must participate in the same plan. The principal provisions of each plan are given below. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits.

MEMBERSHIP – All persons who are actively employed by a participating employer on a permanent, regularly scheduled basis of at least an average of thirty-five hours per week are members of this system. Excluded from membership are members of city councils, alderman, town councilmen, and constables; the exclusion does not apply to persons serving in excluded positions on January 1, 1997.

PLAN A PROVISIONS:

CONTRIBUTION RATES – The Board of Trustees may set the employee contribution rate not less than 9.25% nor more than 10.00%. In addition, each sheriff and ex officio tax collector deducts one-fourth of one percent of the aggregate amount of the tax shown to be collected by the tax roll of each respective parish, excepting Orleans Parish, and remits the money to the system on an annual basis. Taxes are apportioned between Plan A and Plan B in proportion to salaries of plan participants. Taxes received from East Baton Rouge Parish are apportioned between the Municipal Employees' Retirement System and the Employees' Retirement System of the City of Baton Rouge. The system also receives revenue sharing funds each year as appropriated by the legislature. The remaining employer contributions are determined according to actuarial requirements and are set annually.

RETIREMENT BENEFITS (Tier 1) – Members with ten years of creditable service may retire at age sixty; members with twenty-five years of service may retire regardless of age. The monthly retirement allowance is equal to three percent of the member's final compensation multiplied by his years of creditable service; elected officials receive an additional one-half percent of final compensation for each year of such elected service. However, the accrued retirement benefits for those employees who were members of only the supplemental plan prior to October 1, 1978, are based on one percent of final compensation plus two dollars per month for each year of service credited prior to October 1, 1978. The retirement allowance may not exceed the greater of final annual salary or one hundred percent of the member's final average compensation. Members with twenty years of service credit, not otherwise eligible for normal retirement, are eligible for a modified actuarially reduced early retirement.

RETIREMENT BENEFITS (Tier 2) – Employees whose first employment making them eligible for membership occurs on or after January 1, 2013 become members of Tier 2. Normal retirement eligibility in Tier 2 is at age 65 with seven years of service credit, at age 62 with ten years of service credit, or age 55 with thirty years of service credit. Members are eligible for an actuarially reduced early retirement at twenty-five years of service credit. Retirement benefits are based on a 3% accrual rate. Employee contributions are set by the Board of Trustees within a range of 8% to 10%.

DISABILITY BENEFITS – Five years of creditable service are required in order to be eligible for disability benefits. Twenty years of creditable service are required in order for a member to have a vested disability benefit. A disabled member receives a normal retirement allowance if eligible under regular retirement provisions; if he is not eligible for a normal retirement, he receives a disability benefit equal to the lesser of:

1) Forty-five percent of his final average compensation or three percent of his final average compensation multiplied by his years of creditable service, whichever is greater; or
2) Three percent of his final average compensation multiplied by his years of creditable service projected to his earliest normal retirement age.

SURVIVOR BENEFITS – Five years of creditable service are required in order to be eligible for survivor benefits. If the member is eligible for normal retirement at the time of death, the surviving spouse receives an automatic option two benefit. If the member is not eligible for a normal retirement, the surviving spouse with minor children receives sixty percent of final compensation payable until no child in her care satisfies the definition of minor child. The surviving spouse with no minor children receives forty percent of final compensation payable upon attainment of age sixty by the spouse, or the actuarial equivalent of this amount payable immediately (such equivalent not to be less than 20% of final compensation). Minor children with no surviving unmarried parent receive thirty percent of final compensation each not to exceed a total of sixty percent of final compensation. Survivor benefits are also payable to the surviving spouses of former members who have not withdrawn their accumulated contributions and who have at least twenty years of creditable service. The benefits payable are the actuarial equivalent of the Option 2 benefits that would have become payable to the surviving spouse at the time the former member would have begun receiving deferred normal retirement benefits, had the member survived until that date, elected Option 2, and died at that time.

PLAN B PROVISIONS:

CONTRIBUTION RATES – The Board of Trustees may set the employee contribution rate not less than 5.00% nor more than 6.00%. In addition, each sheriff and ex officio tax collector deducts one-fourth of one percent of the aggregate amount of the tax shown to be collected by the tax roll of each respective parish, excepting Orleans Parish, and remits the money to the system on an annual basis. Taxes are apportioned between Plan A and Plan B in proportion to salaries of plan participants. Taxes received from East Baton Rouge Parish are apportioned between the Municipal Employees' Retirement System and the Employees' Retirement System of the City of Baton Rouge. The system also receives revenue sharing funds each year as appropriated by the legislature. The remaining employer contributions are determined according to actuarial requirements and are set annually.

RETIREMENT BENEFITS (Tier 1) – Members with ten years of creditable service may retire at age sixty; members with thirty years of service may retire at any age. The monthly retirement allowance is equal to two percent of the member's final compensation multiplied by his years of creditable service; elected officials receive an additional one-half percent of final compensation for each year of such elected service.

RETIREMENT BENEFITS (Tier 2) – Employees whose first employment making them eligible for membership occurs on or after January 1, 2013 will become members of Tier 2. Normal retirement eligibility in Tier 2 is at age 65 with seven years of service credit, at age 62 with ten years of service credit, or age 55 with thirty years of service credit. Members are eligible for an actuarially reduced early retirement at twenty-five years of service credit. Retirement benefits are based on a 2% accrual rate. Employee contributions are set by the Board of Trustees within a range of 4% to 6%.

DISABILITY BENEFITS – Ten years of creditable service are required in order to be eligible for disability benefits. Twenty years of creditable service are required in order for a member to have a vested disability benefit. A disabled member receives a normal retirement allowance if eligible under regular retirement provisions; if he is not eligible for a normal retirement allowance, he receives a disability benefit equal to the lesser of:

1) Thirty percent of his final average compensation or two percent of his final average compensation multiplied by his years of creditable service, whichever is greater; and
2) Two percent of his final average compensation multiplied by his years of creditable service projected to his earliest normal retirement age.

SURVIVOR BENEFITS – The surviving spouse of a member who was eligible for normal retirement at the time of death receives an automatic option two benefit. The surviving spouse of a member with five or more years of creditable service and not eligible for normal retirement at the time of death receives either 30% of the member's final compensation payable to the spouse when they attain age 60 or an actuarial equivalent of 30% of the deceased member's final compensation, but not less than 15% of such final compensation. Survivor benefits are also payable to the surviving spouses of former members who have not withdrawn their accumulated contributions and who have at least twenty years of creditable service. The benefits payable are the actuarial equivalent of the Option 2 benefits that would have become payable to the surviving spouse at the time the former member would have begun receiving deferred normal retirement benefits, had the member survived until that date, elected Option 2, and died at that time.

PROVISIONS APPLICABLE TO BOTH PLAN A AND B:

FINAL AVERAGE COMPENSATION –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. The earnings to be considered for each twelve month period within the sixty month period may not exceed 115% of the preceding twelve month period.

Effective January 1, 2013, for a member whose first employment making him eligible for membership in the system began before July 1, 2006, final average compensation was redefined to be thirty-six months plus the number of whole months since January 1, 2013 not to exceed sixty months. However, the actual monthly final average compensation used to determine the member's benefit cannot be less than the thirty-six month final average compensation as of January 1, 2013. The earnings to be considered for each twelve month period within the final average compensation period may not exceed 115% of the preceding twelve month period.

UNUSED SICK & ANNUAL LEAVE – All unused sick and annual leave is credited at the time of retirement to the member if the employer so elects for his employees. The actuarial cost of providing this conversion is borne solely by the employer and must be paid to the Board within thirty days of the member's retirement date.

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

> **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.

DEFERRED RETIREMENT OPTION PLAN – In lieu of terminating employment and accepting a service retirement allowance, any member of Plan A or B who is eligible for a 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, employer contributions are payable but employee contributions cease. The 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 account. After a member terminates his participation in DROP his account will earn interest at the actual rate of return earned on the funds left on deposit as certified by the custodian of the system's assets. This interest will be credited to the individual member's account balance on a daily basis beginning July 1, 2006. 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 payment 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 account 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. For any member hired prior to July 1, 2006, additional accrued benefits are based on final average compensation used to calculate the member's original benefit unless the additional period of service is at least thirty-six months. For any member hired on or after July 1, 2006, whose period of additional service after their DROP participation period ends is less than sixty months, the final compensation figure used to calculate the additional benefit will be that used to calculate the original benefit. If their period of additional service is sixty months or more, the final compensation figure used to calculate the additional benefit will be based on their compensation during the period of additional service.

COST OF LIVING INCREASES – The Board of Trustees is authorized to grant retired members, and widows of members, who have been retired for at least one full year an annual cost of living increase of two percent of their original benefit and all retired members and widows who are sixty-five years of age and older a two percent increase in their original benefit (or their benefit as of October 1, 1977, if they retired prior to that time). 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 on investments. In lieu of other cost of living increases the Board may grant an increase to retirees in the form "X×(A&B)" where "A" is equal to the number of years of credited service accrued as retirement or death of the member or retiree and "B" is equal to the number of years since death of the member or retiree to June 30 of the initial year of increase and "X" is equal to any amount available for funding such increase up to a maximum of $1.00.

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 effect of emerging experience on the fund is illustrated by the following chart.

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: Frozen Attained Age Normal Actuarial Cost Method with allocation based on earnings. The frozen actuarial accrued liabilities were calculated on the projected unit credit cost method.

ACTUARIAL ASSET VALUES: Invested 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.

VALUATION INTEREST RATE: 7.5% (Net of Investment Expense)

ANNUAL SALARY INCREASE RATE: 5.0% (2.875% Inflation / 2.125% Merit)

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

ANNUITANT, AND BENEFICIARY MORTALITY: RP 2000 Healthy Annuitant Table set forward 2 years and projected to 2028 using Scale AA for males and set forward 1 year and projected to 2028 using Scale AA for females

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.
RATES OF RETIREMENT:	The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. Members are assumed to retire no earlier than normal retirement age.
RETIREMENT LIMITATIONS:	Projected retirement benefits are not subjected 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 participate in DROP.
DROP PARTICIPATION PERIOD:	DROP participants are assumed to participate for 3 years. At the end of the DROP participation period, one half of participants are assumed to retire; the other half are assumed to work one additional year.
RETIREMENT RATES FOR ACTIVE FORMER DROP PARTICIPANTS:	Retirement rates for active former DROP participants are as follows:

Ages	Plan A	Plan B
Below 86	0.21	0.17
86 & Above	1.00	1.00

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

Service	Plan A	Plan B
0	0.20	0.23
1	0.17	0.20
2	0.14	0.15
3	0.12	0.13
4	0.10	0.10
5	0.09	0.09
6	0.08	0.08
7	0.07	0.07
8	0.06	0.06
9	0.06	0.05
10	0.05	0.04
11	0.05	0.04
12	0.04	0.03

13	0.04	0.03
14	0.03	0.03
15	0.03	0.03
16	0.02	0.03
17	0.02	0.03
18	0.02	0.03
Over 18	0.02	0.02

Note: The withdrawal rate for individuals eligible to retire is assumed to be zero.

RATES OF DISABILITY – Plan A: 25% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10 – 19 years of service.

RATES OF DISABILITY – Plan B: 60% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10 – 19 years of service.

MARRIAGE STATISTICS: 70% 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 as listed below, are derived from the information provided in the 2010 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

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 – Plan A: 60% of members with less than 20 years of service are assumed to elect a deferred benefit in lieu of a refund of contributions. 100% of members with 20 or more years of service are assumed to elect the deferred benefit.

VESTING ELECTING PERCENTAGE – Plan B: 66% of members are assumed to elect a deferred benefit in lieu of a refund of contributions.

PLAN A – ACTUARIAL TABLES AND RATES

Age	Retired Male Mortality Rates	Retired Female Mortality Rates	Active Male Mortality Rates	Active Female Mortality Rates	Male Disabled Mortality Rates	Female Disabled Mortality Rates	Retirement Rates Tier 1	Retirement Rates Tier 2
18	0.00020	0.00011	0.00028	0.00018	0.02257	0.00745	0.00000	0.00000
19	0.00021	0.00011	0.00030	0.00018	0.02257	0.00745	0.00000	0.00000
20	0.00021	0.00011	0.00032	0.00019	0.02257	0.00745	0.00000	0.00000
21	0.00022	0.00012	0.00033	0.00019	0.02257	0.00745	0.00000	0.00000
22	0.00023	0.00012	0.00035	0.00019	0.02257	0.00745	0.00000	0.00000
23	0.00025	0.00013	0.00036	0.00019	0.02257	0.00745	0.00000	0.00000
24	0.00026	0.00014	0.00037	0.00019	0.02257	0.00745	0.00000	0.00000
25	0.00029	0.00016	0.00037	0.00020	0.02257	0.00745	0.00000	0.00000
26	0.00033	0.00019	0.00038	0.00020	0.02257	0.00745	0.00000	0.00000
27	0.00036	0.00020	0.00038	0.00021	0.02257	0.00745	0.00000	0.00000
28	0.00039	0.00022	0.00038	0.00021	0.02257	0.00745	0.00000	0.00000
29	0.00043	0.00023	0.00038	0.00022	0.02257	0.00745	0.00000	0.00000
30	0.00049	0.00027	0.00039	0.00024	0.02257	0.00745	0.00000	0.00000
31	0.00055	0.00030	0.00041	0.00025	0.02257	0.00745	0.00000	0.00000
32	0.00061	0.00034	0.00044	0.00026	0.02257	0.00745	0.00000	0.00000
33	0.00067	0.00038	0.00050	0.00031	0.02257	0.00745	0.00000	0.00000
34	0.00073	0.00041	0.00056	0.00035	0.02257	0.00745	0.00000	0.00000
35	0.00079	0.00045	0.00063	0.00039	0.02257	0.00745	0.00000	0.00000
36	0.00084	0.00048	0.00070	0.00044	0.02257	0.00745	0.00000	0.00000
37	0.00089	0.00052	0.00077	0.00047	0.02257	0.00745	0.00000	0.00000
38	0.00091	0.00055	0.00084	0.00051	0.02257	0.00745	0.00000	0.00000
39	0.00094	0.00058	0.00090	0.00055	0.02257	0.00745	0.00000	0.00000
40	0.00097	0.00062	0.00096	0.00060	0.02257	0.00745	0.00000	0.00000
41	0.00101	0.00066	0.00102	0.00065	0.02257	0.00745	0.06000	0.00000
42	0.00105	0.00071	0.00108	0.00071	0.02257	0.00745	0.06000	0.00000
43	0.00111	0.00075	0.00114	0.00077	0.02257	0.00745	0.06000	0.00000
44	0.00115	0.00080	0.00122	0.00085	0.02257	0.00745	0.06000	0.00000
45	0.00120	0.00085	0.00130	0.00094	0.02257	0.00745	0.06000	0.00000
46	0.00125	0.00089	0.00140	0.00103	0.02257	0.00745	0.06000	0.00000
47	0.00131	0.00094	0.00151	0.00112	0.02257	0.00745	0.06000	0.00000
48	0.00340	0.00099	0.00162	0.00122	0.02257	0.00745	0.06000	0.00000
49	0.00342	0.00145	0.00173	0.00133	0.02257	0.00818	0.06000	0.00000
50	0.00339	0.00148	0.00186	0.00143	0.02257	0.00896	0.06000	0.00000
51	0.00334	0.00155	0.00200	0.00155	0.02385	0.00978	0.06000	0.00000
52	0.00329	0.00164	0.00214	0.00168	0.02512	0.01063	0.06000	0.00000
53	0.00335	0.00181	0.00229	0.00181	0.02640	0.01154	0.06000	0.00000
54	0.00348	0.00201	0.00245	0.00197	0.02769	0.01248	0.06000	0.00000
55	0.00377	0.00229	0.00262	0.00213	0.02897	0.01346	0.06000	0.06000
56	0.00415	0.00264	0.00281	0.00232	0.03027	0.01446	0.06000	0.06000
57	0.00463	0.00304	0.00303	0.00253	0.03156	0.01550	0.06000	0.06000
58	0.00522	0.00352	0.00331	0.00276	0.03286	0.01654	0.06000	0.06000
59	0.00573	0.00395	0.00363	0.00301	0.03415	0.01760	0.06000	0.06000
60	0.00631	0.00440	0.00400	0.00329	0.03544	0.01865	0.12000	0.12000
61	0.00717	0.00504	0.00441	0.00360	0.03673	0.01971	0.12000	0.12000
62	0.00794	0.00557	0.00488	0.00393	0.03803	0.02077	0.12000	0.12000
63	0.00904	0.00633	0.00538	0.00429	0.03933	0.02184	0.12000	0.12000
64	0.01002	0.00698	0.00592	0.00466	0.04067	0.02294	0.12000	0.12000
65	0.01109	0.00769	0.00647	0.00504	0.04204	0.02408	0.18000	0.18000
66	0.01262	0.00869	0.00703	0.00543	0.04347	0.02529	0.18000	0.18000
67	0.01394	0.00955	0.00757	0.00582	0.04498	0.02660	0.18000	0.18000
68	0.01496	0.01021	0.00810	0.00621	0.04658	0.02803	0.18000	0.18000
69	0.01656	0.01128	0.00860	0.00658	0.04831	0.02959	0.18000	0.18000
70	0.01787	0.01217	0.00907	0.00695	0.05017	0.03132	0.18000	0.18000
71	0.01990	0.01353	0.00951	0.00729	0.05221	0.03323	0.18000	0.18000
72	0.02220	0.01504	0.00992	0.00761	0.05445	0.03533	0.12000	0.12000
73	0.02478	0.01667	0.02457	0.01858	0.05691	0.03764	0.12000	0.12000
74	0.02762	0.01841	0.02728	0.02067	0.05961	0.04014	0.12000	0.12000
75	0.03161	0.02087	0.03039	0.02297	0.06258	0.04285	0.12000	0.12000

PLAN A – ACTUARIAL TABLES AND RATES (Continued)

Age	DROP Entry Rates Tier 1	DROP Entry Rates Tier 2	Disability Rates	Remarriage Rates
18	0.00000	0.00000	0.00038	0.06124
19	0.00000	0.00000	0.00038	0.06124
20	0.00000	0.00000	0.00038	0.06124
21	0.00000	0.00000	0.00038	0.05818
22	0.00000	0.00000	0.00038	0.05524
23	0.00000	0.00000	0.00038	0.05242
24	0.00000	0.00000	0.00038	0.04971
25	0.00000	0.00000	0.00038	0.04566
26	0.00000	0.00000	0.00038	0.04335
27	0.00000	0.00000	0.00038	0.04114
28	0.00000	0.00000	0.00038	0.03902
29	0.00000	0.00000	0.00038	0.03698
30	0.00000	0.00000	0.00038	0.03502
31	0.00000	0.00000	0.00038	0.03314
32	0.00000	0.00000	0.00038	0.03134
33	0.00000	0.00000	0.00038	0.02961
34	0.00000	0.00000	0.00038	0.02795
35	0.00000	0.00000	0.00043	0.02636
36	0.00000	0.00000	0.00048	0.02483
37	0.00000	0.00000	0.00053	0.02336
38	0.00000	0.00000	0.00060	0.02195
39	0.00000	0.00000	0.00068	0.02060
40	0.00000	0.00000	0.00078	0.01930
41	0.18000	0.00000	0.00088	0.01805
42	0.18000	0.00000	0.00098	0.01686
43	0.18000	0.00000	0.00110	0.01571
44	0.18000	0.00000	0.00125	0.01461
45	0.18000	0.00000	0.00143	0.01355
46	0.18000	0.00000	0.00163	0.01253
47	0.18000	0.00000	0.00183	0.01156
48	0.18000	0.00000	0.00208	0.01063
49	0.18000	0.00000	0.00235	0.00973
50	0.27000	0.00000	0.00268	0.00887
51	0.27000	0.00000	0.00305	0.00804
52	0.27000	0.00000	0.00345	0.00725
53	0.27000	0.00000	0.00392	0.00649
54	0.27000	0.00000	0.00445	0.00576
55	0.27000	0.27000	0.00505	0.00000
56	0.27000	0.27000	0.00575	0.00000
57	0.27000	0.27000	0.00653	0.00000
58	0.27000	0.27000	0.00740	0.00000
59	0.27000	0.27000	0.00843	0.00000
60	0.24000	0.24000	0.01220	0.00000
61	0.16000	0.16000	0.01220	0.00000
62	0.16000	0.16000	0.01220	0.00000
63	0.16000	0.16000	0.01220	0.00000
64	0.16000	0.16000	0.01220	0.00000
65	0.16000	0.16000	0.01220	0.00000
66	0.16000	0.16000	0.01220	0.00000
67	0.16000	0.16000	0.01220	0.00000
68	0.16000	0.16000	0.01220	0.00000
69	0.16000	0.16000	0.01220	0.00000
70	0.09000	0.09000	0.01220	0.00000
71	0.09000	0.09000	0.01220	0.00000
72	0.09000	0.09000	0.01220	0.00000
73	0.09000	0.09000	0.01220	0.00000
74	0.09000	0.09000	0.01220	0.00000
75	0.09000	0.09000	0.01220	0.00000

PLAN B – ACTUARIAL TABLES AND RATES

Age	Retired Male Mortality Rates	Retired Female Mortality Rates	Active Male Mortality Rates	Active Female Mortality Rates	Male Disabled Mortality Rates	Female Disabled Mortality Rates	Retirement Rates Tier 1	Retirement Rates Tier 2
18	0.00020	0.00011	0.00028	0.00018	0.02257	0.00745	0.00000	0.00000
19	0.00021	0.00011	0.00030	0.00018	0.02257	0.00745	0.00000	0.00000
20	0.00021	0.00011	0.00032	0.00019	0.02257	0.00745	0.00000	0.00000
21	0.00022	0.00012	0.00033	0.00019	0.02257	0.00745	0.00000	0.00000
22	0.00023	0.00012	0.00035	0.00019	0.02257	0.00745	0.00000	0.00000
23	0.00025	0.00013	0.00036	0.00019	0.02257	0.00745	0.00000	0.00000
24	0.00026	0.00014	0.00037	0.00019	0.02257	0.00745	0.00000	0.00000
25	0.00029	0.00016	0.00037	0.00020	0.02257	0.00745	0.00000	0.00000
26	0.00033	0.00019	0.00038	0.00020	0.02257	0.00745	0.00000	0.00000
27	0.00036	0.00020	0.00038	0.00021	0.02257	0.00745	0.00000	0.00000
28	0.00039	0.00022	0.00038	0.00021	0.02257	0.00745	0.00000	0.00000
29	0.00043	0.00023	0.00038	0.00022	0.02257	0.00745	0.00000	0.00000
30	0.00049	0.00027	0.00039	0.00024	0.02257	0.00745	0.00000	0.00000
31	0.00055	0.00030	0.00041	0.00025	0.02257	0.00745	0.00000	0.00000
32	0.00061	0.00034	0.00044	0.00026	0.02257	0.00745	0.00000	0.00000
33	0.00067	0.00038	0.00050	0.00031	0.02257	0.00745	0.00000	0.00000
34	0.00073	0.00041	0.00056	0.00035	0.02257	0.00745	0.00000	0.00000
35	0.00079	0.00045	0.00063	0.00039	0.02257	0.00745	0.00000	0.00000
36	0.00084	0.00048	0.00070	0.00044	0.02257	0.00745	0.00000	0.00000
37	0.00089	0.00052	0.00077	0.00047	0.02257	0.00745	0.00000	0.00000
38	0.00091	0.00055	0.00084	0.00051	0.02257	0.00745	0.00000	0.00000
39	0.00094	0.00058	0.00090	0.00055	0.02257	0.00745	0.00000	0.00000
40	0.00097	0.00062	0.00096	0.00060	0.02257	0.00745	0.00000	0.00000
41	0.00101	0.00066	0.00102	0.00065	0.02257	0.00745	0.00000	0.00000
42	0.00105	0.00071	0.00108	0.00071	0.02257	0.00745	0.00000	0.00000
43	0.00111	0.00075	0.00114	0.00077	0.02257	0.00745	0.00000	0.00000
44	0.00115	0.00080	0.00122	0.00085	0.02257	0.00745	0.00000	0.00000
45	0.00120	0.00085	0.00130	0.00094	0.02257	0.00745	0.00000	0.00000
46	0.00125	0.00089	0.00140	0.00103	0.02257	0.00745	0.08000	0.00000
47	0.00131	0.00094	0.00151	0.00112	0.02257	0.00745	0.08000	0.00000
48	0.00340	0.00099	0.00162	0.00122	0.02257	0.00745	0.08000	0.00000
49	0.00342	0.00145	0.00173	0.00133	0.02257	0.00818	0.08000	0.00000
50	0.00339	0.00148	0.00186	0.00143	0.02257	0.00896	0.08000	0.00000
51	0.00334	0.00155	0.00200	0.00155	0.02385	0.00978	0.08000	0.00000
52	0.00329	0.00164	0.00214	0.00168	0.02512	0.01063	0.08000	0.00000
53	0.00335	0.00181	0.00229	0.00181	0.02640	0.01154	0.08000	0.00000
54	0.00348	0.00201	0.00245	0.00197	0.02769	0.01248	0.08000	0.00000
55	0.00377	0.00229	0.00262	0.00213	0.02897	0.01346	0.20000	0.20000
56	0.00415	0.00264	0.00281	0.00232	0.03027	0.01446	0.08000	0.08000
57	0.00463	0.00304	0.00303	0.00253	0.03156	0.01550	0.08000	0.08000
58	0.00522	0.00352	0.00331	0.00276	0.03286	0.01654	0.08000	0.08000
59	0.00573	0.00395	0.00363	0.00301	0.03415	0.01760	0.08000	0.08000
60	0.00631	0.00440	0.00400	0.00329	0.03544	0.01865	0.08000	0.08000
61	0.00717	0.00504	0.00441	0.00360	0.03673	0.01971	0.08000	0.08000
62	0.00794	0.00557	0.00488	0.00393	0.03803	0.02077	0.12000	0.12000
63	0.00904	0.00633	0.00538	0.00429	0.03933	0.02184	0.12000	0.12000
64	0.01002	0.00698	0.00592	0.00466	0.04067	0.02294	0.12000	0.12000
65	0.01109	0.00769	0.00647	0.00504	0.04204	0.02408	0.12000	0.12000
66	0.01262	0.00869	0.00703	0.00543	0.04347	0.02529	0.12000	0.12000
67	0.01394	0.00955	0.00757	0.00582	0.04498	0.02660	0.12000	0.12000
68	0.01496	0.01021	0.00810	0.00621	0.04658	0.02803	0.12000	0.12000
69	0.01656	0.01128	0.00860	0.00658	0.04831	0.02959	0.12000	0.12000
70	0.01787	0.01217	0.00907	0.00695	0.05017	0.03132	0.12000	0.12000
71	0.01990	0.01353	0.00951	0.00729	0.05221	0.03323	0.12000	0.12000
72	0.02220	0.01504	0.00992	0.00761	0.05445	0.03533	0.12000	0.12000
73	0.02478	0.01667	0.02457	0.01858	0.05691	0.03764	0.12000	0.12000
74	0.02762	0.01841	0.02728	0.02067	0.05961	0.04014	0.12000	0.12000
75	0.03161	0.02087	0.03039	0.02297	0.06258	0.04285	0.12000	0.12000

PLAN B – ACTUARIAL TABLES AND RATES (Continued)

Age	DROP Entry Rates Tier 1	DROP Entry Rates Tier 2	Disability Rates	Remarriage Rates
18	0.00000	0.00000	0.00090	0.06124
19	0.00000	0.00000	0.00090	0.06124
20	0.00000	0.00000	0.00090	0.06124
21	0.00000	0.00000	0.00090	0.05818
22	0.00000	0.00000	0.00090	0.05524
23	0.00000	0.00000	0.00090	0.05242
24	0.00000	0.00000	0.00090	0.04971
25	0.00000	0.00000	0.00090	0.04566
26	0.00000	0.00000	0.00090	0.04335
27	0.00000	0.00000	0.00090	0.04114
28	0.00000	0.00000	0.00090	0.03902
29	0.00000	0.00000	0.00090	0.03698
30	0.00000	0.00000	0.00090	0.03502
31	0.00000	0.00000	0.00090	0.03314
32	0.00000	0.00000	0.00090	0.03134
33	0.00000	0.00000	0.00090	0.02961
34	0.00000	0.00000	0.00090	0.02795
35	0.00000	0.00000	0.00102	0.02636
36	0.00000	0.00000	0.00114	0.02483
37	0.00000	0.00000	0.00126	0.02336
38	0.00000	0.00000	0.00144	0.02195
39	0.00000	0.00000	0.00162	0.02060
40	0.00000	0.00000	0.00186	0.01930
41	0.00000	0.00000	0.00210	0.01805
42	0.00000	0.00000	0.00234	0.01686
43	0.00000	0.00000	0.00264	0.01571
44	0.00000	0.00000	0.00300	0.01461
45	0.00000	0.00000	0.00342	0.01355
46	0.33000	0.00000	0.00390	0.01253
47	0.33000	0.00000	0.00438	0.01156
48	0.33000	0.00000	0.00498	0.01063
49	0.33000	0.00000	0.00564	0.00973
50	0.33000	0.00000	0.00642	0.00887
51	0.33000	0.00000	0.00732	0.00804
52	0.33000	0.00000	0.00828	0.00725
53	0.33000	0.00000	0.00942	0.00649
54	0.33000	0.00000	0.01068	0.00576
55	0.25000	0.25000	0.01212	0.00000
56	0.25000	0.25000	0.01380	0.00000
57	0.25000	0.25000	0.01566	0.00000
58	0.25000	0.25000	0.01776	0.00000
59	0.25000	0.40000	0.02022	0.00000
60	0.40000	0.20000	0.02928	0.00000
61	0.20000	0.20000	0.02928	0.00000
62	0.20000	0.20000	0.02928	0.00000
63	0.20000	0.20000	0.02928	0.00000
64	0.20000	0.20000	0.02928	0.00000
65	0.20000	0.10000	0.02928	0.00000
66	0.10000	0.10000	0.02928	0.00000
67	0.10000	0.10000	0.02928	0.00000
68	0.10000	0.10000	0.02928	0.00000
69	0.10000	0.10000	0.02928	0.00000
70	0.10000	0.10000	0.02928	0.00000
71	0.10000	0.10000	0.02928	0.00000
72	0.10000	0.10000	0.02928	0.00000
73	0.10000	0.10000	0.02928	0.00000
74	0.10000	0.10000	0.02928	0.00000
75	0.10000	0.10000	0.02928	0.00000

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.

NOTES