# MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF JUNE 30, 2013

## G. S. CURRAN & COMPANY, LTD.

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January 9, 2014

Board of Trustees Municipal Employees' Retirement System 7937 Office Park Blvd. Baton Rouge, LA 70809

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Municipal Employees' Retirement System for the fiscal year ending June 30, 2013. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrative director and auditors. This report was prepared at the request of the Board of Trustees of the Municipal 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 June 30, 2014, to recommend the net direct employer contribution rate for fiscal 2015, and to provide information for the system's financial statements. This report was prepared exclusively for the Municipal Employees' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

Please note that significant changes in the accounting standards affecting retirement systems have been approved by the Governmental Accounting Standards Board. These changes, which are included in GASB Statement 67 will not be effective until the June 30, 2014 valuation. This report was prepared in accordance with the currently effective GASB Statement 25. GASB 67 will require the reporting of an alternative calculation of liabilities based upon a funding method and interest rate that may differ with those used for funding purposes. It is important to note that the liability numbers within this report are not necessarily a reasonable approximation of the liability numbers that will be reported under GASB 67.

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.	
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By: Gary Curran, F.C.A., M.A.A.A., A.S.A.	Gregory Curran, F.C.A., M.A.A.A., A.S.A.

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### SUMMARY OF VALUATION RESULTS MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM - PLAN A

Valuation Date:		•	June 30, 2013	Jı	ine 30, 2012
Census Summary:	Active Members Retirees and Beneficiaries Terminated Due a Deferred Benefit Terminated Due a Refund		4,939 3,106 193 2,672		5,021 3,040 181 2,632
Payroll:		\$	167,422,222	\$	167,511,550
Benefits in Paymen	ıt:	\$	48,994,132	\$	46,224,138
Frozen Unfunded A	Actuarial Accrued Liability:	\$	75,038,341	\$	75,337,890
Market Value of As	ssets:	\$	657,723,192	\$	639,209,518 †
Actuarial Asset Va	lue:	\$	717,816,409	\$	721,475,280 †
Actuarial Accrued	Liability (as defined by GASB-25)	\$	792,854,750	\$	796,813,170
Ratio of Actuarial Y	Value of Assets to Actuarial Accrued Liability	<b>/:</b>	90.54%		90.55%
******	************	****	*******	******	******
		I	FISCAL 2014	FI	SCAL 2013
Employer Normal	Cost (July 1):	\$	32,965,067	\$	29,655,906
Amortization Cost	(July 1):	\$	5,938,850	\$	5,696,738
	ross Employer Actuarially Required ling Estimated Administrative Costs:	\$	41,388,549	\$	37,573,585
Projected Ad Valor	em and Revenue Sharing Funds	\$	5,801,149	\$	5,388,595
Net Direct Employe	er Actuarially Required Contribution:	\$	35,587,400	\$	32,184,990
Actuarially Require	ed Net Direct Employer Contribution Rate		20.62%		18.67% †
Actual Net Direct I	Employer Contribution Rate:		18.75%		17.00%
******	************	****	******	******	******

Minimum Recommended Net Direct Employer Contribution Rate Fiscal 2015: 20.75% Fiscal 2014: 19.00% †\*

Employee Contribution Rate: 9.50% of Payroll (9.25% prior to July 1, 2013) Actuarial Cost Method: Frozen Attained Age Normal Actuarial Cost Method

Valuation Interest Rate: 7.75% (Net of Investment Expense)

Exclusions from Census: None

Basis of Actuarial Asset Value: The actuarial value of assets is based on the market value of assets adjusted to phase in

asset earnings above or below the assumed rate of return over a five-year period with limits set at 85% and 115% of the market value of assets. When the adjusted value falls outside of the limits, the actuarial value is set equal to the average of the limited

and adjusted value.

Changes in Valuation Methods, Assumptions, and/or Amortization Periods: Updates were made in the valuation to account for updated option factors and a change in the employee contribution rate beginning July 1, 2013.

Method of Recognizing Gains and Losses: Under the Frozen Attained Age Normal Method, actuarial gains and losses are spread over future normal costs.

<sup>†</sup> Based upon asset values which include an unaudited "best estimate" of the value of a receivable related to the FIA Leveraged Fund.

<sup>\*</sup> Actual rate contributed was 18.75% since system increased the employee contribution rate from 9.25% to 9.50%.

### SUMMARY OF VALUATION RESULTS MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM - PLAN B

Valuation Date:			June 30, 2013	J	une 30, 2012
Census Summary:	Active Members Retirees and Beneficiaries Terminated Due a Deferred Benefit Terminated Due a Refund		2,128 900 61 1,155		2,155 879 61 1,100
Payroll:		\$	65,928,929	\$	66,409,896
Benefits in Paymer	nt:	\$	8,793,050	\$	8,285,257
Frozen Unfunded A	Actuarial Accrued Liability:	\$	3,740,857	\$	4,049,257
Market Value of A	ssets:	\$	140,744,063	\$	137,164,489 †
Actuarial Asset Va	lue:	\$	153,851,774	\$	154,451,871 †
Actuarial Accrued	Liability (as defined by GASB-25)	\$	157,592,631	\$	158,501,128
Ratio of Actuarial	Value of Assets to Actuarial Accrued Liability:		97.63%		97.45%
******	**************		**************************************		**************************************
Employer Normal	Cost (July 1):	\$	7,649,570	\$	6,867,836
Amortization Cost	(July 1):	\$	565,915	\$	573,126
•	Bross Employer Actuarially Required ling Estimated Administrative Costs:	\$	8,923,745	\$	8,071,443
Projected Ad Valor	rem and Revenue Sharing Funds	\$	2,284,425	\$	2,136,306
Net Direct Employ	er Actuarially Required Contributions:	\$	6,639,320	\$	5,935,137
Actuarially Require	ed Net Direct Employer Contribution Rate		9.82%		8.72% †
Actual Net Direct I	Employer Contribution Rate:		8.75%		8.00%
******	************	***	********	******	*****

Minimum Recommended Net Direct Employer Contribution Rate Fiscal 2015: 10.00% Fiscal 2014: 8.75% †

Employee Contribution Rate: 5.00% of Payroll

Actuarial Cost Method: Frozen Attained Age Normal Actuarial Cost Method

Valuation Interest Rate: 7.75% (Net of Investment Expense)

Exclusions from Census: None

Basis of Actuarial Asset Value: The actuarial value of assets is based on the market value of assets adjusted to phase in

asset earnings above or below the assumed rate of return over a five-year period with limits set at 85% and 115% of the market value of assets. When the adjusted value falls outside of the limits, the actuarial value is set equal to the average of the limited

and adjusted value.

Changes in Valuation Methods, Assumptions, and/or Amortization Periods: Updates were made in the valuation to account for updated option factors and a change in the employee contribution rate beginning July 1, 2013.

Method of Recognizing Gains and Losses: Under the Frozen Attained Age Normal Method, actuarial gains and losses are spread over future normal costs.

† Based upon asset values which include an unaudited "best estimate" of the value of a receivable related to the FIA Leveraged Fund.

#### COMMENTS ON DATA

For the valuation, the administrative director of the system furnished a census on compact disk derived from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, as well as option categories and benefit amounts, was provided in like manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit X, there are 4,939 active members in Plan A of whom 2,015 have vested retirement benefits including 254 participants in the Deferred Retirement Option Plan (DROP); 3,106 former Plan A members or their beneficiaries are receiving retirement benefits. An additional 2,865 Plan A members have contributions remaining on deposit with the system; of this number, 193 have vested rights for future retirement benefits. Census data on Plan B members may be found in Exhibit XXI. There are 2,128 active members in Plan B of whom 815 have vested retirement benefits including 77 participants in the Deferred Retirement Option Plan (DROP); 900 former Plan B members or their beneficiaries are receiving retirement benefits. An additional 1,216 Plan B members have contributions remaining on deposit with the system; of this number, 61 have vested rights for future retirement benefits. All individuals submitted were included in the valuation.

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

In addition to the statistical information provided on the system's participants, the system's administrative director furnished general information related to other aspects of the system's expenses, benefits and funding. Except as stated below, valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, Certified Public Accountants.

As indicated in the system's audit report, the net market value of Plan A's assets was \$657,723,192 as of June 30, 2013. Net investment income for fiscal 2013 measured on a market value basis for Plan A amounted to gain of \$27,352,648. Contributions to the Plan for the fiscal year totaled \$49,686,266; benefits and expenses paid by Plan A amounted to \$58,525,240. The net market value of Plan B's assets was \$140,744,063 as of June 30, 2013. Net investment income for fiscal 2013

measured on a market value basis for Plan B amounted to a gain of \$5,570,086. Contributions to the Plan for the fiscal year totaled \$10,589,841; benefits and expenses paid by Plan B amounted to \$12,580,353. In addition to the two benefit trust funds the system maintains an expense fund for payment of certain investment and administrative expenses. The balance in this fund at the beginning of the year was \$252,860 and at the end of the year the balance was \$367,487.

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

#### COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

This valuation is based on the Frozen Attained Age Normal actuarial cost method with the unfunded actuarial accrued liability frozen as of June 30, 1989. Under the provisions of Louisiana R.S. 11:103 the unfunded accrued liability for Plan A, which was determined to be \$48,466,297 as of June 30, 1989, was amortized over forty years with payments increasing at 4.25% per year. The unfunded accrued liability for Plan B, which was determined to be \$9,853,175 as of June 30, 1989, was amortized over forty years with payments decreasing at 2% per year. In Plan A, payroll growth less than 4.25% per year will increase future amortization payments as a percent of payroll. In Plan B, any payroll growth or payroll decline less than 2% per year will reduce future amortization payments as a percent of payroll. Under the Frozen Attained Age Normal Cost Method, actuarial gains and losses are spread over future normal costs. Thus, favorable plan experience will lower future normal costs; unfavorable experience will cause future normal costs to increase. In addition, changes in benefits and assumptions are also spread over future normal costs.

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

The current year actuarial assumptions utilized for the report are outlined on pages sixty-four through sixty-eight. All assumptions used are the same as those used for the prior year report. All assumptions are within our "best estimate range". 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 2013 Regular Session of the Louisiana Legislature:

**Act 170** allows statewide retirement system boards to make an irrevocable election to have future benefit increases for retirees that are now governed by R.S. 11:242 (Target Ratio Method) to apply a new method under R.S. 11:243. Under R.S. 11:243 systems may grant a Cost of Living Adjustment (COLA) if any of the following apply: a) The system has a funded ratio of 90% or more and has not granted a COLA in the most recent fiscal year; b) The system has a funded ratio of 80% or more and has not granted a COLA in either of the two most recent fiscal years; c) The system has a funded ratio of 70% or more and has not granted a COLA in any of the three most recent fiscal years.

**Act 208** adds two new non-voting trustees to the Municipal Employees' Retirement System Board. One of whom will be the commissioner of administration or designee and the other will be the state treasurer or designee effective June 30, 2013.

**Act 266** adds the West Calcasieu Parish Community Center Authority as an employer participating in the Municipal Employees' Retirement System effective June 30, 2013.

Act 365 gives members of statewide retirement systems the option to purchase the accrual rate of the receiving system at time of transfer if said accrual rate is greater that the accrual rate of the transferring system. It also allows said members to execute a reverse transfer only one time, at the time of retirement or during active service if submitted to the receiving system on or before December 31, 2013.

#### 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 and are based on values provided by the system's auditors.

		Market Value	Actuarial Value
PLAN A	2004	9.6%	3.5%
	2005	7.2%	9.6% *
	2006	8.6%	10.7% *
	2007	18.1% ‡	10.8% ‡
	2008	1.1%	9.0%
	2009	-13.8% ‡	0.9% **
	2010	11.0%	5.9%
	2011	10.5%	4.2%
	2012	-4.8% †	0.7% †
	2013	4.3%	0.7%

		Market Value	Actuarial Value
PLAN B	2004	9.7%	3.1%
	2005	7.2%	6.4% *
	2006	8.5%	13.7% *
	2007	17.4% ‡	10.6% ‡
	2008	1.3%	8.8%
	2009	-13.7% ‡	0.9% **
	2010	10.9%	5.8%
	2011	10.5%	4.2%
	2012	-4.7% †	1.0% †
	2013	4.1%	0.9%

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

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2013, the fund earned \$12,575,115 of dividends and interest and other recurring income for Plan A and \$2,650,665 for Plan B. Net income was increased by realized and unrealized capital gains of \$19,927,816 for Plan A and \$4,169,009 for Plan B and reduced by net investment expenses of \$5,150,283 for Plan A and \$1,249,588 for Plan B. The geometric mean of the market value rates of return measured over the last ten years was 4.8% for Plan A and 4.8% for Plan B. Over the last twenty years, these rates were 5.8% for Plan A and 5.7% for Plan B.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return used for the valuation. The assumed long-term rate of return was changed to 7.75% as of June 30, 2012, which represented a change from the 8% assumption used prior to June 30, 2012. This rate is calculated based on the actuarial value of assets and all interest, dividends, other investment income, and capital gains or losses as given in Exhibit VI for Plan A and Exhibit XVII for Plan B, adjusted for any change in assets due to actuarial smoothing. Investment income used to calculate this yield is based upon a smoothing of gains or losses over a five-year period. The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate. Beginning June 30, 2012, yields in excess of the 7.75% assumption will reduce future costs; yields below 7.75% will increase future costs. (For the period prior to June 30, 2012, yields in excess of the 8% assumption reduced future costs; yields below 8% increased future costs.) In addition to the smoothing of investment returns above or below the assumed rate of return, the actuarial and market rates of return differ due to the allocation of expense fund assets and income to both Plan A and Plan B. For fiscal 2013, Plan A experienced net actuarial investment earnings of \$50,483,175 less than the actuarial assumed earnings rate of 7.75%. Plan B experienced net actuarial investment earnings of \$10,536,908 less than the actuarial assumed earnings rate of 7.75%. These actuarial losses increased the normal cost accrual rate by 4.2570% and 2.1869% respectively for Plan A and Plan B.

At the end of each fiscal year, a review of the data is made to identify current members of Plan A and Plan B who have consecutive service credit in both plans that have not been addressed in previous transfers of assets and liabilities between the Plan A and Plan B trust funds pursuant to the provisions of R.S. 11: 1862(F). In the course of reviewing data for the June 30, 2013 valuation we found one member of Plan A and three members of Plan B with such service and recommend a transfer of \$79,242 be made from the Plan A trust to the Plan B trust for fiscal 2013.

#### PLAN A – DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for Plan A is given in Exhibit X. The average active member is 48 years old with 10.23 years of service and an annual salary of \$33,898. The Plan's active membership decreased during the fiscal year by 82 members. The plan experienced a decrease in the active plan population of 91 members between 2008 and 2013. Review of the active census by age indicates that over the last ten years the population in the thirty through fifty age group has decreased while the proportion of active members over-fifty increased. The population percentage under age 30 has remained constant. Over the same ten-year period the plan showed a decrease in the percentage of members with between five and fifteen years of service; the percentage of members with service under five years and over twenty-five years has increased.

The average regular retiree is 70 years old with a monthly benefit of \$1,515. The number of retirees and beneficiaries receiving benefits from the system increased by 66 during the fiscal year. Over the last five years the number of retirees has increased by 312; during this same period, annual benefits in payment increased by \$11,343,797.

Plan liability experience for fiscal 2013 was favorable. The primary factors contributing to the experience gain were disabilities and salary increases below projected levels. In addition, withdrawals were above projected levels. All of these factors tend to reduce costs. These factors were partially offset by retirements and drop entries above projected levels. The net effect of all of these elements was a decrease in costs. Plan liability experience gains decreased the normal cost accrual rate by 1.3818%.

#### PLAN B – DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for Plan B is given in Exhibit XXI. The average active member is 49 years old with 9.85 years of service and an annual salary of \$30,982. The Plan's active membership decreased during the fiscal year by 27 members. Over the last five years the active population decreased by 63 members. A review of the active census by age indicates that over the last ten years the population in the under 50 age group has decreased while the proportion of active members over age 50 has increased. Over the same ten-year period the system showed an increase in the percentage of members with service of five to ten years and more than twenty years and a decrease in the percentage of members with service below five and between ten and twenty years.

The average regular retiree is 73 years old with a monthly benefit of \$912. The number of retirees and beneficiaries receiving benefits from the system increased by 21. Over the last five years this group increased by 107; during this same period, annual benefits in payment increased by \$2,167,116.

Plan liability experience for fiscal 2013 was favorable. The primary factor contributing to the liability experience gain for the year were DROP entries and salary increases below projected levels. In addition, withdrawals were above projected levels. These factors tend to reduce costs. Retirements and disabilities were at projected levels. The net effect of all of these factors was a decrease in costs. Plan liability experience gains decreased the normal cost accrual rate by 0.4374%.

#### FUNDING ANALYSIS AND RECOMMENDATIONS

Actuarial funding of a retirement system is a process whereby funds are accumulated over the working lifetimes of employees in such a manner as to have sufficient assets available at retirement to pay for the lifetime benefits accrued by each member of the system. The required contributions are determined by an actuarial valuation based on rates of mortality, termination, disability, and retirement, as well as investment return and other statistical measures specific to the particular group. Each year a determination is made of two cost components, and the actuarially required contributions are based on the sum of these two components plus administrative expenses. These two components are the normal cost and the amortization payment on the unfunded actuarial accrued liability. The normal cost refers to the portion of annual cost based on the salary of active participants. The term unfunded accrued liability (UAL) refers to the excess of the present value of plan benefits over the sum of current assets and future normal costs. Each year the UAL grows with interest and is reduced by payments. Under the funding method used for both plans, changes in plan experience, benefits, or assumptions do not affect the unfunded accuarial accrued liability. These items increase or decrease future normal costs.

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

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 2014 as of July 1, 2013, is \$32,965,067. The amortization payment on the plan's frozen unfunded actuarial accrued liability as of July 1, 2013, is \$5,938,850. The total actuarially required contribution is determined by adjusting these two values for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given on line 15 of Exhibit I, the total actuarially required contribution for fiscal 2014 is \$41,388,549. When this amount is reduced by projected tax contributions and revenue sharing funds the resulting employers' net direct actuarially required contribution for fiscal 2014 is \$35,587,400. This is 20.62% of the projected Plan A payroll for fiscal 2014.

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

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

Normal Cost Accrual Rate – Fiscal 2013	18.8673%
Factors Increasing the Normal Cost Accrual Rate: Asset Experience Loss Contribution Loss	4.2570% 0.3743%
Factors Decreasing the Normal Cost Accrual Rate: Liability Experience New Members	-1.3818% -1.0770%
Normal Cost Accrual Rate – Fiscal 2014	21.0398%

For Plan B, the derivation of the actuarially required contribution for the current fiscal year is given in Exhibit XII. The normal cost for fiscal 2014 as of July 1, 2013, is \$7,649,570. The amortization payment on the plan's frozen unfunded actuarial accrued liability as of July 1, 2013, is \$565,915. The total actuarially required contribution is determined by adjusting these two values for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given on line 15 of Exhibit XII, the total actuarially required contribution for fiscal 2014 is \$8,923,745. When this amount is reduced by projected tax contributions and revenue sharing funds the resulting employers' net direct actuarially required contribution for fiscal 2014 is \$6,639,320. This is 9.82% of the projected Plan B payroll for fiscal 2014.

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

Normal Cost Accrual Rate – Fiscal 2013	11.1083%
Factors Increasing the Normal Cost Accrual Rate:	
Asset Experience Loss	2.1869%
Contribution Loss	0.0920%
Factors Decreasing the Normal Cost Accrual Rate:	
Liability Experience	-0.4374%
New Members	-0.4946%
Normal Cost Accrual Rate – Fiscal 2014	12.4554%

In addition to the above factors, payroll growth affects plan costs to the extent that payments on the system's unfunded liability are on a schedule that varies from actual trends in payroll growth or decline. If payroll changes at rates not consistent with the amortization schedule, the result will be costs that change as a percentage of payroll. For fiscal 2013, the net effect of the change in payroll on amortization costs was an increase of 0.14% of payroll for Plan A; and payments level as a percent of payroll for Plan B. 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 these funds collected in fiscal 2013 will increase by 0.23% as a percent of payroll in Plan A and will increase by 0.24% of payroll in Plan B. Although the actuarially required net direct employer contribution rate for Plan A for fiscal 2014 is 20.62%, the actual employer contribution rate for fiscal 2014 is 18.75% of payroll. After accounting for the anticipated contribution shortfall in fiscal 2014 and rounding the result to the nearest 0.25% as required by R. S. 11:103, we recommend a minimum net direct employer contribution rate of 20.75% for fiscal 2015 for Plan A. Although the actuarially required net direct employer contribution rate for Plan B for fiscal 2014 is 9.82%, the actual employer contribution rate for fiscal 2014 is 8.75% of payroll. After accounting for the anticipated contribution shortfall in fiscal 2014 and rounding the result to the nearest 0.25% as required by R.S. 11:103, we recommend a minimum net direct employer contribution rate of 10.00% for fiscal 2015 for Plan B.

Both Plan A and Plan B have Funding Deposit Account Credit Balances. Since no contribution deposits or withdrawals were made to the accounts during fiscal 2013 the outstanding balances were credited with interest at the valuation interest rate. Funds in these accounts may be used to reduce the outstanding unfunded accrued liability, reduce the future normal costs or reduce contributions for specified fiscal years.

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, completion of amortization payments or credit schedules, and changes in plan provisions or applicable law. Analysis of the effect of all these factors is beyond the scope of this report. We have, however, calculated the sensitivity of the plans' costs to two factors. First, we have determined that based on current assets and demographics, for each percentage earnings in a single year under (or over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (or reduction) in the normal cost accrual rate of 0.61% for Plan A, and 0.32% for Plan B. We have also determined that a 1% reduction in the valuation interest rate for each Plan would increase the actuarially required contribution rate for fiscal 2013 by 8.87% in Plan A and 4.93% in Plan B. Please note that the above results are only intended to serve as an illustration of the impact of a change in the valuation interest rate. Any actual change in the valuation interest rate should only be effected with a review of all other plan assumptions.

#### COST OF LIVING INCREASES

During fiscal 2013, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 1.75%. Cost of living provisions for the system are detailed in R.S. 11:1761 and R.S. 11:246. The former statute allows the board to use interest earnings in excess of the normal requirements to grant annual cost of living increases of 2% of each retiree's original benefit. R.S. 11:246 provides cost of living increases of retirees and beneficiaries over the age of 65 equal to 2% of the benefit in payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. R.S. 11:241 provides that cost of living benefits shall be in the form (unless the board otherwise specifies) of \$X×(A+B) where X is at most \$1 and "A" represents the number of years of credited service accrued at retirement or at death of the member

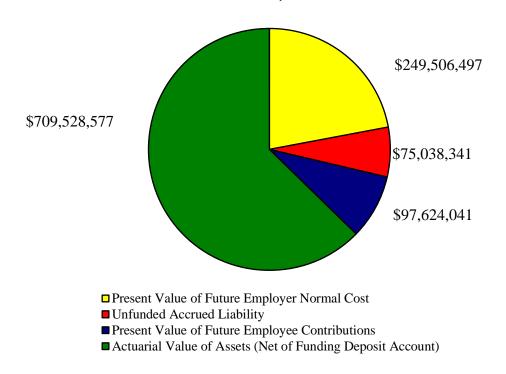
or retiree and "B" is equal to the number of years since retirement or since death of the member or retiree to June 30<sup>th</sup> of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict.

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

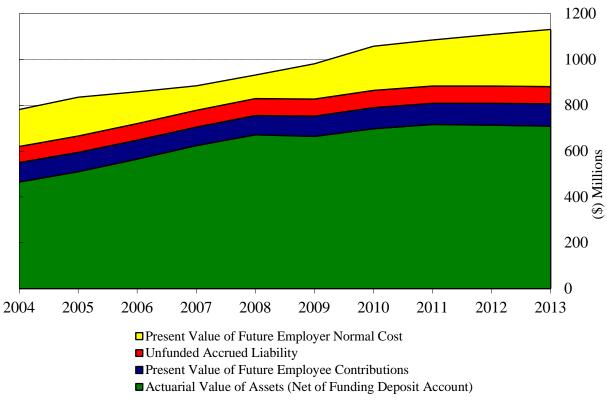
- 1. The system has a funded ratio of 90% or more and has not granted a benefit increase to retirees, survivors, and beneficiaries in the most recent fiscal year.
- 2. The system has a funded ratio of 80% or more and has not granted a benefit increase to retirees, survivors, and beneficiaries in the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

We have determined that for fiscal 2013, neither plan had excess interest earnings; hence no cost of living increase is payable to regular retirees.

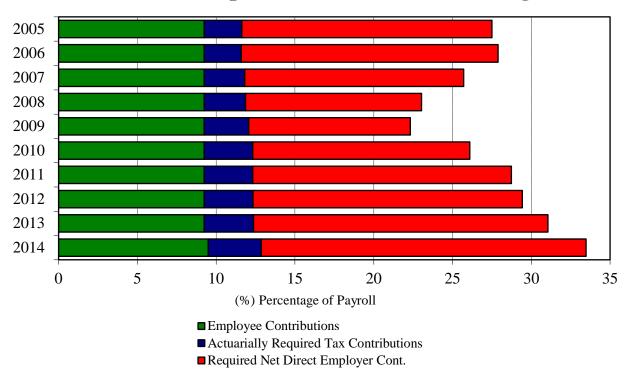
Plan A - Components of Present Value of Future Benefits June 30, 2013



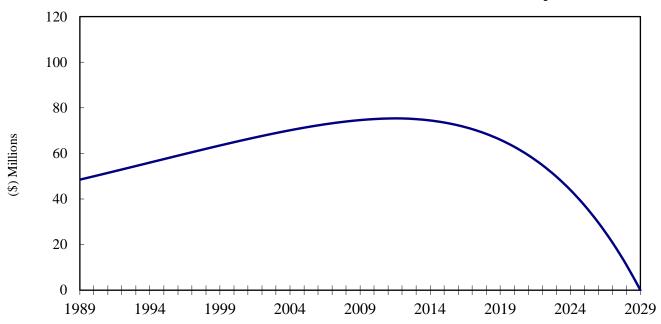
Plan A - Components of Present Value of Future Benefits



Plan A - Components of Actuarial Funding

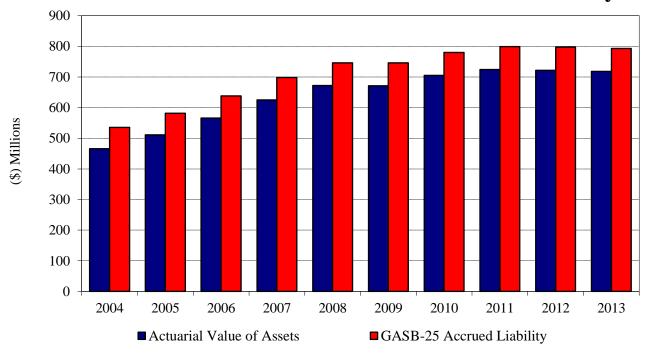


Plan A – Frozen Unfunded Accrued Liability

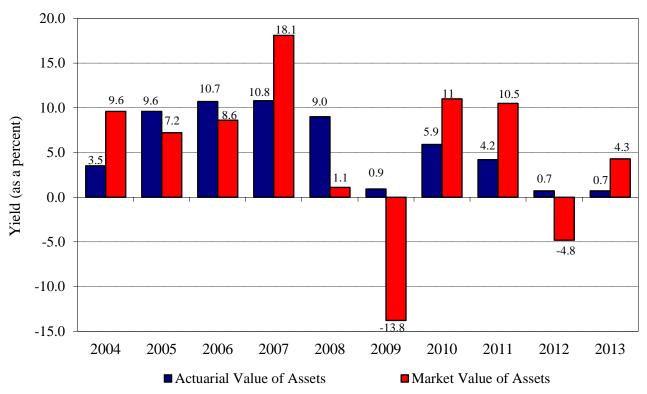


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Plan A
Actuarial Value of Assets vs. GASB-25 Accrued Liability

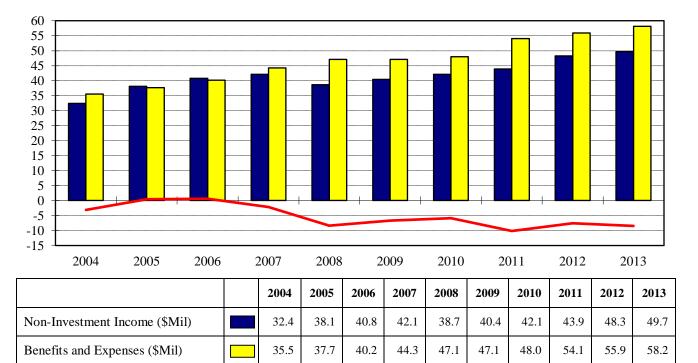


Plan A – Historical Asset Yield



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Plan A - Net Non-Investment Income



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

0.6

-2.2

-8.4

-6.7

-5.9

-10.2

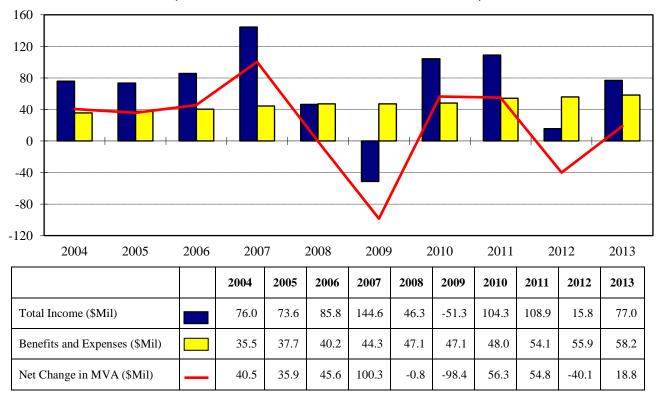
-7.6

-8.5

0.4

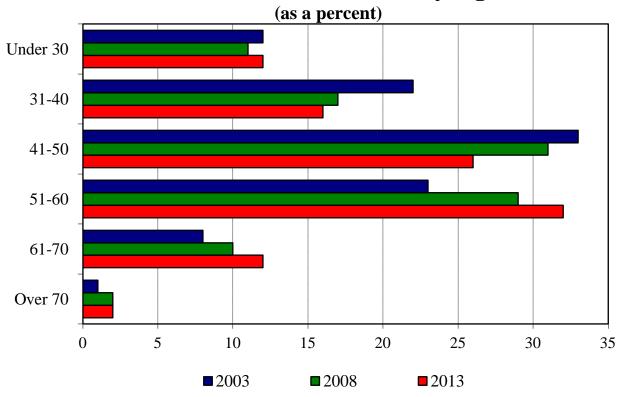
-3.1

Net Non-Investment Income (\$Mil)

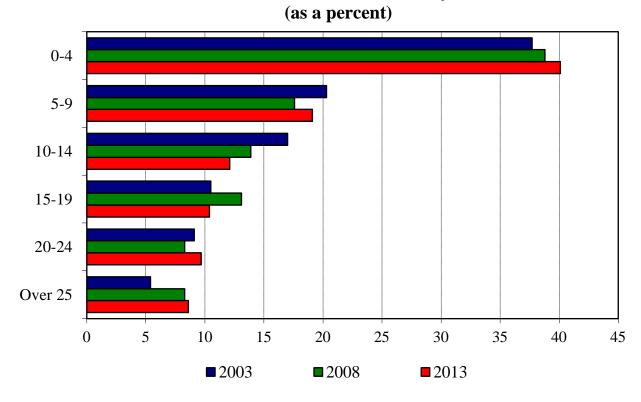


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Plan A - Active - Census By Age

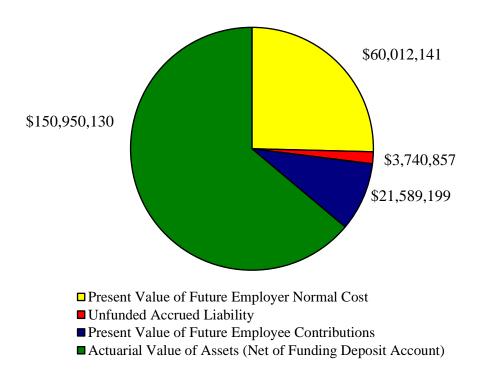


Plan A - Active - Census By Service

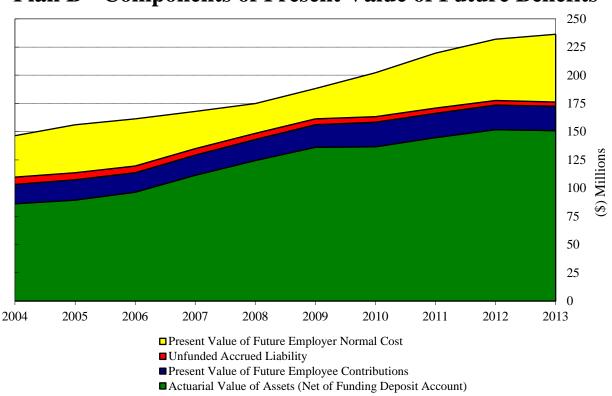


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Plan B - Components of Present Value of Future Benefits June 30, 2013

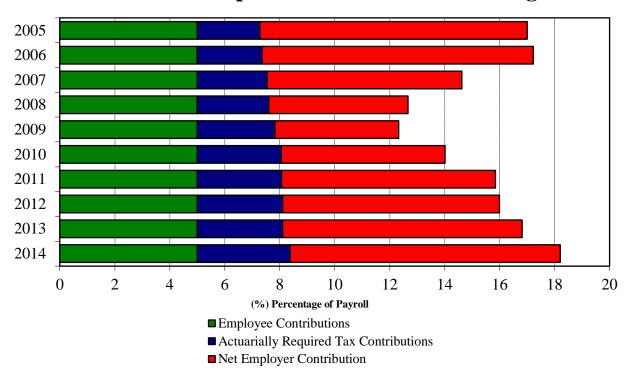


Plan B - Components of Present Value of Future Benefits

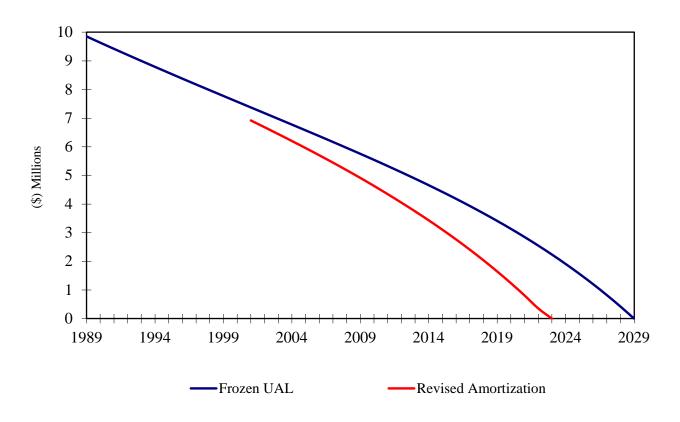


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**Plan B - Components of Actuarial Funding** 

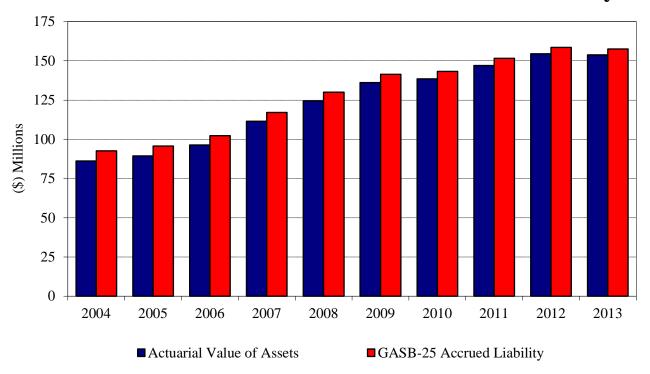


Plan B – Frozen Unfunded Accrued Liability

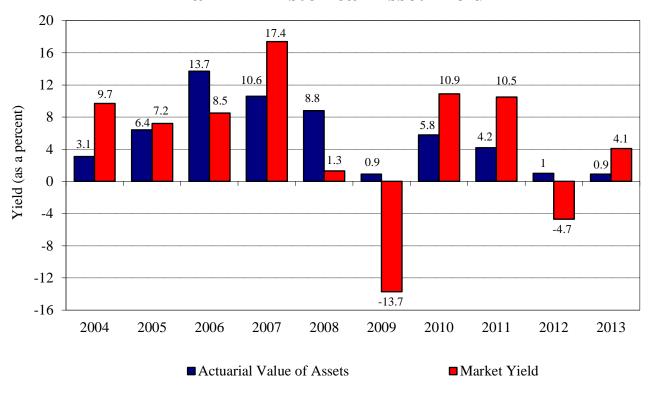


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Plan B
Actuarial Value of Assets vs. GASB-25 Accrued Liability

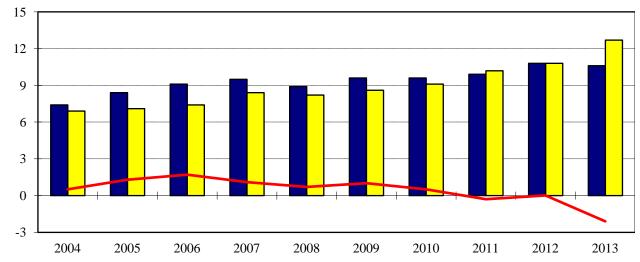


Plan B - Historical Asset Yield



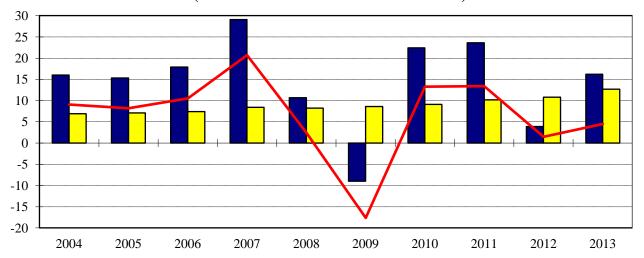
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Plan B - Net Non-Investment Income



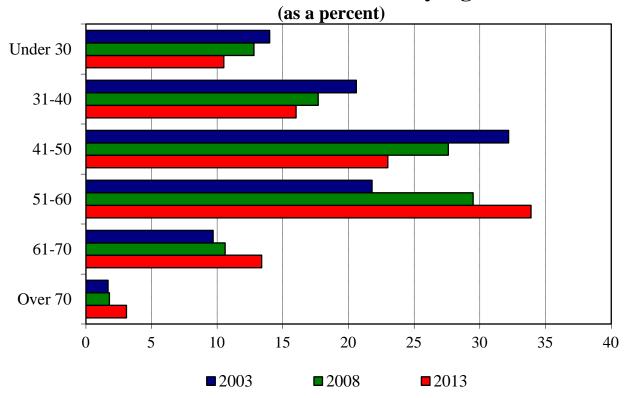
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Non-Investment Income (\$Mil)	7.4	8.4	9.1	9.5	8.9	9.6	9.6	9.9	10.8	10.6
Benefits and Expenses (\$Mil)	6.9	7.1	7.4	8.4	8.2	8.6	9.1	10.2	10.8	12.7
Net Non-Investment Income (\$Mil)	0.5	1.3	1.7	1.1	0.7	1.0	0.5	-0.3	0.0	-2.1

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

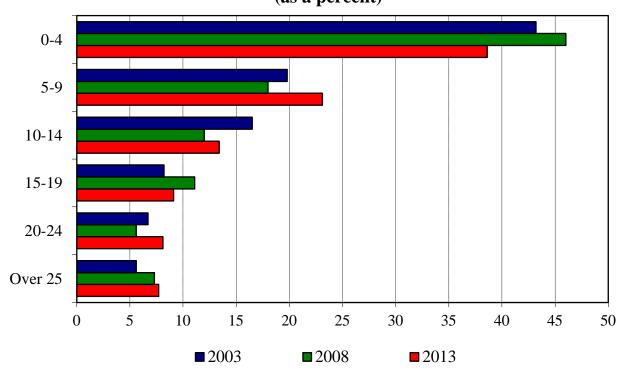


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Income (\$Mil)	16.0	15.3	17.9	29.1	10.7	-9.0	22.4	23.6	3.9	16.2
Benefits and Expenses (\$Mil)	6.9	7.1	7.4	8.4	8.2	8.6	9.1	10.2	10.8	12.7
Net Change in MVA (\$Mil)	9.1	8.2	10.5	20.7	2.5	-17.6	13.3	13.4	1.5	3.5

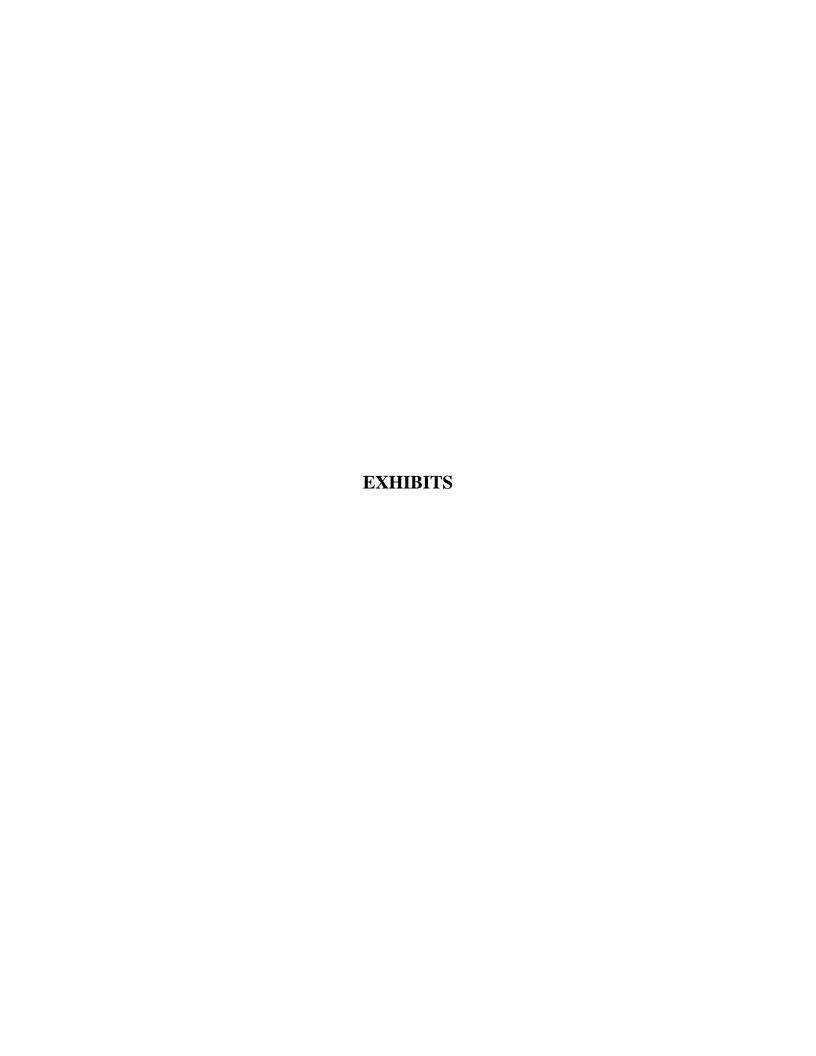
Plan B - Active - Census By Age



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



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

1. 2. 3. 4. 5. 6.	Present Value of Future Benefits  Frozen Unfunded Actuarial Accrued Liability  Actuarial Value of Assets  Present Value of Future Employee Contributions  Funding Deposit Account Credit Balance  Present Value of Future Employer Normal Costs (1-2-3-4+5)	\$ \$ \$ \$	1,131,697,456 75,038,341 717,816,409 97,624,041 8,287,832 249,506,497
7.	Present Value of Future Salaries	\$ 1	1,185,878,099
8.	Employer Normal Cost Accrual Rate (6 ÷ 7)		21.039810%
9.	Projected Fiscal 2014 Salary for Current Membership	\$	156,679,488
10.	Employer Normal Cost as of July 1, 2013 (8 x 9)	\$	32,965,067
11.	Amortization Payment on Frozen Unfunded Accrued Liability of \$75,038,341 with Payments increasing at 4.25% per year	\$	5,938,850
12.	Total Employer Normal Cost & Amortization Payment (10 + 11)	\$	38,903,917
13.	Employer Normal Cost and Amortization Payment Interest Adjusted for Midyear Payment	\$	40,383,315
14.	Estimated Administrative Cost for Fiscal 2014	\$	1,005,234
15.	Gross Employer Actuarially Required Contribution for Fiscal 2014 (13 + 14)	\$	41,388,549
16.	Projected Ad Valorem Tax Contributions for Fiscal 2014	\$	5,686,246
17.	Projected Revenue Sharing Funds for Fiscal 2014	\$	114,903
18.	Net Direct Employer Actuarially Required Contribution for Fiscal 2014 (15 - 16 - 17)	\$	35,587,400
19.	Projected Payroll (July 1, 2013 through June 30, 2014)	\$	172,558,506
20.	Employers Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2014 (18 ÷19)		20.62%
21.	Actual Employer Contribution Rate for Fiscal 2014		18.75%
22.	Contribution Shortfall (Excess) as a % of Payroll (20 - 21)		1.87%
23.	Increase (Reduction) to Following Year Payment for Contribution Shortfall (Excess)		0.25%
24.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 201 (20 + 23, Rounded to nearest 0.25%)	15	20.75%

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

### Present Value of Future Benefits for Active Members:

Retirement Benefits Survivor Benefits Disability Benefits Vested Deferred Termination Benefits Contribution Refunds	\$ 610,286,8 10,969,6 7,471,3 12,244,1 19,371,0	569 330 193	
TOTAL Present Value of Future Benefits for Active Members	, ,		660,343,166
Present Value of Future Benefits for Terminated Members:			
Terminated Vested Members Due Benefits at Retirement Terminated Members with Reciprocals	\$ 16,349,8	383	
Due Benefits at Retirement	909,8	344	
Terminated Members Due a Refund	2,415,4		
	, -,		
TOTAL Present Value of Future Benefits for Terminated Member	ers	\$	19,675,161
Present Value of Future Benefits for Retirees:			
Regular Retirees	\$ 382,180,6	572	
Disability Retirees	18,356,1		
Survivors & Widows	47,148,6		
Reserve for Accrued Retiree DROP Account Balances	3,993,6		
TOTAL Present Value of Future Benefits for Retirees & Survivo	rs	\$	451,679,129
TOTAL Present Value of Future Benefits		\$	1,131,697,456

## EXHIBIT III – Schedule A PLAN A: MARKET VALUE OF ASSETS

Current Assets:	
Cash	
Accrued Alternative Investments	
Contributions Receivable from Employers	
Contributions Receivable from Members	
Investment Receivable	
Accrued Interest and Dividends on Investments	
Dividends Receivable 97,990	
Other Receivables 87,088	
Due To Plan B (27,250)	
TOTAL CURRENT ASSETS	\$ 22,213,256
Property Plant & Equipment	\$ 622,775
Mitigation Bank Capitalized Project Costs	\$ 471,661
Other Assets	\$ 34,155
Prepaid Expense	\$ 8,104
Investments:	
Co-Mingled Funds \$ 148,494,183	
Common Stock	
Limited Partnerships	
Mutual Fund – Equities	
Cash Equivalents	
Mitigation Credits 35,068,673	
Mutual Fund – Fixed Income	
Bonds	
Real Estate-Mitigation Banks and LLC	
Limited Liability Companies	
Line of Credit	
Notes Receivable	
Convertible Securities	
TOTAL INVESTMENTS	\$ 655,490,691
TOTAL ASSETS	\$ 678,840,642
Current Liabilities:	
Investment Payable\$ 678,375	
Other Payables 837,305	
Long-Term Mitigation Liability	
Accounts Payable	
Refunds Payable	
Obligations under Securities Lending Program	
Mitigation Bank Unearned Revenue	
TOTAL CURRENT LIABILITIES	\$ 2,872,698
OTHER CONTROLLING INTEREST	\$ (18,244,752)
MARKET VALUE OF ASSETS	\$ 657,723,192

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

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

Fiscal year 2013	\$ - \$	(21,849,970) (86,502,955) 15,459,113 16,842,738 (144,474,440) (220,525,514)
Deferral of excess (shortfall) of invested income:		
Fiscal year 2013 (80%) Fiscal year 2012 (60%) Fiscal year 2011 (40%) Fiscal year 2010 (20%) Fiscal year 2009 (0%)		(51,901,773) 6,183,645 3,368,548
Total deferred for year	\$	(59,829,556)
Market value of plan net assets, end of year	\$	657,723,192
Preliminary actuarial value of plan assets, end of year	\$	717,552,748
Actuarial value of assets corridor		
85% of market value, end of year		, ,
Allocated Share of the Expense Fund	\$	263,661
Final actuarial value of plan net assets plus allocated share of the expense fund	\$	717,816,409

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

Employee Contributions to the Annuity Savings Fund	\$ 97,624,041
Employer Normal Contributions to the Pension Accumulation Fund	249,506,497
Employer Amortization Payments to the Pension Accumulation Fund	75,038,341
Funding Deposit Account Credit Balance	(8,287,832)
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	\$ 413,881,047

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

Prior Year Frozen Unfunded Accrued Liability	\$ 75,337,890
Interest on Frozen Unfunded Accrued Liability	
Employer Normal Cost for Prior Year	
Interest on the Normal Cost	
Administrative Expenses	
Interest on Expenses 49,882	
Credit to Funding Deposit Account	
TOTAL Increases to Frozen Unfunded Accrued Liability	\$ 39,154,541
Gross Regular Employer Contributions	
Interest on Employer Contributions 1,290,268	
Contribution Shortfall (Excess)	
Interest on Contribution Shortfall (Excess)	
TOTAL Decreases to Frozen Unfunded Accrued Liability	\$ 39,454,090
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY	\$ 75,038,341

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

Actuarial Value of Assets (June 30, 2012)	\$	721,475,280
Income:  Member Contributions \$ 14,315,952 Employer Contributions 28,433,467 Ad Valorem Taxes 5,382,147 Revenue Sharing Funds 114,709 Irregular Contributions 1,439,991  Total Contribution Income		10 686 266
Net Appreciation in Fair Value of Investments		49,686,266
Net Investment Income	\$	27,352,648
TOTAL Income	\$	77,038,914
Expenses:		
Retirement Benefits\$ 47,562,494DROP Disbursements5,906,187Refunds of Contributions3,832,895Funds Transferred to Another System1,522,775Transfer of Funds from Plan B(1,889,618Allocated Share of Administrative Expenses1,283,077Depreciation28,657	; ; ;	
TOTAL Expenses	\$	58,246,467
Net Market Income for Fiscal 2013 (Income - Expenses)	\$	18,792,447
Adjustment for Change in Allocated Expense Fund Balance	\$	(196,826)
Adjustment for Actuarial Smoothing	\$	(22,254,492)
Actuarial Value of Assets (June 30, 2013)	\$	717,816,409

## EXHIBIT VII PLAN A: FUND BALANCE

Annuity Savings Fund	\$ 110,161,684
Annuity Reserve Fund	447,685,487
Pension Accumulation Fund	64,319,171
Deferred Retirement Option Plan Account	27,269,018
Funding Deposit Account	8,287,832
NET MARKET VALUE OF ASSETS	\$ 657,723,192
ADJUSTMENT FOR ACTUARIAL SMOOTHING	59,829,556
ALLOCATED SHARE OF THE EXPENSE FUND	263,661
ACTUARIAL VALUE OF ASSETS	\$ 717,816,409

## **EXHIBIT VIII**PLAN A: PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees	\$ 463,678,900
Present Value of Benefits Payable to Terminated Employees	19,675,161
Present Value of Benefits Payable to Current Retirees and Beneficiaries	451,679,129
TOTAL PENSION BENEFIT OBLIGATION	\$ 935,033,190
TOTAL ACTUARIAL VALUE OF ASSETS	\$ 717,816,409
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation	76.77%

## **EXHIBIT IX**PLAN A: COST OF LIVING ADJUSTMENTS - TARGET RATIO

1.	Actuarial Value of Assets Divided by PBO as of Fiscal 1986:		65.05%
2.	Amortization of Unfunded Balance over 30 years:		31.46%
	Adjustments in Funded Ratio Due to Changes in Assumption(s):		
3.	Changes for Fiscal 1988 Changes for Fiscal 1989 Changes for Fiscal 1995 Changes for Fiscal 1997 Changes for Fiscal 2000 Changes for Fiscal 2003 Changes for Fiscal 2005 Changes for Fiscal 2006 Changes for Fiscal 2010 Changes for Fiscal 2010 Changes for Fiscal 2012  TOTAL Adjustments  Amortization of Adjustments in Funded Ratio over 30 years:  Changes for Fiscal 1988 Changes for Fiscal 1989 Changes for Fiscal 1995 Changes for Fiscal 1997 Changes for Fiscal 2000		(0.89%)
	Changes for Fiscal 2012	0.02%	
4.	TOTAL Amortization of Adjustments		1.12%
5.	Target Ratio for Current Fiscal Year (Lesser of 1+2+3+4 or 100%).		96.74%
6.	Actuarial Value of Assets Divided by PBO as of June 30, 2013		76.77%

## EXHIBIT X PLAN A: CENSUS DATA

		Terminated with Funds			
	Active	on Deposit	DROP	Retired	Total
Number of members as of					
June 30, 2012	4,762	2,813	259	3,040	10,874
Additions to Census					
Initial membership	613	40			653
Death of another member			(1)	44	43
Omitted in error last year	1			1	2
Adjustment for multiple records				4	4
Change in Status during Year					
Actives terminating service	(171)	171			
Actives who retired	(92)			92	
Actives entering DROP	(90)		90		
Term. members rehired	15	(15)			
Term. members who retire		(19)		19	
Retirees who are rehired					
Refunded who are rehired	11	2			13
DROP participants retiring			(48)	48	
DROP returned to work	44		(44)		
Eliminated from Census					
Refund of contributions	(393)	(127)			(520)
Deaths	(11)		(1)	(141)	(153)
Included in error last year				(1)	(1)
Suspended Benefits					
Adjustment for multiple records	(4)		(1)		(5)
Number of members as of					
June 30, 2013	4,685	2,865	254	3,106	10,910

PLAN A - ACTIVES CENSUS BY AGE:

Age	Number Male	<i>Number</i> Female	Total Number	Average Salary	Total Salary
16 - 20	26	3	29	21,759	631,012
21 - 25	173	69	242	22,922	5,547,116
26 - 30	241	104	345	28,243	9,743,694
31 - 35	232	130	362	30,135	10,908,863
36 - 40	259	160	419	31,143	13,048,931
41 - 45	354	179	533	33,473	17,840,870
46 - 50	452	232	684	34,887	23,862,861
51 - 55	542	298	840	36,373	30,553,048
56 - 60	<i>517</i>	247	764	36,685	28,027,324
61 - 65	293	141	434	38,924	16,893,014
66 - 70	132	43	175	38,759	6,782,897
71 - 75	68	16	84	31,538	2,649,166
76 - 80	13	6	19	28,952	550,095
81 - 85	5	2	7	40,312	282,185
86 - 90	1	1	2	50,573	101,146
TOTAL	3,308	1,631	4,939	33,898	167,422,222

THE ACTIVE CENSUS INCLUDES 2,015 ACTIVES WITH VESTED BENEFITS, INCLUDING 254 DROP PARTICIPANTS AND 182 ACTIVE FORMER DROP PARTICIPANTS.

PLAN A - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	<i>Number</i> <i>Male</i>	<i>Number</i> <i>Female</i>	Total Number	Average Benefit	Total Benefit
31 - 35	1	1	2	8,587	17,174
36 - 40	4	3	7	11,311	79,177
41 - 45	8	5	13	13,289	172,755
46 - 50	19	19	38	13,111	498,220
51 - 55	29	30	59	13,882	819,049
56 - 60	36	26	62	15,487	960,164
61 - 65	3	2	5	10,528	52,641
66 - 70	2	2	4	3,376	13,503
71 - 75	2	1	3	3,157	9,470
TOTAL	104	89	193	13,586	2,622,153

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions		ns Ranging		Total
From		To	Number	Contributions
0	-	99	1,842	103,120
100	-	499	351	86,450
500	-	999	126	88,059
1000	_	1999	114	166,942
2000	-	4999	98	316,141
5000	-	9999	67	470,869
10000	_	19999	50	691,555
20000	-	119999	24	745,475
TOTAL		2,672	2,668,611	

PLAN A - REGULAR RETIREES:

	Number	Number	Total	<b>Average</b>	Total
Age	Male	<b>Female</b>	Number	Benefit	Benefit
41 - 45	1	1	2	25,517	51,033
46 - 50	19	9	28	22,127	619,566
51 - 55	91	<i>55</i>	146	24,814	3,622,914
56 - 60	169	55	224	26,334	5,898,830
61 - 65	250	121	371	22,538	8,361,698
66 - 70	307	123	430	16,739	7,197,974
71 - 75	299	109	408	16,013	6,533,234
76 - 80	216	78	294	15,226	4,476,452
81 - 85	148	52	200	12,675	2,534,981
86 - 90	73	33	106	11,850	1,256,122
91 - 99	25	18	43	8,821	379,323
TOTAL	1,598	654	2,252	18,176	40,932,127

#### PLAN A - DISABILITY RETIREES:

Age	<i>Number</i> <i>Male</i>	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	1	o	1	12,839	12,839
41 - 45	4	1	5	11,125	55,626
46 - 50	9	2	11	15,017	165,182
51 - 55	22	3	25	12,479	311,968
56 - 60	36	14	50	11,370	568,510
61 - 65	31	11	42	11,244	472,241
66 - 70	19	5	24	8,281	198,737
71 - 75	14	4	18	8,809	158,560
76 - 80	4	1	5	8,782	43,911
81 - 85	2	2	4	6,369	25,477
TOTAL	142	43	185	10,881	2,013,051

### PLAN A - SURVIVORS:

Age	Number Male	<i>Number</i> <i>Female</i>	Total Number	Average Benefit	Total Benefit
0 - 25	3	3	6	6,938	41,629
26 - 30	0	1	1	9,798	9,798
31 - 35	1	1	2	6,852	13,704
36 - 40	2	1	3	4,718	14,154
41 - 45	1	3	4	6,124	24,494
46 - 50	6	19	25	6,547	163,673
51 - 55	6	23	29	8,405	243,750
56 - 60	3	42	45	10,437	469,648
61 - 65	6	48	54	9,604	518,605
66 - 70	7	67	74	9,769	722,942
71 - 75	9	118	127	10,325	1,311,214
76 - 80	3	104	107	8,936	956,193
81 - 85	0	105	105	8,909	935,421
86 - 90	3	54	<i>57</i>	7,014	399,792
91 - 99	1	29	30	7,465	223,937
TOTAL	51	618	669	9,042	6,048,954

PLAN A - ACTIVE MEMBERS:

Total 181 30&0ver 8 5 5 5 8 1 1 1 0 1 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 25-29 1 73 106 99 105 59 20 14 477 20-24 15-19 46 87 90 103 52 16 Completed Years of Service 55 68 64 87 91 103 41 22 599 10-14 80 86 116 92 145 147 177 177 5-263 0 E 0 L 0 E E 2 4 C 0 E 233 3 487 611 0 2112 22112 23612 236112 237 237 237 24111 25011 Totals Attained Ages

2 C C C 4 C O 8 C 4 H H H C O 8 C C A H H H H C O C C O C C O C C O C C O C C O C C O C C O C

4939

PLAN A - AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Completed Years of Service	Average 1 2 3 4 5-9 10-14 15-19 20-24 25-29 30&Over Salary		23,669 25,071 24,952 28,671	27,932 28,739 31,195 30,419	30,640 26,138 28,579 31,577 35,774	27,441 27,902 31,505 31,138 35,545 37,365 40,793	28,994 27,146 30,905 33,224 35,431 41,312 43,144 37,529	30,062 30,679 30,731 31,381 33,732 38,047 45,005 48,493 47,521	32,987 28,205 30,264 32,351 36,582 36,244 41,252 49,317 49,958	29,120 34,452 26,782 32,412 34,963 38,634 41,107 50,166 51,921	33,274 37,689 34,896 37,105 34,300 35,882 49,320 45,778 50,804	31,917 38,336 32,590 32,666 43,962 41,906 36,820 47,841 58,195	21,639 27,807 40,278 20,524 36,281 32,614	1
			23,669 25,071	27,932 28,739	30,640 26,138	27,441 27,902	28,994 27,146	30,062 30,679	32,987 28,205	29,120 34,452	33,274 37,689	31,917 38,336	27,925 20,256	,
	Attained Ages 0						23,493					18,865	71 & Over 29,904	111

PLAN A - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Years Until Retirement Eligibility

Attained Ages	0	1	8	m	4.	5-9	10-14	15-19	20-24	25-29	25-29 30&Over	Total
0 - 30 31 - 35 36 - 40 41 - 45 46 - 50 51 - 55 61 - 65 66 - 70 71 - 75	Ногиям	1,9	11	11	12	.c. 89	89 Fi	1.3		И		0
Totals	22	19	11	11	12	58	38	13	7	N	0	193

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

Years Until Retirement Eligibility

Attained Ages	0	7	77	m	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 30				,								0
31 - 35										8,587		8,587
36 - 40									11,311			11,311
41 - 45								13,289				13,289
46 - 50							13,111					13,111
51 - 55	55,510					13,164						13,882
26 - 60	15,682	16,427	13,471	15,016	15,016 16,128							15,487
61 - 65	10,528											10,528
02 - 99	3,376											3,376
71 - 75	3,157											3,157
76 & Over												0
Average	12,376	16,427	13,471	15,016	16,128	13,164	13,111	13,289	11,311	8,587	0	13,586

PLAN A - SERVICE RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	7	n	4	5-9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 50	7	m	7	7.0	5	e						30
51 - 55	27	16	18	11	10	54	10					146
26 - 60	24	21	22	19	15	97	25		1			224
61 - 65	47	54	57	36	30	88	55	Ŋ	1	7		371
02 - 99	23	35	42	30	38	191	55	14	7			430
71 - 75	9	13	23	o,	14	124	139	48	24	B	7	408
26 - 80	4	7	ŀΩ	9	ø	42	82	89	40	18		294
81 - 85	7	01	Ŋ	7	7	14	32	53	62	23	9	200
06 - 98			1			9	7	12	35	37	80	106
91 & Over						7	E	7	rv	17	15	43
Totals	143	146	177	118	120	621	408	219	170	66	31	2252

PLAN A - AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

					Сош	Completed Years Since Retirement	ırs Since	Retiremen	ıt			
Attained Ages	0	1	77	en en	4	5-9	10-14	15-19	20-24	25-29	30&0ver	Average Benefit
0 - 50	21,526	26,829	23,583	22,202	23,093	15,959						22,353
51 - 55	30,324	31,807	27,665	21,806	27,819	21,111	13,922					24,814
26 - 60	33,472	31,063	27,681	34,863	23,044	23,753	20,563		8,000			26,334
1	23,506	21,349	22,694	21,394	23,882	23,330	21,882	27,523	7,344	4,976		22,538
1	18,707	18,098	11,025	16,498	14,223	16,261	21,273	23,392	16,255			16,739
71 - 75	14,020	14,027	14,644	15,406	16,378	14,309	14,928	22,160	22,878	13,454	8,779	16,013
ı	25,753	8,880	15,798	14,542	7,649	12,874	11,614	15,251	21,307	24,492		15,226
1	14,876	7,548	9,723	15,576	4,805	9,721	9,795	12,408	12,668	18,138	20,028	12,675
06 - 98			2,485			8,599	7,695	11,928	12,812	11,650	15,700	11,850
91 & Over						7,195	10,999	9,453	8,651	8,705	8,750	8,821
Average 24.942 22,214 19.584	24.942	22.214	19.584	21.487 19.009		17,984	15.820	16.501	16.037	14.974	12,728	18,176

PLAN A - DISABILITY RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	7	e	4-	5-9	10-14	15-19	20-24	25-29	30£0ver	Total
36 - 40			٠	1		c	ī	٠				0 H
46 - 50	1	7	10	,		n w	1 11	H H	1			11
51 - 55 56 - 60	w 41	m lo	нн	н п	1	13	12	4.0	H 77			25 50
61 - 65 66 - 70	н		N	04	N	11	8	ט ע	12 67	04	4	4 2 2 4
71 - 75 76 - 80	нн				7	нн	1 7	H 22	н 0		01	18
81 - 85 86 & Over								н	N		н	40
Totals	11	11	7	9	4	41	42	36	20	4	5	185

PLAN A - AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Completed Years Since Retirement

ttained Ages	0	1	7	en	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 35				1.5								0
36 - 40				12,839								12,839
1			16,643			9,469	8,496	11,550				11,125
t	16,685	13,117	17,557			18,690	14,652	8,268	8,158			15,016
1	12,575	14,749	19,526	12,106		16,609	8,925	8,680	2,753			12,479
26 - 60	8,944	14,675	12,178	10,985	17,801	12,923	10,211	9,758	7,191			11,370
1	6,473		19,041	10,267	8,488	11,283	10,636	13,530	9,950	4,730		11,244
1						5,491	7,661	10,138	16,667		3,154	8,281
1	8,368				5,808	5,321	7,490	9,121	10,575		7,515	8,809
1	8,244					9,656	4,877	4,695	16,440			8,782
81 - 85								5,992	4,614		10,257	6,369
86 & Over												0
Average	10,297	14,412	10,297 14,412 17,363 11,241 10,146 12,557 9,219 10,309 9,875	11,241	10.146	12,557	9.219	10.309	9.875	4.730	4.730 6.319	10,881

PLAN A - SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Retirement
Since
Years
Completed

Attained Ages	0	н	9	m	4	 9	10-14	15-19	20-24	25-29	30&0ver	Total
0 - 20		0				1	0					Ŋ
21 - 25				7		Ü	Ű					1
26 - 30							7					1
31 - 35				4								7
1						7		1				E
ı	7					7	4					4
1			1	7		9	.c	17	7	7	e	25
ı		7	e	7	7	7	7	N	5	0		29
ı	m	7	7	7	7	11	ø,	10	9	7		45
ı	7	7	7	7	7	15	80	13	9	5		54
02 - 99			7	7	4	20	12	18	9	80		74
71 - 75	7		1		n	22	28	29	22	17	4	127
ı				1	7	10	14	28	28	14	10	101
81 - 85			7			7	10	14	28	32	12	105
06 - 98						1	7	7	10	22	22	57
91 & Over			7						E	5	21	30
Totals	6	6	12	10	13	106	66	118	118	109	72	699

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

					Сомр	leted Yea	rs Since	Completed Years Since Retirement	ħ			
Attained Ages	0	н	7	m	4	5-9	10-14	15-19	20-24	25-29	30&0ver	Average Benefit
0 - 20		8,556				5,620	5,660					6,810
21 - 25				7,577								7,577
26 - 30							9,798					9,798
31 - 35				6,852								6,852
36 - 40						3,449		7,255				4,718
41 - 45	3,997					3,675	8,411					6,124
46 - 50			5,202	9,806		8,622	7,687	5,420	2,774	3,374	821	6,547
51 - 55		20,884	7,046	11,807	8,060	7,426	10,147	13,511	5,256	2,771		8,405
26 - 60	17,048	6,830	32,369	4,207	11,416	16,154	8,830	6,343	5,348	5,495		10,437
61 - 65	8,324	15,698	25,698	15,472	7,718	9,492	15,605	8,158	5,493	3,209		9,604
02 - 99			11,109	8,723	11,182	10,863	11,892	9,813	7,358	5,557		691'6
71 - 75	46,965		11,943		10,028	12,120	11,433	9,953	8,513	8,154	5,224	10,325
26 - 80				9,167	6,852	7,549	7,304	9,732	9,634	10,572	6,532	8,936
81 - 85			4,046			15,367	8,611	8,252	9,322	8,834	6,202	8,909
06 - 98						29,297	3,637	8,169	7,454	7,609	5,307	7,014
91 & Over			7,469						9,267	8,442	6,974	7,465
Average	18,405	12,703	11,178	9,027	9,495	10,963	10,167	9,119	8,311	7,915	5,921	9,042

# **EXHIBIT XI PLAN A: YEAR-TO-YEAR COMPARISON**

		Fiscal 2013		Fiscal 2012		Fiscal 2011	]	Fiscal 2010
Number of Active Members		4,939		5,021		5,029		5,068
Number of Retirees and Survivors		3,106		3,040		3,001		2,907
Number Terminated Due Deferred Benefits		193		181		174		183
Number Terminated Due Refund		2,672		2,632		2,594		2,590
Active Lives Payroll	\$	167,422,222	\$	167,511,550	\$	164,262,655	\$	162,546,523
Retiree Benefits in Payment	\$	48,994,132	\$	46,224,138	\$	44,218,709	\$	41,527,971
Market Value of Assets	\$	657,723,192	\$	639,209,518	\$	679,285,361	\$	624,427,505
Ratio of Actuarial Value of Assets to								
Actuarial Accrued Liability		90.54%		90.55%		90.58%		90.37%
Actuarial Accrued Liability (As defined by GASB– 25)	\$	792,854,750	\$	796,813,170	\$	799,256,347	\$	779,800,094
Actuarial Value of Assets	\$	717,816,409	\$	721,475,280	\$	723,942,801	\$	704,735,602
Unfunded Actuarial Accrued Liability	\$	75,038,341	\$	75,337,890	\$	75,313,546	\$	75,064,492
Present Value of Future Employer Normal Cost	\$	249,506,497	\$	225,090,618	\$	201,003,138	\$	192,786,430
Present Value of Future Employee Contributions	\$	97,624,041	\$	95,445,659	\$	92,535,571	\$	92,383,724
Funding Deposit Account Credit Balance	\$	8,287,832	\$	7,691,723	\$	7,121,966	\$	6,594,413
Present Value of Future Benefits	\$1	1,131,697,456	\$1	,109,657,724	\$1	1,085,673,090	\$1	,058,375,835
************	**	******	**	*******	**	******	**	******
		Fiscal 2014		Fiscal 2013		Fiscal 2012		Fiscal 2011
Employee Contribution Rate		9.50%		9.25%		9.25%		9.25%
Proj. Tax Contribution as % of Projected Payroll		3.36%		3.13%		3.09%		3.07%
Actuarially Req'd Net Direct Employer Cont. Rate		20.62%		18.67%		17.08%		16.41%
Actual Employer Direct Contribution Rate		18.75%		17.00%		16.75%		14.25%

	Fiscal 2009 5,052 2,861 172 2,596		Fiscal 2008 5,030 2,794 184 2,561		Fiscal 2007 4,965 2,721 209 2,553		Fiscal 2006 5,109 2,588 179 2,148		Fiscal 2005 5,289 2,512 186 2,263		Fiscal 2004 5,325 2,448 193 2,266
\$	157,082,727	\$	148,644,512	\$	141,232,448	\$	140,773,796	\$	140,020,164	\$	135,925,550
\$	39,834,118	\$	37,650,335	\$	34,978,923	\$	32,315,373	\$	30,555,460	\$	29,043,640
\$	568,167,813	\$	666,534,551	\$	667,345,480	\$	567,015,013	\$	521,411,279	\$	485,539,046
	89.99%		90.08%		89.51%		88.67%		87.75%		86.90%
\$	745,526,637	\$	745,714,562	\$	697,658,641	\$	637,909,978	\$	581,801,281	\$	535,579,287
\$	670,910,030	\$	671,721,084	\$	624,442,059	\$	565,604,518	\$	510,523,409	\$	465,429,341
\$	74,616,607	\$	73,993,478	\$	73,216,582	\$	72,305,460	\$	71,277,872	\$	70,149,946
\$	154,002,240	\$	102,751,307	\$	106,821,650	\$	138,753,419	\$	169,264,548	\$	161,387,026
\$	88,362,181	\$	84,164,497	\$	81,084,751	\$	82,859,110	\$	84,762,421	\$	85,111,124
\$	6,105,938		N/A								
\$	981,785,120	\$	932,630,366	\$	885,565,042	\$	859,522,507	\$	835,828,250	\$	782,077,437
**	******	***	******	***	******	***	******	***	*****	***	*****
	Fiscal 2010		Fiscal 2009	1	Fiscal 2008	]	Fiscal 2007	I	Fiscal 2006	I	Fiscal 2005
	9.25%		9.25%		9.25%		9.25%		9.25%		9.25%
	3.07%		2.82%		2.62%		2.56%		2.34%		2.38%
	13.78%		10.25%		11.17%		13.89%		16.30%		15.87%
	13.50%		13.50%		13.50%		16.25%		16.00%		15.00%

- 40 -G. S. CURRAN & COMPANY, LTD.

# **EXHIBIT XII**PLAN B: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1. 2. 3. 4. 5. 6.	Present Value of Future Benefits  Frozen Unfunded Actuarial Accrued Liability  Actuarial Value of Assets  Present Value of Future Employee Contributions  Funding Deposit Account Credit Balance  Present Value of Future Employer Normal Costs (1 – 2 – 3 – 4 + 5)	\$ \$ \$ \$	236,292,327 3,740,857 153,851,774 21,589,199 2,901,644 60,012,141
7.	Present Value of Future Salaries	\$	481,816,998
8.	Employer Normal Cost Accrual Rate (6 ÷ 7)		12.455381%
9.	Projected Fiscal 2014 Salary for Current Membership	\$	61,415,782
10.	Employer Normal Cost as of July 1, 2013 (8 x 9)	\$	7,649,570
11.	Amortization Payment on Frozen Unfunded Accrued Liability of \$3,740,857 with Payments decreasing at 2% per year	\$	565,915
12.	TOTAL Employer Normal Cost & Amortization Payment (10 + 11)	\$	8,215,485
13.	Employer Normal Cost and Amortization Payment Interest Adjusted for Midyear Payment	\$	8,527,895
14.	Estimated Administrative Cost for Fiscal 2014	\$	395,850
15.	TOTAL Employer Actuarially Required Contribution for Fiscal 2014 (13 + 14)	\$	8,923,745
16.	Projected Ad Valorem Tax Contributions for Fiscal 2014	\$	2,239,178
17.	Projected Revenue Sharing Funds for Fiscal 2014	\$	45,247
18.	Net Direct Employer Actuarially Required Contribution for Fiscal 2014 (15-16-17)	\$	6,639,320
19.	Projected Payroll (July 1, 2013 through June 30, 2014)	\$	67,622,006
20.	Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2014 (18 ÷ 19)		9.82%
21.	Actual Employer Contribution Rate for Fiscal 2014		8.75%
22.	Contribution Shortfall (Excess) as a % of Payroll (20 - 21)		1.07%
23.	Increase (Reduction) to Following Year Payment for Contribution Shortfall (Excess)		0.14%
21.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 201 (20 + 23, Rounded to nearest 0.25%)	15	10.00%

## **EXHIBIT XIII**PLAN B: PRESENT VALUE OF FUTURE BENEFITS

#### Present Value of Future Benefits for Active Members:

Retirement Benefits\$ 138,335,699Survivor Benefits3,190,047Disability Benefits2,151,727Vested Deferred Termination Benefits6,590,828Contribution Refunds5,121,807		
TOTAL Present Value of Future Benefits for Active Members	\$	155,390,108
Present Value of Future Benefits for Terminated Members:		
Terminated Vested Members Due Benefits at Retirement \$ 3,239,454 Terminated Members with Reciprocals		
Due Benefits at Retirement		
Terminated Members Due a Refund		
TOTAL Present Value of Future Benefits for Terminated Members	\$	4,238,111
Present Value of Future Benefits for Retirees:		
Regular Retirees		
Disability Retirees		
Survivors & Widows		
Reserve for Accrued Retiree DROP Account Balances 777,805		
TOTAL Present Value of Future Benefits for Retirees & Survivors	Φ.	76 664 100
TOTAL Flesent value of Future Benefits for Retifieds & Survivors	\$	76,664,108

### EXHIBIT XIV – Schedule A PLAN B: MARKET VALUE OF ASSETS

Current Assets:				
Cash	\$	3,646,776		
Accrued Alternative Investments		1,680,104		
Contributions Receivable from Employers		396,881		
Contributions Receivable from Members		241,093		
Investments Receivable		84,488		
Accrued Interest on Investments		81,014		
Other		33,597		
Due From Other Funds		27,250		
Dividends Receivable		22,498		
TOTAL CURRENT ASSETS		•••••	\$	6,213,701
Property, Plant & Equipment			\$	207,786
Mitigation Bank Capitalized Project Costs			\$	98,667
Prepaid Expense			\$	2,076
Other Assets			\$	7,145
Investments:				
Co-Mingled Funds	\$	31,257,956		
Common Stock		26,234,463		
Limited Partnerships		21,933,872		
Mutual Fund – Equities		15,615,165		
Cash Equivalents		10,555,264		
Mitigation Credits		7,336,010		
Mutual Fund – Fixed Income		6,413,891		
Bonds		4,743,185		
Real Estate-Mitigation Banks and LLC		4,496,088		
Limited Liability Companies		4,007,585		
Line of Credit		3,694,469		
Notes Receivable		2,079,847		
Convertible Notes		213,926		
TOTAL INVESTMENTS			\$ 1	138,581,721
TOTAL ASSETS			\$ 1	145,111,096
Current Liabilities:				
Other Payables		175,156		
Investments Payable	\$	141,909		
Long-Term Mitigation Liability		111,381		
Accounts Payable		61,047		
Refunds Payable		42,704		
Obligations under Securities Lending Program		29,737		
Mitigation Bank Unearned Revenue		25,734		
TOTAL CUID PENTALLA DALATA			φ.	E0E 440
TOTAL CURRENT LIABILITIES			\$	587,668
OTHER CONTROLLING INTEREST	•••••	•••••	\$	(3,779,365)
MARKET VALUE OF ASSETS			\$ 1	140,744,063

### EXHIBIT XIV – SCHEDULE B PLAN B - ACTUARIAL VALUE OF ASSETS

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

Fiscal year 2013 Fiscal year 2012 Fiscal year 2011 Fiscal year 2010 Fiscal year 2009	\$ (4,984,468) (18,345,178) 3,285,686 3,382,611 (29,319,546)
Total for five years	\$ (45,980,895)
Deferral of excess (shortfall) of invested income:	
Fiscal year 2013 (80%) Fiscal year 2012 (60%) Fiscal year 2011 (40%) Fiscal year 2010 (20%) Fiscal year 2009 (0%)	(3,987,574) (11,007,107) 1,314,274 676,522 0
Total deferred for year	\$ (13,003,885)
Market value of plan net assets, end of year	\$ 140,744,063
Preliminary actuarial value of plan assets, end of year	\$ 153,747,948
Actuarial value of assets corridor	
85% of market value, end of year	119,632,454 161,855,672
Allocated Share of the Expense Fund	\$ 103,826
Final actuarial value of plan net assets plus allocated share of the expense fund	\$ 153,851,774

## EXHIBIT XV PLAN B: PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	\$ 21,589,199
Employer Normal Contributions to the Pension Accumulation Fund	60,012,141
Employer Amortization Payments to the Pension Accumulation Fund	3,740,857
Funding Deposit Credit Account	(2,901,644)
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	\$ 82,440,553

### EXHIBIT XVI PLAN B: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY

Prior Year Frozen Unfunded Accrued Liability	\$ 4,049,257
Interest on Frozen Unfunded Accrued Liability	
Employer Normal Cost for Prior Year	
Interest on the Normal Cost	
Administrative Expenses	
Interest on Expenses 12,468	
Credit to Funding Deposit Account	
TOTAL Increases to Frozen Unfunded Accrued Liability	\$ 8,054,240
Gross Employer Contributions	
Interest on Employer Contributions	
Contribution Shortfall (Excess)	
Interest on Contribution Shortfall (Excess)	
TOTAL Decreases to Frozen Unfunded Accrued Liability	\$ 8,362,640

CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY ..... \$ 3,740,857

## **EXHIBIT XVII**PLAN B: ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2012)	\$ 154,451,871
Income:	
Member Contributions\$ 3,110,134Employer Contributions5,252,585Ad Valorem Taxes2,133,769Irregular Contributions47,876Revenue Sharing Funds45,477	
Total Contribution Income	\$ 10,589,841
Net Appreciation in Fair Value of Investments\$ 4,086,575Income from Alternative Investments1,769,744Interest and Dividend Income854,700Securities Lending26,221Net appreciation attributable to non-controlling interest82,434Investment Expense(1,249,588)	
Net Investment Income	\$ 5,570,086
TOTAL Income	\$ 16,159,927
Expenses:	
Retirement Benefits	
TOTAL Expenses	\$ 12,745,392
Net Market Income for Fiscal 2013 (Income - Expenses)	\$ 3,414,535
Adjustment for Change in Allocated Expense Fund Balance	\$ 196,826
Adjustment for Actuarial Smoothing	\$ (4,211,458)
Actuarial Value of Assets (June 30, 2013)	\$ 153,851,774

### EXHIBIT XVIII PLAN B: FUND BALANCE

Present Assets of the System Creditable to:
---

Annuity Savings Fund	\$ 24,071,658
Annuity Reserve Fund	75,886,303
Pension Accumulation Fund	31,763,323
Deferred Retirement Option Plan Account	6,121,135
Funding Deposit Account	2,901,644
NET MARKET VALUE OF ASSETS	\$ 140,744,063
ADJUSTMENT FOR ACTUARIAL SMOOTHING	13,003,885
ALLOCATION OF EXPENSE FUND	103,826
ACTUARIAL VALUE OF ASSETS	\$ 153,851,774
EXHIBIT XIX	
PLAN B: PENSION BENEFIT OBLIGATION	
Present Value of Credited Projected Benefits Payable to Current Employees	\$ 104,191,081
Present Value of Benefits Payable to Terminated Employees	4,238,111
Present Value of Benefits Payable to Current Retirees and Beneficiaries	76,664,108
TOTAL PENSION BENEFIT OBLIGATION	\$ 185,093,300
NET ACTUARIAL VALUE OF ASSETS	\$ 153,851,774
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation	83.12%

## EXHIBIT XX PLAN B: COST OF LIVING ADJUSTMENTS - TARGET RATIO

1.	Actuarial Value of Assets Divided by PBO as of Fiscal 1986:				
2.	Amortization of Unfunded Balance over 30 years:		32.90%		
	Adjustments in Funded Ratio Due to Changes in Assumption(s):				
	Changes for Fiscal 1988 Changes for Fiscal 1989 Changes for Fiscal 1995 Changes for Fiscal 1997 Changes for Fiscal 1998 Changes for Fiscal 2000 Changes for Fiscal 2001 Changes for Fiscal 2003 Changes for Fiscal 2005 Changes for Fiscal 2006 Changes for Fiscal 2009 Changes for Fiscal 2010 Changes for Fiscal 2010 Changes for Fiscal 2010	2.40% (2.94%) (1.22%) (3.84%) (3.71%) (2.29%) 1.21% 0.53% (1.12%) 5.18% 6.13% (3.99%) (0.67%)			
3.	TOTAL Adjustments		(4.33%)		
	Amortization of Adjustments in Funded Ratio over 30 years:  Changes for Fiscal 1988	(2.00%) 2.35% 0.73% 2.05% 1.86% 0.99% (0.48%) (0.18%) 0.30% (1.21%) (0.82%) 0.40% 0.02%			
4.	TOTAL Amortization of Adjustments		4.01%		
5.	Target Ratio for Current Fiscal Year (Lesser of 1+2+3+4 or 100%).		96.02%		
6.	Actuarial Value of Assets Divided by PBO as of June 30, 2013		83.12%		

### EXHIBIT XXI PLAN B - CENSUS DATA

		Terminated with Funds			
	Active	on Deposit	DROP	Retired	Total
Number of members as of					
June 30, 2012	2,065	1,161	90	879	4,195
Additions to Census					
Initial membership	263	41			304
Death of another member				14	14
Omitted in error last year				(4)	(4)
Adjustment for multiple records					
Change in Status during Year					
Actives terminating service	(83)	83			
Actives who retired	(30)			30	
Actives entering DROP	(20)		20		
Term. members rehired	6	(6)			
Term. members who retire		(4)		4	
Retirees who are rehired					
Refunded who are rehired	5	1			6
DROP participants retiring			(20)	20	
DROP returned to work	13		(13)		
Eliminated from Census					
Refund of contributions	(161)	(59)			(220)
Deaths	(7)	(1)		(43)	(51)
Included in error last year					
Adjustment for multiple records					
Moved to Plan A					
Number of members as of					
June 30, 2013	2,051	1,216	77	900	4,244

PLAN B - ACTIVES CENSUS BY AGE:

Age	<i>Number</i> <i>Male</i>	Number Female	Total Number	Average Salary	Total Salary
16 - 20	10	0	10	18,439	184,393
21 - 25	<i>75</i>	14	89	21,050	1,873,477
26 - 30	89	36	125	23,974	2,996,768
31 - 35	116	56	172	26,874	4,622,298
36 - 40	116	52	168	30,326	5,094,797
41 - 45	140	84	224	30,211	6,767,164
46 - 50	187	79	266	32,061	8,528,358
51 - 55	262	136	398	32,562	12,959,707
56 - 60	208	116	324	33,354	10,806,813
61 - 65	154	61	215	34,953	7,514,997
66 - 70	50	21	71	35,589	2,526,790
71 - 75	38	6	44	30,377	1,336,579
76 - 80	10	5	15	34,438	516,564
81 - 85	7	0	7	28,603	200,224
TOTAL	1,462	666	2,128	30,982	65,928,929

THE ACTIVE CENSUS INCLUDES 815 ACTIVES WITH VESTED BENEFITS, INCLUDING 77 DROP PARTICIPANTS AND 75 ACTIVE FORMER DROP PARTICIPANTS.

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

	Number	Number	Total	Average	Total
Age	Male	<b>Female</b>	Number	Benefit	Benefit
41 - 45	3	3	6	8,611	51,666
46 - 50	5	4	9	9,408	84,668
51 - 55	11	7	18	12,293	221,282
56 - 60	16	8	24	7,974	191,380
61 - 65	2	1	3	3,433	10,300
66 - 70	1	0	1	494	494
TOTAL	38	23	61	9,177	559,790

PLAN B - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contribu	tio	ns Ranging		Total
From		To	Number	Contributions
0	_	99	737	21,503
100	-	499	209	49,164
500	-	999	55	39,094
1000	_	1999	<i>55</i>	76,939
2000	_	4999	<i>59</i>	198,340
5000	-	9999	29	211,847
10000	-	19999	10	122,741
20000	_	119999	1	23,667
		TOTAL	1,155	743,295

PLAN B - REGULAR RETIREES:

Age	<i>Number</i> <i>Male</i>	<i>Number</i> <i>Female</i>	Total Number	Average Benefit	Total Benefit
51 - 55	6	3	9	18,644	167,792
56 - 60	19	7	26	19,369	503,588
61 - 65	67	27	94	13,985	1,314,561
66 - 70	93	36	129	11,918	1,537,362
71 - 75	83	32	115	9,726	1,118,458
76 - 80	85	36	121	9,464	1,145,144
81 - 85	50	18	68	8,760	595,690
86 - 90	29	9	38	7,489	284,599
91 - 99	12	7	19	5,608	106,560
TOTAL	444	175	619	10,943	6,773,754

PLAN B - DISABILITY RETIREES:

Age	<i>Number</i> <i>Male</i>	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	3	o	3	7,097	21,290
46 - 50	2	0	2	9,474	18,948
51 - 55	11	3	14	10,013	140,179
56 - 60	15	4	19	11,039	209,735
61 - 65	11	2	13	9,770	127,013
66 - 70	5	0	5	6,641	33,207
71 - 75	1	0	1	10,507	10,507
76 - 80	3	0	3	7,967	23,902
86 - 90	0	1	1	4,033	4,033
TOTAL	51	10	61	9,653	588,814

PLAN B - SURVIVORS:

Age	Number Male	<i>Number</i> <i>Female</i>	Total Number	Average Benefit	Total Benefit
26 - 30	0	1	1	2,245	2,245
31 - 35	1	0	1	10,042	10,042
36 - 40	0	1	1	4,280	4,280
46 - 50	2	6	8	6,338	50,703
51 - 55	1	6	7	6,242	43,694
56 - 60	3	15	18	7,334	132,008
61 - 65	1	16	17	9,115	154,955
66 - 70	0	25	25	6,204	155,112
71 - 75	2	36	38	6,350	241,318
76 - 80	0	38	38	6,144	233,486
81 - 85	1	32	33	6,804	224,546
86 - 90	2	24	26	5,674	147,527
91 - 99	0	7	7	4,367	30,566
TOTAL	13	207	220	6,502	1,430,482

PLAN B - ACTIVE MEMBERS:

Completed Years of Service

Attained Ages	0	1	8	8	4	9 -2	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	90	7										10
21 - 25	42	23	15	7	5	77						89
26 - 30	29	30	11	10	80	35	7					125
31 - 35	39	21	12	13	16	43	26	Ŋ				172
36 - 40	29	15	17	80	8	51	21	18	7			168
41 - 45	19	16	19	10	14	59	40	27	19	1		224
46 - 50	27	20	19	16	17	09	47	27	19	12	7	266
51 - 55	38	32	23	17	23	80	55	36	39	23	32	398
26 - 60	18	25	18	12	11	7.1	42	36	46	20	25	324
61 - 65	o,	5	11	13	7	55	35	26	31	10	13	215
02 - 99	1		4	4	4	21	10	12	7	B	5	7.1
71 & Over	7	1	7		7	14	7	10	10	o,	O)	99
Totals	261	190	151	105	115	491	285	194	172	78	86	2128

PLAN B - AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

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tained Ages	0	1	4	m	4	5-9	10-14	15-19	20-24	25-29	30£0ver	Average Salary
0 - 20	18,254	19,182										18,439
1 - 25	19,515	21,464	22,235	20,992	28,874	20,154						21,050
6 - 30	20,136	21,641	24,842	24,289	34,562	24,951	48,834					23,974
1 - 35	20,447	21,307	26,030	25,859	29,986	32,629	29,795	35,713				26,874
6 - 40	25,645	22,348	31,931	27,049	26,289	32,109	35,717	34,942	29,782			30,326
1 - 45	24,215	27,151	26,603	26,953	28,332	29,670	32,588	34,415	35,090	51,106		30,211
9 - 50	24,456	23,099	27,033	26,934	32,950	34,178	32,392	31,879	41,937	47,666	49,346	32,061
1 - 55	21,373	27,280	26,539	28,794	29,713	34,089	31,393	32,552	40,588	38,996	43,308	32,562
09 - 9	23,043	23,539	24,524	27,449	24,240	30,993	36,192	35,037	38,347	39,786	48,981	33,354
1 - 65	30,235	29,189	28,405	34,620	29,355	32,702	36,267	34,683	35,986	46,399	44,591	34,953
02 - 9	27,600		28,232	44,916	24,324	40,632	28,726	34,281	36,793	23,572	45,828	35,589
1 & Over	22,026	23,216	26,415		22,359	32,657	37,030	19,618	32,527	29,334	42,967	31,112
Average	22,153	23,636	26,564	28,443	29,263	32,163	33,371	33,159	38,015	39,929	45,402	30,982

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Years Until Retirement Eligibility

Attained Ages	0	17	74	m	4	5- 9	10-14	15-19	20-24	25-29	25-29 30&Over	Total
0 - 40 41 - 45 46 - 50 51 - 55 56 - 60 61 - 65 66 - 70	нен		<b>'</b>	89		18	ળ	ω				0 9 8 4 E H 0
Toțals	rv.	7	9	m	7	18	a)	9	0	0	0	61

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

Years Until Retirement Eligibility

Attained Ages	0	н	0	E	41	5-9	10-14	15-19	20-24	25-29	25-29 30&Over	Average Benefit
0 - 40												0
41 - 45						٠		8,611				8,611
1							9,408					9,408
51 - 55						12,293						12,293
26 - 60	9,202	9,195	4,064	8,459	9,722							7,974
61 - 65	3,433											3,433
02 - 99	494											494
71 & Over												0
Average	3,999	9,195 4,064	4,064	8,459	9,722	8,459 9,722 12,293 9,408 8,611	9,408	8,611	0	0	0	9,177

PLAN B - SERVICE RETIREES:

Completed Years Since Retirement

Attained Ages	0	1	7	m	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
		-										
0 - 50												0
51 - 55	7	Ŋ	m	1	7	7						Q.
26 - 60	7	4	o/	Ŋ	1	m						26
61 - 65	27	16	18	41	13	11	5					94
ı	6	10	15	11	18	26	10					129
71 - 75	41	3	75	7	7	43	35	11				115
	1		7	1	33	18	55	37	4			121
81 - 85			7	1	e	41	12	30	12	4		89
06 - 98		7				7	1		16	17	7	38
91 & Over						7		7	7	7	80	19
Totals	49	36	54	27	46	138	118	79	34	28	10	619

PLAN B - AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Completed Years Since Retirement

Attained Ages	0	7	7	e	44	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 50						is .						0
51 - 55	29,114	24,628	16,122	18,036	13,978	9,042						18,644
26 - 60	14,275	23,522	20,404	25,596	20,695	18,016						19,369
61 - 65	15,397	11,508	14,327	11,699	8,622	20,818	13,791					13,985
1	10,095	12,507	11,820	11,926	13,052	11,112	15,574					11,918
71 - 75	12,690	6,720	6,181	9,937	10,427	9,760	8,493	14,284				9,726
26 - 80	14,137		17,074	13,156	6,284	11,227	9,278	8,538	9,140			9,464
ı			4,102	3,167	3,466	8,824	8,157	9,896	7,984	12,016		8,760
06 - 98		5,364				1,192	6,336		8,372	6,693	11,995	7,489
91 & Over						4,396		1,343	8,705	5,198	5,878	5,608
Average	14,296	13,280	13,712	12,337	10,520	11,428	9,631	9,763	8,345	7,079	7,102	10,943

PLAN B - DISABILITY RETIREES:

Completed Years Since Retirement

Total 30&0ver 25-29 20-24 15-19 N 11 15 5-Attained Ages

PLAN B - AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Completed Years Since Retirement	Average 0 1 2 3 4 5-9 10-14 15-19 20-24 25-29 30&Over Benefit	0	6,324 6,872	9,474	6,138 10,680 20,917	11,055 16,880 11,631 12,160 11,436 5,987	9,564 11,975 13,382 6,664 5,194	5,626 4,056 12,210 6,183	10,507	10,143 3,616 7,967	0	4,033	0	987 10.071 13.992 10.598 15.017 10.486 6.851 4.411 7.992 3.825 6.183 9.653
	1				6,138	11,055								10.01
	0		8,094		7,538	9,231								7.987
	Attained Ages	0 - 40	41 - 45	46 - 50	51 - 55	26 - 60	61 - 65	02 - 99	71 - 75	26 - 80	81 - 85	06 - 98	91 & Over	Average

PLAN B - SURVIVING BENEFICIARIES OF FORMER MEMBERS:

					Comp	leted Yea	rs Since	Completed Years Since Retirement	<b>1</b>			
ained ges	0	1 2	8	8	4	5-9	10-14	15-19	20-24	25-29	30&0ver	Total
- 25												0
- 30							1					7
- 35		7										1
- 40								7				1
- 45												0
- 50		1				7	1	7	1	1		8
- 55		7		1	7	7		7		1		7
- 60	1		7		7	5	n	4	7	1		18
- 65	1	1			n	7	m	e	7		7	17
- 70		1				80	10	4	7			25
- 75		7				9	16	Q	5	1		38
- 80				7		80	10	7	80	4		38
- 85			1			7	5	5	13	7	1	33
- 90						7	7	1	4	9	10	26
& Over							7		1	1	4	7
otals	7	7	ю	0	J.	34	51	37	37	25	17	220

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

					Сощ	leted Yea	Completed Years Since Retirement	Retiremen	ñ			
Attained Ages	0	1	7	m	4	5-9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 25												0
26 - 30							2,245					2,245
31 - 35		10,042										10,042
36 - 40								4,280				4,280
41 - 45												0
46 - 50		19,784				7,555	2,607	1,959	1,386	868		6,338
51 - 55		7,209		1,520	5,675	8,517		8,406		5,159		6,242
26 - 60	5,426		18,015		2,684	7,557	3,694	7,319	6,888	2,836		7,334
61 - 65	8,779	18,149			8,077	12,572	14,464	5,435	5,544		3,933	9,115
04 - 99		7,288				5,470	7,062	6,753	3,218			6,204
71 - 75		8,962				4,475	6,671	5,700	8,196	6,493		6,350
26 - 80				1,176		7,479	5,965	3,636	6,411	9,022		6,144
81 - 85			4,586			507	6,178	7,565	6,580	6,888	16,973	6,804
06 - 98						12,789	11,926	2,415	6,704	6,284	3,702	5,674
91 & Over							2,131		9,456	10,943	2,009	4,367
Average	7,102	11,235	13,539	1,348	6,518	6,773	6,829	5,573	6,483	6,688	4,112	6,502

# **EXHIBIT XXII PLAN B: YEAR-TO-YEAR COMPARISON**

Nambar of Astira Marshan	]	Fiscal 2013	]	Fiscal 2012		Fiscal 2011		Fiscal 2010
Number of Active Members Number of Retirees and Survivors		2,128 900		2,155 879		2,175 865		2,197 836
Number Terminated Due Deferred Benefits		61		61		62		72
Number Terminated Due Refund		1,155		1,100		1,062		1,062
Number Terminated Due Refund		1,133		1,100		1,002		1,002
Active Lives Payroll	\$	65,928,929	\$	66,409,896	\$	65,427,477	\$	65,241,810
Retiree Benefits in Payment	\$	8,793,050	\$	8,285,257	\$	7,953,795	\$	7,339,269
Market Value of Assets	\$	140,744,063	\$	137,164,489	\$	144,028,034	\$	130,596,777
Ratio of Actuarial Value of Assets to								
Actuarial Accrued Liability		97.63%		97.45%		97.24%		96.94%
Actuarial Accrued Liability	\$	157,592,631	\$	158,501,128	\$	157,313,362	\$	151,680,103
(As defined by GASB–25)								
Actuarial Value of Assets	\$	153,851,774	\$	154,451,871	\$	152,966,837	\$	147,046,143
Unfunded Actuarial Accrued Liability	\$	3,740,857	\$	4,049,257	\$	4,346,525	\$	4,633,960
Present Value of Future Employer Normal Cost	\$	60,012,141	\$	54,153,087	\$	49,451,626	\$	48,645,557
Present Value of Future Employee Contributions	\$	21,589,199	\$	21,845,625	\$	21,582,459	\$	21,546,957
Funding Deposit Account Credit Balance	\$	2,901,644	\$	2,692,941	\$	2,493,464	\$	2,308,763
Present Value of Future Benefits	\$	236,292,327	\$	231,806,899	\$	225,853,983	\$	219,563,854
***********	***	*****	***	*****	***	*******	***	*******
	]	Fiscal 2014	]	Fiscal 2013		Fiscal 2012		Fiscal 2011
Employee Contribution Rate		5.00%		5.00%		5.00%		5.00%
Proj. Tax Contribution as % of Projected Payroll		3.38%		3.14%		3.10%		3.07%
Actuarially Req'd Net Direct Employer Cont. Rate		9.82%		8.72%		7.89%		7.78%
Actual Employer Direct Contribution Rate		8.75%		8.00%		8.00%		6.75%

	Fiscal 2009 2,269 833 67 1,022		Fiscal 2008 2,191 793 68 998		Fiscal 2007 2,153 794 74 928		Fiscal 2006 2,060 763 77 777		Fiscal 2005 2,038 745 79 806		Fiscal 2004 2,052 734 74 820
\$	64,816,945	\$	59,233,705	\$	54,572,935	\$	51,055,201	\$	48,690,316	\$	47,676,817
\$	7,149,177	\$	6,625,934	\$	6,328,157	\$	5,872,330	\$	5,649,984	\$	5,476,263
\$	117,258,410	\$	134,832,148	\$	132,326,073	\$	111,581,452	\$	101,109,899	\$	92,904,743
	96.57%		96.33%		95.81%		95.13%		94.18%		93.51%
\$	143,353,668	\$	141,390,296	\$	129,930,047	\$	117,108,583	\$	102,373,290	\$	95,618,087
\$	138,441,127	\$	136,207,119	\$	124,483,332	\$	111,404,638	\$	96,417,685	\$	89,415,704
\$	4,912,541	\$	5,183,177	\$	5,446,715	\$	5,703,945	\$	5,955,605	\$	6,202,383
\$	38,895,181	\$	26,827,388	\$	26,365,299	\$	32,959,966	\$	41,742,178	\$	42,458,765
\$	21,769,886	\$	19,992,613	\$	18,627,179	\$	17,883,419	\$	17,253,376	\$	18,040,618
\$	1,806,555		N/A		N/A		N/A		N/A		N/A
\$	202,212,180	\$	188,210,297	\$	174,922,525	\$	167,951,968	\$	161,368,844	\$	156,117,470
**	*****	***	*******	***	******	***	*******	**	******	***	*****
	Fiscal 2010		Fiscal 2009	I	Fiscal 2008	I	Fiscal 2007	I	Fiscal 2006	F	Fiscal 2005
	5.00%		5.00%		5.00%		5.00%		5.00%		5.00%
	3.06%		2.82%		2.60%		2.54%		2.36%		2.37%
	5.95%		4.50%		5.06%		7.08%		9.86%		9.72%
	6.75%		6.75%		6.75%		9.75%		9.75%		9.50%

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#### SUMMARY OF PRINCIPAL PLAN PROVISIONS

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

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

#### **PLAN A PROVISIONS:**

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

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

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

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

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

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

#### **PLAN B PROVISIONS:**

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

RETIREMENT BENEFITS - Members with ten years of creditable service may retire at age sixty; members with thirty years of service may retire at any age. The monthly retirement allowance is equal to two percent of the member's final compensation multiplied by his years of creditable

service; elected officials receive an additional one-half percent of final compensation for each year of such elected service.

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

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

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

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

#### PROVISIONS APPLICABLE TO BOTH PLAN A AND B:

FINAL AVERAGE COMPENSATION –For a member whose first employment making him eligible for membership in the system began after June 30, 2006, final average compensation is based on the average monthly earnings during the highest sixty consecutive months or joined months if service was interrupted. The earnings to be considered for each twelve month period within the sixty month period may not exceed 115% of the preceding twelve month period.

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

January 1, 2013. The earnings to be considered for each twelve month period within the final average compensation period may not exceed 115% of the preceding twelve month period.

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

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

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

**Option 3** - Upon retirement, the member receives a reduced benefit. Upon the member's death, the designated beneficiary will receive one-half of the member's reduced benefit.

**Option 4** - Upon retirement, the member elects to receive a board-approved benefit which is actuarially equivalent to the maximum benefit.

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2 ½% annual compound increase in monthly retirement benefits based on the reduced benefit and commencing on the later of age fifty-five or retirement anniversary; this COLA is in addition to any ad hoc COLAs which are payable.

DEFERRED RETIREMENT OPTION PLAN - In lieu of terminating employment and accepting a service retirement allowance, any member of Plan A or B who is eligible for a normal retirement may elect to participate in the Deferred Retirement Option Plan (DROP) for up to three years and defer the receipt of benefits. Upon commencement of participation in the plan, membership in the system terminates. During participation in the plan, employer contributions are payable but employee contributions cease. The monthly retirement benefits that would have been payable, had the person elected to cease employment and receive a service retirement allowance, are paid into the DROP account. After a member terminates his participation in DROP his account will earn interest at the actual rate of return earned on the funds left on deposit as certified by the custodian of the system's assets. This interest will be credited to the individual member's account balance on a daily basis beginning July 1, 2006. In addition, no cost of living increases are payable to participants until employment which made them eligible to become members of the system has been terminated for at least one full year.

Upon termination of employment prior to, or at the end of, the specified period of participation, a participant in the plan may receive, at his option, a lump sum payment from the account equal to the payments into the account, a true annuity based upon his account balance in that fund, or any other method of payment if approved by the board of trustees. The monthly benefits that were being paid into the DROP account will begin to be paid to the retiree. If a participant dies during

the participation in the plan, a lump sum equal to his account balance in the plan fund shall be paid to his named beneficiary or, if none, to his estate. If employment is not terminated at the end of the three years, payments into the plan fund cease and the person resumes active contributing membership in the system. For any member hired prior to July 1, 2006, additional accrued benefits are based on final average compensation used to calculate the member's original benefit unless the additional period of service is at least thirty-six months. For any member hired on or after July 1, 2006, whose period of additional service after their DROP participation period ends is less than sixty months, the final compensation figure used to calculate the additional benefit will be that used to calculate the original benefit. If their period of additional service is sixty months or more, the final compensation figure used to calculate the additional benefit will be based on their compensation during the period of additional service.

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

#### **ACTUARIAL ASSUMPTIONS**

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

Factor Increase in Factor Results in

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

ACTUARIAL COST METHOD: Frozen Attained Age Normal Actuarial Cost

Method with allocation based on earnings. The frozen actuarial accrued liabilities were calculated on the projected unit credit cost

method.

ACTUARIAL ASSET VALUES: Invested assets are valued at market value

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

smoothed value.

VALUATION INTEREST RATE: 7.75% (Net of Investment Expense)

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

ACTIVE MEMBER MORTALITY: RP 2000 Employee Table for males and

females

ANNUITANT, AND RP 2000 Healthy Annuitant Table for males

BENEFICIARY MORTALITY: and females

RETIREE COST OF LIVING INCREASES:

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

**RATES OF RETIREMENT:** 

The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. Members are assumed to retire no earlier than normal retirement age. In the first year of eligibility the tabular rates are multiplied by 1.5.

**RETIREMENT LIMITATIONS:** 

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

**DROP ENTRY RATES:** 

The table of these rates is included later in the report. These rates apply only to those individuals eligible to participate in DROP. In the first year of eligibility the tabular rates are multiplied by 1.5.

DROP PARTICIPATION PERIOD:

DROP participants are assumed to participate for 3 years. At the end of the DROP participation period, one half of participants are assumed to retire; the other half are assumed to work one additional year.

RETIREMENT RATES FOR ACTIVE FORMER DROP PARTICIPANTS:

Retirement rates for active former DROP participants are as follows:

Ages	Retirement Rates
Below 89	0.19
90	1.00

RATES OF WITHDRAWAL:

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

<u>Service</u>	<u>Plan A</u>	<u>Plan B</u>
0	0.24	0.26
1	0.19	0.20
2	0.16	0.15
3	0.12	0.15
4	0.10	0.10
5	0.08	0.10
6	0.08	0.09
7	0.08	0.09
8	0.06	0.06

9	0.06	0.05
10	0.06	0.05
11	0.05	0.05
12	0.05	0.05
13	0.05	0.05
14	0.03	0.05
15	0.03	0.05
16	0.03	0.03
17	0.01	0.03
18	0.01	0.03
19	0.01	0.03
20	0.01	0.02
over 20	0.01	0.02

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

RATES OF DISABILITY: 20% of the disability rates used for the 21<sup>st</sup>

valuation of the Railroad Retirement System for individuals with 10 – 19 years of service.

MARRIAGE STATISTICS: 80% of the members are assumed to be

married; husbands are assumed to be three

years older than wives.

FAMILY STATISTICS: Assumptions utilized in determining the

costs of various survivor benefits as listed below, are derived from the information

provided in the 2000 U.S. Census:

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

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

Males and Females

VESTING ELECTING PERCENTAGE: 30% of those members under age 40 who are

terminated vested elect deferred benefits in lieu of contribution refunds. 45% of those who are between the ages of 40 - 49 who are terminated vested elect deferred benefits in lieu of contribution refunds. 60% of those who are at least age 50 who are terminated vested elect deferred benefits in lieu of

contribution refunds.

### PLAN A ACTUARIAL TABLES AND RATES

Age	Retired Male	Retired Female	Active Male	Active Female	Retirement	DROP Entry	Disability	Remarriage
	Mortality	Mortality	Mortality	Mortality	Rates	Rates	Rates	Rates
18	0.00032	0.00019	0.00032	0.00019	0.00000	0.00000	0.00030	0.05665
19	0.00032	0.00019	0.00032	0.00019	0.00000	0.00000	0.00030	0.05665
20	0.00035	0.00019	0.00035	0.00019	0.00000	0.00000	0.00030	0.05665
21	0.00035	0.00019	0.00036	0.00019	0.00000	0.00000	0.00030	0.05213
22	0.00037	0.00019	0.00037	0.00019	0.00000	0.00000	0.00030	0.04834
23	0.00037	0.00019	0.00037	0.00019	0.00000	0.00000	0.00030	0.04522
24	0.00037	0.00020	0.00037	0.00020	0.00000	0.00000	0.00030	0.04322
25	0.00038	0.00020	0.00038	0.00020	0.00000	0.00000	0.00030	0.04270
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00000	0.00030	0.03915
27	0.00038	0.00021	0.00038	0.00021	0.00000	0.00000	0.00030	0.03719
28	0.00039	0.00024	0.00039	0.00024	0.00000	0.00000	0.00030	0.03714
29	0.00041	0.00025	0.00041	0.00025	0.00000	0.00000	0.00030	0.03654
30	0.00044	0.00026	0.00044	0.00026	0.00000	0.00000	0.00030	0.03611
31	0.00050	0.00031	0.00050	0.00031	0.00000	0.00000	0.00030	0.03578
32	0.00056	0.00035	0.00056	0.00035	0.00000	0.00000	0.00030	0.03549
33	0.00063	0.00039	0.00063	0.00039	0.00000	0.00000	0.00030	0.03515
34	0.00070	0.00044	0.00070	0.00044	0.00000	0.00000	0.00030	0.03471
35	0.00077	0.00047	0.00077	0.00047	0.00000	0.00000	0.00034	0.03409
36	0.00084	0.00051	0.00084	0.00051	0.00000	0.00000	0.00038	0.03286
37	0.00090	0.00055	0.00090	0.00055	0.00000	0.00000	0.00042	0.03139
38	0.00096	0.00060	0.00096	0.00060	0.00000	0.00000	0.00048	0.02973
39	0.00102	0.00065	0.00102	0.00065	0.00000	0.00000	0.00054	0.02787
40	0.00108	0.00071	0.00108	0.00071	0.00000	0.00000	0.00062	0.02585
41	0.00114	0.00077	0.00114	0.00077	0.06000	0.27000	0.00070	0.02352
42	0.00122	0.00085	0.00122	0.00085	0.06000	0.27000	0.00078	0.02111
43	0.00130	0.00094	0.00130	0.00094	0.06000	0.27000	0.00088	0.01868
44	0.00140	0.00103	0.00140	0.00103	0.06000	0.27000	0.00100	0.01629
45	0.00151	0.00112	0.00151	0.00112	0.06000	0.27000	0.00114	0.01400
46	0.00162	0.00122	0.00162	0.00122	0.06000	0.27000	0.00130	0.01208
47	0.00173	0.00133	0.00173	0.00133	0.06000	0.27000	0.00146	0.01034
48	0.00186	0.00143	0.00186	0.00143	0.06000	0.27000	0.00166	0.00879
49	0.00200	0.00155	0.00200	0.00155	0.06000	0.27000	0.00188	0.00744
50	0.00535	0.00234	0.00214	0.00168	0.06000	0.27000	0.00214	0.00629
51	0.00553	0.00246	0.00229	0.00181	0.06000	0.27000	0.00244	0.00551
52	0.00564	0.00265	0.00245	0.00197	0.06000	0.27000	0.00276	0.00493
53	0.00572	0.00290	0.00262	0.00213	0.06000	0.27000	0.00314	0.00451
54	0.00580	0.00319	0.00281	0.00232	0.06000	0.27000	0.00356	0.00423
55	0.00590	0.00353	0.00303	0.00253	0.06000	0.27000	0.00404	0.00406
56	0.00612	0.00393	0.00331	0.00276	0.06000	0.27000	0.00460	0.00000
57	0.00644	0.00438	0.00363	0.00301	0.06000	0.27000	0.00522	0.00000
58	0.00690	0.00492	0.00400	0.00329	0.06000	0.27000	0.00592	0.00000
59	0.00749	0.00553	0.00441	0.00360	0.06000	0.27000	0.00674	0.00000
60	0.00820	0.00620	0.00488	0.00393	0.14000	0.27000	0.00976	0.00000
61	0.00900	0.00692	0.00538	0.00429	0.14000	0.12000	0.01060	0.00000
62	0.00991	0.00769	0.00592	0.00466	0.14000	0.12000	0.01156	0.00000
63	0.01095	0.00851	0.00647	0.00504	0.14000	0.12000	0.01110	0.00000
64	0.01212	0.00939	0.00703	0.00543	0.14000	0.12000	0.00702	0.00000
65	0.01342	0.01036	0.00757	0.00582	0.14000	0.12000	0.00126	0.00000

### PLAN B ACTUARIAL TABLES AND RATES

Age	Retired Male	Retired Female	Active Male	Active Female	Retirement	DROP Entry	Disability	Remarriage
	Mortality	Mortality	Mortality	Mortality	Rates	Rates	Rates	Rates
	•	·	•	•				
18	0.00032	0.00019	0.00032	0.00019	0.00000	0.00000	0.00030	0.05665
19	0.00033	0.00019	0.00033	0.00019	0.00000	0.00000	0.00030	0.05665
20	0.00035	0.00019	0.00035	0.00019	0.00000	0.00000	0.00030	0.05665
21	0.00036	0.00019	0.00036	0.00019	0.00000	0.00000	0.00030	0.05213
22	0.00037	0.00019	0.00037	0.00019	0.00000	0.00000	0.00030	0.04834
23	0.00037	0.00020	0.00037	0.00020	0.00000	0.00000	0.00030	0.04522
24	0.00038	0.00020	0.00038	0.00020	0.00000	0.00000	0.00030	0.04270
25	0.00038	0.00021	0.00038	0.00021	0.00000	0.00000	0.00030	0.04070
26	0.00038	0.00021	0.00038	0.00021	0.00000	0.00000	0.00030	0.03915
27	0.00038	0.00022	0.00038	0.00022	0.00000	0.00000	0.00030	0.03799
28	0.00039	0.00024	0.00039	0.00024	0.00000	0.00000	0.00030	0.03714
29	0.00041	0.00025	0.00041	0.00025	0.00000	0.00000	0.00030	0.03654
30	0.00044	0.00026	0.00044	0.00026	0.00000	0.00000	0.00030	0.03611
31	0.00050	0.00031	0.00050	0.00031	0.00000	0.00000	0.00030	0.03578
32	0.00056	0.00035	0.00056	0.00035	0.00000	0.00000	0.00030	0.03549
33	0.00063	0.00039	0.00063	0.00039	0.00000	0.00000	0.00030	0.03515
34	0.00070	0.00044	0.00070	0.00044	0.00000	0.00000	0.00030	0.03471
35	0.00077	0.00047	0.00077	0.00047	0.00000	0.00000	0.00034	0.03409
36	0.00084	0.00051	0.00084	0.00051	0.00000	0.00000	0.00038	0.03286
37	0.00090	0.00055	0.00090	0.00055	0.00000	0.00000	0.00042	0.03139
38	0.00096	0.00060	0.00096	0.00060	0.00000	0.00000	0.00048	0.02973
39	0.00102	0.00065	0.00102	0.00065	0.00000	0.00000	0.00054	0.02787
40	0.00108	0.00071	0.00108	0.00071	0.00000	0.00000	0.00062	0.02585
41	0.00114	0.00077	0.00114	0.00077	0.00000	0.00000	0.00070	0.02352
42	0.00122	0.00085	0.00122	0.00085	0.00000	0.00000	0.00078	0.02111
43	0.00130	0.00094	0.00130	0.00094	0.00000	0.00000	0.00088	0.01868
44	0.00140	0.00103	0.00140	0.00103	0.00000	0.00000	0.00100	0.01629
45	0.00151	0.00112	0.00151	0.00112	0.00000	0.00000	0.00114	0.01400
46	0.00162	0.00122	0.00162	0.00122	0.06000	0.24000	0.00130	0.01208
47	0.00173	0.00133	0.00173	0.00133	0.06000	0.24000	0.00146	0.01034
48	0.00186	0.00143	0.00186	0.00143	0.06000	0.24000	0.00166	0.00879
49	0.00200	0.00155	0.00200	0.00155	0.06000	0.24000	0.00188	0.00744
50 51	0.00535	0.00234 0.00246	0.00214 0.00229	0.00168	0.06000	0.24000	0.00214	0.00629
	0.00553 0.00564			0.00181	0.06000	0.24000	0.00244	0.00551
52 52		0.00265	0.00245	0.00197 0.00213	0.06000	0.24000	0.00276	0.00493
53 54	0.00572 0.00580	0.00290 0.00319	0.00262 0.00281	0.00213	0.06000 0.06000	0.24000 0.24000	0.00314 0.00356	0.00451 0.00423
55	0.00580	0.00319	0.00281	0.00252	0.36000	0.24000	0.00336	0.00423
56	0.00590	0.00333	0.00303	0.00233	0.30000	0.38000	0.00404	0.00400
57	0.00612	0.00393	0.00331	0.00270	0.22000	0.38000	0.00400	0.00000
58	0.00644	0.00438	0.00303	0.00301	0.22000	0.38000	0.00322	0.00000
59	0.00030	0.00492	0.00400	0.00329	0.22000	0.38000	0.00392	0.00000
60	0.00749	0.00533	0.00441	0.00300	0.12000	0.16000	0.00074	0.00000
61	0.00820	0.00620	0.00488	0.00393	0.12000	0.16000	0.00970	0.00000
62	0.00900	0.00092	0.00592	0.00429	0.12000	0.16000	0.01000	0.00000
63	0.00991	0.00709	0.00592	0.00504	0.12000	0.16000	0.01130	0.00000
64	0.01033	0.00031	0.00703	0.00543	0.12000	0.16000	0.01110	0.00000
65	0.01212	0.00035	0.00757	0.00543	0.12000	0.12000	0.00702	0.00000
0.5	0.01372	0.01030	0.00737	0.00302	0.12000	0.12000	0.00120	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.