

**PAROCHIAL EMPLOYEES'  
RETIREMENT SYSTEM**

ACTUARIAL VALUATION AS OF  
DECEMBER 31, 2014

# G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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June 10, 2015

Board of Trustees  
Parochial Employees' Retirement System  
P.O. Box 14619  
Baton Rouge, LA 70898-4619

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Parochial Employees' Retirement System for the fiscal year ending December 31, 2014. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrators and accountants. This report was prepared at the request of the Board of Trustees of the Parochial Employees' Retirement System. The primary purposes of the report are to determine the actuarially required contribution for the retirement system for the fiscal year ending December 31, 2015, and to recommend the net direct employer contribution rate for fiscal 2016. 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 Parochial Employees' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

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

Sincerely,

G. S. CURRAN & COMPANY, LTD.

By:

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

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

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**SUMMARY OF VALUATION RESULTS  
PAROCHIAL EMPLOYEES' RETIREMENT SYSTEM - PLAN A**

Valuation Date:	December 31, 2014	December 31, 2013
Census Summary:		
Active Members	14,061	13,866
Retired Members and Survivors	6,523	6,242
Terminated Due a Deferred Benefit	660	683
Terminated Due a Refund	7,026	7,109
Payroll:	\$ 566,547,812	\$ 543,669,542
Benefits in Payment:	\$ 137,309,161	\$ 124,299,785
Funding Deposit Account:	\$ 23,781,823	\$ 4,918,053
Market Value of Assets:	\$ 3,175,649,999	\$ 3,043,479,814
Actuarial Asset Value (AVA):	\$ 3,032,888,183	\$ 2,760,148,403
Actuarial Accrued Liability (EAN):	\$ 3,133,179,431	\$ 2,984,143,643

Funded Ratio (AVA/EAN): 96.80% 92.49%

\*\*\*\*\*

2015 2014

Employers' Normal Cost (January 1):	\$ 64,081,938	\$ 75,371,169
Interest Adjusted Actuarially Required Contributions Including Estimated Administrative Costs:	\$ 67,704,648	\$ 79,351,725
Projected Ad Valorem and Revenue Sharing	\$ 7,445,244	\$ 7,269,075
Actuarially Required Net Direct Employer Contributions	\$ 60,259,404	\$ 72,082,650
Actuarially Required Net Direct Employer Contribution Rate	10.40%	13.07%
Actual Net Direct Employer Contribution Rate:	14.50%	16.00%

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**Minimum Net Direct Employer Contribution Rate: For Fiscal 2016: 10.50% For Fiscal 2015: 13.00%**

Employee Contribution Rate: 9.50% of Payroll

Actuarial Cost Method: The Aggregate Actuarial Cost Method

Valuation Interest Rate: 7.25% (Net of Investment Expense)

Census Exclusions: All individuals submitted by the system were included in the valuation.

Basis of Actuarial Asset Value: The actuarial value of assets is based on the market value of assets adjusted to average in asset earnings above or below the assumed rate of return over a five-year period subject to a corridor limit of 85% to 115% of the market value of assets. If the smoothed value lies outside of the corridor limit the actuarial value is determined by averaging the smoothed value with the corridor limit.

Changes in Valuation Methods, Assumptions, and Amortization Periods: None

Method of Recognizing Gains and Losses: Under the Aggregate Actuarial Cost Method, actuarial gains and losses are spread over future normal costs.

**SUMMARY OF VALUATION RESULTS  
PAROCHIAL EMPLOYEES' RETIREMENT SYSTEM - PLAN B**

Valuation Date:	December 31, 2014	December 31, 2013
Census Summary:		
Active Members	2,321	2,288
Retired Members	714	688
Terminated Due a Deferred Benefit	135	135
Terminated Due a Refund	1,531	1,550
Payroll:	\$ 91,698,297	\$ 89,168,260
Benefits in Payment:	\$ 7,448,990	\$ 6,779,114
Funding Deposit Account:	\$ 2,281,164	\$ 2,126,959
Market Value of Assets:	\$ 253,501,744	\$ 237,412,166
Actuarial Asset Value:	\$ 242,977,968	\$ 216,066,754
Actuarial Accrued Liability (EAN):	\$ 249,207,071	\$ 233,321,224

Funded Ratio (AVA/EAN):	97.50%	92.60%
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	2015	2014
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Employers' Normal Cost (January 1):	\$ 7,291,606	\$ 8,507,432
Interest Adjusted Actuarially Required Contributions Including Estimated Administrative Costs:	\$ 7,768,249	\$ 9,023,012
Projected Ad Valorem and Revenue Sharing	\$ 1,275,783	\$ 1,116,478
Actuarially Required Net Direct Employer Contributions	\$ 6,492,466	\$ 7,906,534
Actuarially Required Net Direct Employer Contribution Rate	6.91%	8.60%
Actual Net Direct Employer Contribution Rate:	9.00%	9.25%

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**Minimum Net Direct Employer Contribution Rate: For Fiscal 2016: 7.00% For Fiscal 2015: 8.50%**

Employee Contribution Rate: 3.00% of salary

Actuarial Cost Method: The Aggregate Actuarial Cost Method

Valuation Interest Rate: 7.25% (Net of Investment Expense)

Census Exclusions: All individuals submitted by the system were included in the valuation.

Basis of Actuarial Asset Value: The actuarial value of assets is based on the market value of assets adjusted to average in asset earnings above or below the assumed rate of return over a five-year period subject to a corridor limit of 85% to 115% of the market value of assets. If the smoothed value lies outside of the corridor limit the actuarial value is determined by averaging the smoothed value with the corridor limit

Changes in Valuation Methods, Assumptions, and Amortization Periods: None

Method of Recognizing Gains and Losses: Under the Aggregate Actuarial Cost Method, actuarial gains and losses are spread over future normal costs.

## COMMENTS ON DATA

For the valuation, the administrative director of the system furnished a census on magnetic diskette 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 14,061 active members in Plan A, of whom, 7,320 members, including 636 participants in the Deferred Retirement Option Plan (DROP), have vested retirement benefits; 6,523 former members of Plan A or their beneficiaries are receiving retirement benefits. An additional 7,686 former members of Plan A have contributions remaining on deposit with the system. This includes 660 former members who have vested rights or have filed reciprocal agreements for future retirement benefits. Census data on members of Plan B may be found in Exhibit XIX. There are 2,321 active members in Plan B, of whom, 1,170 members, including 68 DROP participants, have vested retirement benefits; 714 former members of Plan B or their beneficiaries are receiving retirement benefits. An additional 1,666 former members of Plan B have contributions remaining on deposit with the system. Of this number, 135 have vested rights or have filed reciprocal agreements 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. The assigned values are based on information from similar records or based on information implied from other data in the record.

In addition to the statistical information provided on the system's participants, the system's administrative director furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, L.L.P. As indicated in the system's audit report, the net market value of Plan A's assets was \$3,175,649,999 as of December 31, 2014. For Plan A, the net investment income for fiscal 2014 measured on a market value basis amounted to \$149,089,602. Contributions to Plan A for the fiscal year totaled \$149,449,060; benefits and expenses amounted to \$166,368,477.

The net market value of Plan B's assets was \$253,501,744 as of December 31, 2014. For Plan B, the net investment income for fiscal 2014 measured on a market value basis amounted to \$11,741,033. Contributions to Plan B for the fiscal year totaled \$12,789,250; benefits and expenses amounted to \$8,440,705.

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**

Plan A was previously funded under the Frozen Attained Age Normal Cost Method. The Frozen Unfunded Accrued Liability was fully amortized in fiscal 2012. Hence, for the fiscal 2013 valuation, the system's funding method was changed to the Aggregate Actuarial Cost Method. Plan B is funded utilizing the Aggregate Actuarial Cost Method. This method does not develop an unfunded actuarial liability. Under the Aggregate Cost Method, actuarial gains and losses are spread over future normal costs. Thus, favorable plan experience will lower future normal costs; unfavorable experience will cause future normal costs to increase. In both plans, benefit and assumption changes are spread over future normal costs. Effective with fiscal 2008, for both Plans A and B, any excess funds collected pursuant to R. S. 11:105 or R. S. 11:107 are allocated to the Funding Deposit Account. The Funding Deposit Account credit balance as of the end of the prior fiscal year for Plans A and B was \$4,918,053 and \$2,126,959, respectively. Both accounts were increased with interest at 7.25% for the year. A freeze in the employer contribution rate in Plan A for fiscal 2014 resulted in a contribution gain of \$18,507,211 as of December 31, 2014. When interest and additional contributions were added to the Funding Deposit Accounts, the resulting balances as of December 31, 2014 for Plans A and B were \$23,781,823 and \$2,281,164, respectively.

The current year actuarial assumptions utilized for this report (excluding mortality) are based on the results of an actuarial experience study for the period January 1, 2006 – December 31, 2010, unless otherwise specified in this report. In cases where benefit structures were changed after the study period, assumptions were based on estimates of future experience. In the case of mortality, data was collected over the period of Fiscal 2004 through Fiscal 2009. The data was then 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. Annuity values calculated based on this mortality were compared to those produced by using standard tables. The RP-2000 Combined Healthy Mortality Table (set back one year for males and no setback for females) was selected for active members, healthy annuitants, and beneficiaries. The result of the procedure indicated that these tables would produce liability values approximating the appropriate generational mortality tables. The RP-2000 Disabled Lives Mortality Table was selected for disabled annuitants.

In determining the valuation interest rate, consideration was given to several factors, including consensus estimates of rates of return, standard deviations, and correlation coefficients for asset classes derived from various asset consulting firms. These factors were used to derive forward estimates of the Fund's portfolio. The salary increase rate for the report is 5.75% based on forward estimates of

future increases in pay resulting from three sources; inflation, merit, and productivity. An inflation rate of 3.00% 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 Adjustments (COLAs) under limited circumstances, these COLAs have not been shown to have a historical pattern, the amounts of the COLAs have not been relative to a defined cost-of-living or inflation index, and there is no evidence to conclude that COLAs will be granted on a predictable basis in the future. Therefore, for purposes of determining the present value of benefits, these COLAs were deemed not to be substantively automatic and the present value of benefits excludes COLAs not previously granted by the board of trustees.

The current year actuarial assumptions utilized for the report are outlined on pages sixty through sixty-five. All assumptions were the same as those used in the fiscal 2013 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 will be required to contribution levels. Such differences will be revealed in future actuarial valuations.

## **CHANGES IN PLAN PROVISIONS**

The following changes in plan provisions were enacted during the 2014 Regular Session of the Louisiana Legislature:

**ACT 851** amended R.S. 11:1903 to add section F allowing for the partial termination of coverage for employees hired on or after January 1, 2015 at the Iberia Medical Center in the Parochial Employees' Retirement System. If an employer terminates its agreement for coverage of its employees the employer must remit any unfunded actuarial accrued liability, if any, attributable to the employer's termination. The employer can either pay the liability in one lump sum or amortized over ten years in equal monthly payments with interest at the system's actuarial valuation rate.

## **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>Plan A</u>	<u>Market Value</u>	<u>Actuarial Value</u>
2005	6.3%	11.1%
2006	12.8%	11.3%
2007	7.9%	* 17.1%
2008	-25.7%	** -4.9%
2009	20.6%	9.1%
2010	15.2%	4.4%
2011	-0.7%	2.9%
2012	15.6%	4.2%
2013	18.1%	13.0%
2014	4.9%	10.5%



<u>Plan B</u>	<u>Market Value</u>	<u>Actuarial Value</u>
2005	5.1%	10.6%
2006	11.6%	9.8%
2007	7.7%	* 13.4%
2008	-25.0%	** -5.2%
2009	20.7%	8.8%
2010	15.4%	4.6%
2011	-0.7%	3.2%
2012	15.8%	4.8%
2013	17.6%	12.8%
2014	4.9%	10.3%

\* Includes effect of change in asset valuation method. Effective with the 2007 valuation the method was changed from smoothing capital gains and losses over 3 years to smoothing investment earnings above or below the assumed rate of return over a five year period with a +/- 10% of market value corridor limit.

\*\* Includes effects of change in asset valuation method. Effective with the 2008 valuation the corridor limits on the smoothed value were changed from +/- 10% of market value to +/- 15% with smoothed values averaged with corridor limits when they fall outside the corridor limits.

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2014, Plan A earned \$43,259,444 and Plan B earned \$2,468,460 of dividends, interest and other recurring income. In addition, Plan A had net realized and unrealized capital gains and other non-recurring income of \$117,813,231 while the total of such gains for Plan B amounted to \$10,236,450. Investment expenses were \$11,983,073 for Plan A and \$963,877 for Plan B. The geometric mean of the market value rates of return measured over the last ten years was 6.6% for Plan A and 6.5% for Plan B. For the last twenty years, the geometric mean returns were 8.2% for Plan A and 7.9% for Plan B.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.25%. This rate is calculated based on the smoothed value of assets subject to constraints as given in Exhibit III-B for Plan A and Exhibit XIII-B for Plan B. Investment income used to calculate this yield is based upon a smoothing of investment income above or below the valuation interest rate. The difference between rates of return on an actuarial and market value basis results from the smoothing utilized. In the future, yields in excess of the 7.25% assumption will reduce future costs; yields below 7.25% will increase future costs. Net actuarial investment earnings exceeded the actuarial assumed earnings rate of 7.25%, used for fiscal 2014, by \$90,151,036 for Plan A and \$6,742,953 for Plan B. These earnings surpluses produced actuarial gains, which decreased the normal cost accrual rate by 1.9581% for Plan A and 0.9462% for Plan B.

At the end of each fiscal year, a review of the data is made to identify current members of Plan A and Plan B who have consecutive service credit in both plans that have not been addressed in previous transfers of assets and liabilities between the Plan A and Plan B trust funds pursuant to the provisions of R.S. 11: 2012. In the course of reviewing data for the December 31, 2014 valuation we found members of Plan A and Plan B with such service and recommend a transfer of \$176,463 be made from the Plan A trust to the Plan B trust for fiscal 2014.

## **PLAN A – DEMOGRAPHICS AND LIABILITY EXPERIENCE**

A reconciliation of the census for the plan is given in Exhibit IX. The average active member is 46 years old with 10.1 years of service and an annual salary of \$40,292. The plan's active membership, inclusive of DROP participants, increased by 195 members during the fiscal year. The plan has experienced a decrease in the active plan population of 734 members over the last five years. A review of the active census by age indicates that over the last ten years the population under age fifty has decreased while the proportion of active members age fifty-one and above increased. Over the same ten-year period the plan showed a fairly stable distribution among the various service groups. The average regular retiree is 71 years old with a monthly benefit of \$1,956. The number of retirees and beneficiaries receiving benefits from the system increased by 281 during the fiscal year; over the last five years the number of retirees has increased by 1,110; during the same period, benefits in payment increased by \$47,101,200.

Plan liability experience for fiscal 2014 was favorable. Retirement and disabilities were below projected levels and retiree deaths were above projected levels. In addition, salary increases were below projected levels. All of these factors tend to reduce costs. However, DROP entries were above projected levels and withdrawals were below projected levels. These factors tend to offset the plan's positive experience. Plan liability gains decreased the normal cost accrual rate by 0.7155%.

## **PLAN B – DEMOGRAPHICS AND LIABILITY EXPERIENCE**

A reconciliation of the census for the plan is given in Exhibit XIX. The average active member is 47 years old with 9.7 years of service and an annual salary of \$39,508. The plan's active membership, inclusive of DROP participants, increased by 33 members during the fiscal year. The plan has experienced an increase in the active plan population of 31 members over the last five years. A review of the active census by age indicates that over the last ten years the population in the under fifty age group has decreased while the proportion of active members over age fifty increased. Over the same ten-year period the plan showed a decrease in the under-five year service group and an increase in active membership in the group with more than 25 years of service. The population by service was relatively stable at other ages. The average regular retiree is 73 years old with a monthly benefit of \$944. The number of retirees and beneficiaries receiving benefits from the system increased by 26 during the fiscal year. Over the last five years the number of retirees has increased by 154; during the same period benefits in payment increased by \$2,462,894.

Plan liability experience for fiscal 2014 was favorable. Retirements, disabilities, and DROP entries were below projected levels and retiree deaths were above projected levels. In addition, salary increases were significantly below projected levels. All of these factors tend to reduce costs. Withdrawals were below projected levels; this tends to offset cost reductions. Plan liability gains decreased the normal cost accrual rate by 0.5849%.

## 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. The funding method used for both plans produces no unfunded actuarial accrued liability.

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.

Under the provisions of R.S. 11:103, excess or deficient contributions typically decrease or increase future normal costs. However, if the minimum net direct employer contribution is scheduled to decrease, the board may maintain the contribution rate at some level above the minimum recommended rate. Pursuant to R. S. 11:105 and R. S. 11:107, such excess contributions are credited to the Funding Deposit Account.

For Plan A, the derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for fiscal 2015 as of January 1, 2015 is \$64,081,938. 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 2015 is \$67,704,648. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for fiscal 2015 is \$60,259,404. This is 10.40% of the projected Plan A payroll for fiscal 2015.

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

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

Employer's Normal Cost Accrual Rate – Fiscal 2014	14.8859%
Factors Increasing the Normal Cost Accrual Rate:	
COLA Experience	0.4450%

Factors Decreasing the Normal Cost Accrual Rate:	
Asset Experience	1.9581%
Liability Experience	0.7155%
New Members	0.4800%
Employer's Normal Cost Accrual Rate – Fiscal 2015	12.1773%

Required net direct employer contributions are also affected by the available ad valorem taxes and revenue sharing funds which the system receives each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. We estimate that for Plan A these funds collected in fiscal 2015 will decrease by 0.04% of payroll. The net effect of the above changes in the cost structure of the system resulted in a minimum actuarially required net direct employer contribution rate for fiscal 2016 for Plan A of 10.40%; the actual employer contribution rate for fiscal 2016 is 14.50% of payroll. R.S. 11:103 requires that the net direct employer contributions be rounded to the nearest 0.25%, hence we are recommending a minimum net direct employer contribution rate for Plan A of 10.50% for fiscal 2016.

For Plan B, the derivation of the actuarially required contribution for the current fiscal year is given in Exhibit XI. The normal cost for fiscal 2015 as of January 1, 2015 is \$7,291,606. 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 XI the total actuarially required contribution for fiscal 2015 is \$7,768,249. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for fiscal 2015 is \$6,492,466. This is 6.91% of the projected Plan B payroll for fiscal 2015.

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

Employer's Normal Cost Accrual Rate – Fiscal 2014	10.2781%
Factors Increasing the Normal Cost Accrual Rate:	
COLA Experience	0.1838%
Factors Decreasing the Normal Cost Accrual Rate:	
Asset Experience	0.9462%
Liability Experience	0.5859%
New Members	0.2189%
Contribution Experience	0.0802%
Employer's Normal Cost Accrual Rate – Fiscal 2015	8.6307%

We estimate that for Plan B the funds collected from ad valorem taxes and revenue sharing funds in fiscal 2015 will increase by 0.15% of payroll. The net effect of the above changes in the cost structure of the system resulted in a minimum actuarially required net direct employer contribution rate for fiscal 2016 for Plan B of 6.91%; the actual employer contribution rate for fiscal 2015 is 9.00% of payroll. R.S. 11:103 requires that the net direct employer contributions be rounded to the nearest

0.25%, hence we are recommending a minimum net direct employer contribution rate for Plan B of 7.00% for fiscal 2016.

For Plan A, the Board may set the net direct employer contribution at any rate between 10.50% and 14.50%. For Plan B, the board may set the rate at any rate between 7.00% and 9.00%. Should the net direct employer contribution rate be set at a level above the minimum rate under R.S. 11:107, the resulting additional contributions paid by the employers, if they exceed any potential contribution losses, would be added to the Funding Deposit Account for both Plans A and B.

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, based on current assets and demographics, for each percentage under (over) performance of the return on the actuarial value of assets, there will be a corresponding increase (reduction) in the normal cost accrual rate of 0.66% for Plan A and 0.34% for Plan B. We have also determined that a 1% reduction in the valuation interest rate for Plan A would increase the actuarially required contribution rate for fiscal 2016 by 10.20%; for Plan B the increase would be 5.98%.

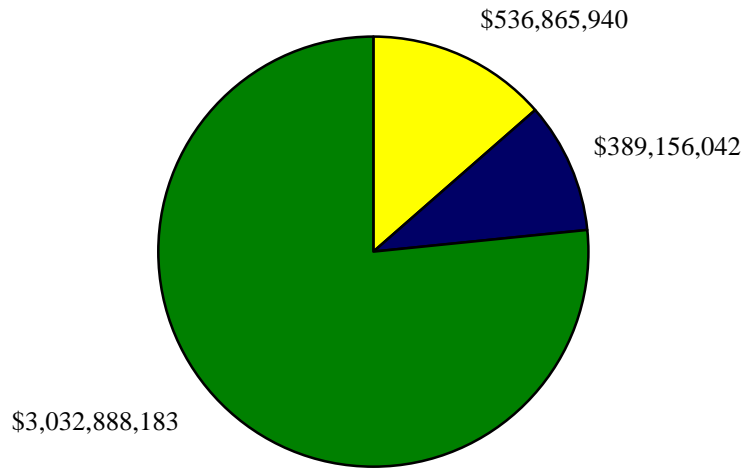
In addition to calculating the actuarially required contribution to the fund, we have also calculated the ratio of the system's assets to liabilities. When the actuarial value of assets is divided by the entry age normal accrued liability for Plans A and B, the result is 96.80% for Plan A and 97.50% for Plan B as of December 31, 2014. 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 calendar 2014, the actual cost of living (as measured by the U.S. Department of Labor) increased by 0.76%. Cost of living provisions for the system are detailed in R.S. 11:1937 and R.S. 11:246. The former statute allows the board to use interest earnings in excess of the normal requirements to grant annual cost of living increases of 2.50% of the current benefit to retirees aged 62 or over, who have been retired at least one year. R.S. 11:246 provides cost of living increases to retirees and beneficiaries over the age of 65 equal to 2% of the benefit in payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. R.S. 11:241 provides that cost of living benefits shall be in the form (unless the board otherwise specifies) of  $\$X \times (A+B)$  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 December 31<sup>st</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.

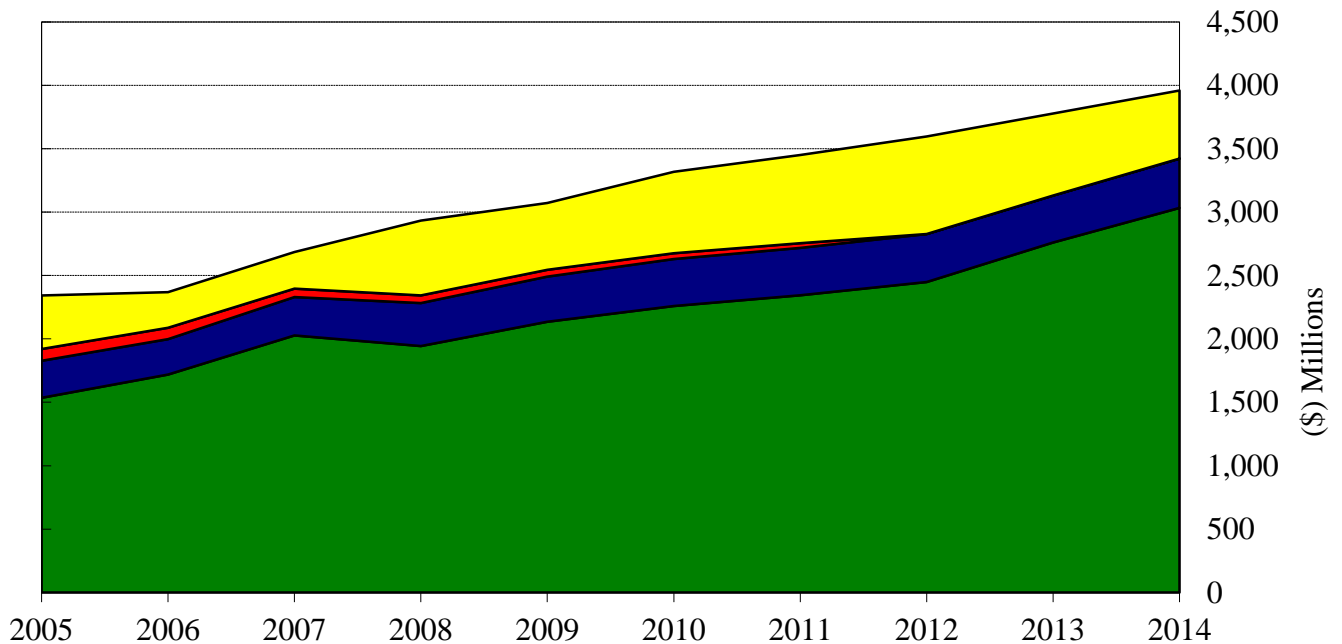
All of the above provisions require that the system earn sufficient excess interest earnings to fund the increases. For fiscal 2014, despite having excess interest earnings, since a cost of living increase was granted as of January 1, 2015, neither plan may pay a cost of living increase based upon the criteria established in R.S. 11:243.

## Plan A - Components of Present Value of Future Benefits December 31, 2014



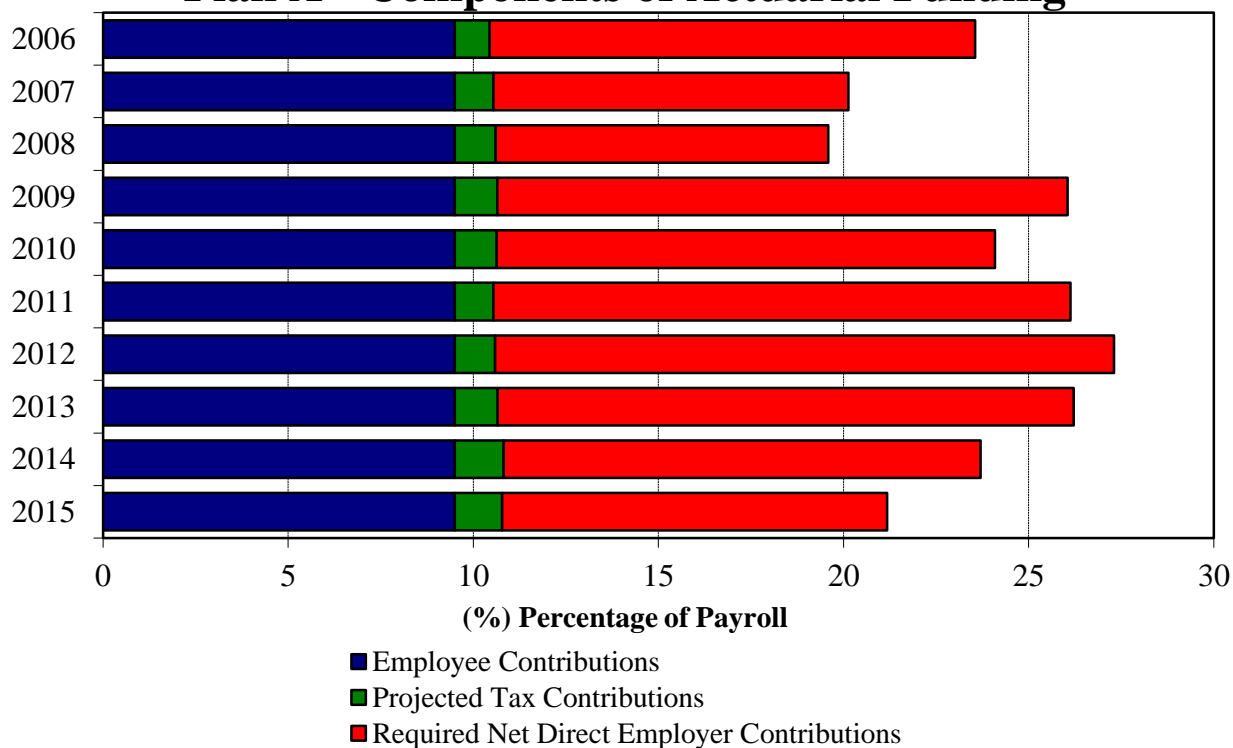
- Present Value of Future Employer Normal Cost (Net of Funding Deposit Account)
- Present Value of Future Employee Contributions
- Actuarial Value of Assets

## Plan A - Components of Present Value of Future Benefits



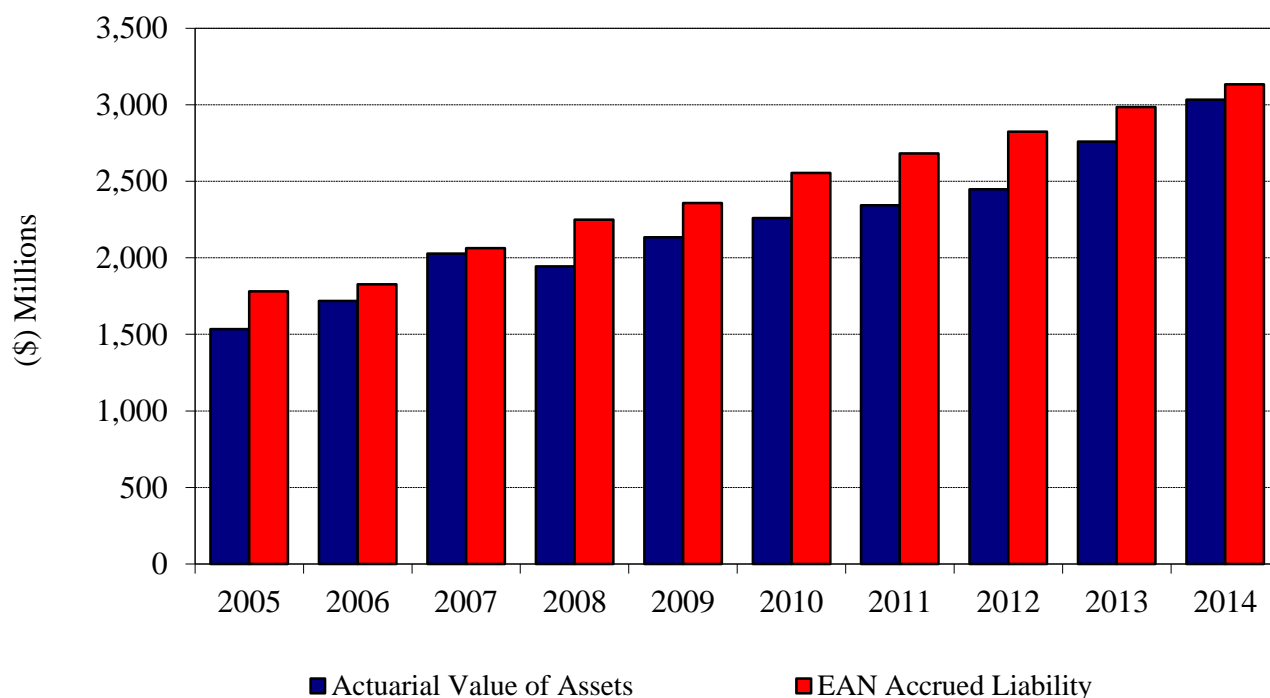
- Present Value of Future Employer Normal Cost (Net of Funding Deposit Account)
- Unfunded Accrued Liability
- Present Value of Future Employee Contributions
- Actuarial Value of Assets

## Plan A - Components of Actuarial Funding



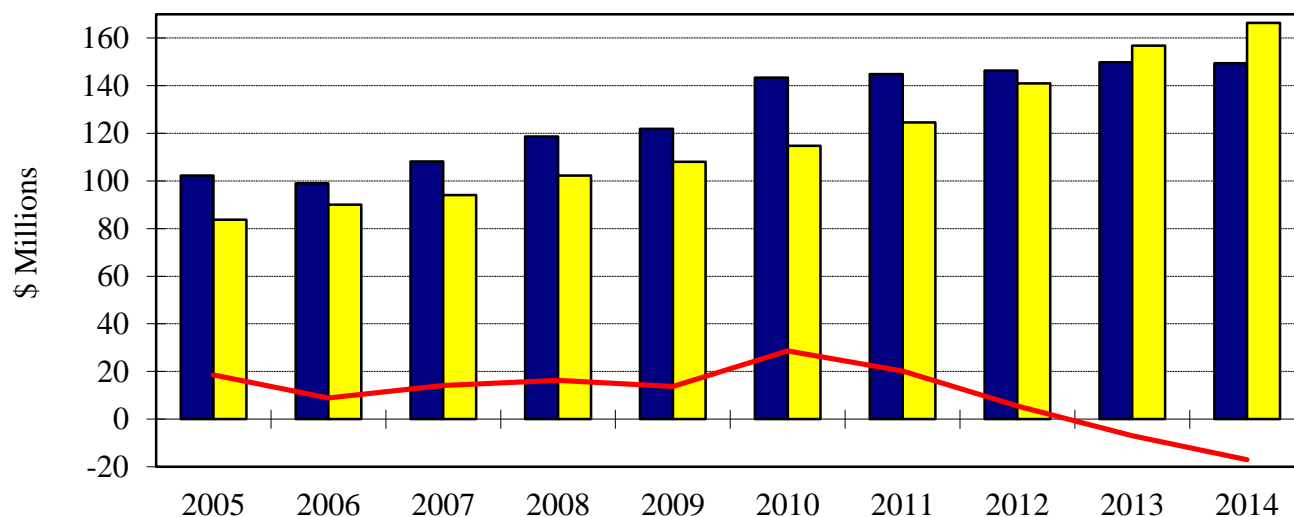
Projected Tax Contributions consist of Projected Ad Valorem and Revenue Sharing Funds as a percent of payroll

## Plan A - Actuarial Value of Assets vs. EAN Accrued Liability



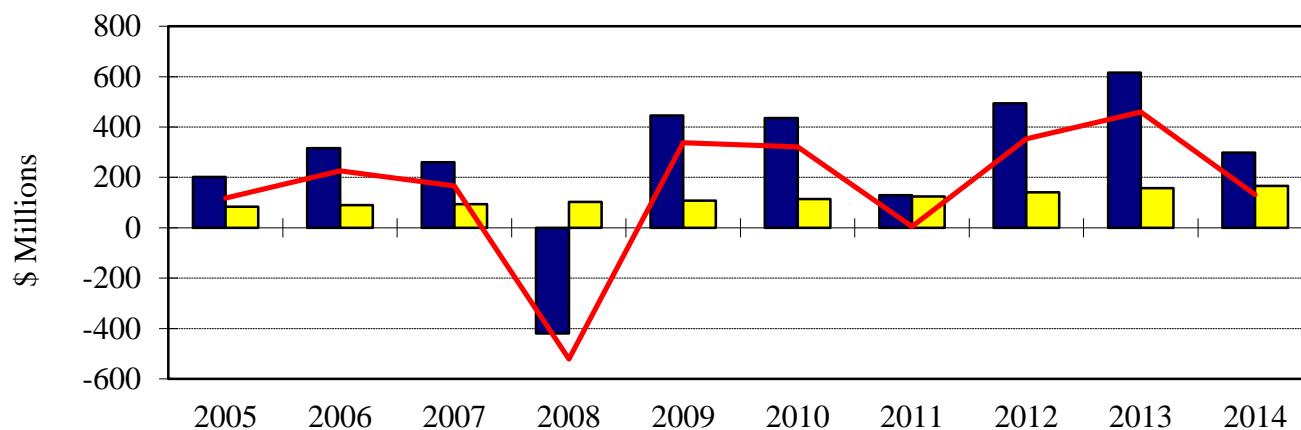


## Plan A - Net Non-Investment Income



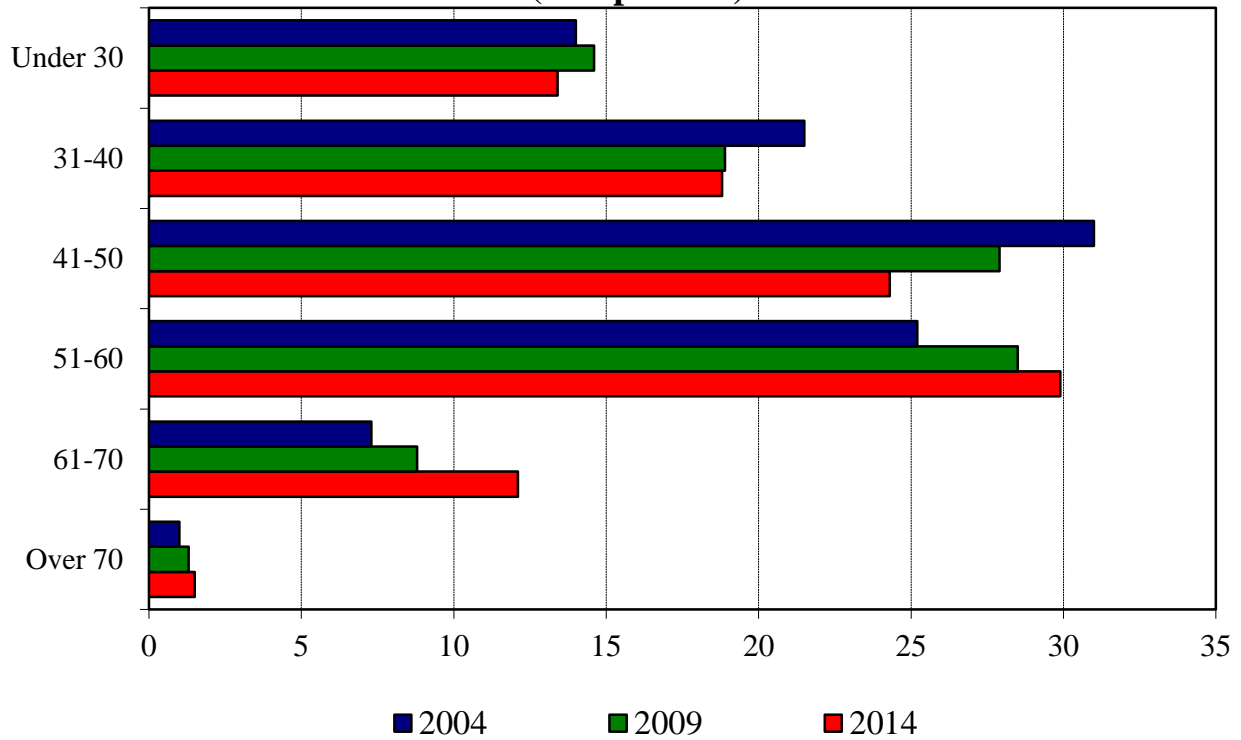
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Non-Investment Income (\$Mil)	102.3	99.0	108.2	118.6	121.9	143.4	144.8	146.4	149.8	149.4
Benefits and Expenses (\$Mil)	83.7	90.1	94.1	102.3	108.1	114.8	124.6	140.9	156.8	166.4
Net Non-Investment Income (\$Mil)	18.6	8.9	14.1	16.3	13.8	28.6	20.2	5.5	-7.0	-17.0

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

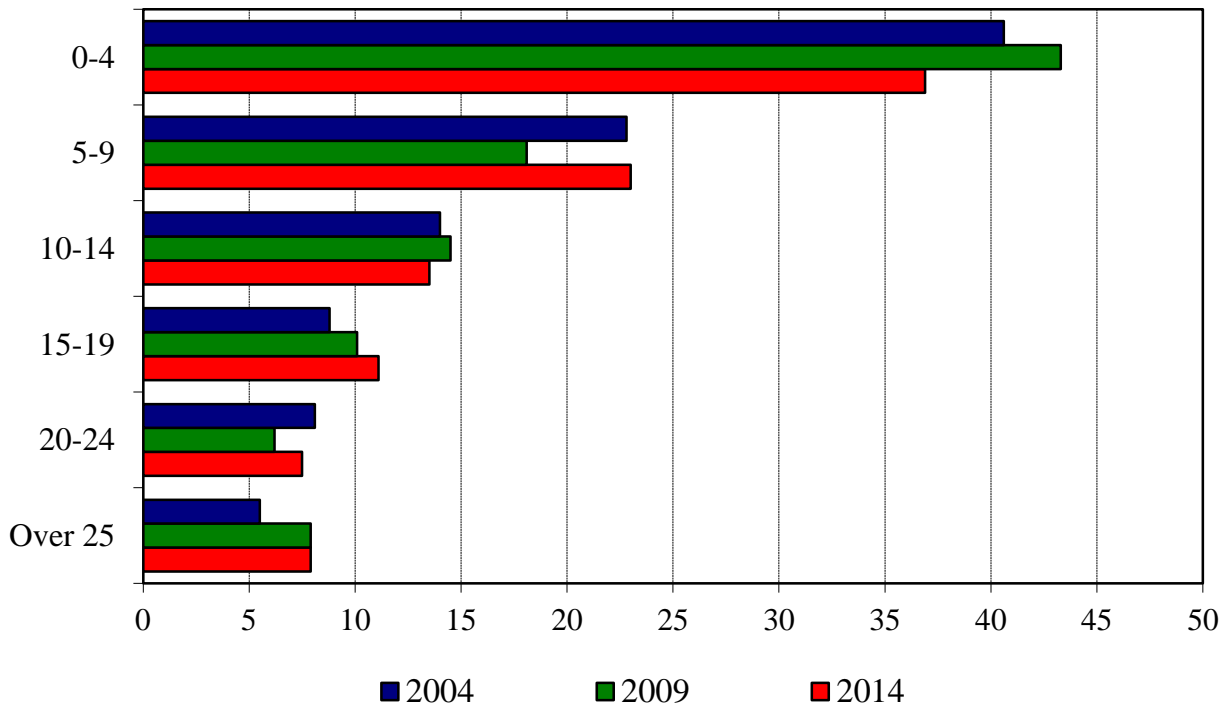


	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Income (\$Mil)	202.2	315.9	260.2	-419.2	446.2	435.7	130.1	494.4	616.3	298.5
Benefits and Expenses (\$Mil)	83.7	90.1	94.1	102.3	108.1	114.8	124.6	140.9	156.8	166.4
Net Change in MVA (\$Mil)	118.5	225.8	166.1	-521.5	338.1	320.9	5.5	353.5	459.5	132.1

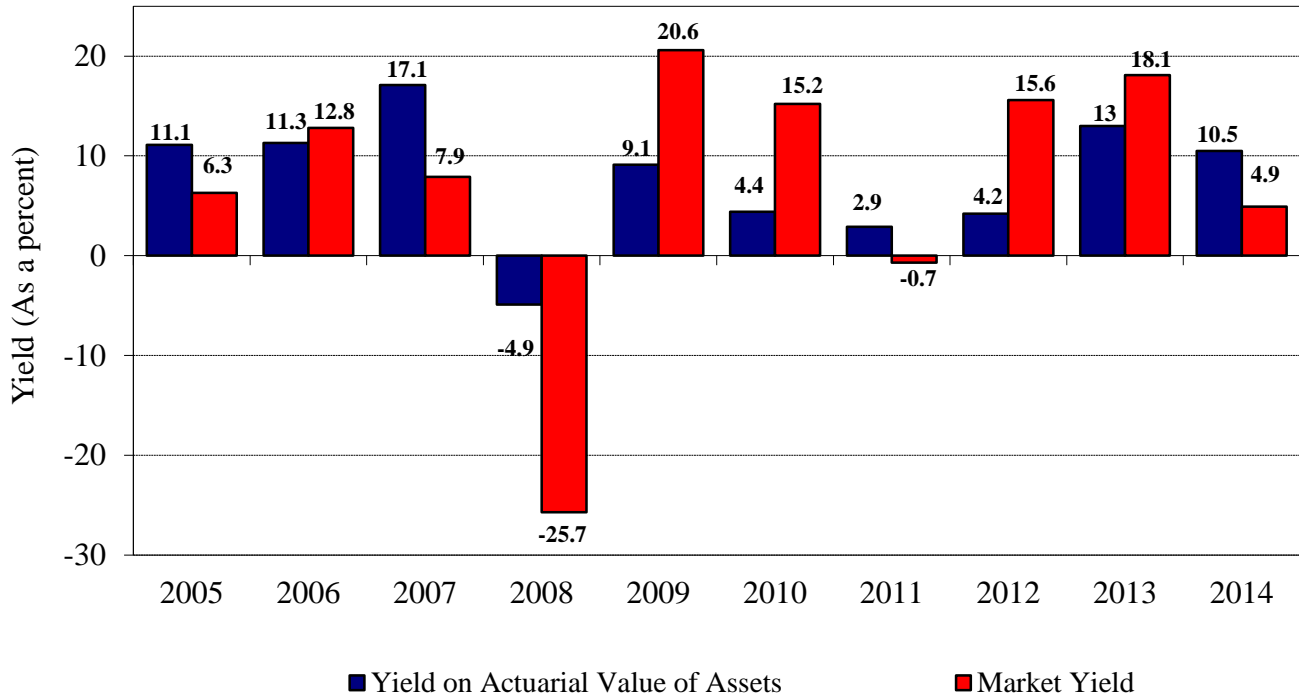
### Plan A - Active – Census By Age (as a percent)



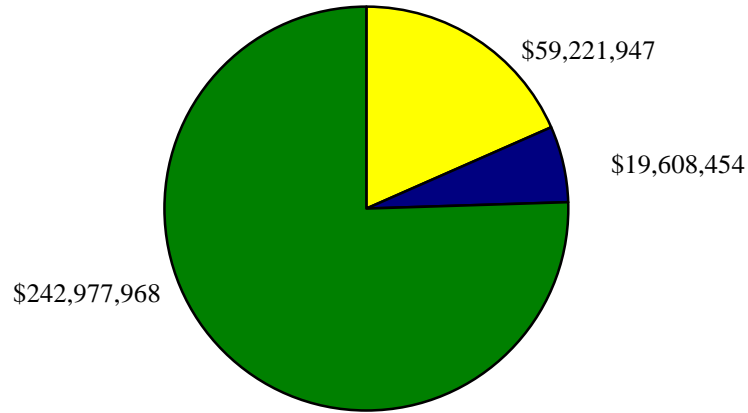
### Plan A - Active – Census By Service (as a percent)



## Plan A – Historical Asset Yield

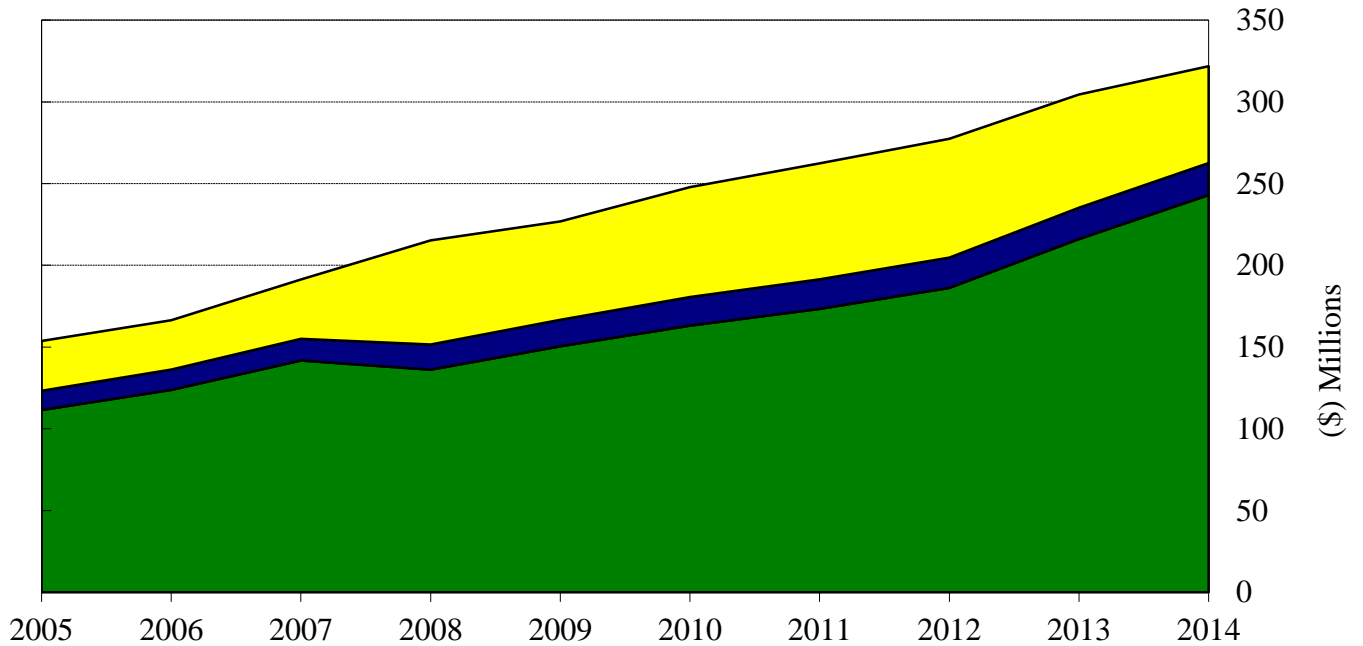


## Plan B - Components of Present Value of Future Benefits December 31, 2014



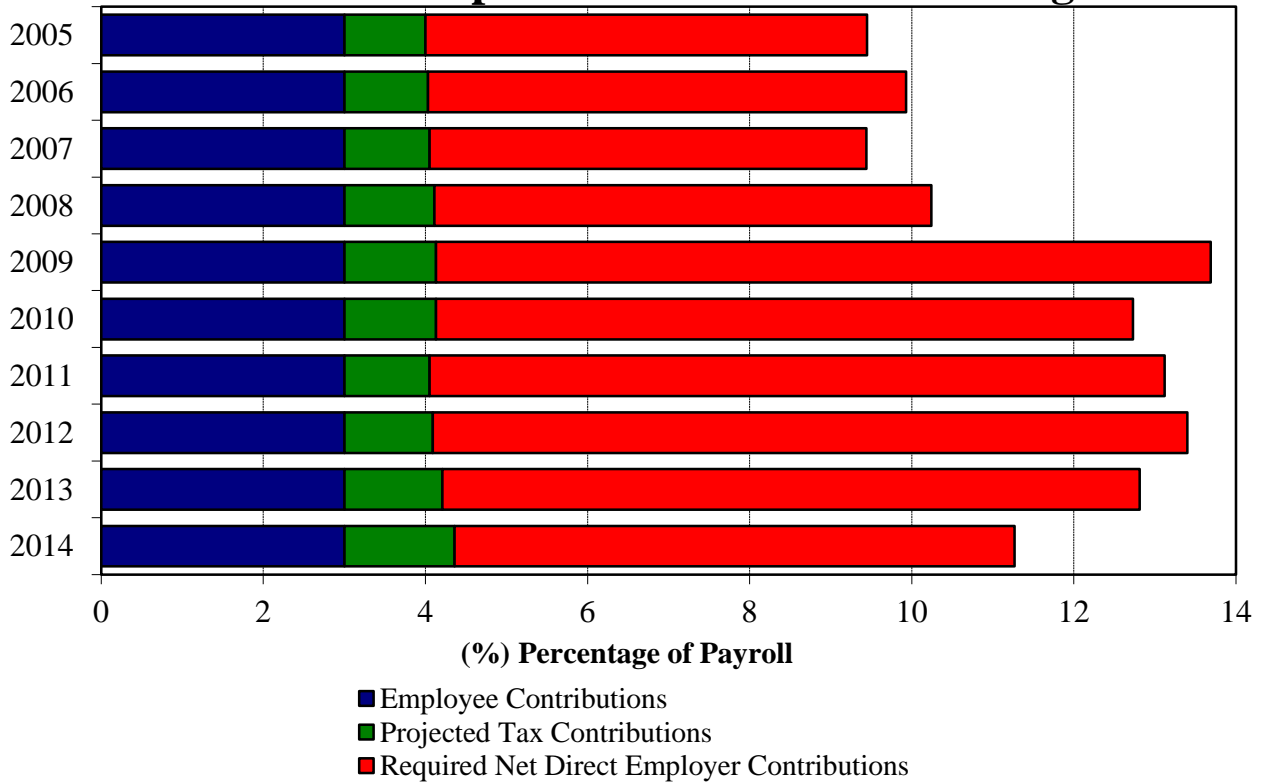
- Present Value of Future Employer Normal Cost (Net of Funding Deposit Account)
- Present Value of Future Employee Contributions
- Actuarial Value of Assets

## Plan B - Components of Present Value of Future Benefits



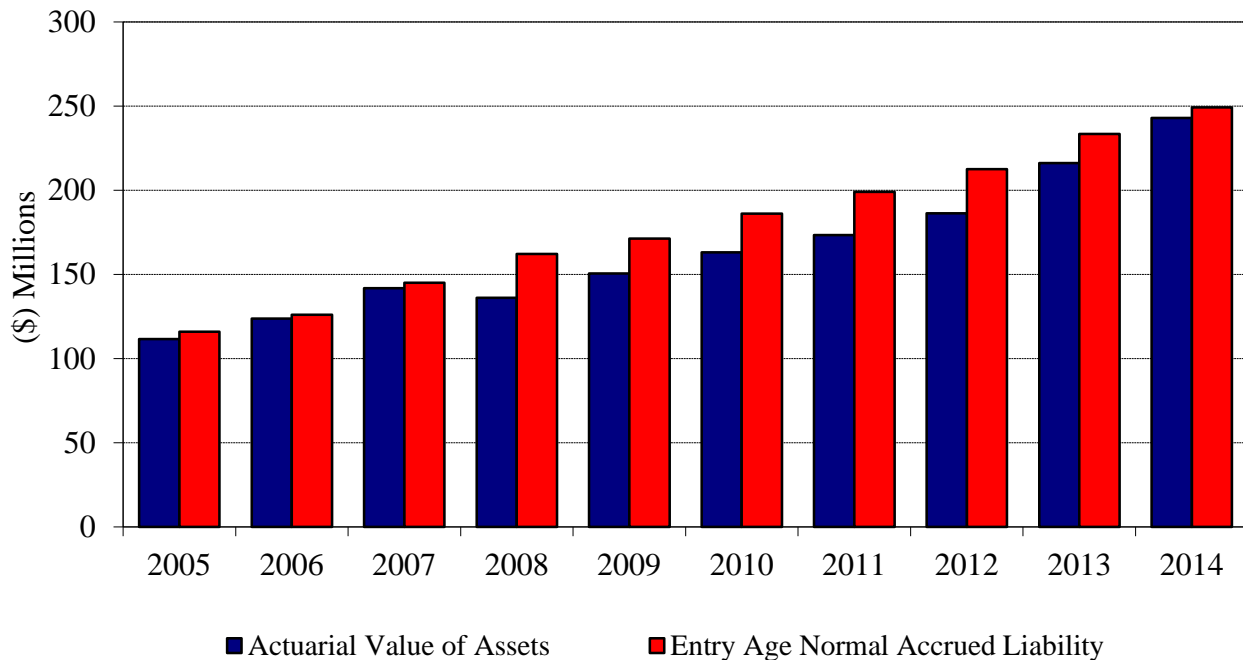
- Present Value of Future Employer Normal Cost (Net of Funding Deposit Account)
- Present Value of Future Employee Contributions
- Actuarial Value of Assets

## Plan B - Components of Actuarial Funding

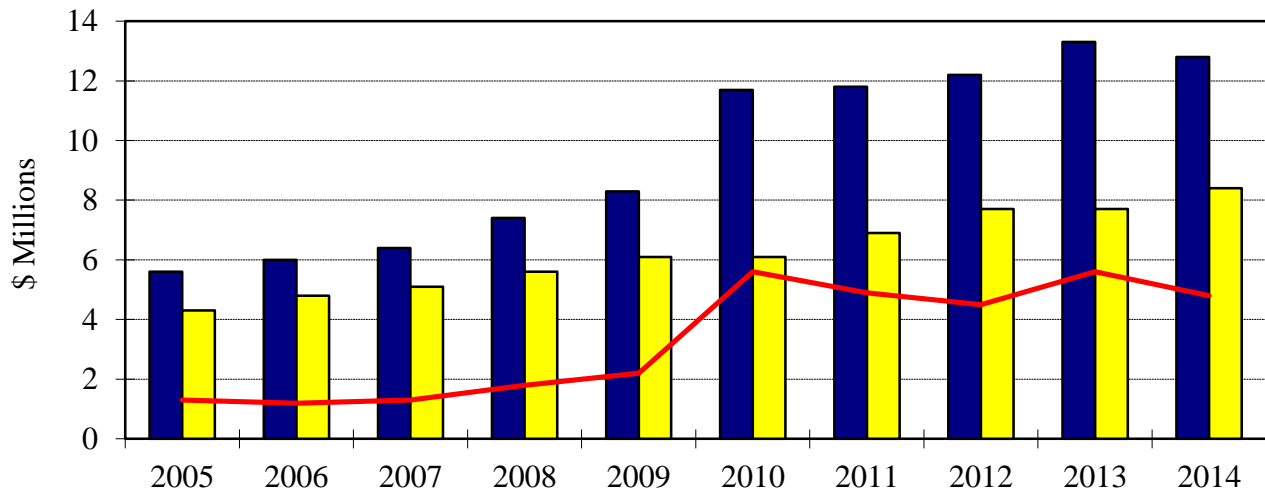


Projected Tax Contributions consist of Projected Ad Valorem and Revenue Sharing Funds as a percent of payroll

## Plan B - Actuarial Value of Assets vs. EAN Accrued Liability

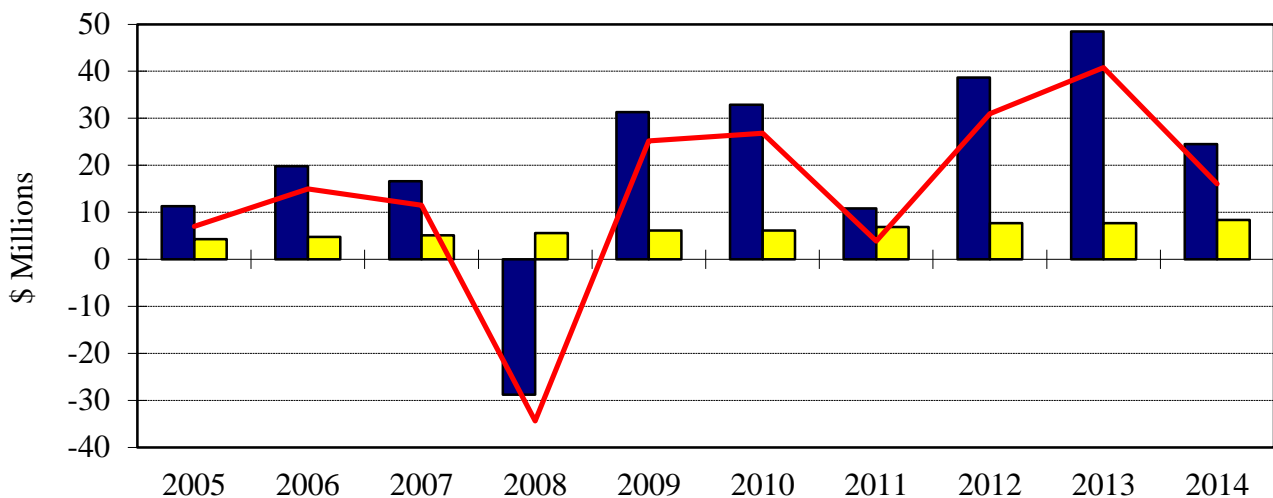


## Plan B - Net Non-Investment Income



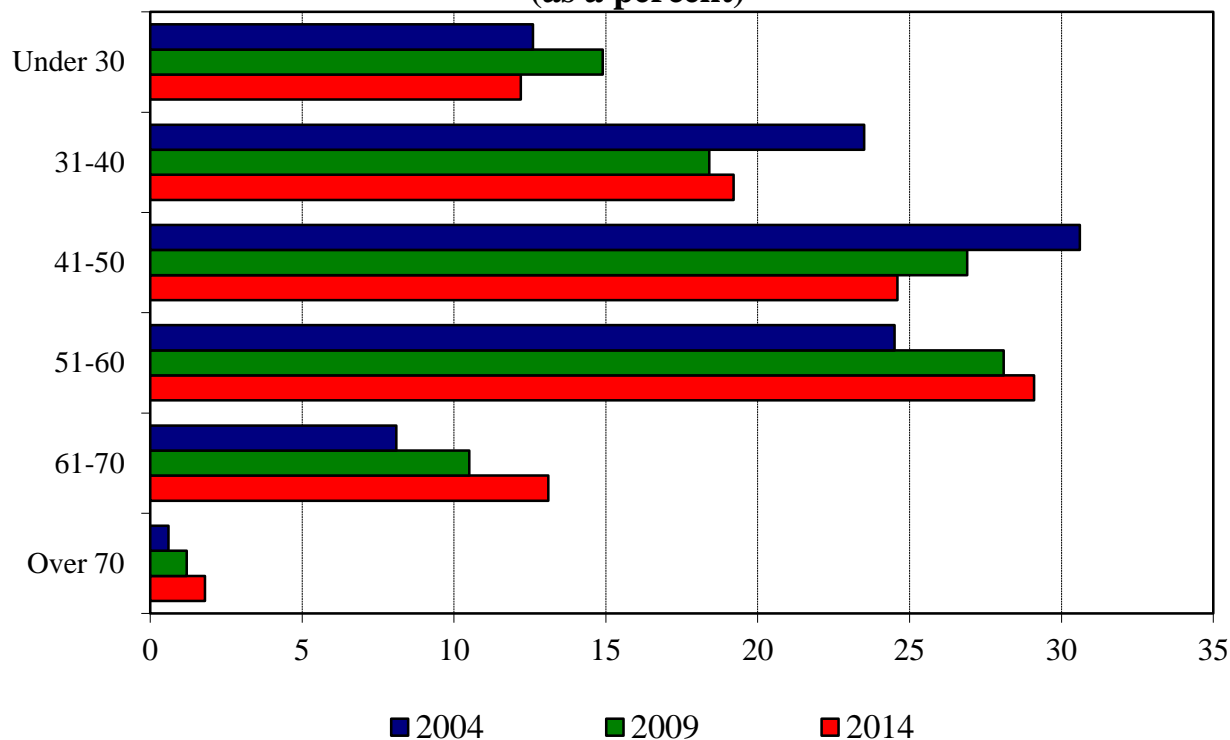
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Non-Investment Income (\$Mil)		5.6	6.0	6.4	7.4	8.3	11.7	11.8	12.2	13.3	12.8
Benefits and Expenses (\$Mil)		4.3	4.8	5.1	5.6	6.1	6.1	6.9	7.7	7.7	8.4
Net Non-Investment Income (\$Mil)		1.3	1.2	1.3	1.8	2.2	5.6	4.9	4.5	5.6	4.4

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

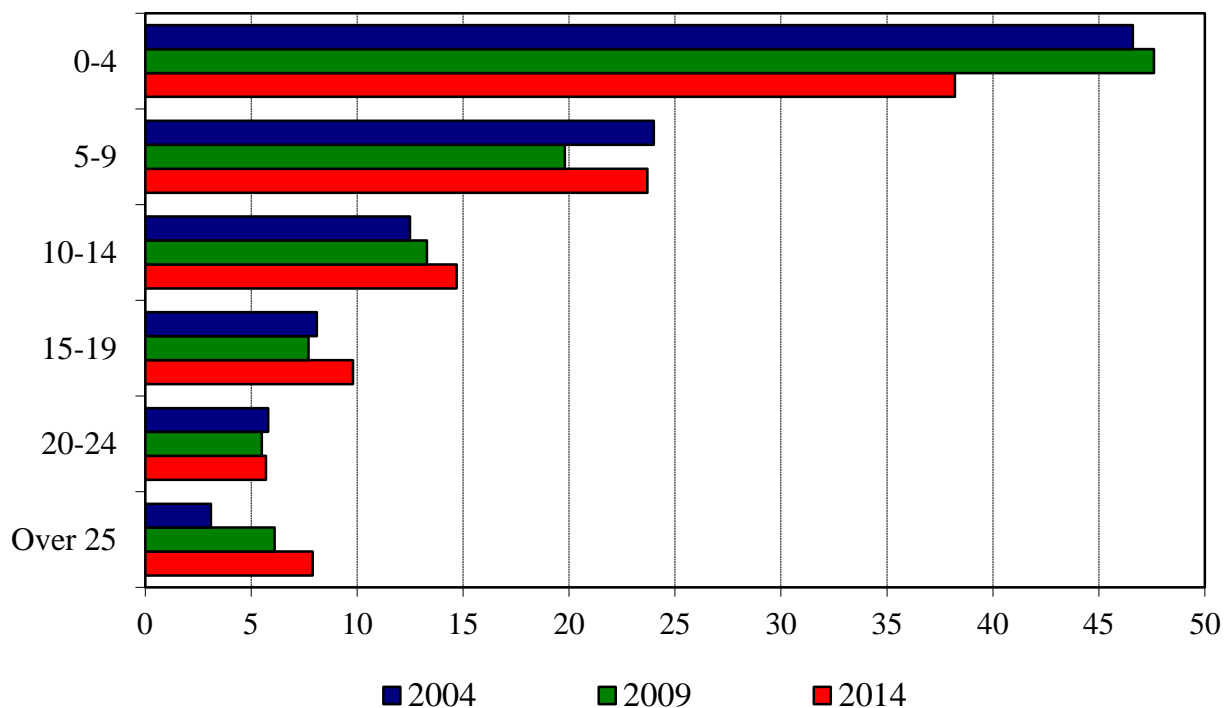


		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Income (\$Mil)		11.3	19.8	16.6	-28.8	31.3	32.9	10.8	38.7	48.5	24.5
Benefits and Expenses (\$Mil)		4.3	4.8	5.1	5.6	6.1	6.1	6.9	7.7	7.7	8.4
Net Change in MVA (\$Mil)		7.0	15.0	11.5	-34.4	25.2	26.8	3.9	31.0	40.8	16.1

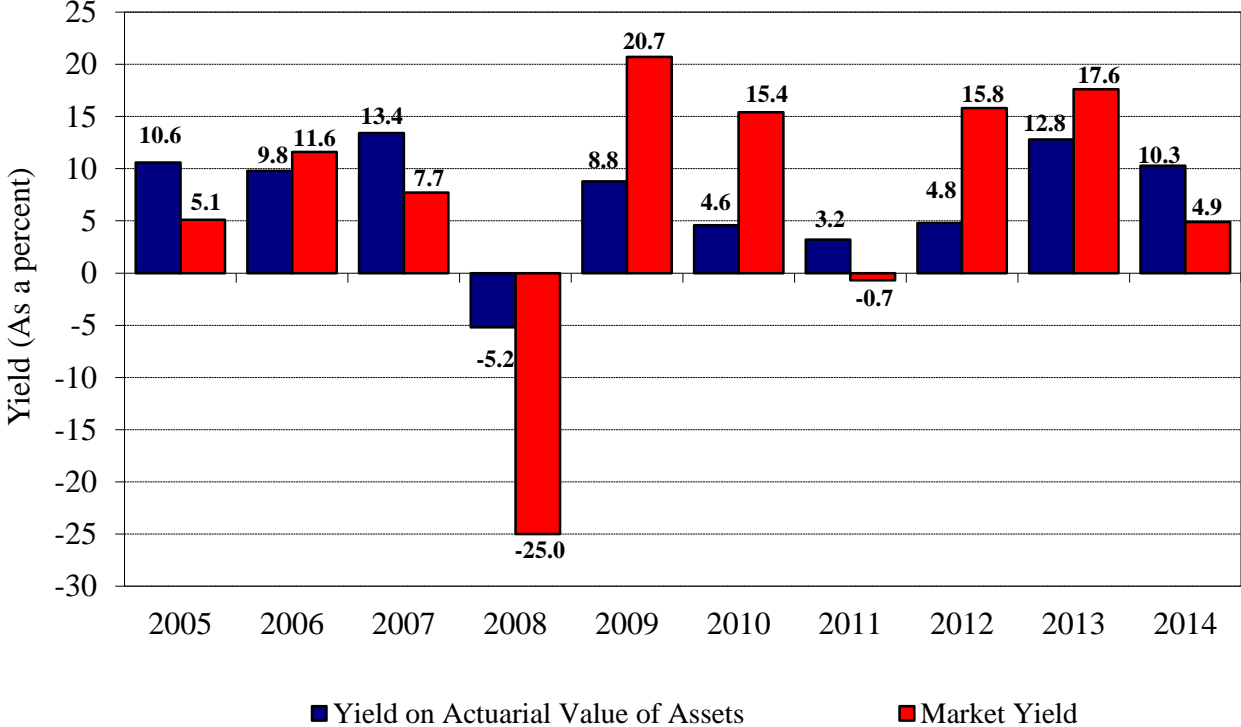
### Plan B - Active – Census By Age (as a percent)



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



# Plan B – Historical Asset Yield





**EXHIBIT I**  
**PLAN A: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS**

1. Present Value of Future Benefits .....	\$ 3,958,910,165
2. Funding Deposit Account Credit Balance .....	\$ 23,781,823
3. Actuarial Value of Assets .....	\$ 3,032,888,183
4. Present Value of Future Employee Contributions .....	\$ 389,156,042
5. Present Value of Future Employer Normal Costs (1+2-3-4).....	\$ 560,647,763
6. Present Value of Future Salaries.....	\$ 4,604,035,706
7. Employer Normal Cost Accrual Rate (5÷6) .....	12.177311%
8. Projected Fiscal 2015 Salary for Current Membership.....	\$ 526,240,466
9. Employer Normal Cost as of January 1, 2015 (7 x 8).....	\$ 64,081,938
10. Employer Normal Cost Interest Adjusted for Midyear Payment.....	\$ 66,364,265
11. Estimated Administrative Cost for Fiscal 2015 .....	\$ 1,340,383
12. TOTAL Administrative and Interest Adjusted Actuarial Costs (10 + 11).....	\$ 67,704,648
13. Estimated Ad Valorem Tax Contributions for Fiscal 2015 .....	\$ 7,308,359
14. Estimated Revenue Sharing Funds for Fiscal 2015 .....	\$ 136,885
15. Employers' Minimum Net Direct Actuarially Required Contribution for Fiscal 2015 (12 – 13 – 14).....	\$ 60,259,404
16. Projected Payroll for Fiscal 2015.....	\$ 579,656,618
17. Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2015 (15 ÷ 16).....	10.40%
18. Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2016 (17, Rounded to nearest 0.25%).....	10.50%

**EXHIBIT II**  
**PLAN A: PRESENT VALUE OF FUTURE BENEFITS**

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits .....	\$ 2,336,978,957
Survivor Benefits.....	46,348,972
Disability Benefits.....	56,881,687
Vested Termination Benefits.....	80,538,338
Refunds of Contributions .....	57,813,086

TOTAL Present Value of Future Benefits for Active Members..... \$ 2,578,561,040

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement.....	\$ 65,394,520
Terminated Members with Reciprocals	
Due Benefits at Retirement .....	183,102
Terminated Members Due a Refund .....	9,194,455

TOTAL Present Value of Future Benefits for Terminated Members..... \$ 74,772,077

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees

Maximum.....	\$ 585,443,390
Option 1 .....	1,774,887
Option 2 .....	332,978,578
Option 3 .....	168,011,108
Option 4 .....	61,696,135

TOTAL Regular Retirees..... \$ 1,149,904,098

Disability Retirees..... 73,916,632

Survivors & Widows..... 79,905,577

Reserve for Accrued Retiree DROP Account Balances ..... 1,850,741

TOTAL Present Value of Future Benefits for Retirees & Survivors..... \$ 1,305,577,048

TOTAL Present Value of Future Benefits..... \$ 3,958,910,165

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

CURRENT ASSETS:

Cash in Banks .....	\$ 2,417,355
Contributions and Taxes Receivable.....	30,655,528
Due from Other Funds .....	1,308,555
Investments Receivable .....	437,255
Accrued Interest and Dividends.....	429,010
Due to/from Plan A.....	(176,463)

TOTAL CURRENT ASSETS..... \$ 35,071,240

Property Plant & Equipment..... \$ 666,428

INVESTMENTS:

Cash Equivalents.....	\$ 52,008,247
Equities .....	1,972,786,640
Fixed Income .....	855,784,910
Real Estate .....	150,408,124
Alternative Investments .....	125,562,682

TOTAL INVESTMENTS..... \$ 3,156,550,603

TOTAL ASSETS ..... \$ 3,192,288,271

CURRENT LIABILITIES:

Accounts Payable .....	\$ 1,871,680
Benefits Payable.....	12,991,705
Refunds Payable.....	690,229
Investments Payable.....	610,437
Other Post-Employment Benefits Payable.....	474,221

TOTAL CURRENT LIABILITIES ..... \$ 16,638,272

MARKET VALUE OF ASSETS..... \$ 3,175,649,999

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

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

Fiscal year 2014.....	\$ (70,960,087)
Fiscal year 2013.....	272,966,174
Fiscal year 2012.....	180,555,953
Fiscal year 2011.....	(182,360,994)
Fiscal year 2010.....	<u>147,846,491</u>
Total for five years .....	\$ 348,047,537

Deferral of excess (shortfall) of invested income:

Fiscal year 2014 (80%).....	\$ (56,768,070)
Fiscal year 2013 (60%).....	163,779,704
Fiscal year 2012 (40%).....	72,222,381
Fiscal year 2011 (20%).....	(36,472,199)
Fiscal year 2010 ( 0%).....	<u>0</u>
Total deferred for year .....	\$ 142,761,816

Market value of plan net assets, end of year..... \$ 3,175,649,999

Preliminary actuarial value of plan assets, end of year ..... \$ 3,032,888,183

Actuarial value of assets corridor

85% of market value, end of year.....	\$ 2,699,302,499
115% of market value, end of year.....	\$ 3,651,997,499

Final actuarial value of plan net assets, end of year ..... \$ 3,032,888,183

**EXHIBIT IV**  
**PLAN A: PRESENT VALUE OF FUTURE CONTRIBUTIONS**

Employee Contributions to the Annuity Savings Fund .....	\$	389,156,042
Employer Normal Contributions to the Pension Accumulation Fund .....		560,647,763
Funding Deposit Account Credit Balance .....		(23,781,823)
<b>TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS .....</b>	<b>\$</b>	<b>926,021,982</b>

**EXHIBIT V**  
**PLAN A: RECONCILIATION OF CONTRIBUTIONS**

Employer Normal Cost for Prior Year.....	\$	75,371,169
Interest on the Normal Cost.....		5,464,410
Administrative Expenses .....		1,252,136
Interest on Expenses .....		44,597
<b>TOTAL Interest Adjusted Actuarially Required Contributions .....</b>	<b>\$</b>	<b>82,132,312</b>
Direct Employer Contributions.....	\$	90,041,259
Interest on Employer Contributions.....		3,206,888
Ad Valorem Taxes and Revenue Sharing.....		7,137,180
Interest on Ad Valorem Taxes and Revenue Sharing Funds .....		254,196
<b>TOTAL Interest Adjusted Employer Contributions .....</b>	<b>\$</b>	<b>100,639,523</b>
<b>CONTRIBUTION SURPLUS (DEFICIENCY) .....</b>	<b>\$</b>	<b>18,507,211</b>

**EXHIBIT VI**  
**PLAN A: ANALYSIS OF INCREASE IN ASSETS**

Actuarial Value of Assets (December 31, 2013) .....		\$ 2,760,148,403
<b>INCOME:</b>		
Member Contributions .....	\$ 50,171,491	
Employer Contributions .....	90,041,259	
Irregular Contributions .....	2,099,130	
Ad Valorem and Revenue Sharing Funds .....	7,137,180	
Total Contributions .....		\$ 149,449,060
Net Appreciation in Fair Value of Investments .....	\$ 117,670,182	
Interest & Dividends .....	43,259,444	
Class Action Settlement .....	95,284	
Miscellaneous Income .....	47,765	
Investment Expense .....	(11,983,073)	
Net Investment Income .....		\$ 149,089,602
TOTAL Income .....		\$ 298,538,662
<b>EXPENSES:</b>		
Retirement Benefits .....	\$ 130,712,269	
DROP Disbursements .....	21,075,064	
Refunds of Contributions .....	11,000,773	
Transfers to another System .....	2,321,239	
Other Benefits .....	6,996	
Administrative Expenses .....	1,252,136	
TOTAL Expenses .....		\$ 166,368,477
Net Market Value Income for Fiscal 2014 (Income - Expenses) .....		\$ 132,170,185
Unadjusted Fund Balance as of December 31, 2014 (Fund Balance Previous Year + Net Income) .....		\$ 2,892,318,588
Adjustment for Actuarial Smoothing .....		\$ 140,569,595
Actuarial Value of Assets: (December 31, 2014) .....		\$ 3,032,888,183

**EXHIBIT VII**  
**PLAN A: PENSION BENEFIT OBLIGATION**

Present Value of Credited Projected Benefits Payable to Current Employees.....	\$	1,677,952,140
Present Value of Benefits Payable to Terminated Employees .....		74,772,077
Present Value of Benefits Payable to Current Retirees and Beneficiaries .....		1,305,577,048
TOTAL PENSION BENEFIT OBLIGATION.....	\$	3,058,301,265
NET ACTUARIAL VALUE OF ASSETS .....	\$	3,032,888,183
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation.....		99.17%

**EXHIBIT VIII**  
**PLAN A: ENTRY AGE NORMAL ACCRUED LIABILITIES**

Accrued Liability for Active Employees .....	\$	1,752,830,306
Accrued Liability for Terminated Employees .....		74,772,077
Accrued Liability for Current Retirees and Beneficiaries .....		1,305,577,048
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY .....	\$	3,133,179,431
NET ACTUARIAL VALUE OF ASSETS .....	\$	3,032,888,183
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability .....		96.80%

**EXHIBIT IX  
PLAN A - CENSUS DATA**

	<b>Active</b>	<b>Terminated with Funds on Deposit</b>	<b>DROP</b>	<b>Retired</b>	<b>Total</b>
Number of members as of December 31, 2013	13,140	7,792	726	6,242	27,900
Additions to Census					
Initial membership	1,653	22			1675
Death of another member			(5)	76	71
Omitted in error last year				(2)	(2)
Adjustment for multiple records	1				1
Change in Status during Year					
Actives terminating service	(353)	353			
Actives who retired	(234)			234	
Actives entering DROP	(212)		212		
Term. members rehired	51	(51)			
Term. members who retire		(49)		49	
Retirees who are rehired	4			(4)	
Refunded who are rehired	36	3			39
DROP participants retiring			(168)	168	
DROP returned to work	128		(128)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(760)	(367)			(1,127)
Deaths	(29)	(17)	(1)	(240)	(287)
Included in error last year					
Adjustment for multiple records					
Number of members as of December 31, 2014	13,425	7,686	636	6,523	28,270



PLAN A - ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	51	23	74	22,037	1,630,709
21 - 25	351	301	652	26,532	17,298,707
26 - 30	502	651	1,153	32,262	37,198,214
31 - 35	628	724	1,352	36,740	49,672,008
36 - 40	599	696	1,295	41,311	53,497,779
41 - 45	717	839	1,556	42,519	66,159,521
46 - 50	937	926	1,863	42,929	79,977,543
51 - 55	1,103	1,094	2,197	42,719	93,854,204
56 - 60	984	1,022	2,006	43,588	87,438,084
61 - 65	691	582	1,273	42,430	54,013,788
66 - 70	240	192	432	41,393	17,881,781
71 - 75	74	64	138	42,024	5,799,299
76 - 80	35	21	56	30,093	1,685,232
81 - 85	10	4	14	31,496	440,943
TOTAL	6,922	7,139	14,061	40,292	566,547,812

THE ACTIVE CENSUS INCLUDES 7,320 ACTIVES WITH VESTED BENEFITS, INCLUDING 636 DROP PARTICIPANTS AND 344 ACTIVE FORMER DROP PARTICIPANTS.

PLAN A - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
26 - 30	2	0	2	9,719	19,438
31 - 35	7	12	19	10,594	201,291
36 - 40	21	30	51	12,545	639,793
41 - 45	24	50	74	16,170	1,196,560
46 - 50	48	73	121	17,891	2,164,794
51 - 55	60	85	145	21,298	3,088,238
56 - 60	73	90	163	15,951	2,600,032
61 - 65	28	35	63	11,478	723,100
66 - 70	7	2	9	4,220	37,980
71 - 75	6	3	9	5,814	52,328
76 - 80	0	1	1	1,713	1,713
81 - 85	1	1	2	567	1,134
91 - 99	0	1	1	666	666
TOTAL	277	383	660	16,253	10,727,067

PLAN A - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From	To	Number	Total Contributions
0	99	4,394	117,386
100	499	1,015	245,953
500	999	371	267,267
1000	1999	296	415,794
2000	4999	406	1,311,958
5000	9999	273	2,001,760
10000	19999	200	2,816,029
20000	99999	71	1,992,686
TOTAL		7,026	9,168,833

PLAN A - REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	2	4	6	58,697	352,184
51 - 55	81	57	138	48,479	6,690,070
56 - 60	196	181	377	44,523	16,785,254
61 - 65	447	444	891	29,893	26,634,446
66 - 70	598	487	1,085	23,777	25,797,676
71 - 75	529	437	966	19,681	19,011,587
76 - 80	431	318	749	16,499	12,357,563
81 - 85	262	247	509	14,731	7,497,916
86 - 90	136	145	281	12,948	3,638,311
91 - 99	43	59	102	10,319	1,052,549
TOTAL	2,725	2,379	5,104	23,475	119,817,556

PLAN A - DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	1	2	3	11,574	34,721
41 - 45	8	5	13	13,074	169,959
46 - 50	15	15	30	15,176	455,287
51 - 55	45	26	71	18,752	1,331,397
56 - 60	82	50	132	16,646	2,197,264
61 - 65	91	44	135	14,161	1,911,699
66 - 70	58	28	86	13,133	1,129,454
71 - 75	20	18	38	9,520	361,763
76 - 80	10	3	13	5,594	72,720
81 - 85	4	0	4	5,269	21,074
86 - 90	1	0	1	9,317	9,317
TOTAL	335	191	526	14,629	7,694,655

PLAN A - SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	13	9	22	12,917	284,181
26 - 30	0	1	1	7,266	7,266
31 - 35	2	0	2	7,824	15,647
36 - 40	2	2	4	21,773	87,092
41 - 45	0	1	1	16,866	16,866
46 - 50	2	15	17	16,115	273,955
51 - 55	8	20	28	14,559	407,642
56 - 60	8	28	36	15,364	553,103
61 - 65	12	72	84	14,666	1,231,906
66 - 70	13	112	125	11,733	1,466,645
71 - 75	18	147	165	11,735	1,936,331
76 - 80	13	131	144	10,295	1,482,480
81 - 85	8	123	131	8,014	1,049,873
86 - 90	0	81	81	8,438	683,456
91 - 99	1	51	52	5,779	300,507
TOTAL	100	793	893	10,971	9,796,950

PLAN A - ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Total			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over				
0 - 20	57	16	1												74
21 - 25	298	179	77	50	25	23									652
26 - 30	298	204	145	130	93	267	16								1,153
31 - 35	223	174	110	91	95	463	179	17							1,352
36 - 40	175	135	83	84	79	362	243	120	14						1,295
41 - 45	139	142	83	84	88	396	250	244	110	20					1,556
46 - 50	167	133	103	74	82	431	270	264	206	103	30				1,863
51 - 55	165	136	114	90	81	453	293	291	260	173	141				2,197
56 - 60	91	99	79	72	79	420	328	300	214	157	167				2,006
61 - 65	26	41	45	52	39	301	222	216	146	90	95				1,273
66 - 70	8	15	10	9	6	92	73	82	58	38	41				432
71 & Over	2	5	5	3	3	32	30	30	47	20	31				208
Totals	1649	1279	855	739	670	3240	1904	1564	1055	601	505				14061

PLAN A - AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over				
0 - 20	22,263	21,205	22,459												22,037
21 - 25	25,303	25,872	28,930	29,376	29,752	29,874									26,532
26 - 30	27,886	30,473	32,009	34,316	34,359	36,308	42,474								32,262
31 - 35	29,690	32,114	32,356	34,206	37,512	40,340	43,552	44,394							36,740
36 - 40	31,584	36,438	35,747	40,838	39,628	42,303	49,652	45,100	52,309						41,311
41 - 45	31,221	33,806	34,680	35,725	35,602	42,319	46,193	51,520	55,091	53,482					42,519
46 - 50	30,502	36,104	35,946	37,564	37,959	39,921	44,438	46,948	53,958	55,957	66,998				42,929
51 - 55	27,777	32,909	31,849	36,494	40,431	37,063	42,591	44,529	51,535	58,921	62,313				42,719
56 - 60	32,730	38,285	36,306	35,727	44,665	36,651	43,820	43,319	49,834	53,122	59,484				43,588
61 - 65	30,064	31,365	36,801	40,966	36,523	38,322	41,763	41,190	45,289	55,957	56,672				42,430
66 - 70	22,587	33,798	39,927	37,981	37,161	32,698	41,549	42,394	38,201	51,312	62,121				41,393
71 & Over	24,347	29,235	54,540	26,467	21,941	36,938	35,212	44,192	34,782	43,803	39,926				38,103
Average	28,668	32,448	33,714	36,079	37,904	38,964	44,275	45,259	49,700	55,289	59,205				40,292

PLAN A - 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 - 25												0
26 - 30											2	2
31 - 35										6	13	19
36 - 40									24	26	1	51
41 - 45								46	28			74
46 - 50							80	41				121
51 - 55			1			113	31					145
56 - 60	17	26	27	29	30	34						163
61 - 65	41	7	2	4	9							63
66 - 70	9											9
71 - 75												9
76 - 80	1											1
81 - 85	2											2
86 - 90												0
91 & Over	1											1
Totals	80	33	30	33	39	147	111	87	52	32	16	660

PLAN A - 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 - 25												0
26 - 30											9,719	9,719
31 - 35										12,807	9,573	10,594
36 - 40									15,211	10,083	12,564	12,545
41 - 45								19,214	11,169			16,170
46 - 50							21,436	10,974				17,891
51 - 55			87,392			23,804	10,031					21,298
56 - 60	21,284	16,087	16,064	16,522	20,029	9,007						15,951
61 - 65	12,666	7,539	14,249	10,877	8,778							11,478
66 - 70	4,220											4,220
71 - 75	5,814											5,814
76 - 80	1,713											1,713
81 - 85	567											567
86 - 90												0
91 & Over	666											666
Average	12,187	14,274	18,321	15,837	17,432	20,382	18,251	15,330	13,035	10,594	9,778	16,253

PLAN A - SERVICE RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 50	3	2	1									6
51 - 55	36	27	35	23	8	9						138
56 - 60	83	76	58	33	37	87	3					377
61 - 65	146	151	146	101	72	217	55	3				891
66 - 70	101	102	119	96	98	416	118	28	6	1		1,085
71 - 75	26	26	43	31	37	320	347	98	29	9		966
76 - 80	12	6	17	19	10	99	236	226	83	33	8	749
81 - 85		4	7	8	4	37	66	126	190	50	17	509
86 - 90			3			5	18	31	82	119	23	281
91 & Over				1		1	4	7	10	34	45	102
Totals	407	394	429	312	266	1191	847	519	400	246	93	5104

PLAN A - AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 50	67,617	58,004	33,326									58,697
51 - 55	51,072	51,108	49,169	47,844	39,964	36,726						48,479
56 - 60	41,366	46,839	48,766	46,614	46,851	41,059	39,933					44,523
61 - 65	24,571	25,290	26,613	26,650	29,240	38,198	39,064	36,124				29,893
66 - 70	21,645	20,831	18,267	18,644	24,073	23,858	34,832	32,376	35,495	9,190		23,777
71 - 75	16,023	18,778	19,192	24,262	21,660	16,755	19,435	26,084	30,044	21,667		19,681
76 - 80	11,562	24,662	14,666	15,111	14,988	15,871	14,862	14,907	24,315	25,300	10,485	16,499
81 - 85		22,429	14,291	28,154	22,332	11,585	12,678	14,580	13,280	21,022	18,634	14,731
86 - 90			12,039			11,290	11,472	14,467	11,547	12,817	18,203	12,948
91 & Over				18,885		5,473	19,216	11,917	11,595	9,036	9,883	10,319
Average	29,002	29,759	27,629	26,934	28,415	24,803	20,956	17,937	16,721	15,946	13,592	23,475



PLAN A - SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	3	4	2	2	1	7		1				20
21 - 25			1					1				2
26 - 30				1								1
31 - 35					1							2
36 - 40	1					2	1		1	1		4
41 - 45						1						1
46 - 50						5	7	1				17
51 - 55	1	1	3	2	1	11	3	4	1		1	28
56 - 60	2	2		5	1	14	5	6	1			36
61 - 65	5	3	7	7	2	27	16	12	4			84
66 - 70	2	5	4	1	4	49	32	19	6	1	2	125
71 - 75	1	1	4	1	1	36	59	34	19	6	4	165
76 - 80	1		4	4	2	15	26	36	32	24	4	144
81 - 85						9	10	25	45	27	15	131
86 - 90					1		1	6	22	32	19	81
91 & Over						1		3	4	10	34	52
Totals	16	17	21	24	14	177	160	148	135	102	79	893

PLAN A - AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 20	12,763	12,826	11,193	34,640	25,355	8,491		4,386				13,522
21 - 25			7,395					6,348				6,872
26 - 30				7,266								7,266
31 - 35						8,273	6,958		8,689	7,009		7,824
36 - 40	63,537					16,866						21,773
41 - 45						17,847						16,866
46 - 50						17,007	12,259	16,397				16,115
51 - 55	26,902	5,000	16,881	22,723	7,352	17,847	14,413	5,660	4,417		1,303	14,559
56 - 60	10,830	17,359		27,389	11,649	17,007	17,065	8,340	4,683			15,364
61 - 65	17,335	28,560	8,657	13,866	62,208	14,263	16,619	8,920	4,483	1,506		14,666
66 - 70	8,623	7,732	11,659	23,884	13,238	12,296	13,385	10,488	5,298	4,647	10,371	11,733
71 - 75	9,271		11,453	8,305	3,365	12,895	11,073	10,760	14,535	14,420	5,888	11,735
76 - 80	4,005			11,197	12,160	9,747	8,187	11,883	10,759	9,952	9,845	10,295
81 - 85						6,656	6,978	7,525	8,488	9,119	6,925	8,014
86 - 90					3,215		21,710	10,096	7,730	10,034	5,622	8,438
91 & Over						5,435	13,429	13,429	12,549	8,841	3,417	5,779
Average	16,724	15,753	11,118	18,171	19,261	12,792	11,708	10,059	9,557	9,747	5,213	10,971

**EXHIBIT X**  
**PLAN A: YEAR-TO-YEAR COMPARISON**

	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011
Number of Active Members	14,061	13,866	14,370	14,646
Number of Retirees & Survivors	6,523	6,242	5,991	5,718
Number of Terminated Due Deferred Benefits	660	683	561	561
Number Terminated Due Refunds	7,026	7,109	6,795	6,795
Active Lives Payroll	\$ 566,547,812	\$ 543,669,542	\$ 558,327,346	\$ 552,543,155
Retiree Benefits in Payment	\$ 137,309,161	\$ 124,299,785	\$ 114,515,106	\$ 104,683,495
Market Value of Assets (MVA)	\$ 3,175,649,999	\$ 3,043,479,814	\$ 2,583,983,506	\$ 2,230,462,425
Entry Age Normal (EAN) Accrued Liability	\$ 3,133,179,431	\$ 2,984,143,643	\$ 2,823,038,820	\$ 2,682,634,009
Ratio of AVA to EAN Accrued Liability	96.80%	92.49%	86.73%	87.38%
Actuarial Value of Assets	\$ 3,032,888,183	\$ 2,760,148,403	\$ 2,448,529,177	\$ 2,344,047,017
Present Value of Future Employer Normal Cost	\$ 560,647,763	\$ 651,806,943	\$ 773,908,389	\$ 724,810,561
Present Value of Future Employee Contrib.	\$ 389,156,042	\$ 370,352,485	\$ 378,465,400	\$ 373,626,178
Funding Deposit Account Credit Balance	\$ 23,781,823	\$ 4,918,053	\$ 4,574,933	\$ 29,274,204
Frozen Unfunded Actuarial Accrued Liability	\$ 0	\$ 0	\$ 0	\$ 36,903,336
Present Value of Future Benefits	\$ 3,958,910,165	\$ 3,777,389,778	\$ 3,596,328,033	\$ 3,450,112,888

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	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Employee Contribution Rate	9.50%	9.50%	9.50%	9.50%
Estimated Tax Contribution as % of Payroll	1.28%	1.32%	1.16%	1.09%
Actuarially Required Net Direct Employer Contribution Rate	10.40%	13.07%	15.56%	16.72%
Actual Employer Contribution Rate	14.50%	16.00%	16.75%	15.75%



Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005
14,791	14,795	14,373	13,650	13,244	13,470
5,531	5,413	5,235	5,083	4,978	4,845
556	562	545	497	522	448
6,762	6,611	6,464	6,122	6,140	5,723
\$ 546,737,427	\$ 536,408,372	\$ 511,891,487	\$ 454,741,830	\$ 420,104,038	\$ 429,459,653
\$ 97,650,642	\$ 90,207,961	\$ 84,492,940	\$ 77,403,146	\$ 73,102,892	\$ 66,724,243
\$ 2,225,041,407	\$ 1,904,114,041	\$ 1,565,934,957	\$ 2,087,385,378	\$ 1,921,293,624	\$ 1,695,523,143
\$ 2,553,982,211	\$ 2,358,101,301	\$ 2,248,596,038	\$ 2,063,501,317	\$ 1,828,082,350	\$ 1,781,846,647
88.46%	90.55%	86.43%	98.24%	94.02%	86.17%
\$ 2,259,207,052	\$ 2,135,230,590	\$ 1,943,569,363	\$ 2,027,214,660	\$ 1,718,754,962	\$ 1,535,416,950
\$ 669,371,250	\$ 552,376,261	\$ 613,635,252	\$ 288,883,382	\$ 280,817,883	\$ 422,308,841
\$ 370,489,102	\$ 355,947,027	\$ 339,052,728	\$ 302,732,846	\$ 279,197,353	\$ 291,917,848
\$ 27,231,818	\$ 25,331,924	\$ 23,564,580	\$ 0	\$ 0	\$ 0
\$ 45,756,457	\$ 53,552,388	\$ 60,381,793	\$ 66,328,358	\$ 89,762,521	\$ 92,910,853
\$ 3,317,592,043	\$ 3,071,774,342	\$ 2,933,074,556	\$ 2,685,159,246	\$ 2,368,532,719	\$ 2,342,554,492

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Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
9.50%	9.50%	9.50%	9.50%	9.50%	9.50%
1.05%	1.13%	1.15%	1.11%	1.05%	0.94%
15.58%	13.46%	15.40%	8.98%	9.58%	13.12%
15.75%	15.75%	12.25%	12.75%	13.25%	12.75%

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**EXHIBIT XI**  
**PLAN B: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS**

1.	Present Value of Future Benefits .....	\$	321,808,369
2.	Funding Deposit Account Credit Balance.....	\$	2,281,164
3.	Actuarial Value of Assets.....	\$	242,977,968
4.	Present Value of Future Employee Contributions.....	\$	19,608,454
5.	Present Value of Future Employer Normal Costs (1+2-3-4) .....	\$	61,503,111
6.	Present Value of Future Salaries .....	\$	712,612,324
7.	Employer Normal Cost Accrual Rate (5 ÷ 6).....		8.630655%
8.	Projected Fiscal 2015 Salary for Current Membership.....	\$	84,484,969
9.	Employer Normal Cost as of January 1, 2015 (7 x 8).....	\$	7,291,606
10.	Employer Normal Cost Interest Adjusted for Midyear Payment.....	\$	7,551,302
11.	Estimated Administrative Cost for Fiscal 2015 .....	\$	216,947
12.	TOTAL Administrative and Interest Adjusted Actuarial Costs (10 + 11).....	\$	7,768,249
13.	Projected Ad Valorem Tax Contributions for Fiscal 2015 .....	\$	1,253,628
14.	Projected Revenue Sharing Funds for Fiscal 2015 .....	\$	22,155
15.	Employers' Net Direct Actuarially Required Contribution for Fiscal 2015 (12 – 13 – 14).....	\$	6,492,466
16.	Projected Payroll for Fiscal 2015 .....	\$	93,935,657
17.	Employers' Net Direct Actuarially Required Contribution as a % of Projected Payroll for 2015 (15 ÷ 16).....		6.91%
18.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2016 (17, Rounded to Nearest 0.25%).....		7.00%

**EXHIBIT XII**  
**PLAN B: PRESENT VALUE OF FUTURE BENEFITS**

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits.....	\$216,047,189
Survivor Benefits .....	5,739,491
Disability Benefits.....	6,498,578
Vested Termination Benefits.....	13,114,069
Refunds of Contributions .....	3,194,037

TOTAL Present Value of Future Benefits for Active Members..... \$ 244,593,364

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement .....	\$ 7,573,866
Terminated Members with Reciprocals	
Due Benefits at Retirement.....	0
Terminated Members Due a Refund.....	638,249

TOTAL Present Value of Future Benefits for Terminated Members ..... \$ 8,212,115

PRESENT VALUE OF FUTURE BENEFITS FOR PENSIONERS:

Regular Retirees by Option Selected:

Maximum.....	\$ 27,024,585
Option 1 .....	103,563
Option 2 .....	22,119,605
Option 3 .....	5,168,884
Option 4 .....	808,221

TOTAL Regular Retirees ..... \$ 55,224,858

TOTAL Disability Retirees ..... \$ 6,464,467

TOTAL Survivors & Widows ..... \$ 7,313,565

Reserve for Accrued Retiree DROP Account Balances ..... \$ 0

TOTAL Present Value of Future Benefits for Retirees & Survivors ..... \$ 69,002,890

TOTAL Present Value of Future Benefits..... \$ 321,808,369

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

CURRENT ASSETS:

Cash in Banks .....	\$ 159,324
Contributions and Taxes Receivable.....	2,621,402
Accrued Interest and Dividends.....	31,234
Investments Receivable .....	34,868
Due to (from) Plan A .....	176,463
Other Current Assets.....	6,595

TOTAL CURRENT ASSETS..... \$ 3,029,886

Property Plant & Equipment..... \$ 100,061

INVESTMENTS:

Cash Equivalents.....	\$ 4,753,922
Equities .....	156,983,275
Fixed Income .....	69,483,456
Real Estate .....	11,415,653
Alternative Investments .....	9,880,521

TOTAL INVESTMENTS..... \$ 252,516,827

TOTAL ASSETS .....

CURRENT LIABILITIES:

Accounts Payable .....	\$ 147,876
Benefits Payable .....	628,802
Refunds Payable.....	11,103
Investments Payable .....	48,694
Due to Other Plans .....	1,308,555

TOTAL CURRENT LIABILITIES..... \$ 2,145,030

MARKET VALUE OF ASSETS..... \$ 253,501,744

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

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

Fiscal year 2014.....	\$ (5,626,226)
Fiscal year 2013.....	20,198,394
Fiscal year 2012.....	13,957,016
Fiscal year 2011.....	(13,385,425)
Fiscal year 2010.....	<u>10,833,284</u>
 Total for five years .....	 \$ 25,977,043

Deferral of excess (shortfall) of invested income:

Fiscal year 2014 (80%).....	\$ (4,500,981)
Fiscal year 2013 (60%).....	12,119,036
Fiscal year 2012 (40%).....	5,582,806
Fiscal year 2011 (20%).....	(2,677,085)
Fiscal year 2010 ( 0%).....	<u>0</u>
 Total deferred for year .....	 \$ 10,523,776

Market value of plan net assets, end of year..... \$ 253,501,744

Preliminary actuarial value of plan assets, end of year ..... \$ 242,977,968

Actuarial value of assets corridor

85% of market value, end of year.....	\$ 215,476,482
115% of market value, end of year.....	\$ 291,527,006

Final actuarial value of plan net assets, end of year ..... \$ 242,977,968

**EXHIBIT XIV**  
**PLAN B: PRESENT VALUE OF FUTURE CONTRIBUTIONS**

Employee Contributions to the Annuity Savings Fund .....	\$	19,608,454
Employer Normal Contributions to the Pension Accumulation Fund.....		61,503,111
Funding Deposit Account Credit Balance .....		(2,281,164)
 TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS .....	 \$	 78,830,401

**EXHIBIT XV**  
**PLAN B: RECONCILIATION OF CONTRIBUTIONS**

Employer Normal Cost for Prior Year.....	\$	8,507,432
Interest on Normal Cost.....		616,789
Administrative Expenses .....		204,921
Interest on Expenses .....		7,299
 TOTAL Interest Adjusted Actuarially Required Contributions .....	 \$	 9,336,441
 Direct Employer Contributions.....	 \$	 8,390,840
Interest on Employer Contributions.....		298,846
Ad Valorem Taxes and Revenue Sharing Funds .....		1,176,417
Interest on Taxes and Revenue Sharing Funds.....		41,899
 TOTAL Interest Adjusted Employer Contributions .....	 \$	 9,908,002
 CONTRIBUTION SURPLUS (DEFICIENCY) .....	 \$	 571,561

**EXHIBIT XVI**  
**PLAN B: ANALYSIS OF INCREASE IN ASSETS**

Actuarial Value of Assets (December 31, 2013) .....	\$	216,066,754
INCOME:		
Employer Contributions .....	\$	8,390,840
Member Contributions .....		2,622,467
Irregular Contributions .....		599,526
Ad Valorem Taxes & Revenue Sharing .....		1,176,417
Total Contributions .....	\$	12,789,250
Net Appreciation in Fair Value of Investments .....	\$10,224,688	
Interest & Dividends .....	2,468,460	
Class Action Settlement .....	4,738	
Miscellaneous Investment Income .....	7,024	
Investment Expense .....	(963,877)	
Net Investment Income .....	\$	11,741,033
TOTAL Income .....	\$	24,530,283
EXPENSES:		
Retirement Benefits .....	\$	7,084,561
DROP Disbursements .....		457,919
Refunds of Contributions .....		663,027
Transfers to another System .....		37,273
Other Postemployment Benefits .....		(6,996)
Administrative Expenses .....		204,921
TOTAL Expenses .....	\$	8,440,705
Net Market Value Income for Fiscal 2014 (Income - Expenses) .....	\$	16,089,578
Unadjusted Fund Balance as of December 31, 2014 (Fund Balance Previous Year + Net Income) .....	\$	232,156,332
Adjustment for Actuarial Smoothing .....	\$	10,821,636
Actuarial Value of Assets (December 31, 2014) .....	\$	242,977,968



**EXHIBIT XVII**  
**PLAN B: PENSION BENEFIT OBLIGATION**

Present Value of Credited Projected Benefits Payable to Current Employees.....	\$	154,545,974
Present Value of Benefits Payable to Terminated Employees .....		8,212,115
Present Value of Benefits Payable to Current Retirees and Beneficiaries .....		69,002,890
TOTAL PENSION BENEFIT OBLIGATION .....	\$	231,760,979
NET ACTUARIAL VALUE OF ASSETS .....	\$	242,977,968
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation.....		104.84%

**EXHIBIT XVIII**  
**PLAN B: ENTRY AGE NORMAL ACCRUED LIABILITIES**

Accrued Liability for Active Employees .....	\$	171,992,066
Accrued Liability for Terminated Employees .....		8,212,115
Accrued Liability for Current Retirees and Beneficiaries .....		69,002,890
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY .....	\$	249,207,071
NET ACTUARIAL VALUE OF ASSETS.....	\$	242,977,968
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability .....		97.50%

**EXHIBIT XIX  
CENSUS DATA - PLAN B**

	<b>Active</b>	<b>Terminated with Funds on Deposit</b>	<b>DROP</b>	<b>Retired</b>	<b>Total</b>
Number of members as of December 31, 2013	2,224	1,685	64	688	4,661
Additions to Census					
Initial membership	246	8			254
Death of Another Member			(1)	15	14
Omitted in error last year					
Adjustment for multiple records					
Change in Status during Year					
Actives terminating service	(50)	50			
Actives who retired	(30)			30	
Actives entering DROP	(22)		22		
Term. members rehired	13	(13)			
Term. members who retire		(4)		4	
Retirees who are rehired					
Refunded who are rehired	4	2			6
DROP participants retiring			(4)	4	
DROP returned to work	13		(13)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(139)	(57)			(196)
Deaths	(6)	(5)		(27)	(38)
Included in error last year					
Adjustment for multiple records					
Number of members as of December 31, 2014	2,253	1,666	68	714	4,701

PLAN B - ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 - 20	9	3	12	21,892	262,707
21 - 25	47	44	91	27,611	2,512,602
26 - 30	69	111	180	31,741	5,713,360
31 - 35	94	152	246	37,707	9,275,903
36 - 40	87	112	199	39,229	7,806,617
41 - 45	119	148	267	39,945	10,665,197
46 - 50	128	176	304	41,312	12,558,969
51 - 55	172	171	343	41,677	14,295,176
56 - 60	177	156	333	42,305	14,087,708
61 - 65	122	94	216	42,250	9,126,080
66 - 70	57	32	89	42,309	3,765,496
71 - 75	17	12	29	41,254	1,196,354
76 - 80	10	1	11	37,466	412,122
81 - 85	0	1	1	20,006	20,006
TOTAL	1,108	1,213	2,321	39,508	91,698,297

THE ACTIVE CENSUS INCLUDES 1,170 ACTIVES WITH VESTED BENEFITS, INCLUDING 68 DROP PARTICIPANTS AND 32 ACTIVE FORMER DROP PARTICIPANTS.

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
26 - 30	0	1	1	4,058	4,058
31 - 35	1	3	4	4,375	17,500
36 - 40	2	3	5	10,251	51,255
41 - 45	4	8	12	9,212	110,541
46 - 50	5	16	21	10,308	216,460
51 - 55	21	14	35	8,903	311,613
56 - 60	17	19	36	9,613	346,064
61 - 65	8	10	18	6,869	123,648
66 - 70	1	1	2	5,289	10,578
76 - 80	0	1	1	499	499
TOTAL	59	76	135	8,831	1,192,216

PLAN B - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From To	Number	Total Contributions
0 - 99	1,049	26,153
100 - 499	244	59,415
500 - 999	80	56,849
1000 - 1999	52	75,095
2000 - 4999	81	249,543
5000 - 9999	23	141,689
10000 - 19999	2	29,505
TOTAL	1,531	638,249

PLAN B - REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
51 - 55	1	0	1	18,769	18,769
56 - 60	6	6	12	23,090	277,084
61 - 65	35	40	75	15,849	1,188,649
66 - 70	81	53	134	12,406	1,662,346
71 - 75	64	53	117	10,906	1,275,976
76 - 80	57	41	98	8,437	826,870
81 - 85	19	30	49	8,784	430,394
86 - 90	11	21	32	7,174	229,581
91 - 99	2	11	13	7,981	103,749
TOTAL	276	255	531	11,325	6,013,418

PLAN B - DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	1	0	1	5,293	5,293
41 - 45	1	0	1	9,697	9,697
46 - 50	2	1	3	6,498	19,494
51 - 55	3	5	8	10,600	84,797
56 - 60	14	9	23	10,133	233,069
61 - 65	16	7	23	7,019	161,442
66 - 70	9	6	15	5,757	86,353
71 - 75	5	2	7	6,328	44,294
TOTAL	51	30	81	7,956	644,439

PLAN B - SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	0	1	1	3,490	3,490
36 - 40	1	1	2	7,271	14,541
51 - 55	0	3	3	11,624	34,871
56 - 60	0	14	14	10,573	148,018
61 - 65	2	11	13	7,869	102,295
66 - 70	1	16	17	10,387	176,582
71 - 75	1	19	20	7,656	153,126
76 - 80	0	19	19	5,681	107,932
81 - 85	0	6	6	3,557	21,342
86 - 90	1	4	5	4,379	21,895
91 - 99	0	2	2	3,521	7,041
TOTAL	6	96	102	7,756	791,133

PLAN B - ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Total			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over				
0 - 20	9	3													12
21 - 25	46	16	15	6	6	2									91
26 - 30	34	42	24	24	20	35	1								180
31 - 35	33	36	28	24	16	79	28	2							246
36 - 40	19	19	17	16	15	62	36	15							199
41 - 45	25	25	23	15	7	73	50	30	17	2					267
46 - 50	32	18	16	9	15	76	46	50	23	16	3				304
51 - 55	23	18	19	14	20	74	50	41	25	27	32				343
56 - 60	16	18	23	19	9	69	52	43	30	26	28				333
61 - 65	11	10	7	2	7	46	51	30	22	12	18				216
66 - 70	3	1	3	3		27	20	10	8	4	10				89
71 & Over	2	2	3	3	3	8	8	6	7	3	2				41
Totals	253	208	175	135	115	551	342	227	132	90	93				2321

PLAN B - AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary				
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over					
0 - 20	21,897	21,878														21,892
21 - 25	26,790	25,011	33,292	27,377	30,304	17,319										27,611
26 - 30	28,750	25,687	36,911	33,735	37,851	33,293	39,239									31,741
31 - 35	33,023	37,715	38,120	36,659	35,913	39,839	39,078	32,580								37,707
36 - 40	33,795	29,128	40,419	49,036	42,428	40,081	39,208	40,433								39,229
41 - 45	31,294	33,982	39,118	42,987	28,328	44,118	39,905	38,617	48,211	48,239						39,945
46 - 50	28,524	35,593	57,780	43,439	35,712	39,689	42,278	46,368	42,362	47,057	49,188					41,312
51 - 55	32,018	29,097	30,927	33,638	40,701	41,703	41,637	42,550	49,244	53,069	49,565					41,677
56 - 60	29,951	32,445	44,725	30,443	42,397	43,564	40,394	40,697	47,199	45,511	56,436					42,305
61 - 65	30,666	26,772	52,826	28,023	29,519	42,970	41,318	43,225	44,322	52,119	50,417					42,250
66 - 70	30,563	20,000	29,805	52,773		46,140	40,059	39,916	50,072	38,573	40,509					42,309
71 & Over	41,542	20,840		41,411		41,596	40,756	36,422	33,645	52,903	53,958					39,719
Average	29,888	30,688	40,225	37,496	37,270	41,227	40,648	42,104	45,850	48,933	50,907					39,508

PLAN B - 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 - 25												0
26 - 30											1	1
31 - 35										1	3	4
36 - 40									2	3		5
41 - 45							7		5			12
46 - 50							18					21
51 - 55		1					7					35
56 - 60	2	5	9	6	5	27						36
61 - 65	7	2	4	2	3	9						18
66 - 70	2											2
71 - 75												0
76 - 80	1											1
81 & Over												0
Totals	12	8	13	8	8	36	25	10	7	4	4	135

PLAN B - 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 - 25												0
26 - 30											4,058	4,058
31 - 35										4,648	4,284	4,375
36 - 40									11,683	9,296		10,251
41 - 45								9,475	8,843			9,212
46 - 50							11,249	4,662				10,308
51 - 55		19,071				9,490	5,187					8,903
56 - 60	4,873	12,887	10,279	12,709	8,941	6,491						9,613
61 - 65	7,307	4,937	6,705	4,847	8,702							6,869
66 - 70	5,289											5,289
71 - 75												0
76 - 80	499											499
81 & Over												0
Average	5,998	11,672	9,179	10,744	8,852	8,740	9,551	8,031	9,654	8,134	4,227	8,831

PLAN B - 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	5	3	2		2							12
61 - 65	12	18	13	13	8	10	1					75
66 - 70	11	16	19	18	12	49	9					134
71 - 75	3	4	7	7	3	41	47	4	1			117
76 - 80	1	1	5		1	20	39	27	4	4		98
81 - 85						1	8	20	15	4	1	49
86 - 90						1	4		14	12		32
91 & Over							1		4	3	5	13
Totals	33	42	46	40	26	122	108	51	38	19	6	531

PLAN B - 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	18,769											18,769
56 - 60	22,180	18,796	26,873		28,027	27,896	14,091					23,090
61 - 65	18,260	13,032	11,192	12,476	16,777	12,095	15,653					15,849
66 - 70	13,165	12,034	11,328	12,496	12,609	10,634	11,000	21,010	3,588			12,406
71 - 75	15,578	8,715	11,268	7,811	6,738	10,634	8,186	8,074	4,405			10,906
76 - 80	10,688	21,372	7,696		27,275	8,710	8,176	7,811	10,176	11,805	1,770	8,437
81 - 85						5,862	8,333	8,074	8,224	5,999		8,784
86 - 90						11,810	6,820	7,811	8,803	11,946		7,174
91 & Over												7,981
Average	16,698	12,851	11,561	11,427	14,964	12,291	10,048	8,986	8,532	8,160	3,759	11,325





PLAN B - SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 30												0
31 - 35						1		1				1
36 - 40						1						1
41 - 45												2
46 - 50												0
51 - 55												0
56 - 60		1		1		6	3		1			3
61 - 65	1		1	1	1	3	3	2				14
66 - 70			1	3		7	5	1				13
71 - 75	2		1			6	6	4	1			17
76 - 80						2	5	7	4		1	20
81 - 85	1						1	1	3			19
86 - 90										3		6
91 & Over											2	5
Totals	4	1	7	5	2	25	25	16	9	3	5	102

PLAN B - AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Completed Years Since Retirement

Attained Ages	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 30												0
31 - 35												3,490
36 - 40						12,078	2,463	3,490				7,271
41 - 45												0
46 - 50												0
51 - 55		1,100		26,422			7,350					11,624
56 - 60	22,154		14,133	7,070	4,193	10,715	9,541		7,556			10,573
61 - 65			7,027		9,825	5,853	12,422	4,769				7,869
66 - 70			7,016	9,196		10,486	11,936	8,899				10,387
71 - 75	12,974		6,582			7,147	8,366	6,388	1,960			7,656
76 - 80						8,960	4,313	6,477	5,364		1,653	5,681
81 - 85	3,106						6,792	1,878	3,189			3,557
86 - 90										3,632		4,379
91 & Over											3,521	3,521
Average	12,802	1,100	7,977	12,216	7,009	9,125	8,557	5,918	4,504	3,632	3,939	7,756

**EXHIBIT XX**  
**PLAN B: YEAR-TO-YEAR COMPARISON**

	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011
Number of Active Members	2,321	2,288	2,298	2,303
Number of Retirees & Survivors	714	688	657	611
Number of Terminated Due Deferred Benefits	135	135	132	129
Number Terminated Due Refunds	1,531	1,550	1,504	1,471
Active Lives Payroll	\$ 91,698,297	\$ 89,168,260	\$ 86,882,261	\$ 84,237,202
Retiree Benefits in Payment	\$ 7,448,990	\$ 6,779,114	\$ 6,334,153	\$ 5,746,033
Market Value of Assets	\$ 253,501,744	\$ 237,412,166	\$ 196,577,145	\$ 165,603,549
Entry Age Normal (EAN) Accrued Liability	\$ 249,207,071	\$ 233,321,224	\$ 212,489,491	\$ 198,962,892
Ratio of AVA to EAN Accrued Liability	97.50%	92.60%	87.62%	87.13%
Actuarial Value of Assets	\$ 242,977,968	\$ 216,066,754	\$ 186,172,779	\$ 173,354,490
Present Value of Future Employer Normal Cost	\$ 61,503,111	\$ 71,374,679	\$ 74,251,290	\$ 71,951,379
Present Value of Future Employee Contrib.	\$ 19,608,454	\$ 19,192,399	\$ 18,544,210	\$ 18,084,026
Funding Deposit Account Credit Balance	\$ 2,281,164	\$ 2,126,959	\$ 1,559,909	\$ 1,012,867
Present Value of Future Benefits	\$ 321,808,369	\$ 304,506,873	\$ 277,408,370	\$ 262,377,028

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	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Employee Contribution Rate	3.00%	3.00%	3.00%	3.00%
Projected Tax Contribution as % of Payroll	1.36%	1.21%	1.14%	1.09%
Actuarially Required Net Direct Employer Contribution Rate	6.91%	8.60%	9.33%	9.31%
Actual Employer Contribution Rate	9.00%	9.25%	10.00%	10.00%

Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006	Fiscal 2005
2,313	2,290	2,194	2,030	1,990	1,970
576	560	548	530	508	486
125	118	108	97	98	91
1,430	1,426	1,410	1,353	1,369	1,298
\$ 81,999,193	\$ 79,373,895	\$ 74,891,671	\$ 62,859,807	\$ 59,155,664	\$ 54,810,437
\$ 5,349,314	\$ 4,986,096	\$ 4,744,664	\$ 4,400,123	\$ 4,029,570	\$ 3,588,698
\$ 161,776,161	\$ 134,940,283	\$ 109,749,342	\$ 144,163,791	\$ 132,695,110	\$ 117,661,283
\$ 186,118,552	\$ 171,160,473	\$ 162,127,929	\$ 144,913,286	\$ 125,969,852	\$ 115,871,479
87.62%	87.90%	83.97%	97.82%	98.26%	96.18%
\$ 163,075,793	\$ 150,446,497	\$ 136,139,102	\$ 141,756,387	\$ 123,781,772	\$ 111,443,610
\$ 67,556,191	\$ 60,488,525	\$ 63,985,978	\$ 36,302,827	\$ 30,194,074	\$ 30,452,448
\$ 17,527,008	\$ 16,221,775	\$ 15,422,566	\$ 13,275,174	\$ 12,440,078	\$ 11,815,922
\$ 334,656	\$ 311,308	\$ 289,589	\$ 0	\$ 0	\$ 0
\$ 247,824,336	\$ 226,845,489	\$ 215,258,057	\$ 191,334,388	\$ 166,415,924	\$ 153,711,980

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Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
1.05%	1.13%	1.13%	1.11%	1.05%	1.03%
9.07%	8.60%	9.56%	6.13%	5.39%	5.90%
10.00%	10.00%	6.25%	6.00%	6.00%	5.75%

## **SUMMARY OF PRINCIPAL PLAN PROVISIONS**

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

### **PLAN A:**

**CONTRIBUTION RATES** - The Plan A fund is financed by employee contributions at a rate determined by the Board subject to the statutory range of 8% through 11% of each member's earnings and employer contributions as determined by the Public Retirement Systems' Actuarial Committee. In addition, each sheriff and ex-officio tax collector deducts one-fourth of one percent of the aggregate amount of the tax shown to be collected by the tax roll of each respective parish, excepting Orleans Parish and East Baton Rouge Parish, and remits the money to the system on an annual basis. The system also receives revenue sharing funds each year as appropriated by the legislature. In any fiscal year in which employer contribution rate as actuarially determined is scheduled to decrease, the Board of Trustees may elect to maintain the existing rate or any rate between the existing and minimum rates.

**RETIREMENT BENEFITS** – Members hired on or before December 31, 2006, with seven years of creditable service may retire at age sixty-five; ten years of creditable service may retire at age sixty; members with twenty-five years of service may retire at age fifty-five; members with thirty years of service may retire regardless of age. Members hired on or after January 1, 2007, with seven years of creditable service may retire at age sixty-seven; ten years of creditable service may retire at age sixty-two; members with thirty years of service may retire at age fifty-five. The retirement allowance is equal to three percent of the member's final compensation multiplied by his years of creditable service; however, any employee who was a member of the supplemental plan only prior to the revision date has the benefit earned for service credited prior to the revision date on the basis of one percent of final compensation plus two dollars per month for each year of service credited prior to the revision date, and three percent of final compensation for each year of service credited after the revision date. All accumulated annual leave for which payment cannot be made in accordance with law and all unused sick leave accumulated at the time of retirement is included in the member's creditable service for retirement computation purposes. The retirement allowance may not exceed the greater of one hundred percent of member's final salary or final compensation. Final compensation for members hired before January 1, 2007 refers to the highest 36 months of consecutive or joined service; final compensation for members hired after December 31, 2006 refers to the highest 60 months of consecutive or joined service.

**DISABILITY BENEFITS** – Five years of creditable service are required in order to be eligible for disability benefits for members hired on or before December 31, 2006. Seven years of creditable service are required in order to be eligible for disability benefits for members hired on or after January 1, 2007. Disabled members receive a normal retirement allowance if eligible. Otherwise, the member receives the lesser of three percent of compensation multiplied by his years of service, not to be less than fifteen years, or the accrual percentage as defined for retirement benefits multiplied by final

compensation multiplied by years of service assuming continued service to age sixty for members hired on or before December 31, 2006 or age sixty-two for members hired on or after January 1, 2007.

**SURVIVOR BENEFITS** - Five years of creditable service is required in order to be eligible for survivor benefits. If a member is eligible for normal retirement at the time of death, the surviving spouse receives an automatic option 2 benefit. If the member was not eligible for a normal retirement, the surviving unmarried spouse with minor children receives sixty percent of final compensation. If the member was not eligible for a normal retirement, the surviving unmarried spouse with no minor children receives forty percent of final compensation payable upon the attainment of age sixty by the spouse, or upon becoming disabled. Minor children with no unmarried spouse receive thirty percent of final compensation each, not to exceed a total of sixty percent of final compensation.

**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. If a member receives a refund of contributions and is subsequently rehired on or after January 1, 2007, the provisions applicable to members initially hired on or after January 1, 2007 will apply.

#### **PLAN B:**

**CONTRIBUTION RATES** - The Plan B fund is financed by employee contributions at a rate determined by the Board subject to the statutory range of 3% through 5% of each member's earnings and employer contributions as determined by the Public Retirement Systems' Actuarial Committee. In addition, each sheriff and ex officio tax collector deducts one-fourth of one percent of the aggregate amount of the tax shown to be collected by the tax roll of each respective parish excepting, Orleans Parish and East Baton Rouge Parish, and remits the money to the system on an annual basis. The system also receives revenue sharing funds each year as appropriated by the legislature. In any fiscal year in which the employer contribution rate as actuarially determined is scheduled to decrease, the Board of Trustees may elect to maintain the existing rate or any rate between the existing and minimum rates.

**RETIREMENT BENEFITS:** - Members hired on or before December 31, 2006, with seven years of creditable service may retire at age sixty-five; ten years of creditable service may retire at age sixty; members with thirty years of service may retire at age fifty-five. Members hired on or after January 1, 2007, with seven years of creditable service may retire at age sixty-seven; ten years of creditable service may retire at age sixty-two; members with thirty years of service may retire at age fifty-five. The retirement allowance is equal to two percent of the member's final compensation multiplied by the years of creditable service. All accumulated annual leave for which payment cannot be made in accordance with law and all unused sick leave accumulated at the time of retirement is included in the member's creditable service for retirement computation purposes. Final compensation for members hired before January 1, 2007 refers to the highest 36 months of consecutive or joined service; final compensation for members hired after December 31, 2006 refers to the highest 60 months of consecutive or joined service.

**DISABILITY BENEFITS** – Five years of creditable service is required in order to be eligible for disability benefits for members hired on or before December 31, 2006. Seven years of creditable

service is required in order to be eligible for disability benefits for members hired on or after January 1, 2007. Disabled members receive a normal retirement allowance, if eligible. Otherwise, the member receives the lesser of two percent of compensation multiplied by the years of service, not to be less than fifteen years, or two percent of final compensation multiplied by the years of service assuming continued service to age sixty for members hired on or before December 31, 2006 or age sixty-two for members hired on or after January 1, 2007.

**SURVIVOR BENEFITS** - The surviving spouse of a member who was eligible for normal retirement at the time of death receives an automatic option 2 benefit. The surviving spouse of a member with ten or more years of creditable service and not eligible for normal retirement at the time of death receives an option 2 benefit payable at attainment of age fifty by the spouse.

**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. If a member receives a refund of contributions and is subsequently rehired on or after January 1, 2007, the provisions applicable to members initially hired on or after January 1, 2007 will apply.

**DEFERRED RETIREMENT OPTION PLAN:**

In lieu of terminating employment and accepting a service retirement allowance, any member of Plan A or Plan B who is eligible for a normal retirement may elect to participate in the Deferred Retirement Option Plan (DROP) for up to three years and defer the receipt of benefits. In terms of DROP eligibility, any member whose service, when combined with service in any other state or statewide public retirement system exceeds thirty years will be eligible to include reciprocally recognized service credit. Upon commencement of participation in the plan, employer contributions are payable but employee contributions cease. The monthly retirement benefits that would have been payable, had the person elected to cease employment and receive a service retirement allowance, are paid into the DROP fund. This fund does earn interest once the member terminates participation in DROP but continues their employment. The interest rate is based upon the rate of return of a short-term U.S. Treasury security, a group of short-term U.S. Treasury Securities, or an index of short-term U.S. Treasury securities to be selected by the board of trustees. This interest is to be credited to the individual's account balance on an annual basis. Additionally, no cost-of-living increases are payable to the participants until employment which made them eligible to become members of the system has been terminated for at least one full year. Upon termination of employment prior to, or at the end of, the specified period of participation, a participant in the plan may receive, at his option, a lump sum from the account equal to the payments into the account, a true annuity based upon his account balance in that fund, or any other method of payment if approved by the board of trustees. The monthly benefits that were being paid into the 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 shall be paid to his named beneficiary or, if none, to his estate. If employment is not terminated at the end of the three years, payments into the plan fund cease and the person resumes active contributing membership in the system. Additional accrued benefits are based on final average compensation used to calculate the member's original benefit unless the additional period of service is at least thirty-six months for those individuals hired on or before December 31, 2006; or at least sixty months for those individuals hired on or after January 1, 2007.

## ACTUARIAL ASSUMPTIONS

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

<u>Factor</u>	<u>Increase in Factor Results in</u>
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

The following assumptions apply to both Plan A and Plan B unless stated otherwise.

**ACTUARIAL COST METHOD:** Plan A: The Aggregate Actuarial Cost Method with allocation based on earnings. The normal cost is interest adjusted for midyear payment.

Plan B: The Aggregate Actuarial Cost Method with allocation based on earnings. The normal cost is interest adjusted for midyear payment.

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

**VALUATION INTEREST RATE:** 7.25%

**ANNUAL SALARY INCREASE RATE:** 5.75% (2.75% Merit /3.00% Inflation)

**ANNUITANT, BENEFICIARY AND ACTIVE MORTALITY** RP2000 Combined Healthy table set back 1 year for males and RP2000 Combined Healthy Female Table for females.

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

RATES OF RETIREMENT: The table of these rates is included later in the report. All eligible persons age 80 and over in both plans are assumed to retire immediately. These rates apply only to those individuals eligible to retire. Rates are multiplied by a constant of 2 in the first year in which members become eligible for retirement.

RATES OF WITHDRAWAL: The rates of withdrawal are applied based upon completed years of service:

PLAN A:	Service	Factor	Service	Factor
	<1	0.25	11	0.04
	1	0.21	12	0.03
	2	0.15	13	0.03
	3	0.12	14	0.02
	4	0.10	15	0.02
	5	0.09	16	0.02
	6	0.08	17	0.02
	7	0.07	18	0.02
	8	0.06	19	0.02
	9	0.05	>19	0.01
	10	0.04		
PLAN B:	Service	Factor	Service	Factor
	<1	0.23	10	0.06
	1	0.20	11	0.06
	2	0.16	12	0.06
	3	0.15	13	0.06
	4	0.11	14	0.06
	5	0.10	15	0.03
	6	0.08	16	0.03
	7	0.08	17	0.03
	8	0.08	>17	0.01
	9	0.06		

Note: The withdrawal rate for individuals eligible to retire is 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 used in determining the cost of various survivor benefits are listed below:

Age at Death	% with Children	# of Children	Average Age
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

VESTING ELECTING PERCENTAGE: The percent of those who are vested at termination and elect deferred benefits in lieu of contribution refunds are as follows:

Plan A:	Under Age 30:	35%
	Age 30 – 39:	40%
	Age 40 – 49:	45%
	Above Age 49:	65%
Plan B:	Under Age 40:	55%
	Age 40 – 49:	60%
	Above Age 49:	75%

SICK AND ANNUAL LEAVE: Retirees were assumed to convert 1.2 months of sick and annual leave to retirement credit for each ten years of service credit.

RATES OF DROP ENTRY: The table of these rates is included later in the report. These rates apply only to those individuals eligible to enter the DROP plan. Rates are multiplied by a constant in the first year in which a member becomes eligible to enter DROP. For members of Plan A who were first employed before January 1, 2007 and for members of Plan B this constant is 2. For members of Plan A who were first employed on or after January 1, 2007 the constant is 4.

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

**RETIREMENT RATES FOR ACTIVE  
FORMER DROP PARTICIPANTS:**

Retirement rates for active former DROP participants are 22% for Plan A and 21% for Plan B provided the member is below age 80. For members age 80 or over, the retirement rate is set at 100%.

## ACTUARIAL TABLES AND RATES

(For Participants Who Were First Hired Before January 1, 2007)

Age	Male Mortality Rates	Female Mortality Rates	Disability Rates	Plan A Retirement Rates	Plan B Retirement Rates	Plan A DROP Entry Rates	Plan B DROP Entry Rates	Remarriage Rates
18	0.00030	0.00019	0.00045	0.00000	0.00000	0.00000	0.00000	0.05665
19	0.00032	0.00019	0.00045	0.00000	0.00000	0.00000	0.00000	0.05665
20	0.00033	0.00019	0.00045	0.00000	0.00000	0.00000	0.00000	0.05665
21	0.00035	0.00019	0.00045	0.00000	0.00000	0.00000	0.00000	0.05213
22	0.00036	0.00019	0.00045	0.00000	0.00000	0.00000	0.00000	0.04834
23	0.00037	0.00020	0.00045	0.00000	0.00000	0.00000	0.00000	0.04522
24	0.00037	0.00020	0.00045	0.00000	0.00000	0.00000	0.00000	0.04270
25	0.00038	0.00021	0.00045	0.00000	0.00000	0.00000	0.00000	0.04070
26	0.00038	0.00021	0.00045	0.00000	0.00000	0.00000	0.00000	0.03915
27	0.00038	0.00022	0.00045	0.00000	0.00000	0.00000	0.00000	0.03799
28	0.00038	0.00024	0.00045	0.00000	0.00000	0.00000	0.00000	0.03714
29	0.00039	0.00025	0.00045	0.00000	0.00000	0.00000	0.00000	0.03654
30	0.00041	0.00026	0.00045	0.00000	0.00000	0.00000	0.00000	0.03611
31	0.00044	0.00031	0.00045	0.00000	0.00000	0.00000	0.00000	0.03578
32	0.00050	0.00035	0.00045	0.00000	0.00000	0.00000	0.00000	0.03549
33	0.00056	0.00039	0.00045	0.00000	0.00000	0.00000	0.00000	0.03515
34	0.00063	0.00044	0.00045	0.00000	0.00000	0.00000	0.00000	0.03471
35	0.00070	0.00047	0.00051	0.00000	0.00000	0.00000	0.00000	0.03409
36	0.00077	0.00051	0.00057	0.00000	0.00000	0.00000	0.00000	0.03286
37	0.00084	0.00055	0.00063	0.00000	0.00000	0.00000	0.00000	0.03139
38	0.00090	0.00060	0.00072	0.00000	0.00000	0.00000	0.00000	0.02973
39	0.00096	0.00065	0.00081	0.00000	0.00000	0.00000	0.00000	0.02787
40	0.00102	0.00071	0.00093	0.00000	0.00000	0.00000	0.00000	0.02585
41	0.00108	0.00077	0.00105	0.00000	0.00000	0.00000	0.00000	0.02352
42	0.00114	0.00085	0.00117	0.00000	0.00000	0.00000	0.00000	0.02111
43	0.00122	0.00094	0.00132	0.00000	0.00000	0.00000	0.00000	0.01868
44	0.00130	0.00103	0.00150	0.00000	0.00000	0.00000	0.00000	0.01629
45	0.00140	0.00112	0.00171	0.00000	0.00000	0.00000	0.00000	0.01400
46	0.00151	0.00122	0.00195	0.20000	0.00000	0.35000	0.00000	0.01208
47	0.00162	0.00133	0.00219	0.20000	0.00000	0.35000	0.00000	0.01034
48	0.00173	0.00143	0.00249	0.20000	0.00000	0.35000	0.00000	0.00879
49	0.00186	0.00155	0.00282	0.20000	0.00000	0.35000	0.00000	0.00744
50	0.00200	0.00168	0.00321	0.20000	0.00000	0.35000	0.00000	0.00629
51	0.00214	0.00185	0.00366	0.20000	0.00000	0.35000	0.00000	0.00551
52	0.00245	0.00202	0.00414	0.20000	0.00000	0.35000	0.00000	0.00493
53	0.00267	0.00221	0.00471	0.11500	0.00000	0.35000	0.00000	0.00451
54	0.00292	0.00242	0.00534	0.11500	0.00000	0.35000	0.00000	0.00423
55	0.00320	0.00272	0.00606	0.11500	0.18000	0.35000	0.17000	0.00000
56	0.00362	0.00309	0.00690	0.11500	0.18000	0.22000	0.17000	0.00000
57	0.00420	0.00348	0.00783	0.11500	0.18000	0.22000	0.17000	0.00000
58	0.00469	0.00392	0.00888	0.11500	0.18000	0.22000	0.17000	0.00000
59	0.00527	0.00444	0.01011	0.11500	0.14000	0.22000	0.13500	0.00000
60	0.00595	0.00506	0.01464	0.11500	0.14000	0.22000	0.13500	0.00000
61	0.00675	0.00581	0.01464	0.11500	0.14000	0.10000	0.13500	0.00000
62	0.00768	0.00666	0.01464	0.11500	0.14000	0.10000	0.13500	0.00000
63	0.00876	0.00765	0.01464	0.11500	0.14000	0.10000	0.13500	0.00000
64	0.01001	0.00862	0.01464	0.11500	0.14000	0.10000	0.13500	0.00000
65	0.01128	0.00971	0.01464	0.11500	0.14000	0.10000	0.13500	0.00000

**ACTUARIAL TABLES AND RATES**  
 (For Participants Who Were First Hired On or After January 1, 2007)

Age	Male Mortality Rates	Female Mortality Rates	Disability Rates	Plan A Retirement Rates	Plan B Retirement Rates	Plan A DROP Entry Rates	Plan B DROP Entry Rates	Remarriage Rates
18	0.00030	0.00019	0.00038	0.00000	0.00000	0.00000	0.00000	0.05665
19	0.00032	0.00019	0.00038	0.00000	0.00000	0.00000	0.00000	0.05665
20	0.00033	0.00019	0.00038	0.00000	0.00000	0.00000	0.00000	0.05665
21	0.00035	0.00019	0.00038	0.00000	0.00000	0.00000	0.00000	0.05213
22	0.00036	0.00019	0.00038	0.00000	0.00000	0.00000	0.00000	0.04834
23	0.00037	0.00020	0.00038	0.00000	0.00000	0.00000	0.00000	0.04522
24	0.00037	0.00020	0.00038	0.00000	0.00000	0.00000	0.00000	0.04270
25	0.00038	0.00021	0.00038	0.00000	0.00000	0.00000	0.00000	0.04070
26	0.00038	0.00021	0.00038	0.00000	0.00000	0.00000	0.00000	0.03915
27	0.00038	0.00022	0.00038	0.00000	0.00000	0.00000	0.00000	0.03799
28	0.00038	0.00024	0.00038	0.00000	0.00000	0.00000	0.00000	0.03714
29	0.00039	0.00025	0.00038	0.00000	0.00000	0.00000	0.00000	0.03654
30	0.00041	0.00026	0.00038	0.00000	0.00000	0.00000	0.00000	0.03611
31	0.00044	0.00031	0.00038	0.00000	0.00000	0.00000	0.00000	0.03578
32	0.00050	0.00035	0.00038	0.00000	0.00000	0.00000	0.00000	0.03549
33	0.00056	0.00039	0.00038	0.00000	0.00000	0.00000	0.00000	0.03515
34	0.00063	0.00044	0.00038	0.00000	0.00000	0.00000	0.00000	0.03471
35	0.00070	0.00047	0.00043	0.00000	0.00000	0.00000	0.00000	0.03409
36	0.00077	0.00051	0.00048	0.00000	0.00000	0.00000	0.00000	0.03286
37	0.00084	0.00055	0.00053	0.00000	0.00000	0.00000	0.00000	0.03139
38	0.00090	0.00060	0.00060	0.00000	0.00000	0.00000	0.00000	0.02973
39	0.00096	0.00065	0.00068	0.00000	0.00000	0.00000	0.00000	0.02787
40	0.00102	0.00071	0.00078	0.00000	0.00000	0.00000	0.00000	0.02585
41	0.00108	0.00077	0.00088	0.00000	0.00000	0.00000	0.00000	0.02352
42	0.00114	0.00085	0.00098	0.00000	0.00000	0.00000	0.00000	0.02111
43	0.00122	0.00094	0.00110	0.00000	0.00000	0.00000	0.00000	0.01868
44	0.00130	0.00103	0.00125	0.00000	0.00000	0.00000	0.00000	0.01629
45	0.00140	0.00112	0.00143	0.00000	0.00000	0.00000	0.00000	0.01400
46	0.00151	0.00122	0.00163	0.00000	0.00000	0.00000	0.00000	0.01208
47	0.00162	0.00133	0.00183	0.00000	0.00000	0.00000	0.00000	0.01034
48	0.00173	0.00143	0.00208	0.00000	0.00000	0.00000	0.00000	0.00879
49	0.00186	0.00155	0.00235	0.00000	0.00000	0.00000	0.00000	0.00744
50	0.00200	0.00168	0.00268	0.00000	0.00000	0.00000	0.00000	0.00629
51	0.00214	0.00185	0.00305	0.00000	0.00000	0.00000	0.00000	0.00551
52	0.00245	0.00202	0.00345	0.00000	0.00000	0.00000	0.00000	0.00493
53	0.00267	0.00221	0.00392	0.00000	0.00000	0.00000	0.00000	0.00451
54	0.00292	0.00242	0.00445	0.00000	0.00000	0.00000	0.00000	0.00423
55	0.00320	0.00272	0.00505	0.22800	0.22000	0.09600	0.19000	0.00000
56	0.00362	0.00309	0.00575	0.22800	0.22000	0.09600	0.19000	0.00000
57	0.00420	0.00348	0.00653	0.22800	0.22000	0.09600	0.19000	0.00000
58	0.00469	0.00392	0.00740	0.22800	0.22000	0.09600	0.19000	0.00000
59	0.00527	0.00444	0.00843	0.22800	0.22000	0.09600	0.19000	0.00000
60	0.00595	0.00506	0.01220	0.22800	0.22000	0.09600	0.19000	0.00000
61	0.00675	0.00581	0.01220	0.22800	0.22000	0.09600	0.19000	0.00000
62	0.00768	0.00666	0.01220	0.19000	0.17000	0.08000	0.15000	0.00000
63	0.00876	0.00765	0.01220	0.19000	0.17000	0.08000	0.15000	0.00000
64	0.01001	0.00862	0.01220	0.19000	0.17000	0.08000	0.15000	0.00000
65	0.01128	0.00971	0.01220	0.19000	0.17000	0.08000	0.15000	0.00000

## 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