# MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM 

ACTUARIAL VALUATION AS OF JUNE 30, 2009

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

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December 14, 2009

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, 2009. 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, 2010, to recommend the net direct employer contribution rate for fiscal 2011, 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.

This report has been prepared in accordance with generally accepted actuarial principles and practices, and to the best of our knowledge and belief fairly reflects the actuarial present values and costs stated herein. The undersigned actuaries are members of the American Academy of Actuaries and have met the qualification standards for the American Academy of Actuaries to render the actuarial opinions incorporated in this report, and are available to provide further information or answer any questions with respect to this valuation.

Sincerely,
G. S. CURRAN \& COMPANY, LTD.

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

By:
Gregory M. 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: |  |
| :--- | :--- |
| Census Summary: | Active Members <br> Retirees and Beneficiaries <br> Terminated Due a Deferred Benefit <br> Terminated Due a Refund |


| June 30, 2009 | June 30, 2008 |  |
| :---: | :---: | :---: |
|  | 5,052 | 5,030 |
| 2,861 | 2,794 |  |
| 172 | 184 |  |
|  | 2,596 | 2,561 |
| \$ $157,082,727$ | $\$ 148,644,512$ |  |
| $\$$ | $39,834,118$ | $\$ 37,650,335$ |
| $\$$ | $74,616,607$ | $\$ 73,993,478$ |
| $\$$ | $568,167,813$ | $\$ 666,534,551$ |
| $\$$ | $670,910,030$ | $\$ 671,721,084$ |
| $\$$ | $745,526,637$ | $\$ 745,714,562$ |
|  | $89.99 \%$ | $90.08 \%$ |

FISCAL 2010
FISCAL 2009

| Employer Normal Cost (July 1): | $\$$ | $20,316,266$ | $\$$ | $13,494,664$ |
| :--- | ---: | ---: | ---: | ---: |
| Amortization Cost (July 1): | $\$$ | $5,112,448$ | $\$ 4,904,027$ |  |
| Interest Adjusted Gross Employer Actuarially Required |  |  |  |  |
| Contribution Including Estimated Administrative Costs: | $\$$ | $27,098,834$ | $\$$ | $19,825,970$ |
| Projected Ad Valorem and Revenue Sharing Funds | $\$$ | $4,936,292$ | $\$ 4,276,524$ |  |
| Net Direct Employer Actuarially Required Contribution: | $\$$ | $22,162,542$ | $\$$ | $15,549,446$ |
| Actuarially Required Net Direct Employer Contribution Rate |  | $13.78 \%$ | $10.25 \%$ |  |
| Actual Net Direct Employer Contribution Rate: | $13.50 \%$ | $13.50 \%$ |  |  |

Minimum Recommended Net Direct Employer Contribution Rate Fiscal 2011: 13.75\% Fiscal 2010: 13.50\%
Employee Contribution Rate: 9.25\% of Payroll
Actuarial Cost Method: Frozen Attained Age Normal Actuarial Cost Method
Valuation Interest Rate: 8\% (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 investment securities 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: Change in the method of calculating the actuarial value of assets from five year phase in of earning above or below the assumed rate of return subject to limits of $90 \%$ to $110 \%$ of the market value of assets to the above described method.

Method of Recognizing Gains and Losses: Under the Frozen Attained Age Normal Method, actuarial gains and losses are spread over future normal costs.
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# SUMMARY OF VALUATION RESULTS MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM - PLAN B 

| Valuation Date: | June 30, 2009 | June 30, 2008 |
| :---: | :---: | :---: |
| Census Summary: Active Members | 2,269 | 2,191 |
| Retirees and Beneficiaries | 833 | 793 |
| Terminated Due a Deferred Benefit | 67 | 68 |
| Terminated Due a Refund | 1,022 | 998 |
| Payroll: | \$ 64,816,945 | \$ 59,233,705 |
| Benefits in Payment: | \$ 7,149,177 | \$ 6,625,934 |
| Frozen Unfunded Actuarial Accrued Liability: | \$ 4,912,541 | \$ 5,183,177 |
| Market Value of Assets: | \$ 117,258,410 | \$ 134,832,148 |
| Actuarial Asset Value: | \$ 138,441,127 | \$ 136,207,119 |
| Actuarial Accrued Liability (as defined by GASB-25) | \$ 143,353,668 | \$ 141,390,296 |
| Ratio of Actuarial Value of Assets to Actuarial Accrued Liability: | 96.57\% | 96.33\% |
|  |  |  |
|  | FISCAL 2010 | FISCAL 2009 |
| Employer Normal Cost (July 1): | \$ 4,885,791 | \$ 3,354,236 |
| Amortization Cost (July 1): | \$ 621,837 | \$ 634,528 |
| Interest Adjusted Gross Employer Actuarially Required Contribution Including Estimated Administrative Costs: | \$ 6,001,204 | \$ 4,426,377 |
| Projected Ad Valorem and Revenue Sharing Funds | \$ 2,036,859 | \$ 1,704,162 |
| Net Direct Employer Actuarially Required Contributions: | \$ 3,964,345 | \$ 2,722,215 |
| Actuarially Required Net Direct Employer Contribution Rate | 5.95\% | 4.50\% |
| Actual Net Direct Employer Contribution Rate: | 6.00\% | 6.75\% |

Employee Contribution Rate: 5.00\% of Payroll
Actuarial Cost Method: Frozen Attained Age Normal Actuarial Cost Method
Valuation Interest Rate: 8\% (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 investment securities 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: Change in the method of calculating the actuarial value of assets from five year phase in of earning above or below the assumed rate of return subject to limits of $90 \%$ to $110 \%$ of the market value of assets to the above described method.

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

## COMMENTS ON DATA

For the valuation, the administrative director of the system furnished a census on 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 5,052 active members in Plan A of whom 2,190 have vested retirement benefits including 177 participants in the Deferred Retirement Option Plan (DROP); 2,861 former Plan A members or their beneficiaries are receiving retirement benefits. An additional 2,768 Plan A members have contributions remaining on deposit with the system; of this number, 172 have vested rights for future retirement benefits. Census data on Plan B members may be found in Exhibit XXI. There are 2,269 active members in Plan B of whom 781 have vested retirement benefits including 65 participants in the Deferred Retirement Option Plan (DROP); 833 former Plan B members or their beneficiaries are receiving retirement benefits. An additional 1,089 Plan B members have contributions remaining on deposit with the system; of this number, 67 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. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan \& Maher, L.L.P. As indicated in the system's audit report, the net market value of Plan A’s assets was \$568,167,813 as of June 30, 2009. Net investment income for fiscal 2009 measured on a market value basis for Plan A amounted to a loss of $\$ 91,424,041$, inclusive of prior period adjustment in investment income of $\$ 5,956,114$. Contributions to the Plan for the fiscal year totaled $\$ 40,353,024$; benefits and expenses paid by Plan A amounted to $\$ 47,295,721$. The net market value of Plan B's assets was $\$ 117,258,410$ as of June 30, 2009. Net investment income for fiscal 2009 measured on a market value basis for Plan B amounted to a loss of \$18,496,763.
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Contributions to the Plan for the fiscal year totaled $\$ 9,618,344$; benefits and expenses paid by Plan B amounted to $\$ 8,695,319$. 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 $\$ 267,742$ and at the end of the year the balance was $\$ 445,943$.

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 accordance with R. S. 11:105, in any year in which the net direct employer contribution is scheduled to decrease, the board of trustees may freeze the net direct employer contribution rate and use the excess funds collected, if any, to reduce the frozen unfunded actuarial accrued liability. Effective with the June 30, 2009 valuation, any excess funds collected as a result of a freeze in employer contributions will be credited to the system's Funding Deposit Account. Such funds 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. 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. In Plan A, payroll growth in excess of $4.25 \%$ per year will reduce 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.

The actuarial assumptions utilized for the report are outlined on pages sixty-three through sixty-six. In the aggregate the assumptions represent our "best estimate" of future long-term experience for the fund. The assumptions are the same as those used for the prior year. All calculations, recommendations, and conclusions are based on the assumptions specified. To the extent that prospective experience differs from that assumed, adjustments to contribution levels will be required. Such differences will be revealed in future actuarial valuations. The method used to calculate the Actuarial Value of Assets was changed for this valuation. In the prior year, the actuarial value of assets was determined by smoothing all earnings above or below the assumed rate of return over a four year period with the resulting value constrained to a corridor of no less than $90 \%$ of the market value of assets and no more than $110 \%$ of the market value of assets. For this valuation, the smoothing period was increased to five years and the corridor was expanded to a range of $85 \%$ to $115 \%$ of the market value of assets; the actuarial value of assets was then set equal
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to the average of the applicable corridor limit and the smoothed value whenever the smoothed value falls outside of the corridor. The effect of this change was to reduce the fund's normal cost accrual rate by $4.1212 \%$ in Plan A and $1.9586 \%$ in Plan B.

## CHANGES IN PLAN PROVISIONS

The following changes in plan provisions were enacted during the 2009 Regular Session of the Louisiana Legislature:

Act 59 permits a member to purchase service credit for any amount of service not certified as prior service credit in accordance with existing law, but which service was rendered while employed with such municipality prior to the agreement date. Purchased service credit must be purchased at full actuarial cost, and may be used for eligibility and calculation purposes. Purchased service cannot include military service.

Act 68 changes the interest rate collectible on delinquent contributions to the system's actuarial valuation interest rate. If an employer terminates its coverage of its employees, the employer must pay its share of the system's unfunded accrued liability existing on June $30^{\text {th }}$ prior to the employer's termination which is attributable to the employer's participation in the system. The amount due must be determined by the actuary employed by the system and either be paid in a lump sum or amortized over 10 years in equal monthly payments with interest at the system's valuation interest rate, at the option of the employer. Any delinquent amount payable may be collected by the board through legal action against the employer together with interest at the system's valuation interest rate.

Act 270 provides that a member of a state or statewide retirement system, upon applying for retirement, may irrevocably elect a retirement payment option whereby his benefit is actuarially reduced, but he receives a $2.5 \%$ compounded increase in his benefit annually on each retirement anniversary date. This increase is also available to DROP participants and applied to the monthly benefit allowance. The adjustment is only payable to retirees who are 55 and older. The adjustment is not based on any other COLAs the system may grant. Any additional COLA granted by the system will be based on the retiree's monthly benefit as it exists when such COLA is granted. Spousal beneficiaries also receive the COLA upon the retiree's death if the retiree chose to have his benefits paid to his spouse upon his death.

Act 296 creates a funding deposit account. The beginning balance of each system's account was set equal to zero as of December 31, 2008. All surplus funds collected for the system are then credited to the account for any fiscal year ending on or after December 31, 2008, in which the board of trustees elects to set the direct employer contribution rate higher than the minimum recommended rate. The funds will earn interest at the board-approved actuarial valuation rate, and the interest will be credited at least once a year. Beginning with the first valuation on or after December 31, 2008, the system's board may direct the account funds be charged for the following purposes: (1) to reduce the unfunded accrued liability, (2) to reduce the present value of future normal costs, (3) to pay all or a portion of any future net direct employer contributions. The funds charged from the account may not exceed the outstanding balance. If the board elects to charge funds from the funding deposit account in order to reduce the employers' direct contributions, the percent reduction

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in the minimum recommended employer contribution rate will be determined by dividing the interest-adjusted value of the charges from the funding deposit account by the projected payroll for the fiscal year for which the contribution rate is to be reduced. For funding purposes, any asset value used in the calculation of the actuarial value of assets of a system will exclude the account balance as of the asset determination date for the calculation. For all purposes other than funding, the funds in the account will be considered assets of the system.

## 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 | 2000 | 9.1\% | 11.0\% |
|  | 2001 | -4.2\% | 4.5\% |
|  | 2002 | -1.8\% | 1.1\% |
|  | 2003 | 4.4\% | -1.0\% * |
|  | 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\% †* |
|  |  | Market Value | Actuarial Value |
| PLAN B | 2000 | 8.4\% | 10.8\% |
|  | 2001 | -4.2\% | 4.2\% |
|  | 2002 | -2.8\% | 0.3\% |
|  | 2003 | 3.8\% | -1.8\% * |
|  | 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\% †* |

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 2009, the fund earned $\$ 8,958,179$ of dividends and interest and other recurring income for Plan A and $\$ 1,827,177$ for Plan B. Net income was decreased by realized and unrealized capital losses of $\$ 103,863,941$ for Plan A
and $\$ 21,022,781$ for Plan B and further reduced by net investment expenses of $\$ 2,474,393$ for Plan A and $\$ 505,322$ for Plan B. The geometric mean of the market value rates of return measured over the last ten years was $3.5 \%$ for Plan A and $3.2 \%$ for Plan B.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of $8 \%$ used for the valuation. 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 asset determination methodology. 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. In addition to the smoothing of investment returns above or below the assumed rate of return of $8.0 \%$, 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. Yields in excess of the $8 \%$ assumption will reduce future costs; yields below $8 \%$ will increase future costs. Plan A experienced net actuarial investment earnings of $\$ 93,474,520$ less than the actuarial assumed earnings rate of $8 \%$. Plan B experienced net actuarial investment earnings of $\$ 19,144,687$ less than the actuarial assumed earnings rate of $8 \%$. These actuarial losses increased the normal cost accrual rate by $8.4144 \%$ and $3.9953 \%$ respectively for Plan A and Plan B without regard to the change in asset valuation method.

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, 2009 valuation we found two members of Plan A and four member of Plan B with such service and therefore recommend a transfer of $\$ 56,582$ be made from the Plan B trust to the Plan A trust for fiscal 2009.

## 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 10.35 years of service and an annual salary of $\$ 31,093$. The Plan's active membership increased during the fiscal year by 22 members. The plan has experienced a decline in the active plan population of 273 members between 2004 and 2009. Should the five year trend in plan population continue, a change in the structure of the amortization of the frozen unfunded actuarial accrued liability will be required to prevent continual increases in contributions as a percentage of payroll. A review of the active census by age indicates that over the last ten years the population in the under-fifty age group has decreased while the proportion of active members overfifty increased. Over the same ten-year period the plan showed a decrease in the percentage of members with service greater than five but less than ten years; the percentage of members with service over ten years has increased. The percentage of members with less than five years of service has remained the same.

The average retiree is 70 years old with a monthly benefit of $\$ 1,343$. The number of retirees and beneficiaries receiving benefits from the system increased by 67 during the fiscal year. Over the last five years the number of retirees has increased by 413; during this same period, annual benefits in payment increased by $\$ 10,790,478$.
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Plan liability experience for fiscal 2009 was favorable. The primary factors contributing to the reduction in cost were retirements and disabilities below projected levels. Partially offsetting these factors were salary increases slightly above projected levels and withdrawals and retiree deaths which were below projections. DROP entries were at projected levels. The net effect of all of these elements was a decrease in costs. Plan liability gains decreased the normal cost accrual rate by $0.2367 \%$.

## PLAN B - DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for Plan B is given in Exhibit XXI. The average active member is 47 years old with 8.86 years of service and an annual salary of $\$ 28,566$. The Plan's active membership increased during the fiscal year by 78 members. Over the last five years the active population increased by 217 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 in the age group extending from 51 to 60 has increased. Over the same ten-year period the system showed a decrease in the percentage of members with service of five to fourteen years and a corresponding increase in the percentage of members with service under five years and over twenty-five years.

The average retiree is 73 years old with a monthly benefit of $\$ 804$. The number of retirees and beneficiaries receiving benefits from the system increased by 40 . Over the last five years this group increased by 99; during this same period, annual benefits in payment increased by $\$ 1,672,914$.

Plan liability experience for fiscal 2009 was unfavorable. Other than salary increases, there was no one significant factor affecting liability experience. Salary increases were above projected levels. Retirements and DROP entries were above projected levels. Withdrawals, were below projected levels. Retiree deaths were below projected levels. All of these factors tend to increase costs. Plan liability losses increased the normal cost accrual rate by $0.0745 \%$.

## FUNDING ANALYSIS AND RECOMMENDATIONS

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

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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 2010 as of July 1, 2009, is $\$ 20,316,266$. The amortization payment on the plan's frozen unfunded actuarial accrued liability as of July 1, 2009, is $\$ 5,112,448$. 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 2010 is $\$ 27,098,834$. When this amount is reduced by projected tax contributions and revenue sharing funds the resulting employers' net direct actuarially required contribution for fiscal 2010 is $\$ 22,162,542$. This is $13.78 \%$ of the projected Plan A payroll for fiscal 2010.

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 2009 | $9.7496 \%$ |
| :--- | ---: |
| Factors Increasing the Normal Cost Accrual Rate: |  |
| COLA Loss | $0.3771 \%$ |
| Asset Experience | $8.4144 \%$ |
| Factors Decreasing the Normal Cost Accrual Rate: | $-0.2601 \%$ |
| New Members | $-0.2367 \%$ |
| Liability Experience | $-4.1212 \%$ |
| Change in AVA Method | $13.9231 \%$ |

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 2010 as of July 1, 2009, is $\$ 4,885,791$. The amortization payment on the plan's frozen unfunded actuarial accrued liability as of July 1, 2009, is $\$ 621,837$. 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 2010 is $\$ 6,001,204$. When this amount is reduced by projected tax contributions and revenue sharing funds

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the resulting employers' net direct actuarially required contribution for fiscal 2010 is $\$ 3,964,345$. This is $5.95 \%$ of the projected Plan B payroll for fiscal 2010.

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

| Normal Cost Accrual Rate - Fiscal 2009 | $6.1365 \%$ |
| :--- | :---: |
| Factors Increasing the Normal Cost Accrual Rate: |  |
| COLA Loss | $0.1465 \%$ |
| Liability Experience | $0.0745 \%$ |
| Asset Experience | $3.9953 \%$ |
| Factors Decreasing the Normal Cost Accrual Rate: | $-0.2169 \%$ |
| New Members | $-1.9586 \%$ |
| AVA Method | $8.1773 \%$ |

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 2010, the net effect of the change in payroll on amortization costs was a reduction of $0.06 \%$ of payroll for Plan A; and $.12 \%$ 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 2010 will increase by $0.25 \%$ of payroll in Plan A and $0.24 \%$ of payroll in Plan B. Although the actuarially required net direct employer contribution rate for Plan A for fiscal 2010 is $13.78 \%$, the actual employer contribution rate for fiscal 2010 is $13.50 \%$ of payroll. After accounting for the anticipated contribution shortfall in fiscal 2010 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 $13.75 \%$ for fiscal 2011 for Plan A. Although the actuarially required net direct employer contribution rate in Plan B is $5.95 \%$, the actual employer contribution rate for fiscal 2009 is $6.75 \%$ of payroll. Since any additional funds collected for Plan B during fiscal 2010 will be allocated to the Funding Deposit Account, the only adjustment to the $5.95 \%$ required contribution rate for Plan B in order to determine the minimum recommended rate for fiscal 2011 is the rounding stipulated in R. S. 11:103. Hence, we recommend a minimum net direct employer contribution rate of $6.00 \%$ for fiscal 2011 for Plan B.

Notwithstanding the allowable decrease in the employer contribution rate for fiscal 2011 for Plan B, under provisions of R. S. 11:105, the board of trustees may elect to maintain the net direct employer contribution rate at the current level of $6.75 \%$. Any additional funds collected will be credited to the Funding Deposit Account.

As a result of the freeze in the employer contribution rate for fiscal 2009, both Plan A and Plan B collected excess employer contributions. In accordance with Act 296 of the 2009 legislative session, the excess contributions were credited to the Funding Deposit Account. The account balance as of June 30, 2009 was $\$ 6,105,938$ for Plan A and $\$ 1,806,555$ for Plan B.

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Recent capital market conditions have resulted in asset experience losses for the fund that will significantly increase its cost structure. These market conditions may be temporary or may indicate that future return expectations should be reduced. Contribution rates to the fund as given in this report are a function of the assumed long-term rate of return on assets used for the valuation. That rate of return should be consistent with long-term capital market expectations and the asset allocation utilized by the fund. The sensitivity of each plan's contribution rate with regard to the assumed rate of return in unique. For the Municipal Employees’ Retirement System, we have determined that a decrease in the long-term assumed rate of return of $1 \%$ would lead to an increase in the required employer contribution rate of $8.70 \%$ of payroll; for Plan B the increase would be $4.40 \%$. 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. The impact of such other changes in assumptions are not reflected in the above the results.

## COST OF LIVING INCREASES

During fiscal 2009 the actual cost of living (as measured by the US Department of Labor CPI-U) decreased by $1.43 \%$. 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 $\$ \mathrm{X} \times(\mathrm{A}+\mathrm{B})$ 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 $30^{\text {th }}$ of the initial year of such increase. The provisions of this subpart do not repeal provisions relative to cost of living adjustments contained within the individual laws governing systems; however, they are to be controlling in cases of conflict. All of the above provisions require that the system earn sufficient excess interest earnings to fund the increases. In addition, the ratio of the plan's assets to benefit obligations must meet the criteria established in R.S. 11:242. This section sets forth a minimum "target ratio" of the actuarial value of assets to the Pension Benefit Obligation. We have determined that for fiscal 2009, neither plan met the target ratio. In addition, 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, 2009


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

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



## Plan A - Components of Actuarial Funding



Plan A - Frozen Unfunded Accrued Liability


## Plan A

Actuarial Value of Assets vs. GASB-25 Accrued Liability


Plan A - Historical Asset Yield


## Plan A - Net Non-Investment Income



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




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

Plan A - Active - Census By Service (as a percent)
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# Plan B - Components of Present Value of Future Benefits June 30, 2009 


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

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



Plan B - Components of Actuarial Funding


## Plan B - Frozen Unfunded Accrued Liability



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


Plan B - Historical Asset Yield


## Plan B - Net Non-Investment Income


$\underset{\text { (Based on Market Value of Assets) }}{\text { Plan }}$ (Based on Market Value of Assets)



## EXHIBITS

## EXHIBIT I <br> PLAN A: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1. Present Value of Future Benefits ..... \$ 981,785,120
2. Frozen Unfunded Actuarial Accrued Liability ..... \$ 74,616,607
3. Actuarial Value of Assets ..... \$ 670,910,030
4. Present Value of Future Employee Contributions ..... \$ 88,362,181
5. Funding Deposit Account Credit Balance ..... \$ 6,105,938
6. Present Value of Future Employer Normal Costs (1-2-3-4+5) ..... \$ 154,002,240
7. Present Value of Future Salaries ..... \$1,106,088,968
8. Employer Normal Cost Accrual Rate $(6 \div 7)$ ..... 13.923133\%
9. Projected Fiscal 2010 Salary for Current Membership ..... \$ 145,917,347
10. Employer Normal Cost as of July 1, 2009 (8 x 9) ..... \$ 20,316,266
11. Amortization Payment on Frozen Unfunded Accrued Liability of \$74,616,607 with Payments increasing at $4.25 \%$ per year ..... \$ 5,112,448
12. Total Employer Normal Cost \& Amortization Payment (10 + 11) ..... \$ 25,428,714
13. Employer Normal Cost and Amortization Payment Interest Adjusted for Midyear Payment ..... \$ ..... 26,426,295
14. Estimated Administrative Cost for Fiscal 2010 ..... \$ ..... 672,539
15. Gross Employer Actuarially Required Contribution for Fiscal $2010(13+14)$ ..... \$ ..... 27,098,834
16. Projected Tax Contributions for Fiscal 2010 ..... \$ ..... 4,821,749
17. Projected Revenue Sharing Funds for Fiscal 2010 ..... \$ ..... 114,543
18. Net Direct Employer Actuarially Required Contribution for Fiscal 2009 (15-16-17). ..... \$ ..... 22,162,542
19. Projected Payroll (July 1, 2009 through June 30, 2010) ..... \$ 160,791,791
20. Employers Minimum Net Direct Actuarially Required Contribution as a \% of Projected Payroll for Fiscal $2010(17 \div 18)$ ..... 13.78\%
21. Actual Employer Contribution Rate for Fiscal 2010 ..... 13.50\%
22. Contribution Shortfall Excess as a \% of Payroll (20-21) ..... 0.28\%
23. Increase (Reduction) to Following Year Payment for Contribution Shortfall (Excess) ..... 0.04\%
24. Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2011 (19 Rounded to nearest .25\%) ..... 13.75\%

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

Present Value of Future Benefits for Active Members:
Retirement Benefits ..... \$ 562,876,513
Survivor Benefits ..... 16,819,695
Disability Benefits ..... 9,710,926
Vested Deferred Termination Benefits. ..... 11,990,988
Contribution Refunds ..... 17,060,470
TOTAL Present Value of Future Benefits for Active Members ..... \$ 618,458,592
Present Value of Future Benefits for Terminated Members:
Terminated Vested Members Due Benefits at Retirement.. ..... \$ 11,232,908
Terminated Members with Reciprocals
Due Benefits at Retirement ..... 699,710
Terminated Members Due a Refund ..... 1,776,904
TOTAL Present Value of Future Benefits for Terminated Members ..... \$ 13,709,522
Present Value of Future Benefits for Retirees:
Regular Retirees ..... \$ 286,808,050
Disability Retirees ..... 17,690,330
Survivors \& Widows ..... 40,257,029
Reserve for Accrued Retiree DROP Account Balances ..... 4,861,597
TOTAL Present Value of Future Benefits for Retirees \& Survivors ..... \$ 349,617,006
TOTAL Present Value of Future Benefits ..... \$ 981,785,120

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

Current Assets:
Cash ..... \$
6,511,494
Contributions Receivable from Employers 1,504,035
Investment Receivable ..... 148,275
Contributions Receivable from Members ..... 979,309
Accrued Alternative Investments ..... 2,652,698
Accrued Interest and Dividends on Investments ..... 857,798
Due to Plan B ..... $(38,969)$
Other Receivables ..... 21,796
Due From Plan B ..... 56,582
TOTAL CURRENT ASSETS
\$ 12,693,018
Property Plant \& Equipment ..... \$ 707,944
Mitigation Bank Capitalized Project Costs ..... \$ 687,306
Investments:
Co-Mingled Funds ..... \$ 162,839,250
Mutual Fund - Equities ..... 70,864,389
Common Stock ..... 44,636,238
Limited Partnerships ..... 84,207,511
Cash Equivalents ..... 53,255,038
Mutual Fund - Fixed Income ..... 37,794,977
Mitigation Credits ..... 38,104,696
Limited Liability Companies ..... 29,985,681
Bonds ..... 18,898,399
Notes Receivable ..... 10,596,244
Line of Credit ..... 3,245,148
Real Estate-Mitigation Banks and LLC ..... 12,037,672
TOTAL INVESTMENTS ..... \$ 566,465,243
TOTAL ASSETS ..... \$ 580,553,511
Current Liabilities:
Minority Interest in Land Mitigation Bank ..... \$ 8,178,960
Minority Interest in LLC ..... 2,940,761
Mitigation Bank Unearned Revenue ..... 146,340
Long-Term Mitigation Liability ..... 68,005
Due to Related Parties ..... 305,832
Investment Payable ..... 217,750
Refunds Payable ..... 360,668
Accounts Payable ..... 167,382
TOTAL CURRENT LIABILITIES ..... \$ 12,385,698
MARKET VALUE OF ASSETS ..... \$ 568,167,813

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

Excess (Shortfall) of invested incomefor current and previous 4 years:
Fiscal year 2009 ..... \$ $(144,474,440)$
Fiscal year 2008 ..... $(45,633,930)$
Fiscal year 2007 ..... 56,997,359
Fiscal year 20062,926,741Fiscal year 2005$(3,945,256)$
Total for five years ..... \$$(134,129,526)$
Deferral of excess (shortfall) of invested income:
Fiscal year 2009 (80\%) ..... \$ $(115,579,552)$
Fiscal year 2008 (60\%) ..... $(27,380,358)$
Fiscal year 2007 (40\%) ..... 22,798,944
Fiscal year 2006 (20\%) ..... 585,348
Fiscal year 2005 (0\%)0
Total deferred for year ..... \$ $(119,575,618)$
Market value of plan net assets, end of year ..... \$ 568,167,813
Preliminary actuarial value of plan assets, end of year ..... \$ 687,743,431
Actuarial value of assets corridor
85\% of market value, end of year ..... \$ 482,942,641
$115 \%$ of market value, end of year ..... \$ 653,392,985
Allocated Share of the Expense Fund ..... \$ ..... 341,822Final actuarial value of plan net assets, end of year (average of preliminary actuarialvalue of plan assets and $115 \%$ of market value plus allocated share of the expensefund)
EXHIBIT IV
PLAN A: PRESENT VALUE OF FUTURE CONTRIBUTIONS
Employee Contributions to the Annuity Savings Fund ..... \$ 88,362,181
Employer Normal Contributions to the Pension Accumulation Fund ..... 154,002,240
Employer Amortization Payments to the Pension Accumulation Fund ..... 74,616,607
Funding Deposit Account Credit Balance ..... (6,105,938)
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS ..... \$310,875,090
EXHIBIT V
PLAN A: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY
Prior Year Frozen Unfunded Accrued Liability ..... \$ 73,993,478
Interest on Frozen Unfunded Accrued Liability ..... \$ 5,919,478
Employer Normal Cost for Prior Year ..... 13,494,664
Interest on the Normal Cost ..... 1,079,573
Administrative Expenses ..... 756,779
Interest on Expenses ..... 29,689
Credit to Funding Deposit Account ..... 6,105,938
TOTAL Increases to Frozen Unfunded Accrued Liability\$ 27,386,121
Gross Regular Employer Contributions ..... \$ 25,752,700
Interest on Employer Contributions ..... 1,010,292
Contribution Shortfall (Excess). ..... (0)
Interest on Contribution Shortfall (Excess) ..... (0)
TOTAL Decreases to Frozen Unfunded Accrued Liability ..... \$ 26,762,992CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY\$ 74,616,607

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

Actuarial Value of Assets (June 30, 2008) ..... \$ 671,721,084
Income:
Member Contributions ..... \$ 13,756,531
Employer Contributions ..... 21,256,967
Ad Valorem Taxes ..... 4,377,972
Revenue Sharing Funds ..... 117,761
Irregular Contributions ..... 787,211
Transfer From Plan B ..... 56,582
Total Contribution Income ..... \$ 40,353,024
Net Appreciation in Fair Value of Investments ..... \$ (103,863,941)
Interest and Dividend Income ..... 5,300,270
Income from Alternative Investments ..... 3,407,586
Securities Lending. ..... 250,323
Investment Income Allocated from Expense Fund ..... 2,987
Investment Expense. ..... $(2,474,393)$
Prior Year Adjustment ..... 5,956,114
Net Investment Income ..... \$ ..... $(91,421,054)$
TOTAL Income ..... \$ $(51,068,030)$
Expenses:
Retirement Benefits ..... \$ 38,550,396
Funds Transferred to Another System ..... 1,532,324
Refunds of Contributions ..... 3,093,707
DROP Disbursements ..... 3,178,765
Allocated Share of Administrative Expenses ..... 720,576
Transfer of Funds to Plan B ..... 36,366
Depreciation ..... 19,272
TOTAL Expenses ..... \$ ..... 47,131,406
Net Market Income for Fiscal 2009(Income - Expenses) ..... \$ (98,199,436)
Adjustment for Change in Allocated Expense Fund Balance ..... \$$(16,931)$
Adjustment for Actuarial Smoothing ..... \$ 97,405,313
Actuarial Value of Assets (June 30, 2009) ..... \$ 670,910,030

## EXHIBIT VII PLAN A: FUND BALANCE

Present Assets of the System Creditable to:
Annuity Savings Fund ..... \$ 103,232,391
Annuity Reserve Fund. ..... 344,755,409
Pension Accumulation Fund ..... 91,056,619
Deferred Retirement Option Plan Account ..... 23,017,456
Funding Deposit Account ..... 6,105,938
NET MARKET VALUE OF ASSETS ..... \$ ..... 568,167,813
ADJUSTMENT FOR ACTUARIAL SMOOTHING ..... 102,400,395
ALLOCATED SHARE OF THE EXPENSE FUND ..... 341,822
ACTUARIAL VALUE OF ASSETS. ..... \$ ..... 670,910,030
EXHIBIT VIII
PLAN A: PENSION BENEFIT OBLIGATION
Present Value of Credited Projected Benefits Payable to Current Employees ..... \$ ..... 431,168,315
Present Value of Benefits Payable to Terminated Employees ..... 13,709,522
Present Value of Benefits Payable to Current Retirees and Beneficiaries ..... 349,617,006
TOTAL PENSION BENEFIT OBLIGATION ..... 794,494,843
TOTAL ACTUARIAL VALUE OF ASSETS ..... 670,910,030
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation ..... 84.44\%

## 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: ..... 26.80\%
Adjustments in Funded Ratio Due to Changes in Assumption(s):
Changes for Fiscal 1988 ..... 4.97\%
Changes for Fiscal 1989 ..... (1.98\%)
Changes for Fiscal 1995 ..... (1.38\%)
Changes for Fiscal 1997 ..... (3.44\%)
Changes for Fiscal 1998 ..... (3.63\%)
Changes for Fiscal 2000 ..... (1.35\%)
Changes for Fiscal 2003 ..... 0.89\%
Changes for Fiscal 2005 ..... 0.02\%
Changes for Fiscal 2006 ..... 2.66\%
Changes for Fiscal 2009 ..... 5.73\%
3. TOTAL Adjustments ..... 2.49\%
Amortization of Adjustments in Funded Ratio over 30 years:
Changes for Fiscal 1988 ..... (3.48\%)
Changes for Fiscal 1989
Changes for Fiscal 1989 ..... 1.32\% ..... 1.32\%
Changes for Fiscal 1995 ..... 0.64\%
Changes for Fiscal 1997 ..... 1.38\%
Changes for Fiscal 1998 ..... 1.33\%
Changes for Fiscal 2000 ..... 0.41\%
Changes for Fiscal 2003 ..... (0.18\%)
Changes for Fiscal 2005 ..... (0.00\%)
Changes for Fiscal 2006 ..... (0.27\%)
Changes for Fiscal 2009 ..... (0.00\%)
4. TOTAL Amortization of Adjustments ..... 1.15\%
5. Target Ratio for Current Fiscal Year (Lesser of $1+2+3+4$ or $100 \%$ ) ..... 95.49\%
6. Actuarial Value of Assets Divided by PBO as of June 30, 2009 ..... 84.44\%

## EXHIBIT X

PLAN A: CENSUS DATA

|  | Active | Terminated with Funds on Deposit | DROP | Retired | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of members as of June 30, 2008 | 4,792 | 2,745 | 238 | 2,794 | 10,569 |
| Additions to Census <br> Initial membership <br> Death of another member <br> Omitted in error last year <br> Adjustment for multiple records | 593 7 |  |  | 38 2 | 572 35 7 |
| Change in Status during Year <br> Actives terminating service <br> Actives who retired <br> Actives entering DROP <br> Term. members rehired <br> Term. members who retire <br> Retirees who are rehired <br> Refunded who are rehired <br> DROP participants retiring <br> DROP returned to work | (133) <br> (80) <br> (84) <br> 25 <br> 17 <br> 50 | 133 <br> (25) <br> (15) <br> 19 | 84 <br> (48) <br> (50) | 80 15 48 | 36 |
| Eliminated from Census <br> Refund of contributions <br> Deaths <br> Included in error last year <br> Suspended Benefits <br> Adjustment for multiple records | (343) <br> (10) <br> (5) | (70) <br> (1) <br> (21) <br> 3 | (1) | (113) <br> (3) | (413) <br> (122) <br> (5) |
| Number of members as of June 30, 2009 | 4,829 | 2,768 | 223 | 2,861 | 10,681 |

PLAN A - ACTIVES CENSUS BY AGE:

| Age | Number <br> Male | Number <br> Female | Total <br> Number | Average <br> Salary | Total <br> Salary |
| :---: | :---: | :---: | :---: | :---: | ---: |
| $16-20$ | 31 | 5 | 36 | 19,100 | 687,608 |
| $21-25$ | 160 | 57 | 217 | 20,604 | $4,471,171$ |
| $26-30$ | 217 | 109 | 326 | 25,083 | $8,177,142$ |
| $31-35$ | 242 | 141 | 383 | 26,999 | $10,340,776$ |
| $36-40$ | 295 | 182 | 477 | 29,312 | $13,981,875$ |
| $41-45$ | 421 | 202 | 623 | 31,120 | $19,387,479$ |
| $46-50$ | 506 | 294 | 800 | 32,872 | $26,297,204$ |
| $51-55$ | 587 | 264 | 851 | 33,682 | $28,663,141$ |
| $56-60$ | 440 | 227 | 667 | 34,879 | $23,264,582$ |
| $61-65$ | 282 | 125 | 407 | 33,791 | $13,753,052$ |
| $66-70$ | 133 | 46 | 179 | 31,075 | $5,562,441$ |
| $71-75$ | 39 | 17 | 56 | 29,575 | $1,656,179$ |
| $76-80$ | 18 | 5 | 23 | 30,456 | 700,482 |
| $81-85$ | 4 | 2 | 6 | 22,566 | 135,395 |
| $86-90$ | 1 | 0 | 1,676 | 5,052 | 4,200 |
| TOTAL | 3,376 |  |  |  | 41,093 |

the active census includes 2,190 actives with vested benefits, including 223 DROP PARTICIPANTS AND 177 ACTIVE FORMER DROP PARTICIPANTS.

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

| Age | Number <br> Male | Number <br> Female | Total <br> Number | Average <br> Benefit | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | ---: |
| $31-35$ | 1 | 1 | 2 | 7,779 | 15,558 |
| $36-40$ | 1 | 3 | 4 | 9,072 | 36,289 |
| $41-45$ | 12 | 16 | 28 | 12,596 | 352,690 |
| $46-50$ | 23 | 15 | 38 | 12,350 | 469,285 |
| $51-55$ | 27 | 16 | 43 | 13,705 | 589,311 |
| $56-60$ | 30 | 12 | 42 | 15,085 | 633,581 |
| $61-65$ | 4 | 2 | 6 | 5,448 | 32,686 |
| $66-70$ | 4 | 3 | 7 | 5,069 | 35,481 |
| $71-75$ | 1 | 0 | 1 | 32,163 | 32,163 |
| $76-80$ | 1 | 0 | 1 | 15,974 | 15,974 |
| TOTAL | 104 | 68 | 172 | 12,866 | $2,213,018$ |

PLAN A - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

| Contributions | Ranging |  | Total |
| ---: | ---: | ---: | :---: |
| From | To | Number | Contributions |
| 0 | - | 99 | 1,839 |

PLAN A - REGULAR RETIREES:

| Age | Number <br> Male | Number <br> Female | Total <br> Number | Average <br> Benefit | Total <br> Benefit |
| ---: | :---: | :---: | :---: | :---: | ---: |
| $41-45$ | 3 | 2 | 5 | 22,646 | 113,228 |
| $46-50$ | 43 | 23 | 66 | 20,633 | $1,361,783$ |
| $51-55$ | 81 | 36 | 117 | 22,679 | $2,653,425$ |
| $56-60$ | 129 | 35 | 164 | 23,361 | $3,831,263$ |
| $61-65$ | 218 | 98 | 316 | 18,253 | $5,767,988$ |
| $66-70$ | 285 | 103 | 388 | 16,048 | $6,226,502$ |
| $71-75$ | 308 | 85 | 393 | 15,044 | $5,912,406$ |
| $76-80$ | 197 | 62 | 259 | 12,314 | $3,189,337$ |
| $81-85$ | 129 | 56 | 185 | 12,013 | $2,222,492$ |
| $86-90$ | 29 | 9 | 97 | 10,909 | $1,058,188$ |
| $91-99$ | 1,484 |  | 238 | 2,022 | 16,113 |

PLAN A - DISABILITY RETIREES:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Benefit | Total Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 31-35 | 0 | 1 | 1 | 11,249 | 11,249 |
| 36-40 | 2 | 0 | 2 | 10,023 | 20,045 |
| 41-45 | 4 | 1 | 5 | 14,588 | 72,940 |
| 46-50 | 15 | 2 | 17 | 10,791 | 183,441 |
| 51-55 | 27 | 9 | 36 | 12,072 | 434,605 |
| 56-60 | 39 | 9 | 48 | 10,920 | 524,179 |
| 61-65 | 27 | 9 | 36 | 10,293 | 370,538 |
| 66-70 | 18 | 4 | 22 | 7,770 | 170,936 |
| 71-75 | 12 | 2 | 14 | 7,377 | 103,280 |
| 76-80 | 5 | 2 | 7 | 6,382 | 44,671 |
| 81-85 | 2 | 1 | 3 | 5,431 | 16,292 |
| TOTAL | 151 | 40 | 191 | 10,221 | 1,952,176 |

PLAN A - SURVIVORS:

| Age | Number Male | Number <br> Female | Total <br> Number | Average <br> Benefit | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0-25 | 2 | 5 | 7 | 5,282 | 36,975 |
| 31-35 | 2 | 0 | 2 | 3,450 | 6,899 |
| 36-40 | 0 | 3 | 3 | 7,811 | 23,434 |
| 41-45 | 7 | 12 | 19 | 4,980 | 94,613 |
| 46-50 | 3 | 15 | 18 | 7,314 | 131,654 |
| 51-55 | 4 | 28 | 32 | 7,822 | 250,293 |
| 56-60 | 2 | 36 | 38 | 7,604 | 288,944 |
| 61-65 | 5 | 57 | 62 | 9,382 | 581,707 |
| 66-70 | 5 | 84 | 89 | 9,946 | 885,167 |
| 71-75 | 5 | 86 | 91 | 8,518 | 775,142 |
| 76-80 | 1 | 116 | 117 | 8,839 | 1,034,201 |
| 81-85 | 4 | 82 | 86 | 8,824 | 758,868 |
| 86-90 | 2 | 46 | 48 | 5,999 | 287,972 |
| 91-99 | 0 | 36 | 36 | 4,020 | 144, 702 |
| TOTAL | 42 | 606 | 648 | 8,180 | 5,300,571 |

plan a - active menbers:

| $\begin{aligned} & \text { Attained } \\ & \text { Ages } \end{aligned}$ | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-20 | 27 | 8 | 1 |  |  |  |  |  |  |  |  | 36 |
| 21-25 | 88 | 67 | 31 | 18 | 6 | 7 |  |  |  |  |  | 217 |
| 26-30 | 92 | 73 | 40 | 38 | 23 | 59 | 1 |  |  |  |  | 326 |
| 31-35 | 56 | 83 | 53 | 35 | 18 | 84 | 51 | 3 |  |  |  | 383 |
| 36-40 | 68 | 54 | 38 | 38 | 24 | 82 | 85 | 85 | 3 |  |  | 477 |
| 41-45 | 69 | 71 | 46 | 41 | 21 | 91 | 103 | 110 | 58 | 13 |  | 623 |
| 46-50 | 72 | 52 | 53 | 35 | 34 | 128 | 113 | 118 | 92 | 95 | 8 | 800 |
| 51-55 | 62 | 63 | 46 | 42 | 26 | 126 | 146 | 120 | 85 | 95 | 40 | 851 |
| 56-60 | 45 | 52 | 38 | 19 | 31 | 96 | 87 | 114 | 84 | 57 | 44 | 667 |
| 61-65 | 24 | 20 | 24 | 11 | 17 | 88 | 64 | 48 | 58 | 33 | 20 | 407 |
| 66-70 | 8 | 7 | 10 |  | 8 | 35 | 29 | 35 | 14 | 13 | 12 | 179 |
| 71 \& Over | 3 | 2 | 3 | 5 | 4 | 15 | 15 | 11 | 10 | 11 | 7 | 86 |
| totals | 614 | 552 | 383 | 290 | 212 | 811 | 694 | 644 | 404 | 317 | 131 | 5052 |


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plan a - terminated members due a deferred retirement benefit:

| $\begin{gathered} \text { Attained } \\ \text { Ages } \end{gathered}$ | Years Until Retirement Eligibility |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| 0-30 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 31-35 |  |  |  |  |  |  |  |  |  | 2 |  | 2 |
| 36-40 |  |  |  |  |  |  |  |  | 4 |  |  | 4 |
| 41-45 |  |  |  |  |  |  |  | 28 |  |  |  | 28 |
| 46-50 |  |  |  |  |  |  | 38 |  |  |  |  | 38 |
| 51-55 |  |  |  |  |  | 42 | 1 |  |  |  |  | 43 |
| 56-60 | 5 | 9 | 8 | 8 | 11 | 1 |  |  |  |  |  | 42 |
| 61-65 | 5 |  |  |  |  | 1 |  |  |  |  |  | 6 |
| 66-70 | 7 |  |  |  |  |  |  |  |  |  |  | 7 |
| 71-75 | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| 76-80 | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| 81 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Totals | 19 | 9 | 8 | 8 | 11 | 44 | 39 | 28 | 4 | 2 | 0 | 172 |
| plan a - average annual benefits of terminated members due a deferred retirement benefit: |  |  |  |  |  |  |  |  |  |  |  |  |
| Years Until Retirement Eligibility |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { Attained } \\ \text { Ages } \end{gathered}$ | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average Benefit |
| 0-30 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 31-35 |  |  |  |  |  |  |  |  |  | 7,779 |  | 7,779 |
| 36-40 |  |  |  |  |  |  |  |  | 9,072 |  |  | 9,072 |
| 41-45 |  |  |  |  |  |  |  | 12,596 |  |  |  | 12,596 |
| 46-50 |  |  |  |  |  |  | 12,350 |  |  |  |  | 12,350 |
| 51-55 |  |  |  |  |  | 13,971 | 2,520 |  |  |  |  | 13,705 |
| 56-60 | 11,114 | 18,832 | 11,041 | 15,283 | 16,947 | 11,525 |  |  |  |  |  | 15,085 |
| 61-65 | 6,342 |  |  |  |  | 976 |  |  |  |  |  | 5,448 |
| 66-70 | 5,069 |  |  |  |  |  |  |  |  |  |  | 5,069 |
| 71-75 | 32,163 |  |  |  |  |  |  |  |  |  |  | 32,163 |
| 76-80 | 15,974 |  |  |  |  |  |  |  |  |  |  | 15,974 |
| 81 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Average | 8,995 | 18,832 | 11,041 | 15,283 | 16,947 | 13,620 | 12,098 | 12,596 | 9,072 | 7,779 | 0 | 12,866 |

PLAN A - SERVICE RETIREES:

| $\begin{aligned} & \text { Attained } \\ & \text { Ages } \end{aligned}$ | completed Years since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| 0-50 | 17 | 19 | 8 | 9 | 6 | 12 |  |  |  |  |  | 71 |
| 51-55 | 15 | 21 | 25 | 16 | 16 | 24 |  |  |  |  |  | 117 |
| 56-60 | 21 | 20 | 25 | 20 | 15 | 60 | 1 |  | 2 |  |  | 164 |
| 61-65 | 48 | 42 | 58 | 32 | 41 | 77 | 16 | 1 | 1 |  |  | 316 |
| 66-70 | 22 | 22 | 38 | 28 | 27 | 173 | 50 | 25 | 2 | 1 |  | 388 |
| 71-75 | 12 | 3 | 16 | 15 | 18 | 110 | 129 | 55 | 30 | 5 |  | 393 |
| 76-80 | 2 | 1 | 7 | 1 | 5 | 37 | 66 | 98 | 33 | 8 | 1 | 259 |
| 81-85 |  |  | 2 | 3 | 4 | 12 | 26 | 53 | 68 | 14 | 3 | 185 |
| 86-90 |  |  | 2 |  | 2 | 5 | 4 | 10 | 40 | 30 | 4 | 97 |
| 91 \& Over |  |  |  |  |  | 1 |  | 4 | 3 | 15 | 9 | 32 |
| totals | 137 | 128 | 181 | 124 | 134 | 511 | 292 | 246 | 179 | 73 | 17 | 2022 |

Completed Years Since Retirement

| $\begin{gathered} \text { Attained } \\ \text { Ages } \end{gathered}$ | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-50 | 25,705 | 21,785 | 19,676 | 20,295 | 16,253 | 15,545 |  |  |  |  |  | 20,775 |
| 51-55 | 24,179 | 23,071 | 22,147 | 25,741 | 19,554 | 21,994 |  |  |  |  |  | 22,679 |
| 56-60 | 24,899 | 23,599 | 24,491 | 19,617 | 25,746 | 23,326 | 33,734 |  | 6,160 |  |  | 23,361 |
| 61-65 | 15,929 | 16,310 | 16,089 | 19,142 | 18,089 | 20,901 | 24,339 | 26,062 | 6,109 |  |  | 18,253 |
| 66-70 | 13,796 | 11,493 | 15,301 | 15,063 | 11,443 | 15,385 | 21,915 | 22,952 | 9,599 | 7,680 |  | 16,048 |
| 71-75 | 12,610 | 11,094 | 11,781 | 15,440 | 12,711 | 11,657 | 14,206 | 21,575 | 23,765 | 12,894 |  | 15,044 |
| 76-80 | 4,805 | 11,793 | 7,224 | 5,615 | 9,685 | 11,321 | 11,718 | 11,596 | 17,350 | 19,533 | 5,807 | 12,314 |
| 81-85 |  |  | 6,624 | 22,168 | 9,285 | 9,380 | 11,934 | 12,310 | 11,668 | 14,352 | 11,987 | 12,013 |
| 86-90 |  |  | 7,195 |  | 8,419 | 14,115 | 10,176 | 13,872 | 10,924 | 9,751 | 11,865 | 10,909 |
| 91 \& Over |  |  |  |  |  | 3,637 |  | 8,213 | 4,603 | 10,120 | 4,740 | 7,649 |
| Average | 18,625 | 18,385 | 17,153 | 18,749 | 16,257 | 16,190 | 15,328 | 15,231 | 14,343 | 11,968 | 7,758 | 16,11 |

G. S. CURRAN \& COMPANY, LTD.
plan a - SURVIVING benefictaries of former members:

| Attained Ages | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| 0-20 |  | 1 |  |  |  | 4 | 1 |  |  |  |  | 6 |
| 21-25 |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
| 26-30 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 31-35 |  |  |  |  |  | 2 |  |  |  |  |  | 2 |
| 36-40 |  |  |  |  |  | 2 | 1 |  |  |  |  | 3 |
| 41-45 |  | 1 |  | 1 | 1 | 2 | 4 | 2 | 1 | 2 | 5 | 19 |
| 46-50 |  | 1 | 1 |  |  | 9 | 1 | 5 | 1 |  |  | 18 |
| 51-55 |  | 1 | 1 | 2 | 4 | 6 | 7 | 6 | 5 |  |  | 32 |
| 56-60 | 1 | 1 | 1 | 1 | 1 | 8 | 12 | 6 | 7 |  |  | 38 |
| 61-65 | 2 | 3 | 2 | 3 | 2 | 16 | 16 | 10 | 8 |  |  | 62 |
| 66-70 | 1 | 1 | 1 | 4 | 2 | 16 | 25 | 16 | 15 | 7 | 1 | 89 |
| 71-75 |  | 3 |  |  | 3 | 11 | 20 | 30 | 16 | 6 | 2 | 91 |
| 76-80 |  |  |  |  | 1 | 5 | 11 | 34 | 43 | 13 | 10 | 117 |
| 81-85 |  |  |  |  |  | 1 | 6 | 14 | 30 | 21 | 14 | 86 |
| 86-90 |  |  |  |  |  | 1 |  | 3 | 5 | 17 | 22 | 48 |
| 91 \& Over |  |  |  |  |  |  |  |  | 2 | 5 | 29 | 36 |
| totals | 4 | 12 | 6 | 11 | 14 | 84 | 104 | 126 | 133 | 71 | 83 | 648 |


| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-20 |  | 5,620 |  |  |  | 4,355 | 4,138 |  |  |  |  | 4,530 |
| 21-25 |  |  |  |  |  | 9,798 |  |  |  |  |  | 9,798 |
| 26-30 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 31-35 |  |  |  |  |  | 3,449 |  |  |  |  |  | 3,449 |
| 36-40 |  |  |  |  |  | 8,135 | 7,164 |  |  |  |  | 7,811 |
| 41-45 |  | 9,715 |  | 8,406 | 4,069 | 13,353 | 6,538 | 3,200 | 1,900 | 3,592 | 817 | 4,980 |
| 46-50 |  | 5,329 | 4,021 |  |  | 9,141 | 11,039 | 4,786 | 5,066 |  |  | 7,314 |
| 51-55 |  | 9,348 | 1,051 | 8,973 | 12,096 | 10,270 | 5,629 | 6,763 | 6,393 |  |  | 7,822 |
| 56-60 | 11,416 | 4,665 | 1,905 | 9,500 | 21,145 | 9,335 | 8,965 | 5,341 | 3,715 |  |  | 7,604 |
| 61-65 | 9,706 | 7,684 | 17,125 | 6,247 | 13,718 | 12,098 | 10,534 | 6,129 | 4,428 |  |  | 9,382 |
| 66-70 | 15,113 | 8,317 | 12,820 | 8,451 | 26,386 | 13,812 | 10,394 | 8,470 | 6,249 | 5,903 | 10,908 | 9,946 |
| 71-75 |  | 9,656 |  |  | 6,107 | 7,557 | 8,040 | 9,985 | 8,250 | 5,583 | 9,442 | 8,518 |
| 76-80 |  |  |  |  | 1,530 | 9,221 | 7,709 | 8,930 | 10,588 | 8,744 | 2,922 | 8,839 |
| 81-85 |  |  |  |  |  | 11,848 | 9,843 | 8,444 | 9,211 | 11,177 | 4,194 | 8,824 |
| 86-90 |  |  |  |  |  | 3,218 |  | 11,335 | 6,842 | 6,869 | 4,535 | 5,999 |
| 91 \& Over |  |  |  |  |  |  |  |  | 5,803 | 4,192 | 3,867 | 4,020 |
| Average | 11,485 | 7,918 | 9,008 | 8,036 | 12,404 | 10,173 | 8,928 | 8,374 | 8,297 | 8,002 | 4,021 | 8,180 |

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

|  |  | Fiscal 2009 |  | Fiscal 2008 |  | Fiscal 2007 |  | Fiscal 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Active Members |  | 5,052 |  | 5,030 |  | 4,965 |  | 5,109 |
| Number of Retirees and Survivors |  | 2,861 |  | 2,794 |  | 2,721 |  | 2,588 |
| Number Terminated Due Deferred Benefits |  | 172 |  | 184 |  | 209 |  | 179 |
| Number Terminated Due Refund |  | 2,596 |  | 2,561 |  | 2,553 |  | 2,148 |
| Active Lives Payroll | \$ | 157,082,727 | \$ | 148,644,512 | \$ | 141,232,448 | \$ | 140,773,796 |
| Retiree Benefits in Payment | \$ | 39,834,118 | \$ | 37,650,335 | \$ | 34,978,923 | \$ | 32,315,373 |
| Market Value of Assets | \$ | 568,167,813 | \$ | 666,534,551 | \$ | 667,345,480 | \$ | 567,015,013 |
| Ratio of Actuarial Value of Assets to Actuarial Accrued Liability |  | 89.99\% |  | 90.08\% |  | 89.51\% |  | 88.67\% |
| Actuarial Accrued Liability (As defined by GASB-25) | \$ | 745,526,637 | \$ | 745,714,562 | \$ | 697,658,641 | \$ | 637,909,978 |
| Actuarial Value of Assets | \$ | 670,910,030 | \$ | 671,721,084 | \$ | 624,442,059 | \$ | 565,604,518 |
| Unfunded Actuarial Accrued Liability | \$ | 74,616,607 | \$ | 73,993,478 | \$ | 73,216,582 | \$ | 72,305,460 |
| Present Value of Future Employer Normal Cost | \$ | 154,002,240 | \$ | 102,751,307 | \$ | 106,821,650 | \$ | 138,753,419 |
| Present Value of Future Employee Contributions | \$ | 88,362,181 | \$ | 84,164,497 | \$ | 81,084,751 | \$ | 82,859,110 |
| Funding Deposit Account Credit Balance | \$ | 6,105,938 |  | N/A |  | N/A |  | N/A |
| Present Value of Future Benefits | \$ | 981,785,120 | \$ | 932,630,366 | \$ | 885,565,042 | \$ | 859,522,507 |

Fiscal 2010 Fiscal 2009 Fiscal 2008 Fiscal 2007

| Employee Contribution Rate | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| Proj. Tax Contribution as \% of Projected Payroll | $3.07 \%$ | $2.82 \%$ | $2.62 \%$ | $2.56 \%$ |
| Actuarially Req'd Net Direct Employer Cont. Rate | $13.78 \%$ | $10.25 \%$ | $11.17 \%$ | $13.89 \%$ |
| Actual Employer Direct Contribution Rate | $13.50 \%$ | $13.50 \%$ | $13.50 \%$ | $16.25 \%$ |

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

|  | Fiscal 2005 |  | Fiscal 2004 |  | Fiscal 2003 |  | Fiscal 2002 |  | Fiscal 2001 |  | Fiscal 2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5,289 |  | 5,325 |  | 5,533 |  | 5,481 |  | 5,455 |  | 5,558 |
|  | 2,512 |  | 2,448 |  | 2,372 |  | 2,316 |  | 2,255 |  | 2,213 |
|  | 186 |  | 193 |  | 192 |  | 193 |  | 189 |  | 187 |
|  | 2,263 |  | 2,266 |  | 2,185 |  | 2,158 |  | 2,122 |  | 2,108 |
| \$ | 140,020,164 | \$ | 135,925,550 | \$ | 135,876,426 | \$ | 130,191,230 | \$ | 125,304,827 | \$ | 124,683,590 |
| \$ | 30,555,460 | \$ | 29,043,640 | \$ | 27,431,127 | \$ | 26,145,224 | \$ | 24,838,273 | \$ | 23,418,404 |
| \$ | 521,411,279 | \$ | 485,539,046 | \$ | 444,996,698 | \$ | 432,669,352 | \$ | 447,796,046 | \$ | 469,525,372 |
|  | 87.75\% |  | 86.90\% |  | 86.79\% |  | 87.26\% |  | 87.53\% |  | 87.33\% |
| \$ | 581,801,281 | \$ | 535,579,287 | \$ | 521,766,411 | \$ | 531,127,529 | \$ | 531,562,970 | \$ | 512,465,288 |
| \$ | 510,523,409 | \$ | 465,429,341 | \$ | 452,830,104 | \$ | 463,477,324 | \$ | 465,259,344 | \$ | 447,557,888 |
| \$ | 71,277,872 | \$ | 70,149,946 | \$ | 68,936,307 | \$ | 67,650,205 | \$ | 66,303,626 | \$ | 64,907,400 |
| \$ | 169,264,548 | \$ | 161,387,026 | \$ | 146,656,618 | \$ | 100,815,782 | \$ | 67,974,883 | \$ | 59,512,163 |
| \$ | 84,762,421 | \$ | 85,111,124 | \$ | 86,226,350 | \$ | 83,902,996 | \$ | 82,237,210 | \$ | 83,646,334 |
|  | N/A |  | N/A |  | N/A |  | N/A |  | N/A |  | N/A |
| \$ | 835,828,250 | \$ | 782,077,437 | \$ | 754,649,379 | \$ | 715,846,307 | \$ | 681,775,063 | \$ | 655,623,785 |

Fiscal 2006 Fiscal 2005 Fiscal 2004 Fiscal 2003 Fiscal 20022001

| $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2.34 \%$ | $2.38 \%$ | $2.29 \%$ | $2.28 \%$ | $2.17 \%$ | $2.02 \%$ |
| $16.30 \%$ | $15.87 \%$ | $14.61 \%$ | $10.78 \%$ | $7.89 \%$ | $7.03 \%$ |
| $16.00 \%$ | $15.00 \%$ | $11.00 \%$ | $8.00 \%$ | $7.00 \%$ | $6.25 \%$ |

## EXHIBIT XII <br> PLAN B: ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1. Present Value of Future Benefits ..... \$ 202,212,180
2. Frozen Unfunded Actuarial Accrued Liability ..... 4,912,541
3. Actuarial Value of Assets ..... \$ 138,441,127
4. Present Value of Future Employee Contributions ..... \$
21,769,886
5. Funding Deposit Account Credit Balance ..... \$
6. Present Value of Future Employer Normal Costs (1-2-3-4+5) ..... \$
7. Present Value of Future Salaries ..... \$ 475,644,177
8. Employer Normal Cost Accrual Rate ( $6 \div 7$ ) ..... 8.177369\%
9. Projected Fiscal 2010 Salary for Current Membership ..... \$
1,806,555
38,895,181
10. Employer Normal Cost as of July 1, 2009 ( $8 \times 9$ ) ..... \$
4,885,791
11. Amortization Payment on Frozen Unfunded Accrued Liability of \$4,912,541 with Payments decreasing at 2\% per year ..... \$ ..... 621,837
12. TOTAL Employer Normal Cost \& Amortization Payment ( $10+11$ ) ..... \$ ..... 5,507,628
13. Employer Normal Cost and Amortization Payment Interest Adjusted for Midyear Payment ..... \$
5,723,695
14. Estimated Administrative Cost for Fiscal 2010 ..... \$277,509
15. TOTAL Employer Actuarially Required Contribution for Fiscal $2010(13+14)$ ..... \$ ..... 6,001,204
16. Projected Tax Contributions for Fiscal 2010 ..... \$ ..... 1,989,595
17. Projected Revenue Sharing Funds for Fiscal 2010. ..... \$
47,264
18. Net Direct Employer Actuarially Required Contribution for Fiscal 2010 (15-16-17) ..... \$
3,964,345
19. Projected Payroll (July 1, 2009 through June 30, 2010) ..... \$ ..... 66,635,558
20. Employers' Minimum Net Direct Actuarially Required Contribution as a \% of Projected Payroll for Fiscal $2010(18 \div 19)$ ..... 5.95\%
21. Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2011 (20 Rounded to nearest .25\%) ..... 6.00\%

G. S. CURRAN \& COMPANY, LTD.

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

Present Value of Future Benefits for Active Members:
Retirement Benefits ..... \$ 120,363,069
Survivor Benefits ..... 5,373,989
Disability Benefits ..... 2,734,536
Vested Deferred Termination Benefits ..... 6,215,485
Contribution Refunds ..... 5,196,584
TOTAL Present Value of Future Benefits for Active Members ..... \$ 139,883,663
Present Value of Future Benefits for Terminated Members:
Terminated Vested Members Due Benefits at Retirement.... \$ ..... \$ 2,676,556
Terminated Members with Reciprocals
Due Benefits at Retirement ..... 253,751
Terminated Members Due a Refund ..... 398,264
TOTAL Present Value of Future Benefits for Terminated Members ..... \$ ..... 3,328,571
Present Value of Future Benefits for Retirees:
Regular Retirees ..... \$ 44,301,483
Disability Retirees ..... 4,259,462
Survivors \& Widows ..... 9,499,826
Reserve for Accrued Retiree DROP Account Balances. ..... 939,175
TOTAL Present Value of Future Benefits for Retirees \& Survivors ..... \$ ..... 58,999,946
TOTAL Present Value of Future Benefits ..... \$ 202,212,180

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

## Current Assets:

Cash ............................................................................................ \$ 2,607,997

Contributions Receivable from Members................................. 269,608
Contributions Receivable from Employers
364,255
Accrued Interest on Investments ............................................. 168,070
Due From Other Funds ............................................................ 38,969
Dividends Receivable .............................................................. 7,253
Investments Receivable ........................................................... 30,335
Accrued Alternative Investments ............................................ 50,567
Other ....................................................................................... 15,932
TOTAL CURRENT ASSETS...............................................................
Property, Plant \& Equipment ..................................................................................... \$
4,022,986

Mitigation Bank Capitalized Project Costs .................................................................
Investments:
Co-Mingled Funds ................................................................... \$ 33,342,319
Mutual Fund - Equities ........................................................... 14,498,018
Limited Partnerships................................................................ 17,204,665
Common Stock ........................................................................ 9,132,049
Cash Equivalents ..................................................................... 10,469,615
Mutual Fund - Fixed Income .................................................. $7,732,408$
Real Estate-Mitigation Banks and LLC.................................... 2,462,766
Limited Liability Companies................................................... 6,132,679
Bonds .................................................................................. 3,866,390
Notes Receivable ..................................................................... 2,167,867
Line of Credit........................................................................... 663,914
Mitigation Credits.................................................................... $7,795,773$

## TOTAL INVESTMENTS <br> \$ 115,468,463 <br> TOTAL ASSETS <br> \$ 119,868,358

Current Liabilities:
Minority Interest in Land Mitigation Bank.............................. \$ 1,673,319
Minority Interest in LLC.......................................................... 601,645
Mitigation Bank Unearned Revenue......................................... 29,940
Long-Term Mitigation Liability ............................................... 13,913
Due to Related Parties............................................................... 62,570
Investments Payable ................................................................ 44,549
Refunds Payable ..................................................................... 96,060
Accounts Payable..................................................................... 31,370
Due to Plan A........................................................................... 56,582
TOTAL CURRENT LIABILITIES............................................... \$ 2,609,948
MARKET VALUE OF ASSETS.................................................... \$ 117,258,410
G. S. CURRAN \& COMPANY, LTD.

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

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

Fiscal year 2009 $\qquad$\$ $(29,319,546)$Fiscal year 2008Fiscal year 2007
$\qquad$Fiscal year 2006
$\qquad$(8,919,684)10,509,451545,437Fiscal year 2005$(751,106)$
Total for five years

$\qquad$ ..... \$ $(27,935,448)$
Deferral of excess (shortfall) of invested income:
Fiscal year 2009 (80\%)\$ $(23,455,637)$
Fiscal year 2008 (60\%) ..... (5,351,810)
Fiscal year 2007 (40\%) ..... 4,203,780
Fiscal year 2006 (20\%) ..... 109,087
Fiscal year 2005 (0\%) ..... 0
Total deferred for year\$ $(24,494,580)$
Market value of plan net assets, end of year ..... \$ 117,258,410
Preliminary actuarial value of plan assets, end of year ..... \$ 141,752,990
Actuarial value of assets corridor
$85 \%$ of market value, end of year ..... \$ 99,669,649
$115 \%$ of market value, end of year ..... \$ 134,847,172
Allocated Share of the Expense Fund ..... \$ ..... 141,046
Final actuarial value of plan net assets, end of year (average of preliminary actuarialvalue of plan assets and $115 \%$ of market value plus allocated share of the expensefund)\$ 138,441,127
EXHIBIT XVPLAN B: PRESENT VALUE OF FUTURE CONTRIBUTIONS
Employee Contributions to the Annuity Savings Fund ..... \$ 21,769,886
Employer Normal Contributions to the Pension Accumulation Fund ..... 38,895,181
Employer Amortization Payments to the Pension Accumulation Fund ..... 4,912,541
Funding Deposit Credit Account. ..... $(1,806,555)$
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS ..... \$ 63,771,053
EXHIBIT XVI
PLAN B: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY
Prior Year Frozen Unfunded Accrued Liability ..... \$ ..... 5,183,177
Interest on Frozen Unfunded Accrued Liability ..... \$ ..... 414,654
Employer Normal Cost for Prior Year ..... 3,354,236
Interest on the Normal Cost ..... 268,339
Administrative Expenses ..... 286,675
Interest on Expenses ..... 11,247
Credit to Funding Deposit Account ..... 1,806,555
TOTAL Increases to Frozen Unfunded Accrued Liability

$\qquad$Gross Employer Contributions\$ 6,170,279
Interest on Employer Contributions ..... 242,063
Contribution Shortfall (Excess) ..... (0)
Interest on Contribution Shortfall (Excess) ..... (0)
TOTAL Decreases to Frozen Unfunded Accrued Liability ..... \$ ..... 6,412,342
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY ..... \$ ..... 4,912,541

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

Actuarial Value of Assets (June 30, 2008) ..... \$ 136,207,119
Income:
Member Contributions ..... \$ 3,129,956
Employer Contributions ..... 4,378,281
Ad Valorem Taxes ..... 1,745,066
Irregular Contributions. ..... 281,743
Revenue Sharing Funds ..... 46,932
Transfer of Funds From Plan A ..... 36,366
Total Contribution Income ..... \$ 9,618,344
Net Appreciation in Fair Value of Investments ..... \$ $(21,022,781)$
Prior Year Adjustment ..... 1,204,163
Interest and Dividend Income ..... 1,084,248
Income from Alternative Investments ..... 691,966
Securities Lending ..... 50,963
Investment Income Allocated from Expense Fund ..... 1,233
Allocated Share of Investment Expense ..... $(505,322)$
Net Investment Income\$ $(18,495,530)$
TOTAL Income ..... \$$(8,877,186)$
Expenses:
Retirement Benefits ..... \$ 6,854,518
Refunds of Contributions ..... 837,817
Funds Transferred ..... 118,507
Funds Transferred to Another System ..... 40,008
DROP Disbursements ..... 437,690
Allocated Share of Administrative Expenses ..... 297,331
Transfer to Plan A ..... 56,582
Depreciation ..... 6,275
TOTAL Expenses ..... \$ ..... 8,648,728
Net Market Income for Fiscal 2009 (Income - Expenses) ..... \$ $(17,525,914)$
Adjustment for Change in Allocated Expense Fund Balance ..... \$ ..... 16,931
Adjustment for Actuarial Smoothing ..... \$ 19,742,991
Actuarial Value of Assets (June 30, 2009) ..... \$ 138,441,127

## EXHIBIT XVIII <br> PLAN B: FUND BALANCE

Present Assets of the System Creditable to:
Annuity Savings Fund..................................................................................... \$ 20,570,181
Annuity Reserve Fund.................................................................................... 58,060,771
Pension Accumulation Fund ........................................................................... 32,772,037
Deferred Retirement Option Plan Account..................................................... 4,048,866
Funding Deposit Account .............................................................................. 1,806,555

NET MARKET VALUE OF ASSETS...................................... \$ 117,258,410
ADJUSTMENT FOR ACTUARIAL SMOOTHING ............... 21,041,671
ALLOCATION OF EXPENSE FUND ..................................... 141,046
ACTUARIAL VALUE OF ASSETS ........................................ \$ 138,441,127

## EXHIBIT XIX <br> PLAN B: PENSION BENEFIT OBLIGATION

Present Value of Credited Projected Benefits Payable to Current Employees ...... \$ 89,654,223
Present Value of Benefits Payable to Terminated Employees ............................... 3,328,571
Present Value of Benefits Payable to Current Retirees and Beneficiaries ............. 58,999,946
TOTAL PENSION BENEFIT OBLIGATION ......................... \$ 151,982,740
NET ACTUARIAL VALUE OF ASSETS ............................... \$ 138,441,127
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation ................. 91.09\%

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

1. Actuarial Value of Assets Divided by PBO as of Fiscal 1986: ..... 63.44\%
2. Amortization of Unfunded Balance over 30 years: ..... 28.03\%
Adjustments in Funded Ratio Due to Changes in Assumption(s):
Changes for Fiscal 1988 ..... 2.40\%
Changes for Fiscal 1989 ..... (2.94\%)
Changes for Fiscal 1995 ..... (1.22\%)
Changes for Fiscal 1997 ..... (3.84\%)
Changes for Fiscal 1998 ..... (3.71\%)
Changes for Fiscal 2000 ..... (2.29\%)
Changes for Fiscal 2001 ..... 1.21\%
Changes for Fiscal 2003 ..... 0.53\%
Changes for Fiscal 2005 ..... (1.12\%)
Changes for Fiscal 2006 ..... 5.18\%
Changes for Fiscal 2009 ..... 6.13\%
3. TOTAL Adjustments ..... (0.33\%)
Amortization of Adjustments in Funded Ratio over 30 years:
Changes for Fiscal 1988 ..... (1.68\%)
Changes for Fiscal 1989 ..... 1.96\%
Changes for Fiscal 1995 ..... 0.57\%
Changes for Fiscal 1997 ..... 1.54\%
Changes for Fiscal 1998 ..... 1.36\%
Changes for Fiscal 2000 ..... 0.69\%
Changes for Fiscal 2001 ..... (0.32\%)
Changes for Fiscal 2003 ..... (0.11\%)
Changes for Fiscal 2005 ..... 0.15\%
Changes for Fiscal 2006 ..... (0.52\%)
Changes for Fiscal 2009 ..... 0.00\%
4. TOTAL Amortization of Adjustments ..... 3.64\%
5. Target Ratio for Current Fiscal Year (Lesser of $1+2+3+4$ or $100 \%$ ) ..... 95.44\%
6. Actuarial Value of Assets Divided by PBO as of June 30, 2009 ..... 91.09\%

## EXHIBIT XXI <br> PLAN B - CENSUS DATA

|  | Active | Terminated with Funds on Deposit | DROP | Retired | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of members as of June 30, 2008 | 2,134 | 1,066 | 57 | 793 | 4,050 |
| Additions to Census <br> Initial membership <br> Death of another member <br> Omitted in error last year <br> Adjustment for multiple records | $366$ $2$ | 5 <br> 1 |  | 18 | 371 <br> 18 <br> (3) <br> 1 |
| Change in Status during Year <br> Actives terminating service <br> Actives who retired <br> Actives entering DROP <br> Term. members rehired <br> Term. members who retire <br> Retirees who are rehired <br> Refunded who are rehired <br> DROP participants retiring <br> DROP returned to work | (65) <br> (36) <br> (30) <br> 4 <br> 6 <br> 8 | $65$ <br> (1) <br> (4) <br> (10) <br> 2 | 31 <br> (15) <br> (8) | 36 <br> 10 <br> 15 | 8 |
| Eliminated from Census <br> Refund of contributions <br> Deaths <br> Included in error last year <br> Adjustment for multiple records <br> Moved to Plan A | (182) <br> (3) | (35) |  | (33) <br> (7) | (217) <br> (36) |
| Number of members as of June 30, 2009 | 2,204 | 1,089 | 65 | 833 | 4,191 |

PLAN B - ACTIVES CENSUS BY AGE:

| Age | Number <br> Male | Number <br> Female | Total <br> Number | Average <br> Salary | Total <br> Salary |
| :---: | :---: | :---: | :---: | :---: | ---: |
| $16-20$ | 27 | 0 | 27 | 18,483 | 499,042 |
| $21-25$ | 97 | 25 | 122 | 20,095 | $2,451,567$ |
| $26-30$ | 121 | 53 | 174 | 23,656 | $4,116,074$ |
| $31-35$ | 112 | 52 | 164 | 26,204 | $4,297,501$ |
| $36-40$ | 140 | 89 | 229 | 26,079 | $5,972,008$ |
| $41-45$ | 160 | 83 | 243 | 29,938 | $7,275,016$ |
| $46-50$ | 237 | 113 | 350 | 30,137 | $10,547,794$ |
| $51-55$ | 251 | 120 | 371 | 30,894 | $11,461,811$ |
| $56-60$ | 225 | 85 | 310 | 31,757 | $9,844,550$ |
| $61-65$ | 105 | 47 | 152 | 31,711 | $4,820,127$ |
| $66-70$ | 69 | 15 | 84 | 28,362 | $2,382,386$ |
| $71-75$ | 19 | 7 | 26 | 26,734 | 695,079 |
| $76-80$ | 11 | 6 | 0 | 11 | 32,744 |
| $81-85$ | 1,580 | 689 | 2,269 | 360,183 |  |
| TOTAL |  |  |  |  | 28,566 |

the active census includes 781 actives with vested benefits, including 65 DROP PARTICIPANTS AND 48 ACTIVE FORMER DROP PARTICIPANTS.

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

| Age | Number <br> Male | Number <br> Female | Total <br> Number | Average <br> Benefit | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | ---: |
| $36-40$ | 1 | 0 | 1 |  |  |
| $41-45$ | 5 | 1 | 6 | 519 | 7,419 |
| $46-50$ | 6 | 5 | 11 | 5,744 | 34,463 |
| $51-55$ | 16 | 9 | 25 | 7,921 | 87,127 |
| $56-60$ | 14 | 5 | 19 | 8,908 | 222,706 |
| $61-65$ | 1 | 0 | 1 | 7,464 | 141,821 |
| $66-70$ | 4 | 0 | 4 | 3,489 | 3,489 |
| TOTAL | 47 | 20 | 67 | 1,790 | 7,160 |

PLAN B - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

| Contributions <br> From <br> Ranging | TO |  | Total |  |
| ---: | ---: | ---: | :---: | :---: |
| 0 | - | 99 | Number | Contributions |

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G. S. CURRAN \& COMPANY, LTD.

PLAN B - REGULAR RETTREES:

| Age | Number <br> Male | Number <br> Female | Total <br> Number | Average <br> Benefit | Total <br> Benefit |
| ---: | :---: | :---: | :---: | :---: | ---: |
| $56-50$ | 2 | 0 | 2 | 4 | 11,445 |

DISABILITY RETIREES:

| Age | Number <br> Male |
| :---: | :---: |
| $36-40$ | 1 |
| $41-45$ | 1 |
| $46-50$ | 6 |
| $51-55$ | 7 |
| $56-60$ | 14 |
| $61-65$ | 7 |
| $66-70$ | 1 |
| $71-75$ | 2 |
| $76-80$ | 1 |
| $81-85$ | 0 |
| TOTAL | 40 |


| Number | Total | Average | Total |
| :---: | :---: | :---: | ---: |
| Female | Number | Benefit | Benefit |
| 0 | 1 | 6,872 | 6,872 |
| 0 | 1 | 7,217 | 7,217 |
| 2 | 8 | 10,852 | 86,812 |
| 1 | 8 | 8,122 | 64,972 |
| 3 | 17 | 9,138 | 155,353 |
| 2 | 9 | 7,868 | 70,816 |
| 1 | 2 | 8,755 | 17,509 |
| 1 | 3 | 6,125 | 18,375 |
| 0 | 1 | 10,484 | 10,484 |
| 1 | 1 | 4,033 | 4,033 |
| 11 | 51 | 8,675 | 442,443 |

SURVIVORS:

| Age | Number Male | Number <br> Female | Total <br> Number | Average <br> Benefit | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 31-35 | 0 | 1 | 1 | 4,280 | 4,280 |
| 41-45 | 0 | 2 | 2 | 2,500 | 4,999 |
| 46-50 | 2 | 4 | 6 | 6,835 | 41,008 |
| 51-55 | 2 | 11 | 13 | 6,732 | 87,520 |
| 56-60 | 0 | 14 | 14 | 6,083 | 85,159 |
| 61-65 | 0 | 16 | 16 | 6,600 | 105,592 |
| 66-70 | 1 | 29 | 30 | 6,082 | 182,468 |
| 71-75 | 1 | 32 | 33 | 5,633 | 185,899 |
| 76-80 | 1 | 35 | 36 | 7,004 | 252, 155 |
| 81-85 | 1 | 31 | 32 | 5,921 | 189,459 |
| 86-90 | 0 | 28 | 28 | 4,024 | 112, 661 |
| 91-99 | 0 | 6 | 6 | 1,026 | 6,157 |
| TOTAL | 8 | 209 | 217 | 5,794 | 1,257,357 |

plan b－active members：


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plan b - terminated members due a deferred retirement benefit:


PLAN B - SERVICE RETTREES:

| $\begin{gathered} \text { Attained } \\ \text { Ages } \end{gathered}$ | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| 0-50 | 1 |  |  | 1 |  |  |  |  |  |  |  | 2 |
| 51-55 |  |  | 1 | 1 |  | 2 |  |  |  |  |  | 4 |
| 56-60 | 3 | 1 | 3 | 2 | 1 | 4 |  |  |  |  |  | 14 |
| 61-65 | 33 | 16 | 16 | 10 | 4 | 13 |  |  |  |  |  | 92 |
| 66-70 | 9 | 6 | 8 | 19 | 12 | 36 | 11 | 1 |  |  |  | 102 |
| 71-75 | 5 | 8 | 5 | 2 | 7 | 60 | 51 | 5 | 2 |  |  | 145 |
| 76-80 | 3 | 1 | 3 |  | 2 | 21 | 37 | 22 | 6 |  |  | 95 |
| 81-85 | 1 |  |  | 1 |  | 2 | 4 | 26 | 25 | 2 |  | 61 |
| 86-90 |  |  | 1 |  |  | 1 | 2 | 4 | 18 | 12 |  | 38 |
| 91 \& Over |  |  |  |  |  |  |  | 1 | 2 | 6 | 3 | 12 |
| Totals | 55 | 32 | 37 | 36 | 26 | 139 | 105 | 59 | 53 | 20 | 3 | 565 |
| average annual benefits payable to service retirees: |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |  |
| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average Benefit |
| 0-50 | 13,978 |  |  | 8,911 |  |  |  |  |  |  |  | 11,445 |
| 51-55 |  |  | 25,375 | 17,853 |  | 14,337 |  |  |  |  |  | 17,975 |
| 56-60 | 14,110 | 28,820 | 21,139 | 26,666 | 18,825 | 17,252 |  |  |  |  |  | 19,695 |
| 61-65 | 10,575 | 9,754 | 15,065 | 11,979 | 10,175 | 12,772 |  |  |  |  |  | 11,659 |
| 66-70 | 9,538 | 8,492 | 8,330 | 9,090 | 9,885 | 10,031 | 11,019 | 28,894 |  |  |  | 9,863 |
| 71-75 | 7,023 | 9,170 | 9,938 | 16,860 | 10,197 | 10,137 | 9,421 | 12,647 | 2,504 |  |  | 9,794 |
| 76-80 | 3,466 | 6,812 | 6,397 |  | 4,390 | 8,145 | 8,959 | 7,638 | 14,653 |  |  | 8,460 |
| 81-85 | 11,986 |  |  | 1,192 |  | 5,532 | 5,673 | 8,160 | 8,184 | 11,995 |  | 7,995 |
| 86-90 |  |  | 4,396 |  |  | 3,699 | 4,191 | 7,883 | 6,260 | 6,058 |  | 6,142 |
| 91 \& Over |  |  |  |  |  |  |  | 12,169 | 4,886 | 4,153 | 2,830 | 4,612 |
| Average | 9,975 | 9,875 | 12,696 | 11,320 | 9,934 | 10,207 | 9,183 | 8,746 | 7,924 | 6,080 | 2,830 | 9,645 |

PLAN B - disabilitiy retirees:

| AttainedAges | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| 0-35 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 36-40 |  |  | 1 |  |  |  |  |  |  |  |  | 1 |
| 41-45 |  |  |  |  | 1 |  |  |  |  |  |  | 1 |
| 46-50 | 1 | 2 | 2 |  |  | 2 | 1 |  |  |  |  | 8 |
| 51-55 | 1 | 1 | 2 |  | 1 | 2 |  | 1 |  |  |  | 8 |
| 56-60 | 4 | 1 | 2 |  |  | 7 | 1 | 2 |  |  |  | 17 |
| 61-65 |  | 2 | 1 |  |  | 2 | 1 | 2 |  |  | 1 | 9 |
| 66-70 |  |  |  |  |  | 1 | 1 |  |  |  |  | 2 |
| 71-75 |  |  |  |  |  |  |  | 2 | 1 |  |  | 3 |
| 76-80 |  |  |  |  |  |  |  | 1 |  |  |  | 1 |
| 81-85 |  |  |  |  |  |  |  |  |  | 1 |  | 1 |
| 86 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| totals | 6 | 6 | 8 | 0 | 2 | 14 | 4 | 8 | 1 | 1 | 1 | 51 |
| plan b - average annoal benefits payable to disability retirees: |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |  |
| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average Benefit |
| 0-35 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 36-40 |  |  | 6,872 |  |  |  |  |  |  |  |  | 6,872 |
| 41-45 |  |  |  |  | 7,217 |  |  |  |  |  |  | 7,217 |
| 46-50 | 24,444 | 9,405 | 10,268 |  |  | 9,128 | 4,766 |  |  |  |  | 10,851 |
| 51-55 | 9,734 | 7,646 | 9,822 |  | 7,678 | 7,600 |  | 5,071 |  |  |  | 8,122 |
| 56-60 | 12,345 | 11,577 | 14,021 |  |  | 6,936 | 7,415 | 5,194 |  |  |  | 9,138 |
| 61-65 |  | 14,285 | 5,132 |  |  | 5,947 | 4,056 | 7,490 |  |  | 6,183 | 7,868 |
| 66-70 |  |  |  |  |  | 7,002 | 10,507 |  |  |  |  | 8,755 |
| 71-75 |  |  |  |  |  |  |  | 7,380 | 3,616 |  |  | 6,125 |
| 76-80 |  |  |  |  |  |  |  | 10,484 |  |  |  | 10,484 |
| 81-85 |  |  |  |  |  |  |  |  |  | 4,033 |  | 4,033 |
| 86 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Average | 13,926 | 11,101 | 10,028 | 0 | 7,448 | 7,207 | 6,686 | 6,960 | 3,616 | 4,033 | 6,183 | 8,675 |

PLAN B－SURVIVING BENEFICTARIES OF FORMER MEMBERS：

| Attained Ages | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5－9 | 10－14 | 15－19 | 20－24 | 25－29 | 30\＆Over | Total |
| 0－30 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 31－35 |  |  |  |  |  |  | 1 |  |  |  |  | 1 |
| 36－40 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 41－45 |  |  |  | 1 |  |  | 1 |  |  |  |  | 2 |
| 46－50 | 1 |  |  |  |  | 2 | 1 |  | 2 |  |  | 6 |
| $51-55$ | 1 |  |  | 1 | 1 | 5 |  | 4 | 1 |  |  | 13 |
| 56－60 |  | 1 | 1 |  |  | 4 | 4 | 2 |  | 2 |  | 14 |
| 61－65 |  |  |  | 3 | 1 | 6 | 4 | 2 |  |  |  | 16 |
| 66－70 |  |  | 3 | 1 | 4 | 8 | 7 | 6 | 1 |  |  | 30 |
| 71－75 |  |  |  |  | 2 | 6 | 9 | 12 | 4 |  |  | 33 |
| 76－80 |  |  | 1 |  |  | 2 | 9 | 9 | 13 | 2 |  | 36 |
| 81－85 |  |  |  | 2 |  | 2 |  | 4 | 15 | 7 | 2 | 32 |
| 86－90 |  |  |  |  |  | 1 | 1 | 1 | 4 | 9 | 12 | 28 |
| 91 \＆Over |  |  |  |  |  |  |  |  |  |  | 6 | 6 |
| Totals | 2 | 1 | 5 | 8 | 8 | 36 | 37 | 40 | 40 | 20 | 20 | 217 |


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

|  |  | Fiscal 2009 |  | Fiscal 2008 |  | Fiscal 2007 |  | Fiscal 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Active Members |  | 2,269 |  | 2,191 |  | 2,153 |  | 2,060 |
| Number of Retirees and Survivors |  | 833 |  | 793 |  | 794 |  | 763 |
| Number Terminated Due Deferred Benefits |  | 67 |  | 68 |  | 74 |  | 77 |
| Number Terminated Due Refund |  | 1,022 |  | 998 |  | 928 |  | 777 |
| Active Lives Payroll | \$ | 64,816,945 | \$ | 59,233,705 | \$ | 54,572,935 | \$ | 51,055,201 |
| Retiree Benefits in Payment | \$ | 7,149,177 | \$ | 6,625,934 | \$ | 6,328,157 | \$ | 5,872,330 |
| Market Value of Assets | \$ | 117,258,410 | \$ | 134,832,148 | \$ | 132,326,073 | \$ | 111,581,452 |
| Ratio of Actuarial Value of Assets to Actuarial Accrued Liability |  | 96.57\% |  | 96.33\% |  | 95.81\% |  | 95.13\% |
| Actuarial Accrued Liability (As defined by GASB- 25) | \$ | 143,353,668 | \$ | 141,390,296 | \$ | 129,930,047 | \$ | 117,108,583 |
| Actuarial Value of Assets | \$ | 138,441,127 | \$ | 136,207,119 | \$ | 124,483,332 | \$ | 111,404,638 |
| Unfunded Actuarial Accrued Liability | \$ | 4,912,541 | \$ | 5,183,177 | \$ | 5,446,715 | \$ | 5,703,945 |
| Present Value of Future Employer Normal Cost | \$ | 38,895,181 | \$ | 26,827,388 | \$ | 26,365,299 | \$ | 32,959,966 |
| Present Value of Future Employee Contributions | \$ | 21,769,886 | \$ | 19,992,613 | \$ | 18,627,179 | \$ | 17,883,419 |
| Funding Deposit Account Credit Balance | \$ | 1,806,555 |  | N/A |  | N/A |  | N/A |
| Present Value of Future Benefits | \$ | 202,212,180 | \$ | 188,210,297 | \$ | 174,922,525 | \$ | 167,951,968 |

Fiscal 2010 Fiscal 2009 Fiscal 2008 Fiscal 2007

| Employee Contribution Rate | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| Proj. Tax Contribution as \% of Projected Payroll | $3.06 \%$ | $2.82 \%$ | $2.60 \%$ | $2.54 \%$ |
| Actuarially Req'd Net Direct Employer Cont. Rate | $5.95 \%$ | $4.50 \%$ | $5.06 \%$ | $7.08 \%$ |
| Actual Employer Direct Contribution Rate | $6.75 \%$ | $6.75 \%$ | $6.75 \%$ | $9.75 \%$ |


|  | Fiscal 2005 |  | Fiscal 2004 |  | Fiscal 2003 |  | Fiscal 2002 |  | Fiscal 2001 |  | Fiscal 2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2,038 |  | 2,052 |  | 2,064 |  | 2,066 |  | 2,069 |  | 2,068 |
|  | 745 |  | 734 |  | 720 |  | 705 |  | 700 |  | 689 |
|  | 79 |  | 74 |  | 63 |  | 60 |  | 53 |  | 52 |
|  | 806 |  | 820 |  | 790 |  | 761 |  | 713 |  | 715 |
| \$ | 48,690,316 | \$ | 47,676,817 | \$ | 45,260,679 | \$ | 43,560,002 | \$ | 42,572,472 | \$ | 41,586,147 |
| \$ | 5,649,984 | \$ | 5,476,263 | \$ | 5,216,962 | \$ | 5,039,462 | \$ | 4,855,154 | \$ | 4,579,320 |
| \$ | 101,109,899 | \$ | 92,904,743 | \$ | 83,836,074 | \$ | 81,767,131 | \$ | 87,702,933 | \$ | 100,649,110 |
|  | 94.18\% |  | 93.51\% |  | 93.04\% |  | 92.99\% |  | 92.86\% |  | 92.73\% |
| \$ | 102,373,290 | \$ | 95,618,087 | \$ | 92,615,633 | \$ | 95,381,233 | \$ | 96,857,576 | \$ | 104,176,006 |
| \$ | 96,417,685 | \$ | 89,415,704 | \$ | 86,170,714 | \$ | 88,697,416 | \$ | 89,937,940 | \$ | 96,602,212 |
| \$ | 5,955,605 | \$ | 6,202,383 | \$ | 6,444,919 | \$ | 6,683,817 | \$ | 6,919,636 | \$ | 7,573,794 |
| \$ | 41,742,178 | \$ | 42,458,765 | \$ | 36,670,550 | \$ | 28,532,252 | \$ | 22,615,159 | \$ | 12,529,147 |
| \$ | 17,253,376 | \$ | 18,040,618 | \$ | 17,184,709 | \$ | 16,666,322 | \$ | 16,496,208 | \$ | 16,317,771 |
|  | N/A |  | N/A |  | N/A |  | N/A |  | N/A |  | N/A |
| \$ | 161,368,844 | \$ | 156,117,470 | \$ | 146,470,892 | \$ | 140,579,807 | \$ | 135,968,943 | \$ | 133,022,924 |


| Fiscal 2006 | Fiscal 2005 | Fiscal 2004 | Fiscal 2003 | Fiscal 2002 | Fiscal 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ |
| $2.36 \%$ | $2.37 \%$ | $2.28 \%$ | $2.27 \%$ | $2.18 \%$ | $2.01 \%$ |
| $9.86 \%$ | $9.72 \%$ | $9.22 \%$ | $7.53 \%$ | $6.16 \%$ | $3.68 \%$ |
| $9.75 \%$ | $9.50 \%$ | $7.75 \%$ | $6.25 \%$ | $4.50 \%$ | $4.50 \%$ |

## 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 as of June 30, 2008, 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 - Employee contributions in Plan A are 9.25\% of the member's earnings. 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.

## PLAN B PROVISIONS:

CONTRIBUTION RATES - Employee contributions in Plan B are 5.00\% of the member's earnings. 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:

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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.

## 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 on or before June 30, 2006, final average compensation is based on the average monthly earnings during the highest thirty-six consecutive months or joined months if service was interrupted. The earnings to be considered for each twelve month period within the thirty-six month period shall not exceed $125 \%$ of the preceding twelve month period.

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 thirty-six month period shall not exceed $125 \%$ 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.

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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 $2 \frac{1}{2} \%$ 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 sixtyfive 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

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interest earnings on investments. In lieu of other cost of living increases the board may grant an increase to retirees in the form " $\mathrm{X} \times(\mathrm{A} \& \mathrm{~B})$ " 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<br>Investment Earnings Rate<br>Annual Rate of Salary Increase<br>Rates of Retirement<br>Rates of Termination<br>Rates of Disability<br>Rates of Mortality<br>ACTUARIAL COST METHOD:

ACTUARIAL ASSET VALUES:

## VALUATION INTEREST RATE: <br> ANNUAL SALARY INCREASE RATE:

ANNUITANT MORTALITY:
Increase in Factor Results in
Decrease in Cost
Increase in Cost
Increase in Cost
Decrease in Cost
Increase in Cost
Decrease in Cost
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.

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.

8\% (Net of Investment Expense)
6\% (3.25\% Inflation / 2.75\% Merit)
1994 Uninsured Pensioners’ Table set forward 2 years (male mortality is based on 2 year set forward of the male table and female mortality is based on 2 year set forward of the female table)

RETIREE COST OF LIVING INCREASES:

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

RETIREMENT RATES FOR ACTIVE FORMER DROP PARTICIPANTS:

Retirement rates for active former DROP participants are as follows:

| Ages | Retirement Rates |
| :---: | :---: |
| Below 89 | 0.21 |
| 90 | 1.00 |

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

| Service |  | Plan A |  |
| :---: | :---: | :---: | :---: |
| 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 |  |
| 9 |  | 0.06 | 0.06 |
|  |  |  | 0.05 |

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| 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: $25 \%$ of the disability rates used for the $21^{\text {st }}$ 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 <br> Age | \% With <br> Children | Number of <br> Children | Average <br> Age |
| :--- | :---: | :---: | :---: |
| 25 | $62 \%$ | 1.7 | 6 <br> 35 |
| $82 \%$ | 2.1 | 10 |  |
| 45 | $66 \%$ | 1.8 | 13 |
| 55 | $19 \%$ | 1.4 | 15 |
| 65 | $2 \%$ | 1.4 | 15 |

## DISABLED LIVES MORTALITY:

VESTING ELECTING PERCENTAGE:

RP-2000 Disabled Lives Mortality Tables for Males and Females
$30 \%$ 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.

## ACTUARIAL TABLES AND RATES

| Age | Male <br> Mortality Rates | Female <br> Mortality <br> Rates | Plan A Retirement Rates | Plan B Retirement Rates | $\begin{gathered} \text { Plan A } \\ \text { DROP Entry } \\ \text { Rates } \end{gathered}$ | $\begin{gathered} \text { Plan B } \\ \text { DROP Entry } \\ \text { Rates } \end{gathered}$ | Base Disability | Remarriage Rates Rates |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | 0.00054 | 0.00031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.05665 |
| 19 | 0.00057 | 0.00031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.05665 |
| 20 | 0.00060 | 0.00031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.05665 |
| 21 | 0.00063 | 0.00031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.05213 |
| 22 | 0.00067 | 0.00031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.04834 |
| 23 | 0.00071 | 0.00031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.04522 |
| 24 | 0.00075 | 0.00032 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.04270 |
| 25 | 0.00078 | 0.00032 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.04070 |
| 26 | 0.00081 | 0.00034 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03915 |
| 27 | 0.00084 | 0.00036 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03799 |
| 28 | 0.00086 | 0.00038 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03714 |
| 29 | 0.00088 | 0.00040 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03654 |
| 30 | 0.00090 | 0.00043 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03611 |
| 31 | 0.00091 | 0.00045 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03578 |
| 32 | 0.00091 | 0.00048 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03549 |
| 33 | 0.00091 | 0.00051 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03515 |
| 34 | 0.00093 | 0.00055 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00150 | 0.03471 |
| 35 | 0.00096 | 0.00059 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00170 | 0.03409 |
| 36 | 0.00101 | 0.00064 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00190 | 0.03286 |
| 37 | 0.00107 | 0.00070 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00210 | 0.03139 |
| 38 | 0.00115 | 0.00076 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00240 | 0.02973 |
| 39 | 0.00124 | 0.00083 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00270 | 0.02787 |
| 40 | 0.00135 | 0.00089 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00310 | 0.02585 |
| 41 | 0.00145 | 0.00094 | 0.06000 | 0.00000 | 0.27000 | 0.00000 | 0.00350 | 0.02352 |
| 42 | 0.00157 | 0.00099 | 0.06000 | 0.00000 | 0.27000 | 0.00000 | 0.00390 | 0.02111 |
| 43 | 0.00170 | 0.00105 | 0.06000 | 0.00000 | 0.27000 | 0.00000 | 0.00440 | 0.01868 |
| 44 | 0.00185 | 0.00111 | 0.06000 | 0.00000 | 0.27000 | 0.00000 | 0.00500 | 0.01629 |
| 45 | 0.00204 | 0.00120 | 0.06000 | 0.00000 | 0.27000 | 0.00000 | 0.00570 | 0.01400 |
| 46 | 0.00226 | 0.00130 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.00650 | 0.01208 |
| 47 | 0.00250 | 0.00141 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.00730 | 0.01034 |
| 48 | 0.00277 | 0.00154 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.00830 | 0.00879 |
| 49 | 0.00309 | 0.00169 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.00940 | 0.00744 |
| 50 | 0.00345 | 0.00186 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.01070 | 0.00629 |
| 51 | 0.00385 | 0.00205 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.01220 | 0.00551 |
| 52 | 0.00428 | 0.00224 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.01380 | 0.00493 |
| 53 | 0.00476 | 0.00247 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.01570 | 0.00451 |
| 54 | 0.00532 | 0.00276 | 0.06000 | 0.06000 | 0.27000 | 0.19000 | 0.01780 | 0.00423 |
| 55 | 0.00600 | 0.00314 | 0.06000 | 0.36000 | 0.27000 | 0.30000 | 0.02020 | 0.00406 |
| 56 | 0.00677 | 0.00361 | 0.06000 | 0.22000 | 0.27000 | 0.30000 | 0.02300 | 0.00000 |
| 57 | 0.00762 | 0.00415 | 0.06000 | 0.22000 | 0.27000 | 0.30000 | 0.02610 | 0.00000 |
| 58 | 0.00858 | 0.00477 | 0.06000 | 0.22000 | 0.27000 | 0.30000 | 0.02960 | 0.00000 |
| 59 | 0.00966 | 0.00548 | 0.06000 | 0.22000 | 0.27000 | 0.12500 | 0.03370 | 0.00000 |
| 60 | 0.01091 | 0.00627 | 0.14000 | 0.12000 | 0.27000 | 0.12500 | 0.04880 | 0.00000 |
| 61 | 0.01233 | 0.00718 | 0.14000 | 0.12000 | 0.12000 | 0.12500 | 0.05300 | 0.00000 |
| 62 | 0.01391 | 0.00819 | 0.14000 | 0.12000 | 0.12000 | 0.12500 | 0.05780 | 0.00000 |
| 63 | 0.01563 | 0.00929 | 0.14000 | 0.12000 | 0.12000 | 0.12500 | 0.05550 | 0.00000 |
| 64 | 0.01746 | 0.01042 | 0.14000 | 0.12000 | 0.12000 | 0.12500 | 0.03510 | 0.00000 |
| 65 | 0.01939 | 0.01157 | 0.14000 | 0.12000 | 0.12000 | 0.12500 | 0.00630 | 0.00000 |

## GLOSSARY

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

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

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

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

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

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

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

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

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

Amortization Payment - That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the

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amortization payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

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

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

Employer Normal Cost - That portion of the normal cost not attributable to employee contributions. It includes both direct contributions made by the employer and contributions from other non-employee sources such as revenue sharing and revenues related to taxes.

Funded Ratio - A measure of the ratio of assets to liabilities of the system according to a specific definition of those two values. Typically the assets used in the measure are the actuarial value of assets; the liabilities are defined by reference to some recognized actuarial funding method. Thus the funded ratio of a plan depends not only on the financial strength of the plan but also on the funding method used to determine the liabilities and the asset valuation method used to determine the assets in the ratio.

Normal Cost - That portion of the actuarial present value of pension plan benefits and expenses allocated to a valuation year by the actuarial cost method. This is analogous to one year's insurance premium.

Pension Benefit Obligation - The actuarial present value of benefits earned or credited to date based on the members expected final average compensation at retirement. For current retirees or terminated members this is equivalent to the actuarial present value of their accrued benefit.

Projected Benefits - The benefits expected to be paid in the future based on the provisions of the plan and the actuarial assumptions. The projected values are based on anticipated future advancement in age and accrual of service as well as increases in salary paid to the participant.

Unfunded Actuarial Accrued Liability - The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefits - Benefits that the members are entitled to even if they withdraw from service.

## NOTES:

