DISTRICT ATTORNEYS' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2016

G. S. CURRAN & COMPANY, LTD.
Actuarial Services
10555 N. Glenstone Place • Baton Rouge, Louisiana 70810 • (225)769-4825

Gary S. Curran, FCA, MAAA, ASA, EA
Consulting Actuary

Gregory M. Curran, FCA, MAAA, ASA, EA
Consulting Actuary

December 22, 2016

Board of Trustees
District Attorneys' Retirement System
1645 Nicholson Drive
Baton Rouge, LA 70802

Gentlemen:

We are pleased to present our report on the actuarial valuation of the District Attorneys' 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 administrator and accountants. This report was prepared at the request of the Board of Trustees of the District Attorneys' Retirement System. The primary purpose of this report is to determine the actuarially required contribution for the retirement system for the fiscal year ending 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 District Attorneys' 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
DISTRICT ATTORNEYS' RETIREMENT SYSTEM

Valuation Date:		June 30, 2016	June 30, 2015
Census Summary:	Active Members	784	785
	Retired Members and Survivors	311	292
	Terminated Due a Deferred Benefit	93	86
	Terminated Due a Refund	223	198
Payroll:		$ 60,325,526	$ 58,474,383
Benefits in Payment:		$ 15,461,663	$ 14,442,362
Present Value of Future Benefits:		$ 514,356,838	$ 495,292,277
Actuarial Accrued Liability (EAN):		$ 389,883,177	$ 374,440,828
Funding Deposit Account Credit Balance:		$ 0	$ 0
Actuarial Value of Assets (AVA):		$ 382,512,520	$ 364,107,538
Market Value of Assets (MVA):		$ 370,742,452	$ 369,054,289
Ratio of AVA to Actuarial Accrued Liability (EAN):		98.11%	97.24%

	Fiscal 2016	Fiscal 2015
Market Rate of Return:	1.8%	2.5%
Actuarial Rate of Return:	6.5%	9.8%

	Fiscal 2017	Fiscal 2016
Employers' Normal Cost (Mid-year):	$ 7,807,397	$ 7,897,028
Estimated Administrative Cost:	$ 515,976	$ 463,885
Projected Ad Valorem Tax Contributions:	$ 7,834,232	$ 8,431,951
Projected Revenue Sharing Funds:	$ 200,813	$ 213,389
Net Direct Employer Actuarially Required Contributions:	$ 0	$ 0
Projected Payroll:	$ 62,276,851	$ 60,864,215
Actual Employee Contribution Rate:	8.00%	8.00%
Actual Net Direct Employer Contribution Rate:	0.00%	3.50%
Actuarially Required Net Direct Employer Contribution Rate:	0.00%	0.00%

	Fiscal 2018	Fiscal 2017
Minimum Recommended Net Direct Employer Cont. Rate:	0.00%	0.00%
Ad Valorem Tax Rate †	0.1910%	0.1817%

† Percent of the aggregate amount of the ad valorem tax shown to be collected by the tax roll of each respective parish. State Revenue Sharing Funds are allocated based on the ad valorem tax rate.

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 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 staff of the system furnished a census on USB drive 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 784 active members in the system of whom 329 members have vested retirement benefits; 311 former members or their beneficiaries are receiving retirement benefits. An additional 316 former members have contributions remaining on deposit with the system; of this number, 93 former members have vested rights for future retirement benefits. All individuals submitted were included in the valuation.

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

In addition to the statistical information provided on the system's participants, the system's administrator furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, Certified Public Accountants. As indicated in the system's audit report, the net market value of the system's assets was $370,742,452 as of June 30, 2016. Net investment income for Fiscal 2016 measured on a market value basis amounted to $6,734,928. Contributions to the system for the fiscal year totaled $17,680,807; benefits and expenses amounted to $22,727,572.

Notwithstanding our efforts to review both census and financial data for apparent errors, we must rely upon the system's administrative staff and accountants to provide accurate information. Our review of submitted information is limited to validation of reasonableness and consistency. Verification of submitted data to source information is beyond the scope of our efforts.

COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

This valuation is based on the Aggregate Actuarial Cost Method. This cost method generally produces normal costs which are level as a percentage of pay if assumptions are met and the composition of the active group with regard to age and service is stable. Overall costs may increase or decrease depending on payroll growth. Under the Aggregate Actuarial Cost Method, actuarial gains and losses are spread over future normal costs. Thus, favorable plan experience will lower future normal costs; unfavorable experience will cause future normal costs to increase. In addition, changes in benefits and assumptions are also spread over future normal costs.

The current year actuarial assumptions utilized for this report are based on the results of an actuarial experience study for the period July 1, 2009 – June 30, 2014, 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 Boston Private Wealth on future expected rates of return for the current portfolio asset allocation. This report projected future arithmetic average portfolio real returns at 5.0% with a standard deviation of 10.9%. Based on the results of this interest rate assumption review, the assumed rate of return for the valuation was set at 7.00%. An inflation rate of 2.5% was implicit in both the assumed rate of return and rate of salary increases. Additional details are given in the complete Experience Report for fiscal years 2010 through 2014.

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

The current year actuarial assumptions utilized for the report are outlined on pages thirty-eight through forty-one. All assumptions were the same as those used in the Fiscal 2015 valuation. All assumptions used are based on estimates of future long-term experience for the fund. All calculations, recommendations, and conclusions are based on the assumptions specified. To the extent that prospective experience differs from that assumed, adjustments to contribution levels will be required. Such differences will be revealed in future actuarial valuations.

RISK FACTORS

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

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

In addition to asset risk, the plan is also subject to risks related to liabilities. These risks include longevity risk (the risk that retirees will live longer than expected), termination risk (the risk that fewer than the anticipated number of members will terminate service prior to retirement), and other factors that may have an impact on the liability structure of the plan. Final average compensation plans are vulnerable to unexpectedly large increases in salary for individual members near retirement. Conversely, in cases where plans have large unfunded liabilities, payroll contraction is a risk insofar as contributions which are typically reported as a percentage of payroll may increase as payrolls decline.

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

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

Beyond identifying risk categories, it is possible to quantify some risk factors. One fairly well known risk metric is the funded ratio of the plan. The rate is given as plan assets divided by plan liabilities. However, the definition of each of these terms may vary. The two typical alternatives used for assets are the market and actuarial value of assets. There are a number of alternative measures of liability depending on the funding method employed. The Governmental Accounting Standards Board (GASB) specifies that for financial reporting purposes, the funded ratio is determined by using the market value of assets divided by the entry age normal accrued liability. This value is given in the system's financial report. Alternatively, we have calculated the ratio of the actuarial value of assets to the entry age normal accrued liability based on the funding methodology used to fund the plan. The ratio is 98.11% 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 0.60% for the fund.

The ability of a system to recover from adverse asset or liability performance is related to the maturity of the plan population. In general, plans with increasing active membership are less sensitive to asset and liability gains and losses than mature plans since changes in plan costs can be partially allocated to new members. If the plan has a large number of active members compared to retirees, asset or liability losses can be more easily addressed. As more members retire, contributions can only be collected from a smaller segment of the overall plan population. Often, population ratios of actives to annuitants are used to measure the plan's ability to adjust or recover from adverse events since contributions are made by or on behalf of active members but not for retirees. Thus, if the plan suffers a mortality loss through increased longevity, this will affect both actives and retirees, but the system can only fund this loss by contributions related to active members. A measure of risk related to plan maturity is the ratio of total benefit payments to active payroll. For Fiscal 2016, this ratio is 25.63%; ten years ago this ratio was 11.09%.

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 11.18% of payroll.

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

CHANGES IN PLAN PROVISIONS

The following changes to the system were enacted during the 2016 Regular Session of the Louisiana Legislature:

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.

ASSET EXPERIENCE

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

	Market Value	Actuarial Value
2007	14.6%	* 9.9%
2008	-4.9%	5.8%
2009	-14.2%	* -3.0%
2010	11.7%	6.4%
2011	19.3%	4.4%
2012	1.6%	3.1%
2013	13.0%	6.0%
2014	16.2%	11.6%
2015	2.5%	9.8%
2016	1.8%	6.5%

*Includes effect of change in asset valuation method.

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income and dividends. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2016, the fund earned $12,833,300 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital losses on investments (offset by non-recurring income) of $5,732,146. The Fund also had investment expenses of $366,226. The geometric mean of the market value rates of return measured over the last ten years was 5.7%. For the last 25 years the geometric mean of the market value rates of return was 7.1%.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.0%. This rate is calculated based on the actuarial value of assets and all interest, dividends, and recognized capital gains as given in Exhibit VI. Investment income used to calculate this yield is based upon smoothing earnings above or below the 7.0% assumed rate of return over a five-year period, subject to constraints as outlined in the section in the report describing actuarial assumptions. Since the valuation interest rate was changed to 7.0% effective June 30, 2015, 7.25% effective June 30, 2014, 7.5% effective June 30, 2012, and was 8% prior to June 30, 2012, smoothing was determined based on a comparison of actual returns to the appropriate valuation interest rate for each year in the smoothing period. The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate over the five-year period. In the future, yields in excess of the 7.0% assumption will reduce future costs; yields below 7.0% will increase future costs. For Fiscal 2016, the system experienced net actuarial investment losses of $1,862,131 below the actuarial assumed earnings rate of 7.0% in effect for Fiscal 2016. This shortfall in earnings produced an actuarial loss, which increased the normal cost accrual rate by 0.2937%.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the system is given in Exhibit X. The average active member is 47 years old with 10.2 years of service and an annual salary of $76,946. The system's active contributing membership decreased by 1 member over the prior fiscal year. The plan has experienced an increase in the active plan population of 23 members over the last five years. A review of the active census by age indicates that over the last ten years the active population has remained relatively stable with some shift of population from the forty through sixty age group into the sixty-one through seventy age group. Over the same ten-year period the plan showed very little change in the percentage of members in each service group.

The average service retiree is 69 years old with a monthly benefit of $4,381. The number of retirees and beneficiaries receiving benefits from the system increased by 19 during the last fiscal year. Over the last five years the number of retirees has increased by 110. During this same period, annual benefits in payment increased by $6,644,503.

Plan liability experience for Fiscal 2016 was favorable. Salary increases were below projected levels; withdrawals were above projected levels. These factors tend to reduce plan costs. Partially offsetting these factors were retirements above projected levels. In aggregate, plan liability gains decreased the normal cost accrual rate by 0.3495%.

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

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

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for Fiscal 2017 adjusted with interest for mid-year payment is $7,807,397. The total actuarially required contribution is determined by adjusting the value for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given on line 12 of Exhibit I the total actuarially required contribution for Fiscal 2017 is $8,323,373. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting projected contribution shortfall for Fiscal 2017 is $288,328. This is expected to result in an increase in the plan's normal cost accrual rate of 0.045473% for Fiscal 2018. The estimated employer normal cost, adjusted with interest for mid-year payment, is added to the estimated administrative expenses to determine the gross employer actuarially required contribution for Fiscal 2018. As given on line 23 of Exhibit I, the total employer actuarially required contribution for Fiscal 2018 is $8,559,901. Based on our projection of the maximum projected ad valorem tax contributions and revenue sharing funds available to the District Attorneys' Retirement System for Fiscal 2018, we find that the system should be allocated 0.1910% of the ad valorem taxes shown to be collected. (The maximum amount of such funds is 0.20% of these taxes) This percentage should also be used to determine the revenue sharing funds allocated to the system.

Liability and asset experience as well as changes in assumptions and benefits can increase or lower plan costs. In addition to these factors, any COLA granted in the prior fiscal year will increase required contributions. New entrants to the system can also increase or lower costs as a percent of payroll depending upon their demographic distribution and other factors related to prior plan experience. Finally, contributions above or below requirements may reduce or increase future costs.

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

Employer's Normal Cost Accrual Rate – Fiscal 2016	13.3594%

Factors Increasing the Normal Cost Accrual Rate:

Asset Experience Loss	0.2937%
Factors Decreasing the Normal Cost Accrual Rate:	
Contribution Gain	0.3902%
Plan Liability Experience Gain	0.3495%
New Members	0.1199%
Employer's Normal Cost Accrual Rate – Fiscal 2017	12.7935%

Required net direct employer contributions are 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 these funds will decrease by 0.01% of payroll in Fiscal 2017.

The balance in the Funding Deposit Account was zero as of June 30, 2015. Since the net direct employer contribution rate for Fiscal 2016 was set at the minimum actuarially required net direct employer contribution rate, no funds were added to the funding deposit account as of June 30, 2016.

Based on the actuarially required employer contribution rate of 0% for fiscal 2017, we recommend a minimum employer contribution rate of 0% for fiscal 2018.

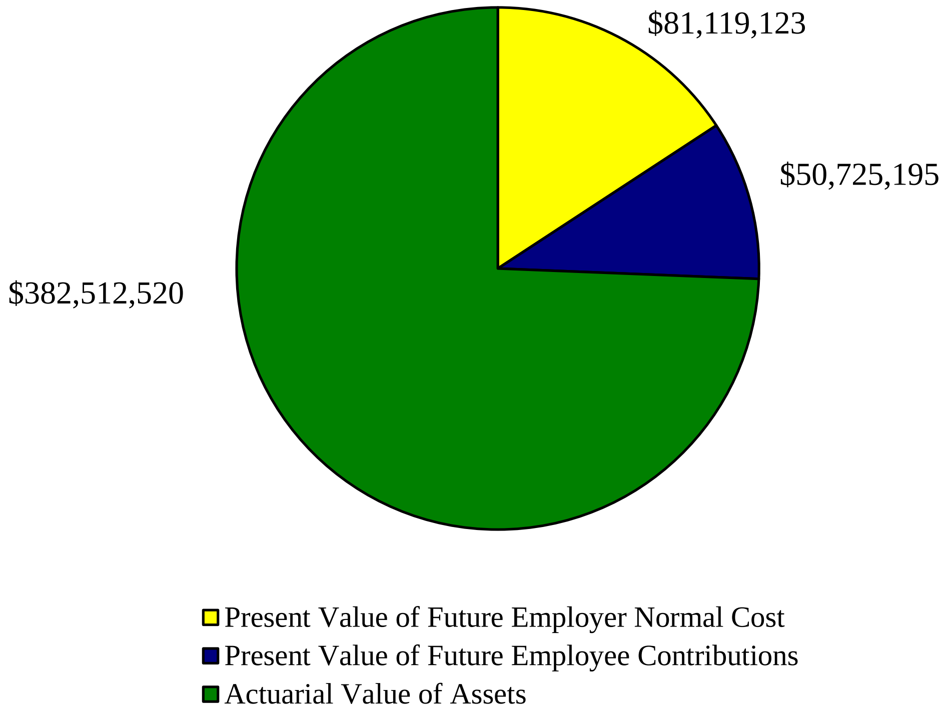
COST OF LIVING INCREASES

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. 11:1638 and R.S. 11:246. The former statute allows the board to grant annual cost of living increases of 3% of each retiree's original benefit subject to a limit of $60 per month. 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 (Both of these provisions only permit payment of such an increase if earnings exceed the system's valuation rate). 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.

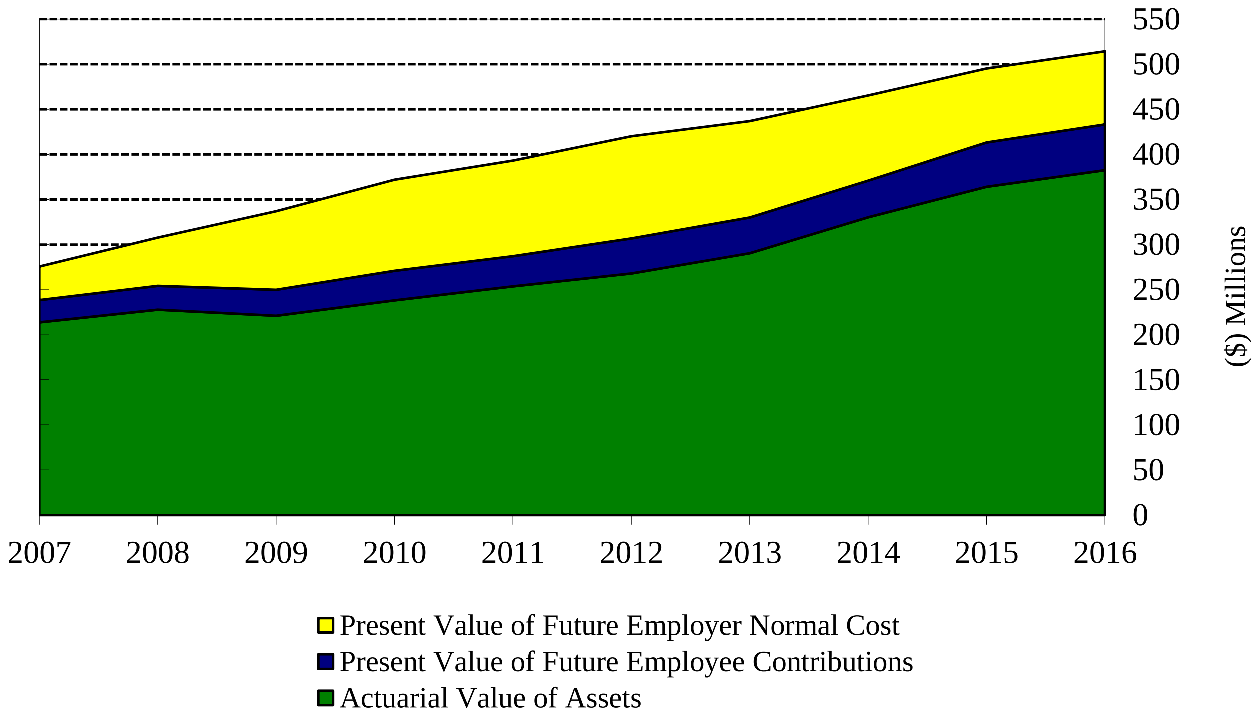
R.S. 11:243 sets forth the funding criteria necessary in order to grant cost of living adjustments to regular retirees and beneficiaries (who are neither the surviving spouse nor children of the retiree). The criteria for the fund to qualify as eligible to grant any such increase is as follows: a funded ratio of at least 70% if the system has not granted a benefit increase to retirees, survivors, or beneficiaries in any of the three most recent fiscal years; a funded ratio of at least 80% if the system has not granted such an increase in any of the two most recent fiscal years; or a funded ratio of at least 90% if the system has not granted such an increase in the most recent fiscal year. The funded ratio at any fiscal year end is the ratio of the actuarial value of assets to the actuarial accrued liability under the funding method prescribed by the legislative auditor (currently the Projected Unit Credit Method for this system).

The provisions for both R.S.11:1638 and R.S. 11:246 require that in order to grant an increase authorized by these sections the system's earnings must exceed those which would be realized based on the valuation interest rate as applied to the actuarial value of assets in sufficient amount to offset the present value of the increase. For fiscal 2016, there were no such earnings; hence no COLA may be paid in fiscal 2017.

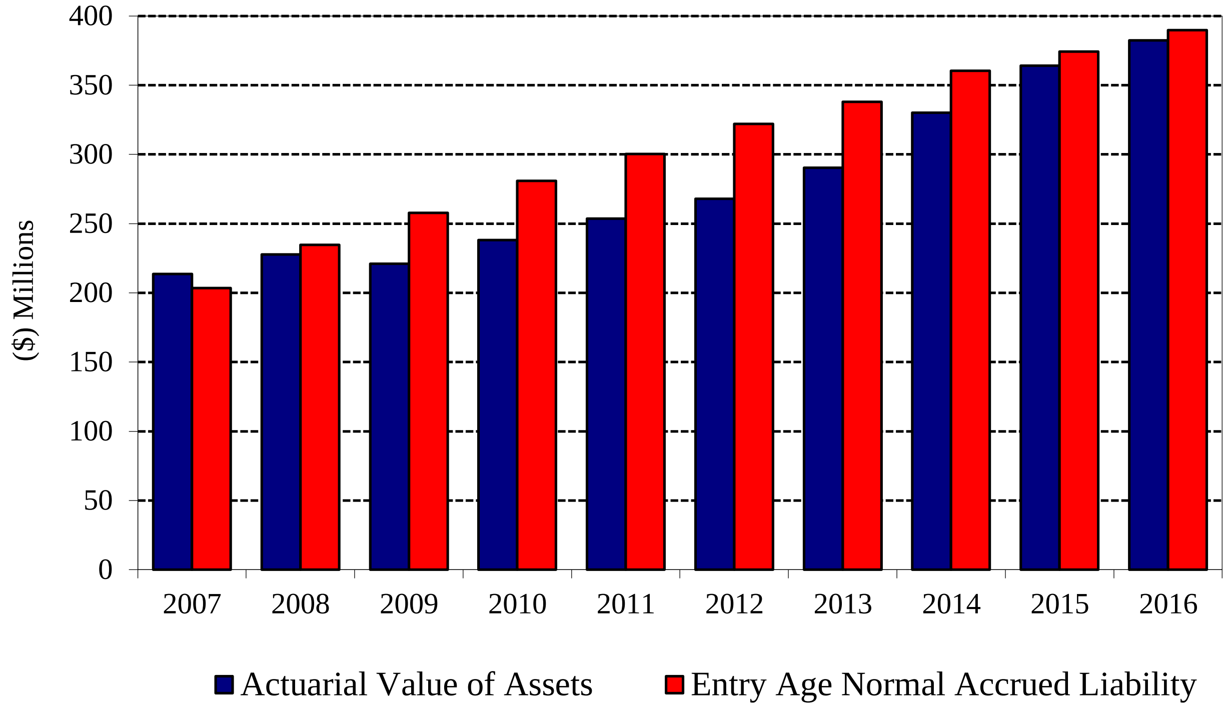
Components of Present Value of Future Benefits
June 30, 2016



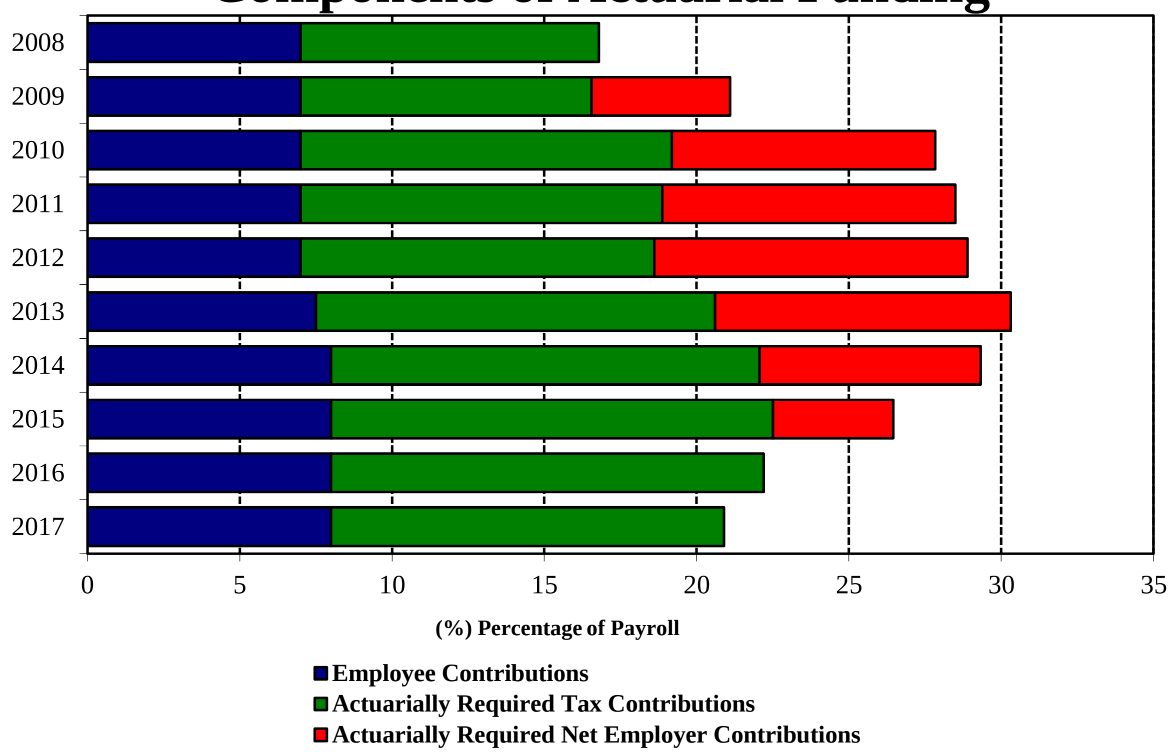
Components of Present Value of Future Benefits



Actuarial Value of Assets vs. EAN Accrued Liability

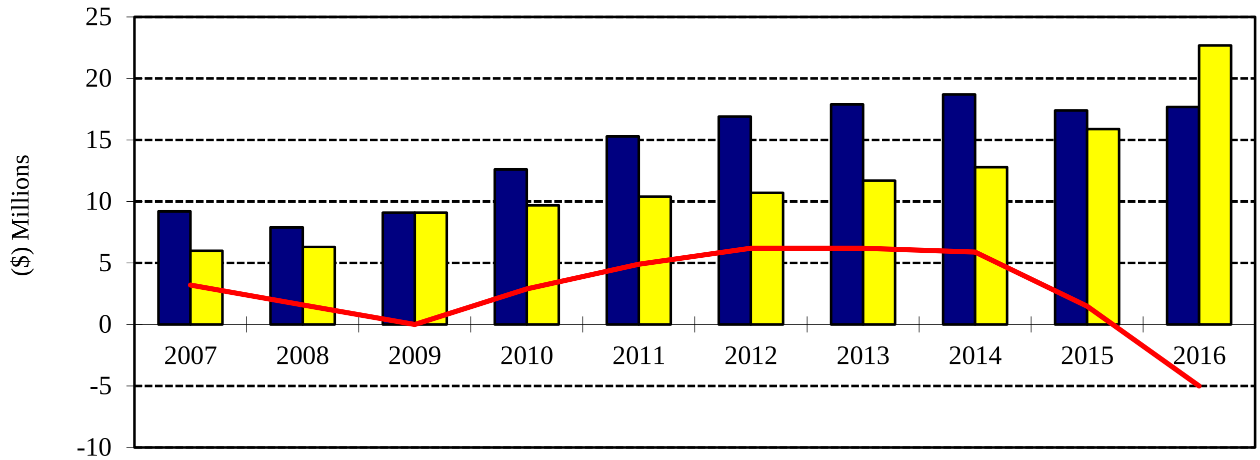


Components of Actuarial Funding



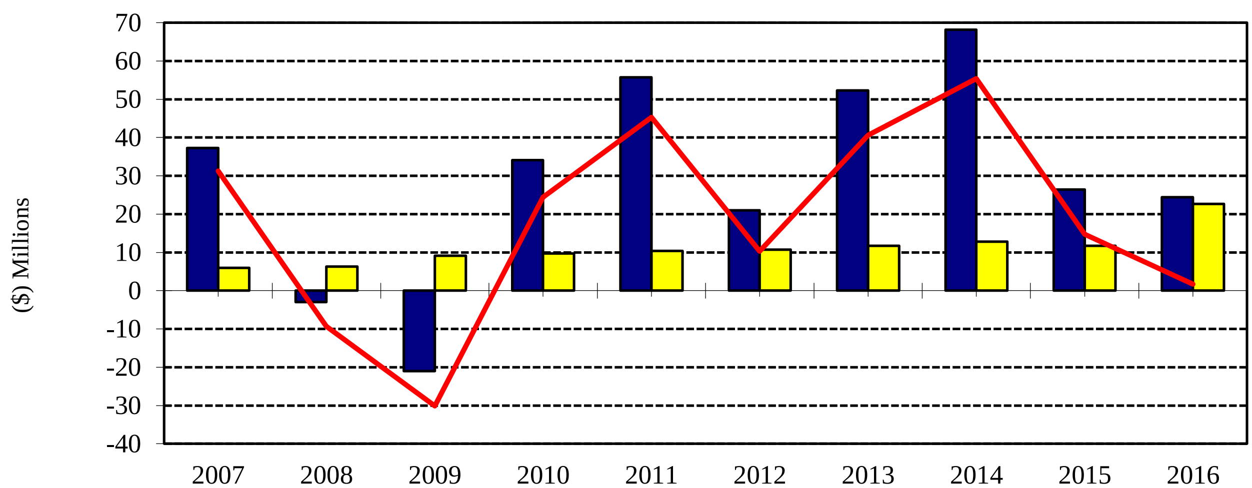
Actuarially Required Tax Contributions consist of the lesser of Actuarially Required Contributions and amount of taxes divided by the projected valuation payroll.

Net Non-Investment Income



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Non-Investment Income ($Mil)	9.2	7.9	9.1	12.6	15.3	16.9	17.9	18.7	17.4	17.7
Benefits and Expenses ($Mil)	6.0	6.3	9.1	9.7	10.4	10.7	11.7	12.8	15.9	22.7
Net Non-Investment Income ($Mil)	3.2	1.6	0.0	2.9	4.9	6.2	6.2	5.9	1.5	-5.0

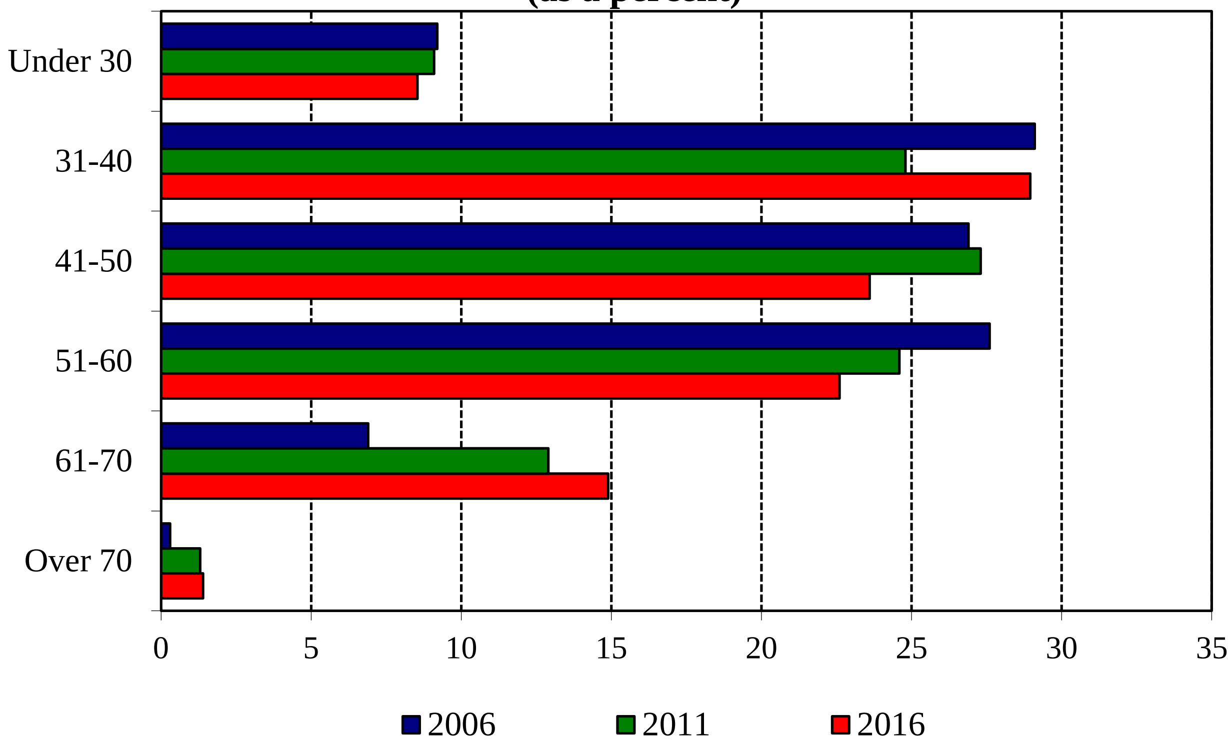
Total Income vs. Expenses
(Based on Market Value of Assets)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Income ($Mil)	37.3	-3.0	-21.0	34.1	55.7	21.0	52.3	68.2	26.4	24.4
Benefits and Expenses ($Mil)	6.0	6.3	9.1	9.7	10.4	10.7	11.7	12.8	15.9	22.7
Net Change in MVA ($Mil)	31.3	-9.3	-30.1	24.4	45.3	10.3	40.6	55.4	10.5	1.7

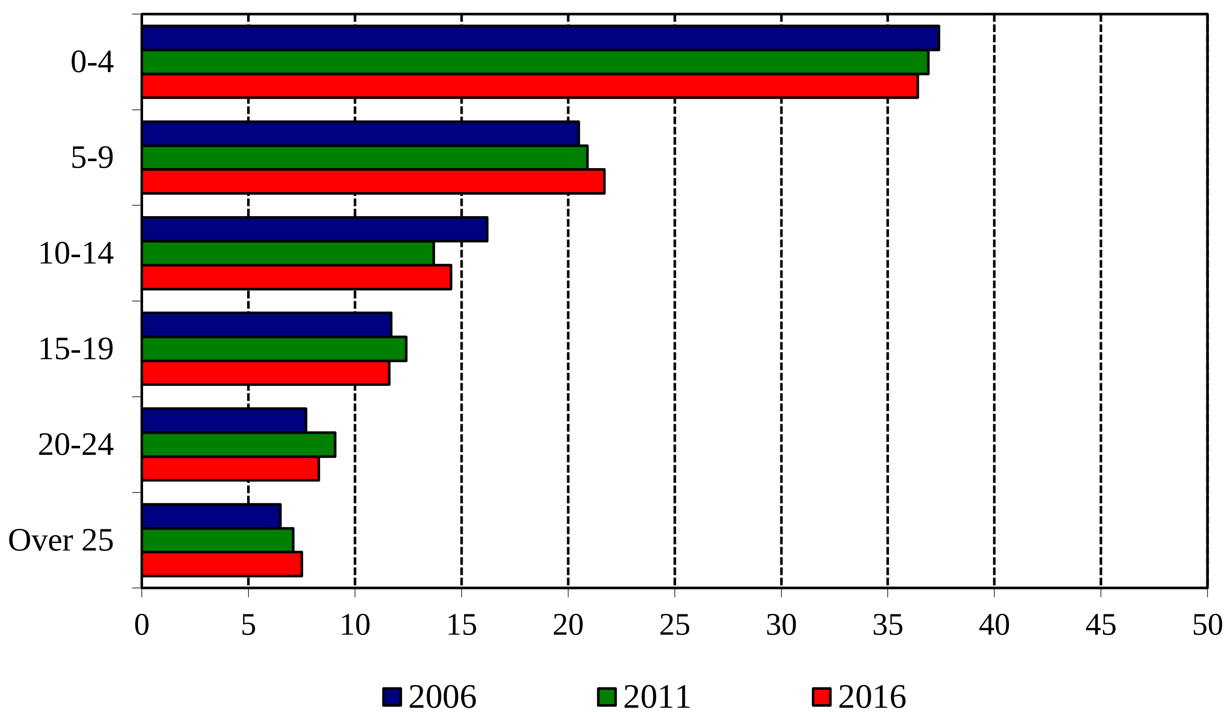
Active – Census By Age

(as a percent)

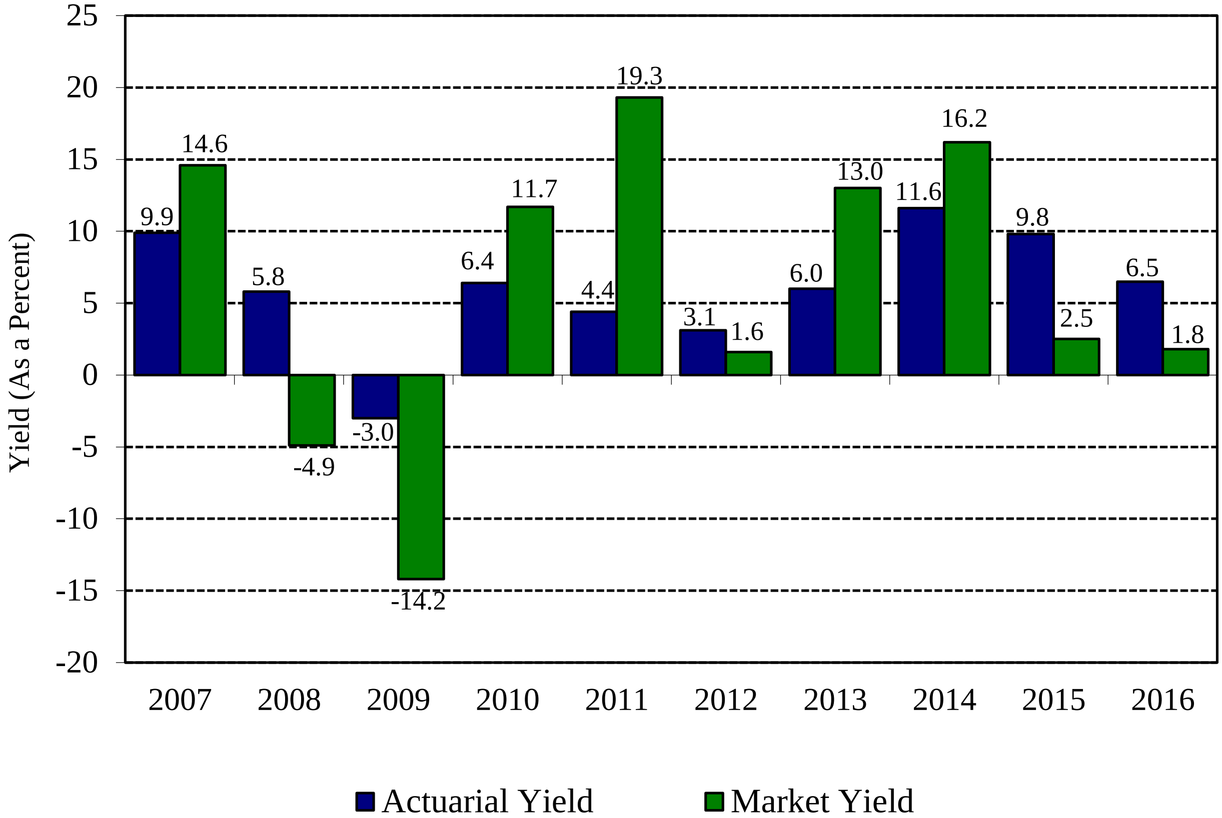


Active – Census By Service

(as a percent)



Historical Asset Yield



EXHIBITS

EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Present Value of Future Benefits	$	514,356,838
2.	Funding Deposit Account Credit Balance	$	0
3.	Actuarial Value of Assets	$	382,512,520
4.	Present Value of Future Employee Contributions	$	50,725,195
5.	Present Value of Future Employer Normal Costs (1 + 2 – 3 – 4)	$	81,119,123
6.	Present Value of Future Salaries	$	634,064,946
7.	Employer Normal Cost Accrual Rate (5 ÷ 6)		12.793504%
8.	Projected Fiscal 2017 Salary for Current Membership	$	58,996,313
9.	Employer Normal Cost as of July 1, 2016 (7 × 8)	$	7,547,696
10.	Employer Normal Cost Interest Adjusted for Mid-year Payment	$	7,807,397
11.	Estimated Administrative Cost for Fiscal 2017	$	515,976
12.	GROSS Employer Actuarially Required Contribution for Fiscal 2017 (10 + 11)	$	8,323,373
13.	Projected Ad Valorem Tax Contributions for Fiscal 2017	$	7,834,232
14.	Projected Revenue Sharing Funds for Fiscal 2017	$	200,813
15.	Projected Contribution Shortfall (Surplus) for Fiscal 2017 (12 – 13 – 14)	$	288,328
16.	Projected Payroll for Fiscal 2017	$	62,276,851
17.	Estimated Change in Normal Cost Accrual Rate Due to Contribution Shortfall (Surplus)		0.045473%
18.	Estimated Normal Cost Accrual Rate for Fiscal 2018 (15 ÷ 16)		12.838977%
19.	Projected Fiscal 2018 Salary for Current Membership	$	60,471,221
20.	Employer Normal Cost as of July 1, 2017	$	7,763,886
21.	Employer Normal Cost Interest Adjusted for Mid-year Payment	$	8,031,026
22.	Estimated Administrative Cost for Fiscal 2018	$	528,875
23.	GROSS Employer Actuarially Required Contribution for Fiscal 2018 (21 + 22)	$	8,559,901
24.	Projected Required Ad Valorem Tax Contributions for Fiscal 2018	$	8,351,149
25.	Projected Required Revenue Sharing Funds for Fiscal 2018	$	208,752
26.	Net Direct Employer Actuarially Required Contribution for Fiscal 2018 (23 – 24 – 25, not less than zero)	$	0
27.	Projected Payroll for Fiscal 2018	$	64,291,295
28.	Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2018 (26 ÷ 27)		0.00%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 271,653,210	
Survivor Benefits	15,444,923	
Disability Benefits	769,665	
Vested Termination Benefits	26,910,184	
Refunds of Contributions	4,079,559	
Special Deposits	0	
TOTAL Present Value of Future Benefits for Active Members		$ 318,857,541

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 21,073,964	
Terminated Members with Reciprocals Due Benefits at Retirement	416,895	
Terminated Members Due a Refund	2,292,345	
TOTAL Present Value of Future Benefits for Terminated Members		$ 23,783,204

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees			
Maximum	$ 47,851,008		
Option 1	1,518,778		
Option 2	79,120,128		
Option 3	17,516,888		
Option 4	2,869,031		
TOTAL Regular Retirees		$ 148,875,833	
Disability Retirees		631,876	
Survivors & Widows		14,386,263	
DROP/Back-DROP Deposits		7,822,121	
TOTAL Present Value of Future Benefits for Retirees & Survivors			$ 171,716,093

TOTAL Present Value of Future Benefits .... $ 514,356,838

EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS

CURRENT ASSETS:

Cash in Banks	$	1,238,005		
Contributions and Taxes Receivable		534,997		
Accrued Interest and Dividends		655,098		
TOTAL CURRENT ASSETS			$	2,428,100

INVESTMENTS:

Cash Equivalents	$	37,240,884		
Equities		199,714,521		
Fixed Income		102,942,407		
Real Estate		3,008,153		
Alternative Investments		17,880,325		
DROP Balances Held Outside System Assets		7,528,062		
TOTAL INVESTMENTS			$	368,314,352
TOTAL ASSETS			$	370,742,452

CURRENT LIABILITIES:

TOTAL CURRENT LIABILITIES	$	0
MARKET VALUE OF ASSETS	$	370,742,452

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2016	$	(18,925,223)
Fiscal year 2015		(16,985,102)
Fiscal year 2014		26,639,704
Fiscal year 2013		14,526,446
Fiscal year 2012		(16,297,837)
Total for Five Years	$	(11,042,012)

Deferral of Excess (Shortfall) of Invested Income:

Fiscal year 2016 (80%)	$	(15,140,178)
Fiscal year 2015 (60%)		(10,191,061)
Fiscal year 2014 (40%)		10,655,882
Fiscal year 2013 (20%)		2,905,289
Fiscal year 2012 (0%)		0
Total Deferred for Year	$	(11,770,068)

Market Value of Plan Net Assets, End of Year	$	370,742,452
Preliminary Actuarial Value of Plan Assets, End of Year	$	382,512,520

Actuarial Value of Assets Corridor

85% of Market Value, End of Year	$	315,131,084
115% of Market Value, End of Year	$	426,353,820

Final Actuarial Value of Plan Net Assets, End of Year	$	382,512,520

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	50,725,195
Employer Normal Contributions to the Pension Accumulation Fund		81,119,123
Funding Deposit Account Credit Balance		0
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	131,844,318

EXHIBIT V
RECONCILIATION OF CONTRIBUTIONS

Employer Normal Cost for Prior Year	$	7,634,345		
Interest on the Normal Cost		534,404		
Administrative Expenses		495,267		
Interest on Expenses		17,041		
TOTAL Interest Adjusted Actuarially Required Contributions			$	8,681,057
Direct Employer Contributions	$	2,125,900		
Interest on Employer Contributions		73,148		
Ad Valorem Taxes and Revenue Sharing		8,657,954		
Interest on Ad Valorem Taxes and Revenue Sharing Funds		297,903		
TOTAL Interest Adjusted Employer Contributions			$	11,154,905
CONTRIBUTION SURPLUS			$	2,473,848

EXHIBIT VI
ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2015)			$	364,107,538
INCOME:				
Member Contributions	$	4,847,187		
Employer Contributions		2,125,900		
Irregular Contributions		2,049,766		
Tax Revenue		8,657,954		
Total Contributions			$	17,680,807
Net (Depreciation) of Investments	$	(5,732,448)		
Interest & Dividends		10,261,285		
Alternative Investment Income		2,572,015		
Class Action Settlement		302		
Investment Expense		(366,226)		
Net Investment Income			$	6,734,928
TOTAL Income			$	24,415,735
EXPENSES:				
Retirement Benefits	$	15,061,516		
DROP Disbursements		5,671,674		
Refunds of Contributions		562,626		
Transfers to Other Systems		936,489		
Administrative Expenses		495,267		
TOTAL Expenses			$	22,727,572
Net Market Value Income for Fiscal 2016 (Income – Expenses)			$	1,688,163
Unadjusted Fund Balance as of June 30, 2016 (Fund Balance Previous Year + Net Income)			$	365,795,701
Adjustment for Actuarial Smoothing			$	16,716,819
Actuarial Value of Assets: (June 30, 2016)			$	382,512,520

EXHIBIT VII
FUNDING DEPOSIT ACCOUNT

Funding Deposit Account Balance as of June 30, 2015	$	0
Contributions to the Funding Deposit Account		0
Withdrawals from the Funding Deposit Account		0
Interest on Opening Balance at 7.00%		0
Funding Deposit Account Balance as of June 30, 2016	$	0

EXHIBIT VIII – Schedule A
PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees	$	177,861,690
Present Value of Benefits Payable to Terminated Employees		23,783,204
Present Value of Benefits Payable to Current Retirees and Beneficiaries		171,716,093
TOTAL PENSION BENEFIT OBLIGATION	$	373,360,987
NET ACTUARIAL VALUE OF ASSETS	$	382,512,520
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation		102.45%

EXHIBIT VIII – Schedule B
ENTRY AGE NORMAL ACCRUED LIABILITIES

Accrued Liability for Active Employees	$	194,383,880
Accrued Liability for Terminated Employees		23,783,204
Accrued Liability for Current Retirees and Beneficiaries		171,716,093
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY	$	389,883,177
NET ACTUARIAL VALUE OF ASSETS	$	382,512,520
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability		98.11%

EXHIBIT IX
CENSUS DATA

	Active	Terminated with Funds on Deposit	Retired	Total
Number of members as of June 30, 2015	785	284	292	1,361
Additions to Census				
Initial membership	73	1		74
Omitted in error last year				
Death of another member			4	4
Adjustment for multiple records				
Change in Status during Year				
Actives terminating service	(56)	56		
Actives who retired	(15)		15	
Actives entering DROP				
Term. members rehired	5	(5)		
Term. members who retire		(7)	7	
Retirees who are rehired				
Refunded who are rehired				
DROP participants retiring				
DROP returned to work				
Omitted in error last year				
Eliminated from Census				
Refund of contributions	(5)	(13)		(18)
Deaths	(3)		(5)	(8)
Included in error last year				
Adjustment for multiple records			(2)	(2)
Number of members as of June 30, 2016	784	316	311	1,411

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
26 - 30	30	37	67	50,503	3,383,683
31 - 35	67	58	125	59,722	7,465,205
36 - 40	54	48	102	67,649	6,900,186
41 - 45	48	44	92	79,540	7,317,702
46 - 50	53	40	93	80,679	7,503,184
51 - 55	68	28	96	87,458	8,395,968
56 - 60	63	18	81	86,064	6,971,161
61 - 65	68	14	82	97,001	7,954,084
66 - 70	30	5	35	100,941	3,532,947
71 - 75	7	1	8	78,046	624,366
76 - 80	2	0	2	117,520	235,040
81 - 85	1	0	1	42,000	42,000
TOTAL	491	293	784	76,946	60,325,526

THE ACTIVE CENSUS INCLUDES 329 ACTIVES WITH VESTED BENEFITS, INCLUDING 0 DROP PARTICIPANTS AND 2 ACTIVE FORMER DROP PARTICIPANTS.

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	0	4	4	24,719	98,877
41 - 45	10	1	11	27,892	306,807
46 - 50	15	5	20	32,641	652,823
51 - 55	21	11	32	35,423	1,133,534
56 - 60	14	7	21	26,217	550,562
61 - 65	2	3	5	10,584	52,922
TOTAL	62	31	93	30,059	2,795,525

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	17	606
100	-	499	25	6,940
500	-	999	18	12,865
1000	-	1999	13	19,553
2000	-	4999	34	121,239
5000	-	9999	31	239,515
10000	-	19999	40	567,090
20000	-	99999	45	1,245,741
		TOTAL	223	2,213,549

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
51 - 55	0	1	1	55,766	55,766
56 - 60	8	7	15	55,049	825,730
61 - 65	60	9	69	47,622	3,285,950
66 - 70	70	11	81	59,269	4,800,829
71 - 75	51	4	55	60,215	3,311,824
76 - 80	22	2	24	31,276	750,634
81 - 85	10	0	10	35,948	359,477
86 - 90	5	0	5	69,985	349,926
91 - 99	3	0	3	28,223	84,668
TOTAL	229	34	263	52,566	13,824,804

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
56 - 60	0	1	1	44,228	44,228
66 - 70	1	0	1	25,410	25,410
TOTAL	1	1	2	34,819	69,638

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	0	1	1	21,789	21,789
46 - 50	0	1	1	52,452	52,452
51 - 55	0	2	2	36,649	73,297
56 - 60	0	2	2	45,635	91,270
61 - 65	0	7	7	42,857	300,000
66 - 70	0	11	11	33,364	367,005
71 - 75	0	3	3	15,141	45,424
76 - 80	0	3	3	34,658	103,974
81 - 85	0	8	8	42,939	343,514
86 - 90	0	5	5	14,814	74,069
91 - 99	0	3	3	31,476	94,427
TOTAL	0	46	46	34,070	1,567,221

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 - 25												0
26 - 30	24	23	11	6	3							67
31 - 35	20	21	18	8	18	40						125
36 - 40	7	11	5	7	8	42	20	2				102
41 - 45	4	9	5	5	4	23	28	14				92
46 - 50	4	8	4			16	29	21	11			93
51 - 55	4	8		1	1	9	13	23	24	13		96
56 - 60	5	11	1	1	4	10	7	12	10	18	2	81
61 - 65	3	7				20	10	11	14	9	8	82
66 - 70		1		1	1	9	5	7	6	3	2	35
71 & Over		2		1		1	2	1		2	2	11
Totals	71	101	44	30	39	170	114	91	65	45	14	784

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 - 25												0
26 - 30	46,982	48,964	54,252	61,064	55,595							50,503
31 - 35	46,673	49,810	54,329	61,701	61,996	72,457						59,722
36 - 40	56,278	69,374	58,758	56,289	55,185	67,584	80,366	83,983				67,649
41 - 45	71,114	72,854	82,812	54,932	74,251	75,767	85,131	90,394				79,540
46 - 50	73,530	58,300	63,849			74,220	79,819	97,675	84,891			80,679
51 - 55	46,654	63,926		126,530	63,334	80,215	76,709	83,775	102,824	107,257		87,458
56 - 60	76,810	79,048	60,167	60,000	95,672	68,991	70,674	82,497	88,570	105,817	124,860	86,064
61 - 65	104,548	107,660				91,601	83,715	80,944	93,475	100,469	139,301	97,001
66 - 70		89,246		48,900	133,647	84,537	95,379	96,963	90,708	137,501	193,965	100,941
71 & Over		62,019		39,254		82,492	61,800	140,266		64,000	131,878	81,946
Average	55,181	63,418	59,048	60,112	66,689	75,025	81,012	89,130	94,464	105,417	143,987	76,946

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 - 35												0
36 - 40									4			4
41 - 45								11				11
46 - 50						3	17					20
51 - 55	1	3	4	2		22						32
56 - 60	6	2	3	3	7							21
61 - 65	5											5
66 & Over												0
Totals	12	5	7	5	7	25	17	11	4	0	0	93

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 - 35												0
36 - 40									24,719			24,719
41 - 45								27,892				27,892
46 - 50						48,145	29,905					32,641
51 - 55	53,227	57,890	39,873	45,651		29,811						35,423
56 - 60	34,896	25,655	32,565	8,358	23,873							26,217
61 - 65	10,585											10,585
66 & Over												0
Average	26,294	44,996	36,741	23,275	23,873	32,011	29,905	27,892	24,719	0	0	30,059

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	1											1
56 - 60	4	7	2	1	1							15
61 - 65	8	15	11	11	6	17	1					69
66 - 70	10	10	2	3	6	38	12					81
71 - 75	1	7	4	3	7	9	15	9				55
76 - 80		3				2	5	8	6			24
81 - 85							2	2	1	5		10
86 - 90							1	1	1	1	1	5
91 & Over										1	2	3
Totals	24	42	19	18	20	66	36	20	8	7	3	263

AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											Average Benefit
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	
0 - 50												0
51 - 55	55,766											55,766
56 - 60	38,840	66,120	54,710	71,143	26,970							55,049
61 - 65	42,966	41,752	40,325	57,040	37,508	56,389	61,265					47,622
66 - 70	59,194	97,694	37,179	41,139	74,319	53,526	46,190					59,269
71 - 75	47,192	75,486	67,242	76,633	63,461	83,067	44,305	42,329				60,215
76 - 80		37,822				65,973	22,216	38,122	14,861			31,276
81 - 85							35,979	30,580	103,885	24,495		35,948
86 - 90							56,548	171,096	24,264	39,139	58,879	69,985
91 & Over										11,394	36,637	28,223
Average	49,749	64,474	47,175	58,439	57,108	58,669	42,214	45,910	27,164	24,715	44,051	52,566

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 - 55												0
56 - 60							1					1
61 - 65												0
66 - 70									1			1
71 & Over												0
Totals	0	0	0	0	0	0	1	0	1	0	0	2

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 55												0
56 - 60							44,228					44,228
61 - 65												0
66 - 70									25,410			25,410
71 & Over												0
Average	0	0	0	0	0	0	44,228	0	25,410	0	0	34,819

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 40												0
41 - 45										1		1
46 - 50	1											1
51 - 55						2						2
56 - 60						2						2
61 - 65	2	3						2				7
66 - 70			1		2	6			2			11
71 - 75										2	1	3
76 - 80				1				1		1		3
81 - 85		1						3		2	2	8
86 - 90									1		4	5
91 & Over											3	3
Totals	3	4	1	1	2	10	0	6	3	6	10	46

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 40												0
41 - 45										21,789		21,789
46 - 50	52,452											52,452
51 - 55						36,649						36,649
56 - 60						45,635						45,635
61 - 65	54,378	43,044						31,056				42,857
66 - 70			28,225		28,698	40,216			20,043			33,364
71 - 75										13,712	18,000	15,141
76 - 80				33,346				63,591		7,036		34,658
81 - 85		121,238						37,914		18,537	35,729	42,939
86 - 90									10,019		16,013	14,814
91 & Over											31,476	31,476
Average	53,736	62,593	28,225	33,346	28,698	40,586	0	39,908	16,702	15,554	24,794	34,070

EXHIBIT X
YEAR-TO-YEAR COMPARISON

	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Number of Active Members	784	785	773	756
Number of Retirees & Survivors	311	292	250	237
Number of Terminated Due Deferred Benefits	93	86	89	92
Number Terminated Due Refunds	223	198	178	179
Active Lives Payroll	$ 60,325,526	$ 58,474,383	$ 58,331,096	$ 56,707,928
Retiree Benefits in Payment	$ 15,461,663	$ 14,442,365	$ 11,477,547	$ 10,723,143
Market Value of Assets	$ 370,742,452	$ 369,054,289	$ 358,527,405	$ 303,073,552
Entry Age Normal Accrued Liability				
Active Lives	$ 194,383,880	$ 186,222,204	$ 216,200,259	$ 203,424,092
Retired Lives	$ 171,716,093	$ 165,495,344	$ 124,365,651	$ 115,730,395
Terminated Members	$ 23,783,204	$ 22,723,280	$ 19,955,780	$ 18,805,149
Total EAN Accrued Liability	$ 389,883,177	$ 374,440,828	$ 360,521,690	$ 337,959,636
Ratio of AVA to EAN Accrued Liability	98.11%	97.24%	91.61%	85.93%
Actuarial Value of Assets	$ 382,512,520	$ 364,107,538	$ 330,282,320	$ 290,413,251
Present Value of Future Employer Normal Cost	$ 81,119,123	$ 82,050,485	$ 94,513,585	$ 106,937,635
Present Value of Future Employee Contrib.	$ 50,725,195	$ 49,134,254	$ 40,605,011	$ 39,604,622
Present Value of Future Benefits	$ 514,356,838	$ 495,292,277	$ 465,400,916	$ 436,955,508

	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
Employee Contribution Rate	8.00%	8.00%	8.00%	8.00%
Estimated Tax Contribution as a % of Payroll	12.90%	14.20%	14.51%	14.07%
Actuarially Required Net Direct Employer Contribution Rate	0.00%	0.00%	3.95%	7.25%
Actual Employer Contribution Rate	0.00%	3.50%	7.00%	9.75%

* Employee Rate changed effective 1/01/2013

Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
759	761	757	732	732	716
219	201	186	176	154	141
89	91	94	93	82	83
177	174	185	193	178	162
$ 55,977,999	$ 55,359,672	$ 53,846,265	$ 50,472,941	$ 47,592,254	$ 42,887,345
$ 9,778,123	$ 8,817,160	$ 7,987,308	$ 7,435,483	$ 5,735,813	$ 4,819,437
$ 262,386,314	$ 252,070,535	$ 206,726,296	$ 182,397,138	$ 212,447,745	$ 221,787,167
$ 199,854,225	$ 192,401,223	$ 181,465,537	$ 165,707,635	$ 167,008,296	$ 145,851,386
$ 104,607,659	$ 91,852,188	$ 83,555,816	$ 75,797,552	$ 55,578,024	$ 45,706,749
$ 17,580,426	$ 16,114,427	$ 15,995,667	$ 16,275,424	$ 12,016,625	$ 11,931,845
$ 322,042,310	$ 300,367,838	$ 281,017,020	$ 257,780,611	$ 234,602,945	$ 203,489,980
83.20%	84.45%	84.74%	85.75%	97.10%	105.04%
$ 267,941,755	$ 253,675,141	$ 238,147,626	$ 221,051,999	$ 227,804,058	$ 213,739,881
$ 113,325,975	$ 106,036,822	$ 101,010,901	$ 87,141,646	$ 53,521,546	$ 37,197,342
$ 38,884,396	$ 33,437,115	$ 32,774,369	$ 28,787,858	$ 26,403,326	$ 24,704,996
$ 420,152,126	$ 393,149,078	$ 371,932,896	$ 336,981,503	$ 307,728,930	$ 275,642,219

Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
8.00% *	7.00%	7.00%	7.00%	7.00%	7.00%
13.11%	11.61%	11.87%	12.19%	9.55%	9.81%
9.70%	10.28%	9.63%	8.64%	4.55%	0.00%
10.25%	9.75%	9.00%	5.00%	0.00%	0.00%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The District Attorneys' Retirement System is a defined benefit pension plan that provides retirement allowances and other benefits. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits.

MEMBERSHIP – All District Attorneys', Assistant District Attorneys', (who earn more than the minimum salary specified by the board), and persons employed by this retirement system and the Louisiana District Attorneys' Association, are required to be members of the system as a condition of their employment.

CONTRIBUTION RATES – The fund is financed by employee contributions of 8.0% of salary for active members. In addition, the fund receives revenue sharing funds as appropriated by the legislature and ad valorem taxes as determined by the Public Retirement Systems' Actuarial Committee up to a maximum of .2% of the ad valorem taxes shown to be collected. In the event that the contributions from ad valorem taxes and revenue sharing funds are insufficient to provide for the gross employer actuarially required contribution, the employer is required to make direct contributions as determined by the Public Retirement Systems' Actuarial Committee.

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

RETIREMENT BENEFITS – For members who joined the system before July 1, 1990, and who have elected not to be covered by the new provisions – Members are eligible to receive a normal retirement benefit if they have ten or more years of creditable service and are at least age sixty-two, or if they have eighteen or more years of service and are at least age sixty, or if they have twenty-three or more years of service and are at least age fifty-five, of if they have thirty years of service regardless of age. The normal retirement benefit is equal to 3% of the member's average final compensation for each year of creditable service. Members are eligible for early retirement at age sixty if they have at least ten years of creditable service or at age fifty-five with at least eighteen years of creditable service. Members who retire prior to age sixty with less than twenty-three years of service credit receives a retirement benefit reduced 3% for each year of age below sixty. Members who retire prior to age sixty-two who have less than eighteen years of service receive a retirement benefit reduced 3% for each year of age below sixty-two. Retirement benefits may not exceed 100% of final average compensation.

For members who joined the system after July 1, 1990, or who elected to be covered by the new provisions – Members are eligible to receive normal retirement benefits if they are age sixty and have ten years of service credit, are age fifty-five and have twenty-four years of service credit, or have thirty years of service credit regardless of age. The normal retirement benefit is equal to 3.5% of the member's final average compensation multiplied by years of membership service. A member is eligible for an early retirement benefit if he is age fifty-five and has at least eighteen years of service credit. The early retirement benefit is equal to the normal retirement benefit reduced 3% for each year the member retires in advance of normal retirement age. Benefits may not exceed 100% of average final compensation.

FINAL AVERAGE COMPENSATION – The period of final average compensation is thirty-six months plus the number of whole months elapsed since January 1, 2013, not to exceed sixty months, subject to the limitation that the final average compensation shall not be less than the highest thirty-six month final average compensation as of January 1, 2013.

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

Option 1 – If the member dies before he has received in annuity payments the present value of his member's annuity as it was at the time of retirement the balance is paid to his beneficiary.

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

Option 3 – Upon retirement, the member receives a reduced benefit. Upon the member's death, the designated beneficiary will receive one-half of the members 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. This is not available to members who select a Back-DROP benefit.

DISABILITY BENEFITS – Disability benefits are awarded to active contributing members with at least ten years of service who are found to be totally disabled as a result of injuries incurred while in active service. The member receives a benefit equal to 3.5% (3% for members covered under the old retirement benefit provisions) of his average final compensation multiplied by the lesser of his actual service (not to be less than fifteen years) or projected continued service to age sixty.

SURVIVOR BENEFITS – Upon the death of a member with less than five years of creditable service, his accumulated contributions and interest thereon are paid to his spouse, if he is married, or to his designated beneficiary, if he is not married. Upon the death of any active, contributing member with five or more years of service or any member with twenty-three years of service who has not retired, automatic option 2 benefits are payable to the surviving spouse. These benefits are based on the retirement benefits accrued at the member's date of death with option factors used as if the member had continued in service to earliest normal retirement age. If a member has no surviving spouse, the surviving minor children under eighteen or disabled children are paid 80% of the member's accrued retirement benefit divided into equal shares. If a member has no surviving spouse or children, his accumulated contributions and interest are paid to his designated beneficiary. In lieu of periodic payments, the surviving spouse or children may receive a refund of the member's accumulated contributions with interest.

DEFERRED RETIREMENT OPTION PLAN – **The following provisions only apply to those members of the retirement system who elected to participate in the Deferred Retirement Option Plan prior to January 1, 2009.** In lieu of terminating employment and accepting a service retirement allowance, any member in the New Plan who is eligible for normal retirement or any member of the Old Plan who is eligible for unreduced benefits 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 continues and the member's status changes to inactive. During participation in the plan, employer contributions are payable but employee contributions are reduced to one-half of one percent. 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. This fund does not earn interest while a person is participating in the DROP. In addition, no cost of living increases are payable to participants until employment which made them eligible to become members of the system has been terminated for at least one full year.

Upon termination of employment prior to or at the end of the specified period of participation, a participant in the plan may receive, at his option, a lump sum from the account equal to the payments into the account or systematic disbursements from his account in any manner approved by the board of trustees. The monthly benefits that were being paid into the deferred retirement option plan fund will begin to be paid to the retiree. If a participant dies during the participation in the plan, a lump sum equal to his account balance in the plan fund is 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. All amounts which remain credited to the individual's sub-account after termination of participation in the plan are invested in liquid money market funds. Interest is credited thereon as actually earned.

Back-DROP – In lieu of receiving a service retirement allowance any member of the fund who has more than sufficient service for a regular service retirement may elect to receive a "Back-DROP" benefit. The Back-DROP benefit is based upon the Back-DROP period selected and the final average compensation prior to the period selected. The Back-DROP period is the lesser of three years or the service accrued between the time a member first becomes eligible for retirement and his actual date of retirement. At retirement the member's maximum monthly retirement benefit is based upon his service, final average compensation, and plan provisions in effect on the last day of creditable service immediately prior to the commencement of the Back-DROP period. In addition to the monthly benefit at retirement, the member receives a lump-sum payment equal to the maximum monthly benefit as calculated above multiplied by the number of months in the Back-DROP period. In lieu of receiving the lump-sum payment, the member may leave the funds on deposit with the system in an interest bearing account. The surviving spouse of members eligible to retire may elect to receive benefits as though the member had elected the Back-DROP option as of the day following the date of death.

COST OF LIVING INCREASES – The board of trustees is authorized to grant retired members and widows of members who have retired an annual cost of living increase of 3% of their original benefit, (not to exceed sixty dollars per month) and all retired members and widows who are sixty-five years of age and older a 2% increase in their original benefit. 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. In order for the board to grant any of these increases, the system must meet certain criteria detailed in the statute related to funding status and interest earnings.

ACTUARIAL ASSUMPTIONS

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

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

ACTUARIAL COST METHOD: The Aggregate Actuarial Cost Method with allocation based on earnings.

VALUATION INTEREST RATE: 7% (Net of Investment Expense)

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

ANNUAL SALARY INCREASE RATE: 5.50% (2.50% inflation / 3.00% merit)

ACTIVE, ANNUITANT AND BENEFICIARY MORTALITY: RP-2000 Combined Healthy with White Collar Adjustment Sex Distinct Tables Projected to 2032 (Female table set back one year)

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

INTEREST RATE ON CONTRIBUTION REFUNDS: 2%

RATES OF RETIREMENT: The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. Retirement rates for members who have completed DROP participation and are currently active are .33.

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

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

Service	Factor
≤5	0.095
6 - 20	0.045
>20	0.025

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

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

DISABILITY RATES:	The table of these rates is included later in the report. These rates are based on 5% of the disability rates used for the 21st valuation of the Railroad Retirement System for individuals with 10-19 years of service.
VESTING ELECTING PERCENTAGE:	90% of those vested elect deferred benefits in lieu of contribution refunds.

ACTUARIAL TABLES AND RATES

Age	Male Mortality Rates	Female Mortality Rates	Retirement Rates	Disability Rates
18	0.00017	0.00012	0.00000	0.00008
19	0.00018	0.00012	0.00000	0.00008
20	0.00019	0.00011	0.00000	0.00008
21	0.00020	0.00011	0.00000	0.00008
22	0.00021	0.00011	0.00000	0.00008
23	0.00023	0.00012	0.00000	0.00008
24	0.00025	0.00012	0.00000	0.00008
25	0.00027	0.00013	0.00000	0.00008
26	0.00031	0.00014	0.00000	0.00008
27	0.00033	0.00015	0.00000	0.00008
28	0.00033	0.00015	0.00000	0.00008
29	0.00035	0.00016	0.00000	0.00008
30	0.00030	0.00018	0.00000	0.00008
31	0.00033	0.00022	0.00000	0.00008
32	0.00037	0.00025	0.00000	0.00008
33	0.00041	0.00027	0.00000	0.00008
34	0.00045	0.00029	0.00000	0.00008
35	0.00050	0.00031	0.00000	0.00009
36	0.00055	0.00032	0.00000	0.00010
37	0.00060	0.00033	0.00000	0.00011
38	0.00063	0.00034	0.00000	0.00012
39	0.00066	0.00035	0.00000	0.00014
40	0.00069	0.00037	0.00000	0.00016
41	0.00072	0.00040	0.00000	0.00018
42	0.00075	0.00043	0.00000	0.00020
43	0.00079	0.00047	0.00000	0.00022
44	0.00083	0.00052	0.00000	0.00025
45	0.00088	0.00055	0.00000	0.00029
46	0.00093	0.00059	0.25000	0.00033
47	0.00098	0.00063	0.25000	0.00037
48	0.00102	0.00069	0.25000	0.00042
49	0.00106	0.00075	0.25000	0.00047
50	0.00111	0.00085	0.25000	0.00054
51	0.00125	0.00095	0.25000	0.00061
52	0.00131	0.00113	0.25000	0.00069
53	0.00142	0.00131	0.25000	0.00079
54	0.00154	0.00152	0.25000	0.00089
55	0.00179	0.00178	0.10000	0.00101
56	0.00210	0.00213	0.10000	0.00115
57	0.00236	0.00251	0.10000	0.00131
58	0.00268	0.00282	0.10000	0.00148
59	0.00296	0.00317	0.10000	0.00169
60	0.00333	0.00355	0.10000	0.00244
61	0.00392	0.00398	0.10000	0.00244
62	0.00451	0.00451	0.10000	0.00244
63	0.00540	0.00510	0.10000	0.00244
64	0.00617	0.00580	0.10000	0.00244
65	0.00704	0.00653	0.10000	0.00244
66	0.00828	0.00737	0.10000	0.00244
67	0.00923	0.00834	0.10000	0.00244
68	0.00992	0.00932	0.10000	0.00244
69	0.01095	0.01036	0.10000	0.00244
70	0.01188	0.01151	0.10000	0.00244
71	0.01319	0.01253	0.10000	0.00244
72	0.01472	0.01391	0.10000	0.00244
73	0.01647	0.01500	0.10000	0.00244
74	0.01848	0.01669	0.10000	0.00244
75	0.02142	0.01796	0.10000	0.00244

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