

**DISTRICT ATTORNEYS'  
RETIREMENT SYSTEM**

ACTUARIAL VALUATION AS OF  
JUNE 30, 2015

# 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

November 13, 2015

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

Gentlemen:

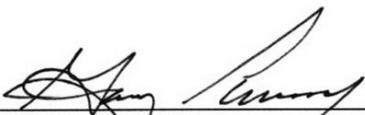
We are pleased to present our report on the actuarial valuation of the District Attorneys' Retirement System for the fiscal year ending June 30, 2015. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrator and accountants. This report 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 June 30, 2016, and to recommend the net direct employer contribution rate for fiscal 2017. 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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## 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 X, there are 785 active members in the system of whom 340 members have vested retirement benefits; 292 former members or their beneficiaries are receiving retirement benefits. An additional 284 former members have contributions remaining on deposit with the system; of this number, 86 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 \$369,054,289 as of June 30, 2015. Net investment income for fiscal June 30, 2015 measured on a market value basis amounted to \$9,060,366. Contributions to the system for the fiscal year totaled \$17,361,851; benefits and expenses amounted to \$15,895,333.

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. Based on the results of the actuarial experience study and expectations of future experience, retirement, disability, and withdrawal rates were changed. Family statistics were also updated based on more recent measures available from the United States Census Bureau. The new assumptions are listed in the back of this report. In the case of mortality, the data was assigned credibility weighting and combined with a standard table to produce current levels of mortality. This mortality was then projected forward to a period equivalent to the estimated duration of the fund's liabilities. The RP-2000 Combined Healthy with White Collar Adjustment Sex Distinct Tables (set back 1 year for females) projected to 2032 were selected for employee, annuitant, and beneficiary mortality. The RP-2000 Disabled Lives Mortality Table set back 5 years for males and set back 3 years for females was selected for disabled annuitants. Setbacks in these tables were used to approximate mortality improvement.

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 the June 19, 2015 report of Boston Private Wealth on future expected rates of return for the current portfolio asset allocation. In addition, consideration was given to the board's desire to reduce risk for the Fund. As a result, in order to account for that risk, we have further lowered the assumed rate of return from 7.25% to 7.00% for the June 30, 2015 valuation. The salary increase rate was lowered based on to 5.50% based on forward estimates of future increases in pay resulting from three sources; inflation, merit, and productivity. An inflation rate of 2.50% was implicit in both the assumed rate of return and rate of salary increases.

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-four through thirty-six. 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 will be required to

contribution levels. Such differences will be revealed in future actuarial valuations. The net effect of the changes in assumptions on the normal cost accrual rate was a decrease of 2.9730%.

## CHANGES IN PLAN PROVISIONS

There were no changes to the system enacted during the 2015 Regular Session of the Louisiana Legislature.

## ASSET EXPERIENCE

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

	<u>Market Value</u>	<u>Actuarial Value</u>
2006	7.7%	13.8%
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%

\* 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 2015, the fund earned \$8,996,353 of dividends, interest and other recurring income. In addition to this income, the Fund had net realized and unrealized capital gains on investments of \$422,581. This income was offset by investment expenses of \$358,568. The geometric mean of the market value rates of return measured over the last ten years was 6.3%. For the last 20 years the geometric mean of the market value rates of return was 6.7%.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.00% used for the valuation. 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 7.00% 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 7.25% 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 7.00% assumption will reduce future costs; yields below 7.00% will increase future costs. For fiscal 2015, the system experienced net actuarial investment earnings of \$8,361,001 more than the actuarial assumed earnings rate of 7.25% (for fiscal 2015). This surplus in earnings produced an actuarial gain, which decreased the normal cost accrual rate by 1.3613%.

## **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 10.13 years of service and an annual salary of \$74,490. The system's active contributing membership increased by 12 members over the prior fiscal year. The plan has experienced an increase in the active plan population of 28 members over the last five years. A review of the active census by age indicates that over the last ten years the active population in the under-sixty age group has decreased while the proportion of active members over-sixty increased. Over the same ten-year period the plan showed a decrease in the percentage of members with service less than ten years and a corresponding increase in members with more than ten years of service.

The average service retiree is 69 years old with a monthly benefit of \$4,411. The retired population increased by 42 during the last fiscal year. Over the last five years the number of retirees increased by 106. During this same period, annual benefits in payment increased by \$6,455,054. Hence, over the last five years, the retired population of the plan has increased by more than 56% and the benefits in payment have increased over 80%.

Plan liability experience for fiscal 2015 was slightly unfavorable. The main factor contributing to the unfavorable experience was retirements above expected levels. Partially offsetting the increases were the effects of withdrawals below expected levels and retiree deaths above projected levels. Also, salary increases were below projected levels. Plan liability experience increased the normal cost accrual rate by 0.0899%.

## **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 2016 as of July 1, 2015 is \$7,634,345. 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 11 of Exhibit I the total actuarially required contribution for fiscal 2016 is \$8,360,913. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for fiscal 2016 is zero.

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 2015	18.6211%
Factors Increasing the Normal Cost Accrual Rate:	
Plan Liability Experience	0.0899%
Factors Decreasing the Normal Cost Accrual Rate:	
Assumption Changes	2.9730%
Asset Experience Gain	1.3613%
New Members	0.7898%
Contribution Gain	0.2275%
Employer's Normal Cost Accrual Rate – Fiscal 2016	13.3594%

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 0.31% of payroll in fiscal 2016.

Although the actuarially required net direct employer contribution rate for fiscal 2016 is 0.00%; the actual employer contribution rate for fiscal 2016 is 3.50% of payroll. Since the contribution rate for fiscal 2016 was 3.50%, any surplus in employer contributions collected in the fiscal year will decrease the Fund's normal cost accrual rate. We estimate this surplus will result in a decrease of 0.33% to the normal cost accrual rate in fiscal 2017. Hence, we are recommending a minimum net direct employer contribution rate of zero for fiscal 2017. Furthermore, pursuant to R.S. 11:82(B), we estimate that ad valorem taxes amounting to 0.1817% of those shown to be collectible along with corresponding revenue sharing funds will be required for fiscal 2017.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, and

changes in plan provisions or applicable law. Analysis of the effect of all these factors is beyond the scope of this report. We have, however, calculated the sensitivity of the plans' costs to two factors. First, we have determined that based on current assets and demographics, for each percentage earnings in a single year under (over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (reduction) in the normal cost accrual rate of 0.59% for the Fund. We have also determined that a 1% reduction in the valuation interest rate for the Fund would increase the gross actuarially required contribution rate (inclusive of tax contributions) for fiscal 2016 by 10.94% of payroll. Please note that the above results are only intended to serve as an illustration of the impact of a change in the valuation interest rate. Any actual change in the valuation interest rate should only be effected with a review of all other plan assumptions.

In addition to calculating the actuarially required contribution to the fund, we have also calculated the ratio of the system's assets to liabilities. When the actuarial value of assets is divided by the entry age normal accrued liability for the fund the result is 97.24% as of June 30, 2015. This value in isolation does not give a measure of the ability of the fund to pay benefits in the future or indicate that future contributions are likely to be greater or less than current contributions. In addition, the ratio cannot be used 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 the underlying trends in this value.

## **COST OF LIVING INCREASES**

During fiscal 2015 the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 0.12%. 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  $\$X \times (A+B)$  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 30<sup>th</sup> 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.

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.

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.)

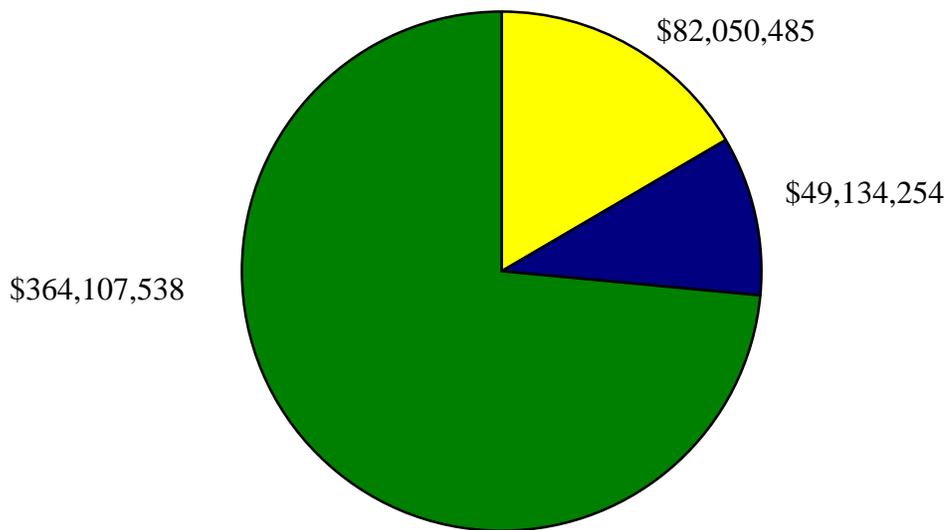
Since the system's investment earnings have exceeded the valuation interest rate by an amount sufficient to offset the present value of the authorized cost of living increases and the system's funded ratio as defined by R.S. 11:243 is in excess of 90%, the system may grant either or both of the cost of living increases authorized by R.S.11:1638 and R.S. 11:246.

<u>COLA Description</u>	<u>Annual Increase in Benefits</u>	<u>Present Value Of Increase</u>	<u>Contribution Cost as a % of Payroll</u>
3% of the base benefit to all allowable pensioners (with a maximum of \$60 per month)	\$ 161,404	\$1,695,191	0.28%
2% to pensioners over age 65	\$ 167,792	\$1,693,933	0.28%

In lieu of awarding the cost of living increases described above, R.S. 11:241(B) allows the board to grant a cost of living increase of an amount not to exceed \$1 for every year of service plus the number of years since retirement. There is insufficient information available on the system's database to provide meaningful estimates of the costs associated with awarding this type of cost of living increase.

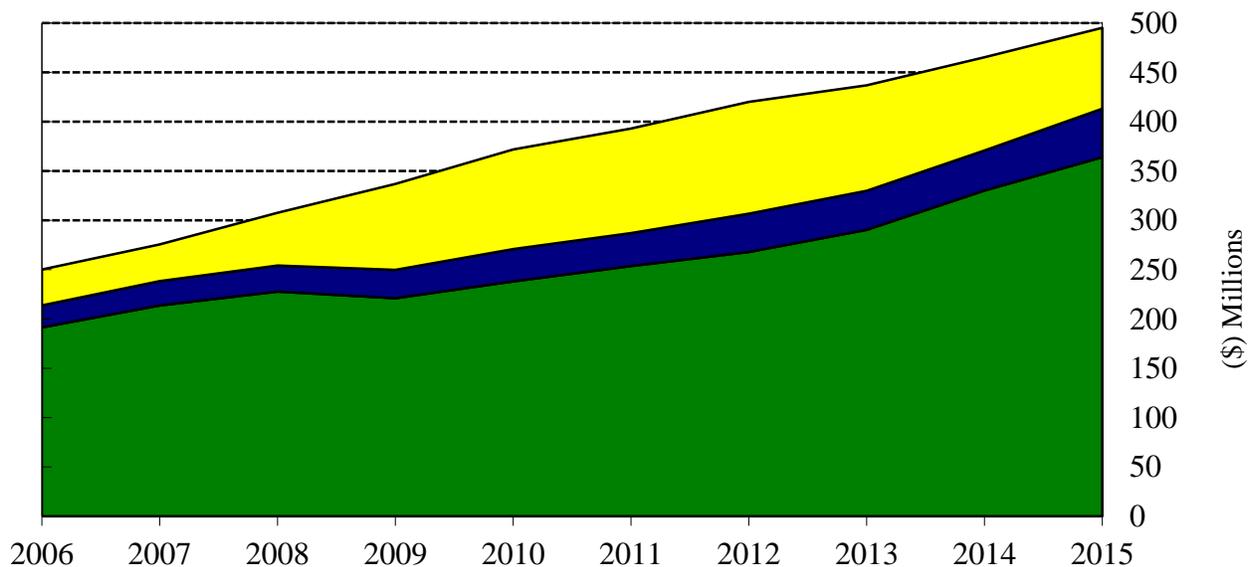


## Components of Present Value of Future Benefits June 30, 2015



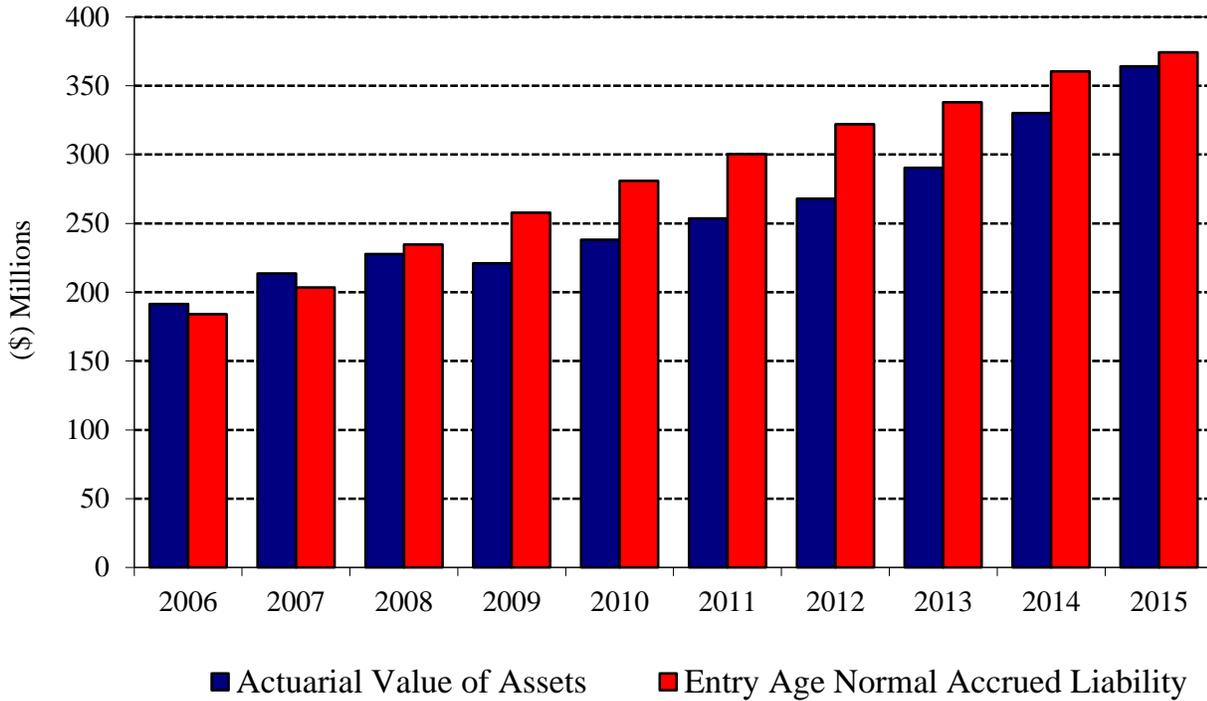
- Present Value of Future Employer Normal Cost
- Present Value of Future Employee Contributions
- Actuarial Value of Assets

## Components of Present Value of Future Benefits

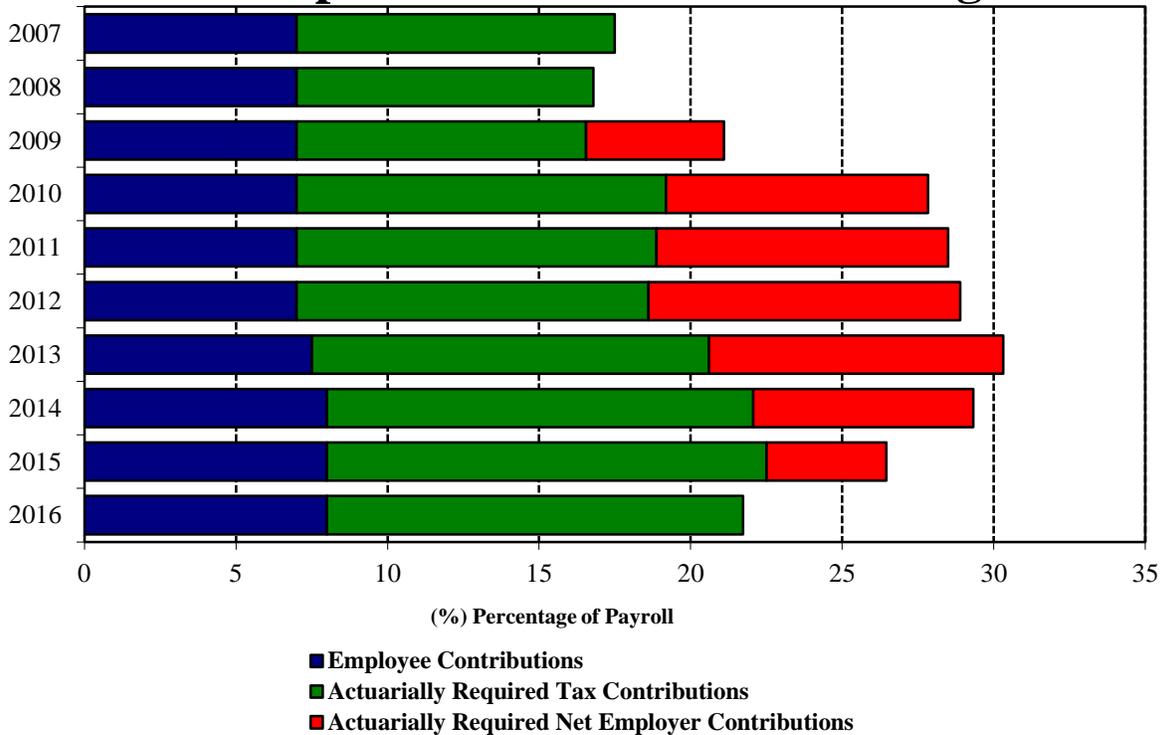


- Present Value of Future Employer Normal Cost
- Present Value of Future Employee Contributions
- Actuarial Value of Assets

# Actuarial Value of Assets vs. EAN Accrued Liability

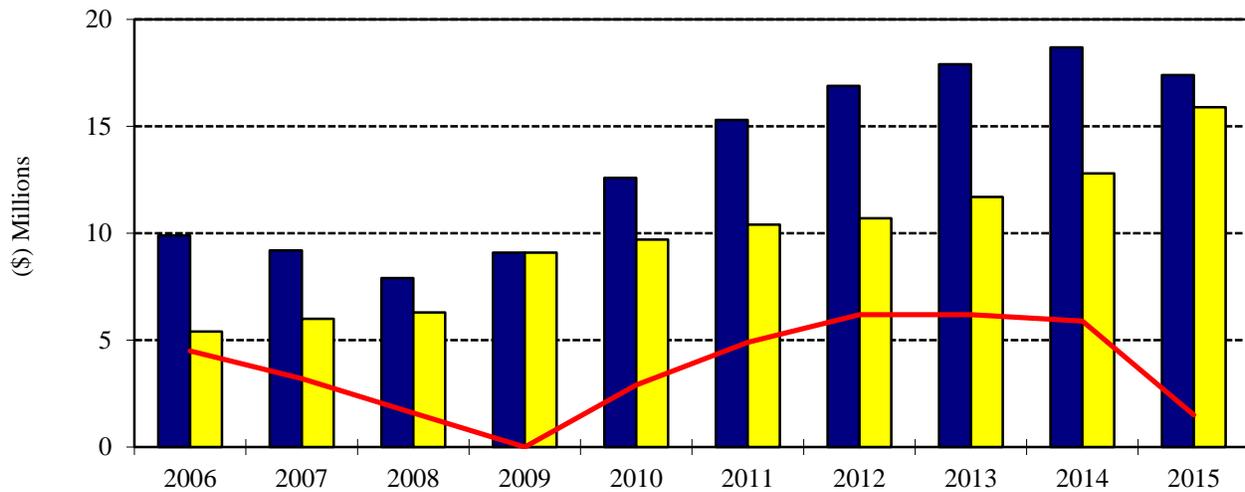


## Components of Actuarial Funding



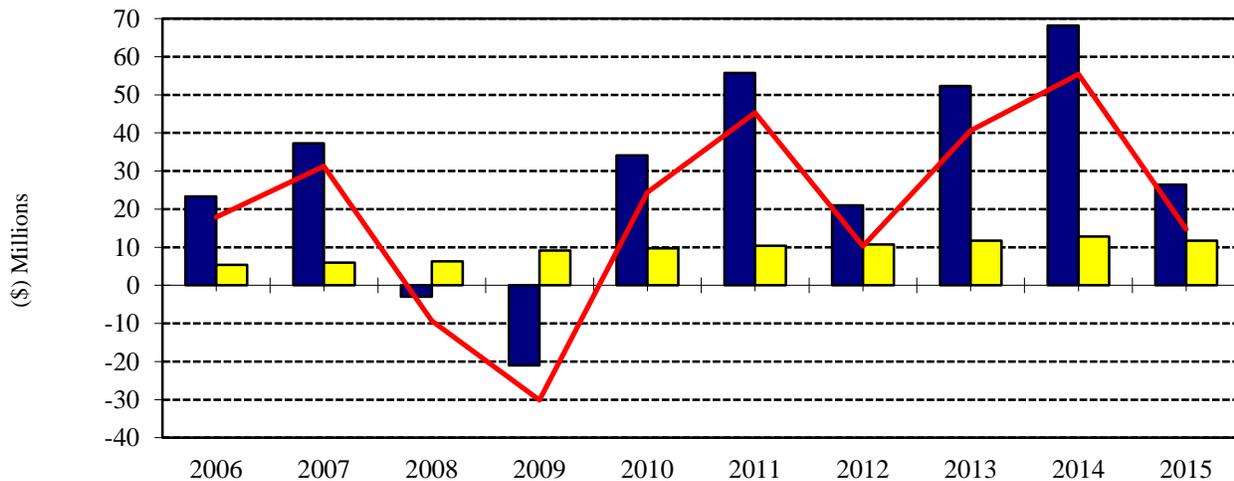
Actuarially Required Tax Contributions consist of the lesser of Actuarially Required Contributions and amount of taxes divided by the projected valuation payroll.

## Net Non-Investment Income



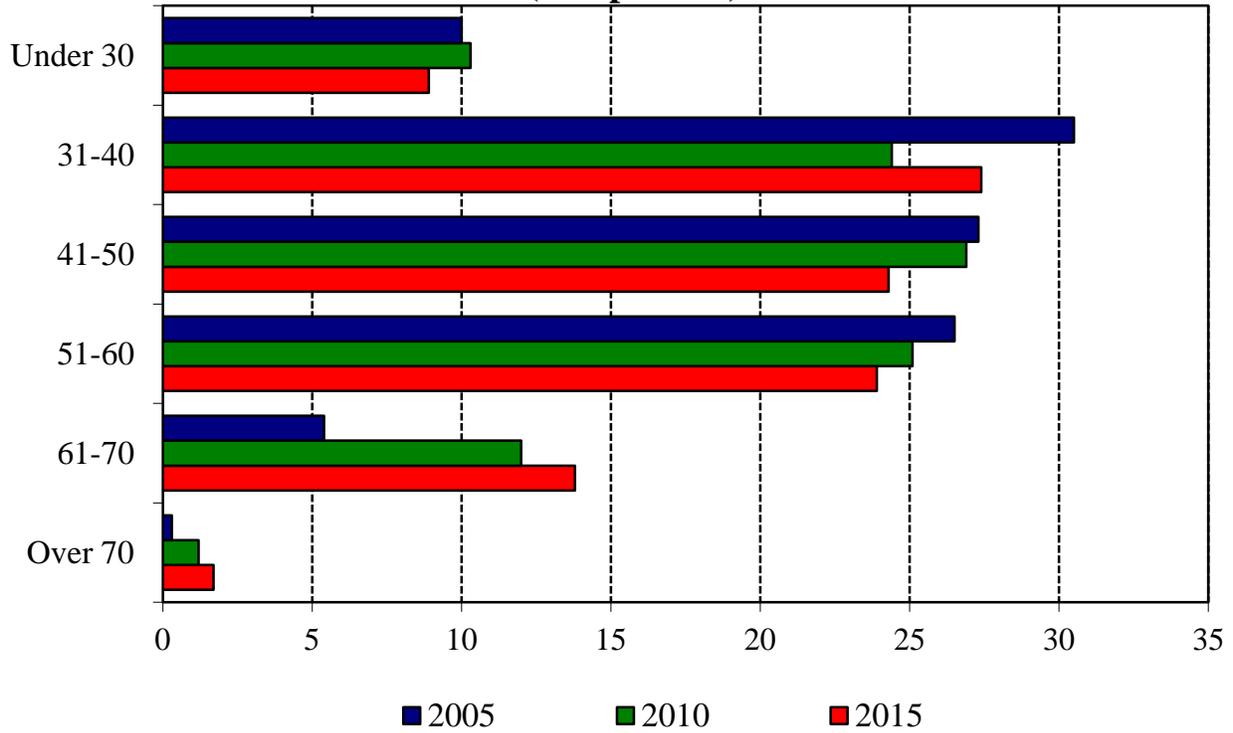
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Non-Investment Income (\$Mil)	■	9.9	9.2	7.9	9.1	12.6	15.3	16.9	17.9	18.7	17.4
Benefits and Expenses (\$Mil)	■	5.4	6.0	6.3	9.1	9.7	10.4	10.7	11.7	12.8	15.9
Net Non-Investment Income (\$Mil)	—	4.5	3.2	1.6	0.0	2.9	4.9	6.2	6.2	5.9	1.5

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

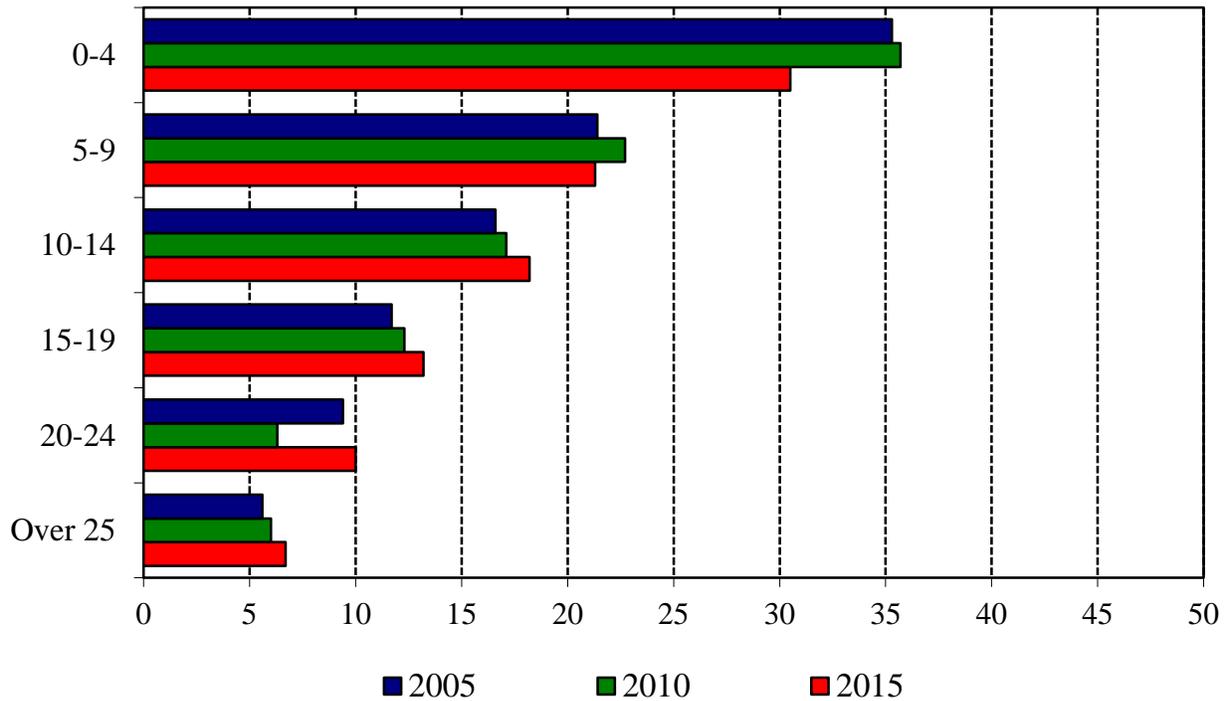


		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Income (\$Mil)	■	23.3	37.3	-3.0	-21.0	34.1	55.7	21.0	52.3	68.2	26.4
Benefits and Expenses (\$Mil)	■	5.4	6.0	6.3	9.1	9.7	10.4	10.7	11.7	12.8	15.9
Net Change in MVA (\$Mil)	—	17.9	31.3	-9.3	-30.1	24.4	45.3	10.3	40.6	55.4	10.5

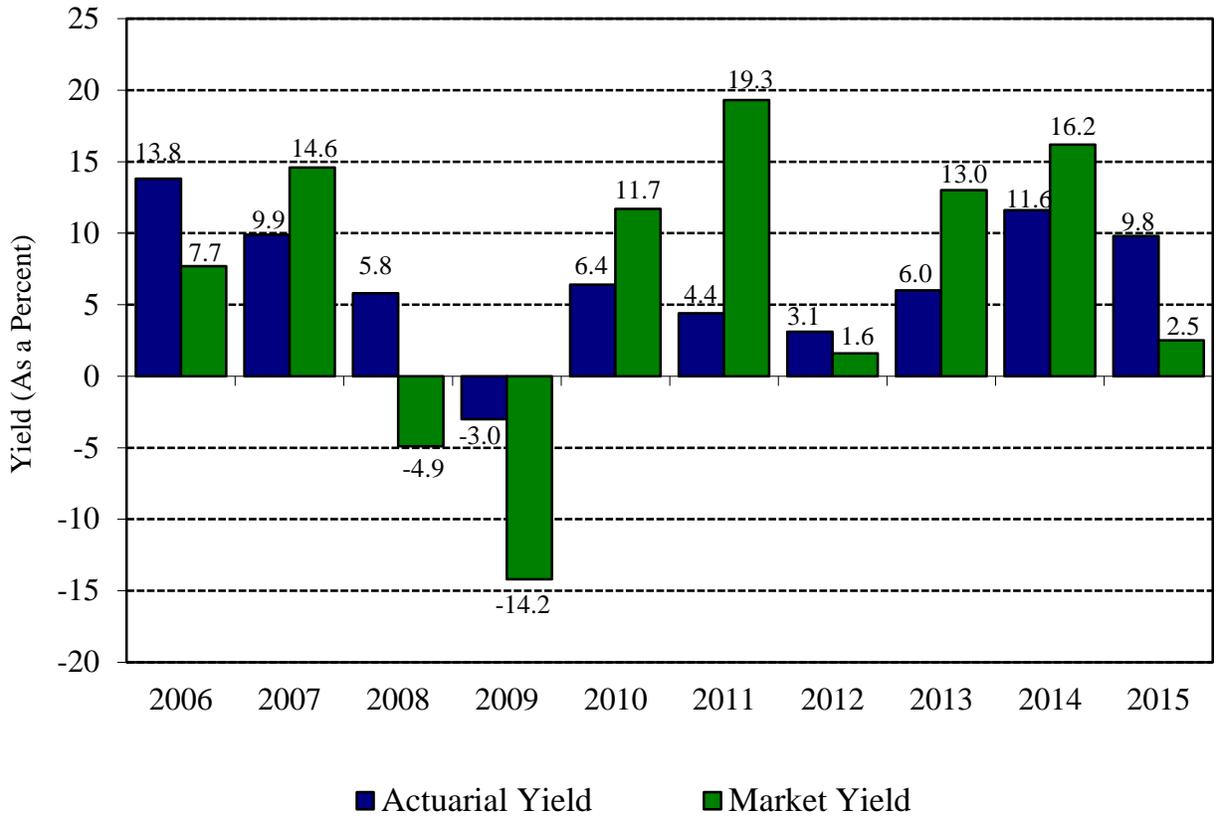
## Active – Census By Age (as a percent)



## Active – Census By Service (as a percent)



# Historical Asset Yield





**EXHIBIT I**  
**ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS**

1. Present Value of Future Benefits .....	\$	495,292,277
2. Actuarial Value of Assets .....	\$	364,107,538
3. Present Value of Future Employee Contributions .....	\$	49,134,254
4. Present Value of Future Employer Normal Costs (1 – 2 – 3) .....	\$	82,050,485
5. Present Value of Future Salaries .....	\$	614,178,181
6. Employer Normal Cost Accrual Rate (4÷5) .....		13.359394%
7. Projected Fiscal 2016 Salary for Current Membership.....	\$	57,145,893
8. Employer Normal Cost as of July 1, 2015 (6 x 7).....	\$	7,634,345
9. Normal Cost Adjusted for Midyear Payment .....	\$	7,897,028
10. Estimated Administrative Cost for Fiscal 2016 .....	\$	463,885
11. GROSS Employer Actuarially Required Contribution for Fiscal 2016 (9 + 10) .....	\$	8,360,913
12. Projected Ad Valorem Tax Contributions for Fiscal 2016 .....	\$	8,431,951
13. Projected Revenue Sharing Funds for Fiscal 2016 .....	\$	213,389
14. Net Direct Employer Actuarially Required Contribution for Fiscal 2016 (11 – 12 – 13).....	\$	0
15. Projected Payroll for Fiscal 2016.....	\$	60,864,215
16. Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2016 (14 ÷ 15) .....		0.00%
17. Actual Employer Contribution Rate for Fiscal 2016 .....		3.50%
18. Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2017 (16, Rounded to nearest 0.25%) .....		0.00%

**EXHIBIT II**  
**PRESENT VALUE OF FUTURE BENEFITS**

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits .....	\$ 261,423,785
Survivor Benefits.....	14,923,384
Disability Benefits .....	743,238
Vested Termination Benefits.....	26,030,149
Refunds of Contributions .....	3,953,097

TOTAL Present Value of Future Benefits for Active Members..... \$ 307,073,653

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement.....	\$ 19,207,638
Terminated Members with Reciprocals	
Due Benefits at Retirement .....	1,427,400
Terminated Members Due a Refund .....	2,088,242

TOTAL Present Value of Future Benefits for Terminated Members ..... \$ 22,723,280

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees

Maximum.....	\$ 44,227,017
Option 1 .....	1,587,236
Option 2 .....	76,875,797
Option 3 .....	16,778,993
Option 4 .....	1,946,375

TOTAL Regular Retirees ..... \$ 141,415,418

Disability Retirees ..... 641,984

Survivors & Widows..... 12,390,332

DROP/Back-DROP Deposits ..... 11,047,610

TOTAL Present Value of Future Benefits for Retirees & Survivors ..... \$ 165,495,344

TOTAL Present Value of Future Benefits..... \$ 495,292,277

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

CURRENT ASSETS:

Cash in Banks .....	\$	2,027,185	
Contributions and Taxes Receivable.....		686,873	
Accrued Interest and Dividends.....		601,785	
 TOTAL CURRENT ASSETS.....	\$		3,315,843

INVESTMENTS:

Cash Equivalents.....	\$	17,324,758	
Equities .....		222,923,218	
Fixed Income .....		91,433,144	
Real Estate .....		9,000,445	
Alternative Investments .....		13,581,671	
DROP Balances Held Outside System Assets .....		11,476,827	
 TOTAL INVESTMENTS.....	\$		365,740,063
 TOTAL ASSETS .....	\$		369,055,906

CURRENT LIABILITIES:

Other Current Liabilities .....	\$	1,617	
 TOTAL CURRENT LIABILITIES .....	\$		1,617
 MARKET VALUE OF ASSETS.....	\$		369,054,289

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

Excess (Shortfall) of invested income  
for current and previous 4 years:

Fiscal year 2015 .....	\$ (16,985,102)
Fiscal year 2014 .....	26,639,704
Fiscal year 2013 .....	14,526,446
Fiscal year 2012 .....	(16,297,837)
Fiscal year 2011 .....	<u>23,682,947</u>
Total for five years .....	\$ 31,566,158

Deferral of excess (shortfall) of invested income:

Fiscal year 2015 (80%) .....	\$ (13,588,082)
Fiscal year 2014 (60%) .....	15,983,822
Fiscal year 2013 (40%) .....	5,810,578
Fiscal year 2012 (20%) .....	(3,259,567)
Fiscal year 2011 ( 0%) .....	<u>0</u>
Total deferred for year .....	\$ 4,946,751

Market value of plan net assets, end of year..... \$ 369,054,289

Preliminary actuarial value of plan assets, end of year ..... \$ 364,107,538

Actuarial value of assets corridor

85% of market value, end of year .....	\$ 313,696,146
115% of market value, end of year .....	\$ 424,412,432

Final actuarial value of plan net assets, end of year ..... \$ 364,107,538

**EXHIBIT IV  
PRESENT VALUE OF FUTURE CONTRIBUTIONS**

Employee Contributions to the Annuity Savings Fund .....	\$ 49,134,254
Employer Normal Contributions to the Pension Accumulation Fund .....	82,050,485
 TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS .....	 \$ 131,184,739

**EXHIBIT V  
RECONCILIATION OF CONTRIBUTIONS**

Employer Normal Cost for Prior Year.....	\$ 10,338,742
Interest on the Normal Cost.....	749,559
Administrative Expenses .....	367,794
Interest on Expenses .....	13,099
 TOTAL Interest Adjusted Actuarially Required Contributions .....	 \$ 11,469,194
 Direct Employer Contributions.....	 \$ 4,109,229
Interest on Employer Contributions.....	146,353
Ad Valorem Taxes and Revenue Sharing.....	8,314,617
Interest on Ad Valorem Taxes and Revenue Sharing Funds .....	296,131
 TOTAL Interest Adjusted Employer Contributions .....	 \$ 12,866,330
 CONTRIBUTION SURPLUS.....	 \$ 1,397,136

**EXHIBIT VI**  
**ANALYSIS OF CHANGE IN ASSETS**

Actuarial Value of Assets (June 30, 2014) .....	\$ 330,282,320
<b>INCOME:</b>	
Member Contributions .....	\$ 4,800,295
Employer Contributions .....	4,109,229
Irregular Contributions .....	137,710
Tax Revenue .....	8,314,617
<b>Total Contributions</b> .....	<b>\$ 17,361,851</b>
Net Appreciation (Depreciation) of Investments .....	\$ 410,538
Interest & Dividends .....	8,045,155
Alternative Investment Income .....	951,198
Class Action Settlement .....	12,043
Investment Expense .....	(358,568)
<b>Net Investment Income</b> .....	<b>\$ 9,060,366</b>
<b>TOTAL Income</b> .....	<b>\$ 26,422,217</b>
<b>EXPENSES:</b>	
Retirement Benefits .....	\$ 13,072,852
DROP Disbursements .....	1,076,985
Refunds of Contributions .....	648,617
Transfers to Other Systems .....	729,085
Administrative Expenses .....	367,794
<b>TOTAL Expenses</b> .....	<b>\$ 15,895,333</b>
<b>Net Market Value Income for Fiscal 2015 (Income - Expenses)</b> .....	<b>\$ 10,526,884</b>
<b>Unadjusted Fund Balance as of June 30, 2015</b> <b>(Fund Balance Previous Year + Net Income)</b> .....	<b>\$ 340,809,204</b>
<b>Adjustment for Actuarial Smoothing</b> .....	<b>\$ 23,298,334</b>
<b>Actuarial Value of Assets: (June 30, 2015)</b> .....	<b>\$ 364,107,538</b>

**EXHIBIT VII - Schedule A  
PENSION BENEFIT OBLIGATION**

Present Value of Credited Projected Benefits Payable to Current Employees.....	\$ 170,643,771
Present Value of Benefits Payable to Terminated Employees .....	22,723,280
Present Value of Benefits Payable to Current Retirees and Beneficiaries .....	165,495,344
<b>TOTAL PENSION BENEFIT OBLIGATION.....</b>	<b>\$ 358,862,395</b>
<b>NET ACTUARIAL VALUE OF ASSETS .....</b>	<b>\$ 364,107,538</b>
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation.....	101.46%

**EXHIBIT VII – Schedule B  
ENTRY AGE NORMAL ACCRUED LIABILITIES**

Accrued Liability for Active Employees .....	\$ 186,222,204
Accrued Liability for Terminated Employees .....	22,723,280
Accrued Liability for Current Retirees and Beneficiaries .....	165,495,344
<b>TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY .....</b>	<b>\$ 374,440,828</b>
<b>NET ACTUARIAL VALUE OF ASSETS .....</b>	<b>\$ 364,107,538</b>
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability .....	97.24%

**EXHIBIT VIII  
CENSUS DATA**

	<b>Active</b>	<b>Terminated with Funds on Deposit</b>	<b>Retired</b>	<b>Total</b>
Number of members as of June 30, 2015	773	267	250	1,290
Additions to Census				
Initial membership	105	3		108
Omitted in error last year				
Death of another member			10	10
Adjustment for multiple records			2	2
Change in Status during Year				
Actives terminating service	(49)	49		
Actives who retired	(35)		35	
Actives entering DROP				
Term. members rehired	9	(9)		
Term. members who retire		(10)	10	
Retirees who are rehired	4		(4)	
Refunded who are rehired				
DROP participants retiring				
DROP returned to work				
Omitted in error last year				
Eliminated from Census				
Refund of contributions	(17)	(16)		(33)
Deaths	(5)		(11)	(16)
Included in error last year				
Adjustment for multiple records				
Number of members as of June 30, 2015	785	284	292	1,361

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
26 - 30	35	35	70	50,715	3,550,077
31 - 35	66	60	126	59,398	7,484,085
36 - 40	45	44	89	65,457	5,825,650
41 - 45	53	40	93	77,433	7,201,256
46 - 50	60	38	98	75,457	7,394,753
51 - 55	68	30	98	81,482	7,985,210
56 - 60	70	20	90	85,346	7,681,145
61 - 65	62	11	73	92,580	6,758,373
66 - 70	32	3	35	101,487	3,552,054
71 - 75	8	1	9	83,860	754,740
76 - 80	3	0	3	80,063	240,190
81 - 85	1	0	1	46,850	46,850
TOTAL	503	282	785	74,490	58,474,383

THE ACTIVE CENSUS INCLUDES 340 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	3	3	23,704	71,112
41 - 45	10	2	12	30,590	367,084
46 - 50	11	4	15	32,119	481,785
51 - 55	21	10	31	34,067	1,056,066
56 - 60	12	7	19	26,052	494,985
61 - 65	3	3	6	29,167	175,000
TOTAL	57	29	86	30,768	2,646,032

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From To	Number	Total Contributions
0 - 99	17	580
100 - 499	22	5,833
500 - 999	12	8,853
1000 - 1999	10	14,426
2000 - 4999	27	92,226
5000 - 9999	29	224,511
10000 - 19999	41	580,496
20000 - 99999	40	1,102,424
TOTAL	198	2,029,349

## REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
51 - 55	1	0	1	26,542	26,542
56 - 60	14	5	19	54,836	1,041,891
61 - 65	58	11	69	49,790	3,435,525
66 - 70	63	6	69	63,969	4,413,865
71 - 75	48	6	54	50,744	2,740,154
76 - 80	18	0	18	32,595	586,714
81 - 85	7	0	7	41,394	289,759
86 - 90	5	0	5	69,985	349,926
91 - 99	3	0	3	28,223	84,668
TOTAL	217	28	245	52,935	12,969,044

## 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
51 - 55	0	2	2	36,649	73,297
56 - 60	0	3	3	48,818	146,454
61 - 65	0	4	4	24,999	99,995
66 - 70	0	10	10	35,322	353,215
71 - 75	0	3	3	15,141	45,424
76 - 80	0	6	6	25,634	153,801
81 - 85	0	7	7	47,674	333,721
86 - 90	0	5	5	15,575	77,874
91 - 99	0	4	4	24,528	98,110
TOTAL	0	45	45	31,193	1,403,680

ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 25													0
26 - 30	29	23	10	6	1	1							70
31 - 35	22	15	12	19	16	42							126
36 - 40	10	6	3	5	9	33	23						89
41 - 45	10	5	5	3	4	20	38	8					93
46 - 50	9	3	1	1	1	18	29	22	12	1	1		98
51 - 55	7	2	1	1	4	10	13	26	24	10	4		98
56 - 60	14		1	3	2	17	12	13	18	6	4		90
61 - 65	4	1			4	15	8	14	12	9	6		73
66 - 70	1		1	1		9	5	7	6	2	3		35
71 & Over	2				3	3	2	2	2	2	2		13
Totals	108	55	34	39	41	168	130	92	74	28	16		785

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 25													0
26 - 30	48,402	49,164	54,236	55,599	61,134	78,581							50,715
31 - 35	53,573	49,813	52,525	57,576	59,781	68,513							59,398
36 - 40	55,947	55,704	50,384	57,067	61,958	65,125	77,771						65,457
41 - 45	70,625	81,721	48,916	113,796	61,073	68,437	82,904	92,134					77,433
46 - 50	63,461	52,925	122,648	62,500	79,548	66,505	72,541	84,202	86,377	134,650	75,750		75,457
51 - 55	61,623	41,739	65,953	150,784	75,586	55,642	68,912	82,965	98,568	97,629			81,482
56 - 60	94,087		24,601	70,736	52,531	68,921	73,177	75,398	103,226	111,505	116,252		85,346
61 - 65	91,335	45,000	45,000	159,148	78,644	86,341	85,835	85,337	90,731	100,233	144,346		92,580
66 - 70	83,985				100,481	100,481	81,643	85,986	119,704	150,024	110,404		101,487
71 & Over	68,954				66,405	66,405	61,800	99,268	60,085	131,176	80,137		80,137
Average	62,546	52,874	53,723	67,664	63,929	70,225	77,194	83,934	97,127	106,504	125,025		74,490

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility											Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	
0 - 35												0
36 - 40									3			3
41 - 45							1	11				12
46 - 50							15					15
51 - 55	1	1	2	3	2	22						31
56 - 60	6	5	2	3	3							19
61 - 65	6											6
66 & Over												0
Totals	13	6	4	6	5	22	16	11	3	0	0	86

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

Attained Ages	Years Until Retirement Eligibility											Average Benefit
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	
0 - 35												0
36 - 40									23,704			23,704
41 - 45							53,356	28,521				30,590
46 - 50							32,119					32,119
51 - 55	52,714	53,227	61,902	51,718	38,933	26,968						34,067
56 - 60	32,666	19,862	25,655	32,565	16,893							26,052
61 - 65	29,167											29,167
66 & Over												0
Average	32,593	25,423	43,779	42,141	25,709	26,968	33,446	28,521	23,704	0	0	30,768

SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											Total	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over		
0 - 50													0
51 - 55	1												1
56 - 60	9	4	3	1		2							19
61 - 65	14	10	10	8	8	18	1						69
66 - 70	12	2	4	6	5	30	10						69
71 - 75	6	3	2	5	1	7	18	11	1				54
76 - 80	1				1		5	4	6	1			18
81 - 85	1						1	2	1	2			7
86 - 90									1				5
91 & Over							1	2	1	1			3
Totals	44	19	19	20	15	57	36	19	9	4	3		245

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	26,542												26,542
56 - 60	59,797	52,035	58,694	26,970		46,266							54,836
61 - 65	49,298	39,476	54,502	48,686	37,735	60,794	19,908						49,790
66 - 70	108,334	36,954	49,283	70,231	42,532	57,523	48,310						63,969
71 - 75	44,541	73,579	78,093	60,862	91,681	75,019	39,901	40,014	16,481				50,744
76 - 80	18,135				87,707		27,781	56,815	16,519	15,594			32,595
81 - 85	44,262						32,740	66,153	29,997	25,227			41,394
86 - 90							56,548	97,680	39,139				69,985
91 & Over										11,394			28,223
Average	65,558	47,239	56,548	57,108	46,262	60,310	40,262	52,373	20,525	19,361	44,051		52,935

DISABILITY RETIREES:

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

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement										Average Benefit	
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29		30&Over
0 - 40												0
41 - 45		21,789										21,789
46 - 50												0
51 - 55					46,868	26,429						36,649
56 - 60	55,183			52,639		38,631						48,818
61 - 65	36,974					13,789		12,258				24,999
66 - 70	35,259	24,236	40,650	69,326	25,048				20,043			35,322
71 - 75	9,886								17,538			15,141
76 - 80			33,346				63,591	18,185		10,248		25,634
81 - 85	99,306								23,616	30,761		47,674
86 - 90		18,250		5,765					11,537			15,575
91 & Over											24,528	24,528
Average	53,270	22,128	36,998	49,264	32,321	26,283	63,591	16,209	18,556	17,085	23,916	31,193

**EXHIBIT IX  
YEAR-TO-YEAR COMPARISON**

	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Number of Active Members	785	773	756	759
Number of Retirees & Survivors	292	250	237	219
Number of Terminated Due Deferred Benefits	86	89	92	89
Number Terminated Due Refunds	198	178	179	177
Active Lives Payroll	\$ 58,474,383	\$ 58,331,096	\$ 56,707,928	\$ 55,977,999
Retiree Benefits in Payment	\$ 14,442,362	\$ 11,477,547	\$ 10,723,143	\$ 9,778,123
Market Value of Assets	\$ 369,054,289	\$ 358,527,405	\$ 303,073,552	\$ 262,386,314
Entry Age Normal Accrued Liability				
Active Lives	\$ 186,222,204	\$ 216,200,259	\$ 203,424,092	\$ 199,854,225
Retired Lives	\$ 165,495,344	\$ 124,365,651	115,730,395	104,607,659
Terminated Members	\$ 22,723,280	\$ 19,955,780	18,805,149	17,580,426
	-----	-----	-----	-----
TOTAL EAN Accrued Liability	\$ 374,440,828	\$ 360,521,690	\$ 337,959,636	\$ 322,042,310
Ratio of AVA to EAN Accrued Liability	97.24%	91.61%	85.93%	83.20%
Actuarial Value of Assets	\$ 364,107,538	\$ 330,282,320	\$ 290,413,251	\$ 267,941,755
Present Value of Future Employer Normal Cost	\$ 82,050,485	\$ 94,513,585	\$ 106,937,635	\$ 113,325,975
Present Value of Future Employee Contrib.	\$ 49,134,254	\$ 40,605,011	\$ 39,604,622	\$ 38,884,396
Present Value of Future Benefits	\$ 495,292,277	\$ 465,400,916	\$ 436,955,508	\$ 420,152,126
*****				
	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Employee Contribution Rate	8.00%	8.00%	8.00%	8.00% *
Estimated Tax Contribution as % of Payroll	14.20%	14.51%	14.07%	13.11%
Actuarially Required Net Direct Employer Contribution Rate	0.00%	3.95%	7.25%	9.70%
Actual Employer Contribution Rate	3.50%	7.00%	9.75%	10.25%

\* Employee Rate changed effective 1/01/2013

Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
761	757	732	732	716	677
201	186	176	154	141	132
91	94	93	82	83	83
174	185	193	178	162	154
\$ 55,359,672	\$ 53,846,265	\$ 50,472,941	\$ 47,592,254	\$ 42,887,345	\$ 38,460,604
\$ 8,817,160	\$ 7,987,308	\$ 7,435,483	\$ 5,735,813	\$ 4,819,437	\$ 4,264,078
\$ 252,070,535	\$ 206,726,296	\$ 182,397,138	\$ 212,447,745	\$ 221,787,167	\$ 190,498,450
\$ 192,401,223	\$ 181,465,537	\$ 165,707,635	\$ 167,008,296	\$ 145,851,386	\$ 131,266,273
91,852,188	83,555,816	75,797,552	55,578,024	45,706,749	40,402,576
16,114,427	15,995,667	16,275,424	12,016,625	11,931,845	12,485,215
-----	-----	-----	-----	-----	-----
\$ 300,367,838	\$ 281,017,020	\$ 257,780,611	\$ 234,602,945	\$ 203,489,980	\$ 184,154,064
84.45%	84.74%	85.75%	97.10%	105.04%	103.98%
\$ 253,675,141	\$ 238,147,626	\$ 221,051,999	\$ 227,804,058	\$ 213,739,881	\$ 191,477,673
\$ 106,036,822	\$ 101,010,901	\$ 87,141,646	\$ 53,521,546	\$ 37,197,342	\$ 36,370,304
\$ 33,437,115	\$ 32,774,369	\$ 28,787,858	\$ 26,403,326	\$ 24,704,996	\$ 22,336,886
\$ 393,149,078	\$ 371,932,896	\$ 336,981,503	\$ 307,728,930	\$ 275,642,219	\$ 250,184,863
*****					
Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
11.61%	11.87%	12.19%	9.55%	9.81%	10.50%
10.28%	9.63%	8.64%	4.55%	0.00%	0.00%
9.75%	9.00%	5.00%	0.00%	0.00%	3.50%

## **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, or 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 " $X \times (A \& B)$ " 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:

<u>Member's Age</u>	<u>% With Children</u>	<u>Number of Children</u>	<u>Average Age</u>
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 21<sup>st</sup> 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

## PRIOR YEAR ACTUARIAL ASSUMPTIONS

VALUATION INTEREST RATE:	7.25% (Net of Investment Expense)
ANNUAL SALARY INCREASE RATE:	6.25% (2.75% inflation / 3.50% merit)
ACTIVE MEMBER, ANNUITANT, AND BENEFICIARY MORTALITY:	RP 2000 Combined Healthy Table set back 3 years for males and 1 year for females
RATES OF WITHDRAWAL:	The rates of withdrawal are applied based upon completed years of service according to the following table:

Service	Factor
≤5	0.120
6 - 15	0.050
16 - 21	0.030
>21	0.010

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

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

FAMILY STATISTICS: Assumptions utilized in determining the costs of various survivor benefits as listed below, are derived from the information provided in the 2000 U. S. Census:

Member's <u>Age</u>	% With <u>Children</u>	Number of <u>Children</u>	Average <u>Age</u>
25	62%	1.7	6
35	82%	2.1	10
45	66%	1.8	13
55	19%	1.4	15
65	2%	1.4	15

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

## ACTUARIAL TABLES AND RATES

Age	Male Mortality Rates	Female Mortality Rates	Retirement Rates	Disability Rates
18	0.00027	0.00018	0.00000	0.00011
19	0.00028	0.00019	0.00000	0.00011
20	0.00030	0.00019	0.00000	0.00011
21	0.00032	0.00019	0.00000	0.00011
22	0.00033	0.00019	0.00000	0.00011
23	0.00035	0.00019	0.00000	0.00011
24	0.00036	0.00020	0.00000	0.00011
25	0.00037	0.00020	0.00000	0.00011
26	0.00037	0.00021	0.00000	0.00011
27	0.00038	0.00021	0.00000	0.00011
28	0.00038	0.00022	0.00000	0.00011
29	0.00038	0.00024	0.00000	0.00011
30	0.00038	0.00025	0.00000	0.00011
31	0.00039	0.00026	0.00000	0.00011
32	0.00041	0.00031	0.00000	0.00011
33	0.00044	0.00035	0.00000	0.00011
34	0.00050	0.00039	0.00000	0.00011
35	0.00056	0.00044	0.00000	0.00012
36	0.00063	0.00047	0.00000	0.00013
37	0.00070	0.00051	0.00000	0.00015
38	0.00077	0.00055	0.00000	0.00017
39	0.00084	0.00060	0.00000	0.00019
40	0.00090	0.00065	0.00000	0.00022
41	0.00096	0.00071	0.00000	0.00025
42	0.00102	0.00077	0.00000	0.00027
43	0.00108	0.00085	0.00000	0.00031
44	0.00114	0.00094	0.00000	0.00035
45	0.00122	0.00103	0.00000	0.00040
46	0.00130	0.00112	0.20000	0.00046
47	0.00140	0.00122	0.20000	0.00051
48	0.00151	0.00133	0.20000	0.00058
49	0.00162	0.00143	0.20000	0.00066
50	0.00173	0.00155	0.20000	0.00075
51	0.00186	0.00168	0.20000	0.00085
52	0.00200	0.00185	0.20000	0.00097
53	0.00214	0.00202	0.20000	0.00110
54	0.00245	0.00221	0.20000	0.00125
55	0.00267	0.00242	0.20000	0.00141
56	0.00292	0.00272	0.20000	0.00161
57	0.00320	0.00309	0.20000	0.00183
58	0.00362	0.00348	0.20000	0.00207
59	0.00420	0.00392	0.20000	0.00236
60	0.00469	0.00444	0.15000	0.00342
61	0.00527	0.00506	0.15000	0.00342
62	0.00595	0.00581	0.15000	0.00342
63	0.00675	0.00666	0.15000	0.00342
64	0.00768	0.00765	0.15000	0.00342
65	0.00876	0.00862	0.15000	0.00342

## GLOSSARY

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

**Actuarial Accrued Liability** – The actuarial present value of benefits payable to members of the fund less the present value of future normal costs attributable to the members.

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

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

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

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

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

**Actuarial Value of Assets** - The value of cash, investments, and other property belonging to the pension plan as used by the actuary for the purpose of the actuarial valuation. This may correspond to the book value, market value, or some modification involving either or both book and market value. Adjustments to market values are often made to reduce the volatility of asset values.

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

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

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

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

**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