# MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM 

## ACTUARIAL VALUATION AS OF JUNE 30, 2002

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

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Consulting Actuary

October 25, 2002

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 ${ }^{\prime}$ Retirement System for the fiscal year ending June 30, 2002. 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, 2003, and to provide information required for the system's financial statements. In addition, this report recommends employer contribution rates for fiscal 2004.

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.

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


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

Valuation Date:

Census Summary: | Active Members |  |
| :--- | :--- |
|  | Retirees and Beneficiaries |
|  | Terminated Due a Deferred Benefit |
|  | Terminated Due a Refund |

| June 30,2002 | June 30,2001 |
| :---: | :---: |
| 5,481 | 5,455 |
| 2,316 | 2,255 |
| 193 | 189 |
| 2,158 | 2,122 |
| $\$ 130,191,230$ | $\$ 125,304,827$ |
| $\$$ | $26,145,224$ |
| $\$$ | $\$ 7,650,205$ |
| $\$ 432,669,352$ | $\$ 24,838,273$ |
| $\$ 463,477,324$ | $\$ 6,303,626$ |
| $\$ 531,127,529$ | $\$ 447,796,046$ |
|  | $87.26 \%$ |

FISCAL 2003
FISCAL 2002

| Net Employer Normal Cost (July 1): | \$ | 12,048,989 | \$ | 8,057,287 |
| :---: | :---: | :---: | :---: | :---: |
| Amortization Cost (July 1): | \$ | 3,820,291 | \$ | 3,664,548 |
| Total Employer Actuarially Required Contribution (Including Estimated Administrative Costs): | \$ | 17,490,652 | \$ | 13,041,549 |
| Net Direct Employer Actuarially Required Contribution as a Percentage of Projected Payroll: ****************************************** |  | 10.78\% |  | $7.89 \%$ |

## Recommended Net Direct Employer Contribution Rate: For Fiscal 2004: 11.00\% For Fiscal 2003: 8.00\%

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: Fixed income securities are valued at amortized cost; common stock is valued at market value adjusted to reflect a three year smoothing of realized and unrealized capital gains. Expense fund assets were allocated to each plan in proportion to reported payroll.

Changes in Valuation Methods, Assumptions, and Amortization Periods: None
Method of Recognizing Gains and Losses: Under the Frozen Attained Age Normal Method, actuarial gains and losses are spread over future normal costs.

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



## COMMENTS ON DATA

For the valuation, the administrative director of the system furnished a census on magnetic diskette derived from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, as well as option categories and benefit amounts, was provided in like manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit X, there are 5,481 active members in Plan A of whom 2263 have vested retirement benefits including 217 participants in the Deferred Retirement Option Plan (DROP); 2,316 former Plan A members or their beneficiaries are receiving retirement benefits. An additional 2,351 Plan A members have contributions remaining on deposit with the system; of this number, 193 have vested rights for future retirement benefits. Census data on Plan B members may be found in Exhibit XXI. There are 2,066 active members in Plan B of whom 797 have vested retirement benefits including 53 participants in the Deferred Retirement Option Plan (DROP); 705 former Plan B members or their beneficiaries are receiving retirement benefits. An additional 821 Plan $B$ members have contributions remaining on deposit with the system; of this number, 60 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 $\$ 432,669,352$ as of June 30, 2002. Net investment income for fiscal 2002 measured on a market value basis for Plan A amounted to a net loss of $\$ 8,175,865$. The net market value of Plan B's assets was $\$ 81,767,131$ as of June 30, 2002. Net investment income for fiscal 2002 measured on a market value basis for Plan B amounted to a net loss of $\$ 2,353,768$.

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 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 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. 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-one through sixty-four. Assumptions for Plan A and Plan B are the same as those used for the prior fiscal year. In the aggregate the assumptions represent our "best estimate" of future long-term experience for the fund. All calculations, recommendations, and conclusions are based on the assumptions specified. To the extent that prospective experience differs from that assumed, adjustments will be required to contribution levels. Such differences will be revealed in future actuarial valuations.

## 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.

Actuarial Value
1993
1994
1995
1996
1997
1998

Market Value
10.7\%
1.0\%
13.2\%
10.6\%
14.1\%
16.4\%

|  | 1999 | 12.1\% | 8.2\% |
| :---: | :---: | :---: | :---: |
|  | 2000 | 11.0\% | 9.1\% |
|  | 2001 | 4.5\% | -4.2\% |
|  | 2002 | 1.1\% | -1.8\% |
|  |  | Actuarial Value | Market Value |
| PLAN B | 1993 | 10.8\% | 10.8\% |
|  | 1994 | 5.7\% | -0.3\% |
|  | 1995 | 9.8\% | 13.6\% |
|  | 1996 | 11.6\% | 10.5\% |
|  | 1997 | 9.2\% | 14.7\% |
|  | 1998 | 9.7\% ** | 16.2\% |
|  | 1999 | 11.7\% | 7.9\% |
|  | 2000 | 10.8\% | 8.4\% |
|  | 2001 | 4.2\% | -4.2\% |
|  | 2002 | 0.3\% | -2.8\% |

* Includes the effect of a change in methodology for determining actuarial value of assets. Prior to 1997 the values were based on market values for stocks and amortized cost for fixed income securities. In 1997, values for common stock were based on two-year smoothing of realized and unrealized capital gains.
Includes the effect of a change from two-year smoothing of realized and unrealized capital gains on common stock to a threeyear smoothing method.

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, bond amortization, and recognized capital gains as given in Exhibit VI for Plan A and Exhibit XVII for Plan B. For Fiscal 2002, it includes one-third of all realized and unrealized capital gains or losses on common stock accrued during the fiscal year and one-third of those gains or losses accrued in the prior two fiscal years. It excludes unrealized gains or losses on fixed income securities. Prior to fiscal 1998, various other methods were used to calculate the actuarial value of assets. Yields in excess of the $8 \%$ assumption will reduce future costs; yields below $8 \%$ will increase future costs. The geometric mean rate of return on an actuarial basis over the past ten years has been $8.6 \%$ for Plan A and $8.3 \%$ for Plan B. For fiscal 2002, Plan A experienced net actuarial investment earnings of $\$ 32,055,239$ less than the actuarial assumed earnings rate of $8 \%$. For Plan B, the shortfall in earnings amounted to $\$ 6,882,319$. These actuarial losses increased the normal cost accrual rate by $3.1018 \%$ and $1.8740 \%$ respectively for Plan A and B.

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. The deferral of realized and unrealized capital gains and/or losses on common stocks was the main reason for the difference between the actuarial and market rates of return. Since the actuarial value of assets uses amortized cost for fixed income securities, this measure excludes the effect of unrealized capital gains (losses) on the fixed income investments. Also, the allocation of expense fund assets and income to both Plan A and Plan B produces an additional very small difference between the actuarial and market
rates of return. During 2002, the fund earned $\$ 17,739,452$ of dividends and interest for Plan A and $\$ 3,259,255$ for Plan B. This income was offset by realized and unrealized capital losses of $\$ 24,467,075$ for Plan A and $\$ 5,305,866$ for Plan B and investment expenses of $\$ 1,448,242$ for Plan A and $\$ 307,157$ for Plan B. The geometric mean of the market value rates of return measured over the last ten years was $7.5 \%$ for Plan A and $7.2 \%$ for Plan B.

At the end of fiscal 2001, an exchange of assets and liabilities was made between the Plan A and Plan B trust funds in accordance with provisions of R.S. 11: 1862(F). For fiscal 2002, we identified nineteen additional members, including sixteen from the Town of Ball, who had changed plans. Three individuals changed plans as a result of a change in employment, while the Town of Ball left membership in Plan B to become members of Plan A. In order to properly assign liabilities to the plan in which they are currently contributing we recommend a transfer of assets of $\$ 366,860$ for these individuals from Plan B to Plan A (adjusted with 8\% interest from June 30, 2002 to the date of the transfer). The actuarial and market value of assets for Plan A and Plan B reflect the receivables and payables related to the transfer of these assets.

## PLAN A - DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the Plan is given in Exhibit X. The Plan's active membership increased slightly during the fiscal year with a population increase of 26 members. This is a modest deviation from the recent past. The plan had experienced a decline in the active plan population of 399 members between 1997 and 2002. 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-forty age group has decreased while the proportion of active members over-forty increased. Over the same ten-year period the plan showed a slight decrease in the percentage of members with service less than ten years; the percentage of members with service over fifteen years has increased. These trends are indicative of a maturing population. The number of retirees and beneficiaries receiving benefits from the system increased by 61 during the fiscal year and by 271 over the last five years.

Plan liability experience for fiscal 2002 was slightly favorable. There was no one significant factor affecting liability experience. Salary increases and disability retirements were slightly less than projections. Both of these elements reduced costs. An excess of actual retiree deaths over projections further reduced costs. Retirements and DROP entries were above projected levels, partially offsetting the cost reduction. Withdrawals from service were at projected levels. Plan liability gains reduced the normal cost accrual rate by $0.1558 \%$.

## PLAN B - DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the Plan is given in Exhibit XXI. The Plan's active membership decreased during the fiscal year with a population decrease of three members over the last year. Over the last five years the active population increased by ten members. The number of retirees and
beneficiaries receiving benefits from the system increased by five. Over the last five years this group increased by 54 .

A review of the active census by age indicates that over the last ten years the population in the under-forty age group has decreased while the proportion of active members over-forty increased. Over the same ten-year period the system showed a slight decrease in the percentage of members with service less than ten years and the corresponding increase in the percentage of members with service over ten years. These trends are indicative of a maturing population.

Plan liability experience for fiscal 2002 was favorable. The most significant factors reducing costs were related to salary increases below projections, withdrawals above projected levels, and retiree deaths above projections. In addition, rates of retirement and disability below projections further reduced costs. The number of DROP entries were at projected levels. Plan liability gains reduced the normal cost accrual rate by $0.3725 \%$.

## 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.

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 2003 as of July 1, 2002, is $\$ 12,048,989$. The amortization payment on the plan's frozen unfunded actuarial accrued liability as of July 1, 2002, is $\$ 3,820,291$. 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 14 of Exhibit I, the total actuarially required contribution for fiscal 2003 is
$\$ 17,490,652$. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for fiscal 2003 is $\$ 14,438,244$. This is $10.78 \%$ of the projected Plan A payroll for fiscal 2003.

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 2002
6.7243\%

Factors Increasing the Normal Cost Accrual Rate:
Asset Experience $\quad 3.1018 \%$
Contribution Shortfall 0.0741\%
New Members 0.0109\%
Factors Decreasing the Normal Cost Accrual Rate:
Liability Experience
-0.1558\%
Normal Cost Accrual Rate - Fiscal 2003
9.7553\%

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 2003 as of July 1, 2002, is $\$ 3,202,523$. The amortization payment on the plan's frozen unfunded actuarial accrued liability as of July 1,2002 , is $\$ 716,299$. 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 14 of Exhibit XII, the total actuarially required contribution for fiscal 2003 is $\$ 4,406,746$. When this amount is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for fiscal 2003 is $\$ 3,385,457$. This is $7.53 \%$ of the projected Plan B payroll for fiscal 2003.

The effects of various factors on the cost structure for Plan B are outlined below:
Normal Cost Accrual Rate - Fiscal 2002
6.2336 \%

Factors Increasing the Normal Cost Accrual Rate:

| Asset Experience | $1.8740 \%$ |
| :--- | :--- |
| Contribution Shortfall | $0.1555 \%$ |

Factors Decreasing the Normal Cost Accrual Rate:
Liability Experience . $-0.3725 \%$
New Members -0.1214\%
Normal Cost Accrual Rate - Fiscal 2003
7.7692\%

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 2003, the net effect of the change in payroll on amortization costs was to increase such costs by $0.02 \%$ of payroll for Plan A and reduce costs $0.07 \%$ of payroll for Plan B. Required net direct employer contributions are also affected by the available ad valorem taxes and revenue sharing funds which the system receives each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. We estimate that for Plan A these funds collected in fiscal 2003 will increase by $0.11 \%$ of payroll; in Plan B the corresponding increase is $0.09 \%$. Although the actuarially required net direct employer contribution rate for Plan A for fiscal 2003 is $10.78 \%$, the actual employer contribution rate for fiscal 2003 is $8.00 \%$ of payroll. After giving consideration to the expected shortfall in contributions collected in fiscal 2003, as detailed in Exhibit I, we recommend a net direct employer contribution of $11.00 \%$ of payroll for Plan A during fiscal 2004. Although the actuarially required net direct employer contribution rate in Plan B is $7.53 \%$, the actual employer contribution rate for fiscal 2003 is $6.25 \%$ of payroll. After giving consideration to the expected contribution shortfall in fiscal 2003, as detailed in Exhibit XII, we recommend a net direct employer contribution of $7.75 \%$ of payroll for Plan B during fiscal 2004.

## COST OF LIVING INCREASES

During fiscal 2002 the actual cost of living (as measured by the US Department of Labor CPI-U) increased by $1.07 \%$. 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 2002 both Plan A and Plan B have met the necessary target ratio, but plan investment experience was below assumptions. Since COLAs can only be paid out of investment income in excess of the $8 \%$ assumption, the plan is unable to fund any cost of living increase for the fiscal year.

# Plan A - Components of Present Value of Future Benefits June 30, 2002 



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 Actuarial Value of Assets)



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


- 14 -
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## Plan B - Components of Present Value of Future Benefits June 30, 2002



Plan B - Components of Present Value of Future Benefits


## Plan B - Components of Actuarial Funding



## Plan B - Frozen Unfunded Accrued Liability


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


Plan B - Historical Asset Yield

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Plan B - Net Non-Investment Income


## Plan B - Total Income vs. Expenses

(Based on Actuarial Value of Assets)


# Plan B - Active - Census By Age <br> (as a percent) 



Plan B-Active - Census By Service

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## Plan A Exhibits

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

1. Present Value of Future Benefits ..... \$ 715,846,307
2. Frozen Unfunded Actuarial Accrued Liability ..... 67,650,205
3. Actuarial Value of Assets ..... 463,477,324
4. Present Value of Future Employee Contributions ..... 83,902,996
5. Present Value of Future Employer Normal Costs (1-2-3-4) ..... 100,815,782
6. Present Value of Future Salaries ..... \$1,033,448,988
7. Employer Normal Cost Accrual Rate $(5 \div 6)$ ..... 9.755274\%
8. Projected Fiscal 2003 Salary for Current Membership ..... \$ 123,512,563
9. Employer Normal Cost as of July 1, $2002(7 \times 8)$ ..... $\$ 12,048,989$
10. Amortization Payment on Frozen Unfunded Accrued Liability of $\$ 67,650,205$ over 27 remaining years with Payments increasing at $4.25 \%$ per year ..... 3,820,291
11. Total Employer Normal Cost \& Amortization Payment $(9+10)$ ..... $\$ 15,869,280$
12. Employer Normal Cost and Amortization Payment Interest Adjusted for Midyear Payment ..... \$ 16,491,839
13. Estimated Administrative Cost for Fiscal 2003 ..... \$ ..... 998,813
14. Gross Employer Actuarially Required Contribution for Fiscal $2003(12+13)$ ..... \$ 17,490,652
15. Projected Tax Contributions for Fiscal 2003 ..... \$ 2,930,739
16. Projected Revenue Sharing Funds for Fiscal 2003 ..... \$ ..... 121,669
17. Net Direct Employer Actuarially Required Contribution for Fiscal 2003 (14-15-16) ..... \$ 14,438,244
18. Projected Payroll (July 1, 2002 through June 30, 2003) ..... \$ 133,964,826
19. Net Direct Employer Actuarially Required Contribution as a \% of Projected Payroll for Fiscal $2003(17 \div 18)$ ..... 10.78\%
20. Actual Employer Contribution Rate for Fiscal 2003 ..... 8.00\%
21. Contribution Gain (Loss) as a Percentage of Payroll (20-19) ..... (2.78\%)
22. Adjustment to Following Year Payment for Contribution Gain (Loss) ..... (0.33\%)
23. Recommended Net Direct Employer Contribution Rate for 2004 (19-22) (Rounded to nearest .25\%) ..... 11.00\%

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

Present Value of Future Benefits for Active Members:
Retirement Benefits ..... \$ 425,379,049
Survivor Benefits ..... 14,058,106
Disability Benefits ..... 16,243,850
Vested Deferred Termination Benefits ..... 17,460,546
Contribution Refunds ..... 12,810,344
TOTAL Present Value of Future Benefits for Active Members ..... \$ 485,951,895
Present Value of Future Benefits for Terminated Members:
Terminated Vested Members Due Benefits at Retirement.. \$ ..... 6,763,755
Terminated Members with Reciprocals
Due Benefits at Retirement ..... 1,181,829
Terminated Members Due a Refund ..... 1,047,885
TOTAL Present Value of Future Benefits for Terminated Members ..... \$
8,993,469
Present Value of Future Benefits for Retirees:
Regular Retirees ..... \$ 171,128,783
Disability Retirees ..... 16,111,573
Survivors \& Widows ..... $31,027,815$
Reserve for Accrued Retiree DROP Account Balances ..... 2,632,772
TOTAL Present Value of Future Benefits for Retirees \& Survivors. ..... \$ 220,900,943
TOTAL Present Value of Future Benefits ..... \$ 715,846,307

## EXHIBIT III <br> PLAN A: ACTUARIAL VALUE OF ASSETS

Current Assets:
Cash ..... \$ 2,589,981
Contributions Receivable from Members ..... 2,861,426
Contributions Receivable from Employers ..... 2,281,976
Accrued Interest and Dividends on Investments ..... 3,166,898
Investment Receivable ..... 1,214,740
Due From Other Funds ..... 751,513
Due From Plan B ..... 5,517
TOTAL CURRENT ASSETS ..... \$ $12,872,051$
Allocated Share of the Expense Fund ..... \$ ..... 2,030,689
Property Plant \& Equipment ..... \$ ..... 576,717
Investments:
Common Stock ..... \$ 146,573,357
Corporate Bonds ..... 102,945,890
Federal National Mortgage Corporation ..... 84,766,240
International Equities ..... 32,045,810
Federal Home Loan Mortgage Corporation ..... 20,635,866
Government National Mortgage Association ..... 10,173,665
U.S. Treasury Notes, Bonds and Bills ..... 11,044,115
Cash Equivalents ..... 5,835,311
Deferred Capital Losses on Common stock ..... 35,497,784
TOTAL INVESTMENTS ..... \$ 449,518,038
TOTAL ASSETS ..... \$ 464,997,495
Current Liabilities:
Investment Payable ..... \$ 1,074,911
Accounts Payable ..... 197,000
Refunds Payable ..... 248,260
TOTAL CURRENT LIABILITIES ..... \$ 1,520,171
ACTUARIAL VALUE OF ASSETS ..... \$ 463,477,324
EXHIBIT IVPLAN A: PRESENT VALUE OF FUTURE CONTRIBUTIONS
Employee Contributions to the Annuity Savings Fund ..... \$ 83,902,996
Employer Normal Contributions to the Pension Accumulation Fund ..... $100,815,782$
Employer Amortization Payments to the Pension Accumulation Fund ..... $67,650,205$
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS ..... \$252,368,983
EXHIBIT V
PLAN A: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY
Prior Year Frozen Unfunded Accrued Liability\$ 66,303,626
Interest on Frozen Unfunded Accrued Liability ..... \$ 5,304,290
Employer Normal Cost for Prior Year ..... 8,057,287
Interest on the Normal Cost ..... 644,583
Administrative Expenses ..... 612,373
Interest on Expenses ..... 24,024
TOTAL Increases to Frozen Unfunded Accrued Liability ..... \$ 14,642,557
Gross Regular Employer Contributions ..... \$ 12,016,257
Interest on Employer Contributions ..... 471,404
Contribution Shortfall (Excess) ..... 777,804
Interest on Contribution Shortfall (Excess) ..... 30,513
TOTAL Decreases to Frozen Unfunded Accrued Liability ..... \$ 13,295,978
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY ..... \$ 67,650,205

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

Actuarial Value of Assets (June 30, 2001) ..... \$
Income:
Member Contributions ..... \$ 11,578,113
Employer Contributions ..... 9,286,279
Ad Valorem Taxes ..... 2,619,951
Revenue Sharing Funds ..... 110,027
Irregular Contributions. ..... 1,081,743
Transfer of Funds From Plan B ..... 366,860
Total Contribution Income ..... \$
$25,042,973$
Interest and Dividend Income ..... \$ 17,805,311
Recognized Realized Capital Gains (Losses) ..... 6,520,580
Recognized Unrealized Capital Gains (Losses) ..... $(21,392,454)$
Realized Gains (Losses) on Fixed Income Securities . ..... 3,533,945
Bond Amortization Income (Expense) ..... $(108,405)$
Investment Expense ..... $(1,455,735)$
Net Investment Income ..... \$4,903,242
TOTAL Income ..... \$ ..... 29,946,215
Expenses:
Retirement Benefits ..... \$ ..... 25,578,771
Funds Transferred to Another System ..... 175,855
Refunds of Contributions ..... 3,146,463
DROP Disbursements ..... 2,255,945
Administrative Expenses ..... 612,373
TOTAL Expenses ..... \$ ..... 31,769,407.
Net Income for Fiscal 2002 (Income - Expenses) ..... \$ ..... $(1,823,192)$
Unadjusted Fund Balance as of June 30, 2002 ..... \$ 463,436,152
Adjustment for Change in Allocated Expense Fund Balance ..... \$ ..... 41,172
Actuarial Value of Assets (June 30, 2002) ..... \$ ..... $463,477,324$

## EXHIBIT VII <br> PLAN A: FUND BALANCE

Present Assets of the System Creditable to:
Annuity Savings Fund ..... \$ ..... 86,626,377
Annuity Reserve Fund. ..... 218,268,171
Pension Accumulation Fund ..... $116,016,525$
Deferred Retirement Option Plan Account ..... 11,758,279
NET MARKET VALUE OF ASSETS ..... \$ 432,669,352
ADJUSTMENT FOR DEFERRAL OF REALIZED AND UNREALIZED CAPITAL GAINS ON COMMON STOCK ..... 35,497,784
ADJUSTMENT FOR UNRECOGNIZED CHANGE IN VALUE OF FIXED INCOME SECURITIES ..... $(6,720,501)$
ALLOCATED SHARE OF THE EXPENSE FUND ..... 2,030,689
ACTUARIAL VALUE OF ASSETS. ..... \$ 463,477,324
EXHIBIT VIII
PLAN A: PENSION BENEFIT OBLIGATION
Present Value of Credited Projected Benefits Payable to Current Employees ... \$ ..... $312,327,484$
Present Value of Benefits Payable to Terminated Employees ..... $8,993,469$
Present Value of Benefits Payable to Current Retirees and Beneficiaries ..... $220,900,943$
TOTAL PENSION BENEFIT OBLIGATION ..... 542,221,896

## 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: ..... 18.64\%
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)\%
3. TOTAL Adjustments ..... (6.81\%)
Amortization of Adjustments in Funded Ratio over 30 years:
Changes for Fiscal 1988 ..... (2.32)\%
Changes for Fiscal 1989 ..... 0.86\%
Changes for Fiscal 1995 ..... 0.32\%
Changes for Fiscal 1997 ..... 0.57\%
Changes for Fiscal 1998 ..... 0.48\%
Changes for Fiscal 2000 ..... 0.09\%
4. TOTAL Amortization of Adjustments ..... $0.00 \%$
5. Target Ratio for Current Fiscal Year (Lesser of $1+2+3+4$ or $100 \%$ ) ..... $76.88 \%$
6. Actuarial Value of Assets Divided by PBO as of June 30, 2002 ..... 85.48\%

EXHIBIT X
PLAN A: CENSUS DATA

|  | Active | Terminated with Funds on Deposit | DROP | Retired | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of members as of June 30, 2001 | 5,234 | 2,311 | 221 | 2,255 | 10,021 |
| Additions to Census <br> Initial membership <br> Death of another member Omitted in error last year | $\begin{array}{r} 592 \\ (5) \end{array}$ | $35$ $1$ | (2) | 7 4 | 627 5 |
| 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 <br> Omitted in error last year | (121) <br> (78) <br> (73) <br> 31 <br> 30 <br> 25 | 121 <br> (31) <br> (7) <br> 29 | 73 <br> (50) <br> (25) | 78 7 70 | 59 |
| Eliminated from Census <br> Refund of contributions <br> Deaths <br> Included in error last year <br> Adjustment for multiple records | (363) <br> (8) | (108) <br> (1) <br> 1 |  | (83) <br> (2) | (471) <br> (92) <br> (1) |
| Number of members as of June 30, 2002 | 5,264 | 2,351 | 217 | 2,316 | 10,148 |

PLAN A - ACTIVES CENSUS BY AGE:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Salary | $\begin{aligned} & \text { Total } \\ & \text { Salary } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16-20 | 36 | 4 | 40 | 12,963 | 518,507 |
| 21-25 | 202 | 64 | 266 | 15,869 | 4,221,156 |
| 26-30 | 230 | 106 | 336 | 19,444 | 6,533,217 |
| 31-35 | 369 | 162 | 531 | 22,153 | 11, 763,247 |
| 36-40 | 461 | 235 | 696 | 23,009 | 16,014,157 |
| 41-45 | 553 | 330 | 883 | 25,220 | 22,269,180 |
| 46-50 | 620 | 298 | 918 | 26,142 | 23,998, 121 |
| 51-55 | 483 | 221 | 704 | 26,037 | 18,330,342 |
| 56-60 | 398 | 171 | 569 | 24,377 | 13,870,414 |
| 61-65 | 244 | 94 | 338 | 24,601 | 8,315,295 |
| 66-70 | 89 | 36 | 125 | 22,749 | 2,843,626 |
| 71-75 | 39 | 9 | 48 | 20,426 | 980,456 |
| 76-80 | 18 | 3 | 21 | 19,642 | 412,489 |
| 81-85 | 4 | 0 | 4 | 24,423 | 97,692 |
| 86-90 | 2 | 0 | 2 | 11,666 | 23,331 |
| TOTAL | 3,748 | 1,733 | 5,481 | 23,753 | 130,191,230 |

THE ACTIVE CENSUS INCLUDES 2, 263 ACTIVES WITH VESTED BENEFITS, INCLUDING 217 DROP PARTICIPANTS AND 83 ACTIVE FORMER DROP PARTICIPANTS.

PLAN A - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

| Age | Number <br> Male | Number | Total | Average | Total |
| :---: | :---: | :---: | :---: | :---: | ---: |
| $31-35$ | 1 | 2 | 2 | Number | Benefit |

plian a - terminated members due a refund of contributions:

| Contributions Ranging |  | Total |  |
| ---: | ---: | ---: | :---: |
| From | To | Number | Contributions |
| 0 | - | 99 | 1,536 |

PLAN A - REGULAR RETIREES:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Benefit | Total Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 36-40 | 2 | 0 | 2 | 14,215 | 28,430 |
| 41-45 | 5 | 3 | 8 | 12,319 | 98,553 |
| 46-50 | 9 | 5 | 14 | 17,336 | 242,702 |
| 51-55 | 44 | 11 | 55 | 20,247 | 1,113,580 |
| 56-60 | 74 | 16 | 90 | 20,336 | 1,830,241 |
| 61-65 | 218 | 63 | 281 | 15,119 | 4,248,497 |
| 66-70 | 279 | 65 | 344 | 13,718 | 4,719,008 |
| 71-75 | 244 | 69 | 313 | 12,045 | 3,770,058 |
| 76-80 | 190 | 59 | 249 | 10,483 | 2,610,150 |
| 81-85 | 108 | 37 | 145 | 9,307 | 1,349,479 |
| 86-90 | 56 | 10 | 66 | 7,063 | 466,185 |
| 91-99 | 13 | 5 | 18 | 5,309 | 95,553 |
| TOTAL | 1,242 | 343 | 1,585 | 12,979 | 20,572,436 |

PLAN A - DISABILITY RETIREES:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Benefit | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26-30 | 1 | 0 | 1 | 8,208 | 8,208 |
| 31-35 | 1 | 0 | 1 | 12,062 | 12,062 |
| 36-40 | 7 | 2 | 9 | 8,329 | 74,957 |
| 41-45 | 11 | 3 | 14 | 8,741 | 122,372 |
| 46-50 | 29 | 5 | 34 | 9,074 | 308,521 |
| 51-55 | 35 | 4 | 39 | 10,303 | 401,828 |
| 56-60 | 24 | 12 | 36 | 9,142 | 329,099 |
| 61-65 | 21 | 2 | 23 | 7,806 | 179,546 |
| 66-70 | 12 | 2 | 14 | 7,337 | 102, 719 |
| 71-75 | 11 | 3 | 14 | 4,737 | 66,316 |
| 76-80 | 10 | 1 | 11 | 5,074 | 55,817 |
| 81-85 | 2 | 0 | 2 | 8,411 | 16,822 |
| 91-99 | 0 | 1 | 1 | 1,437 | 1,437 |
| TOTAL | 164 | 35 | 199 | 8,441 | 1,679,704 |

PLAN A - SURVIVORS:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Benefit | $\begin{gathered} \text { Total } \\ \text { Benefit } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0-25 | 0 | 5 | 5 | 7,821 | 39,103 |
| 26-30 | 0 | 1 | 1 | 7,042 | 7,042 |
| 31-35 | 1 | 1 | 2 | 2,676 | 5,351 |
| 36-40 | 3 | 8 | 11 | 7,470 | 82,168 |
| 41-45 | 0 | 12 | 12 | 7,774 | 93,288 |
| 46-50 | 4 | 19 | 23 | 8,408 | 193,384 |
| 51-55 | 0 | 25 | 25 | 5,830 | 145,754 |
| 56-60 | 2 | 35 | 37 | 9,615 | 355, 772 |
| 61-65 | 3 | 56 | 59 | 8,483 | 500,504 |
| 66-70 | 1 | 66 | 67 | 6,880 | 460,978 |
| 71-75 | 5 | 83 | 88 | 8,968 | 789,158 |
| 76-80 | 6 | 61 | 67 | 7,893 | 528, 846 |
| 81-85 | 3 | 75 | 78 | 5,718 | 446,022 |
| 86-90 | 0 | 40 | 40 | 4,415 | 176,619 |
| 91-99 | 2 | 15 | 17 | 4,064 | 69,094 |
| TOTAL | 30 | 502 | - $0^{3} \mathbf{3}$ | 7,318 | 3,893,083 |

G. S. CURRAN \& COMPANY, LTD.

PLAN A - ACTIVE MEMBERS:
Completed Years of Service

|  | Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 308Over | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-20 | 33 | 6 | 1 |  |  |  |  |  |  |  |  | 40 |
|  | 21-25 | 114 | 82 | 30 | 25 | 8 | 7 |  |  |  |  |  | 266 |
|  | 26-30 | 76 | 54 | 48 | 35 | 31 | 86 | 6 |  |  |  |  | 336 |
|  | 31-35 | 79 | 69 | 47 | 39 | 41 | 158 | 94 | 4 |  |  |  | 531 |
|  | 36-40 | 63 | 65 | 62 | 46 | 28 | 175 | 150 | 82 | 25 |  |  | 696 |
|  | 41-45 | 70 | 59 | 50 | 48 | 42 | 196 | 148 | 116 | 141 | 13 |  | 883 |
|  | 46-50 | 72 | 49 | 41 | 52 | 34 | 179 | 163 | 115 | 144 | 62 | 7 | 918 |
| 9 | 51-55 | 48 | 41 | 35 | 34 | 19 | 142 | 131 | 91 | 93 | 55 | 15 | 704 |
| 0 | 56-60 | 30 | 35 | 28 | 26 | 20 | 128 | 97 | 89 | 62 | 38 | 16 | 569 |
|  | 61-65 | 12 | 14 | 10 | 12 | 12 | 72 | 75 | 58 | 35 | 20 | 18 | 338 |
| Q | 66-70 | 5 | 4 | 9 | 5 | 2 | 37 | 22 | 15 | 8 | 11 | 7 | 125 |
| E | 71 \& Over | 1 | 4 | 4 | 3 | 1 | 26 | 6 | 9 | 6 | 10 | 5 | 75 |
| 5 | Totals | 603 | 482 | 365 | 325 | 238 | 1206 | 892 | 579 | 514 | 209 | 68 | 5481 |
|  | PLAN A - AV | rage an | ALL SALA | OF ACT | E MEMBE |  |  |  | $\cdots$ |  |  |  |  |
| 3 |  | Completed Years of Service |  |  |  |  |  |  |  |  |  |  |  |
| $D$ | Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 3080vex | Average Salayy |
|  | 0-20 |  |  |  |  |  |  |  | . |  |  |  | 12,963 |
|  | 21-25 | 14,371 | 16,103 | 17,511 | 17,509 | 18,958 | 21,096 |  |  |  |  |  | 15,869 |
| 8 | 26-30 | 15,942 | 19,500 | 19,281 | 18,920 | 19,838 | 22,062 | 28,108 |  |  |  |  | 19,444 |
|  | 31-35 | 16,889 | 20,449 | 20,941 | 20,185 | 21,631 | 23,804 | 26,646 | 23,496 |  |  |  | 22,153 |
|  | 36-40 | 16,933 | 17,781 | 19,805 | 19,377 | 21,144 | 22,039 | 27,609 | 29,202 | 27,508 |  |  | 23,009 |
|  | 41-45 | 17,667 | 20,053 | 19,187 | 21,642 | 20,074 | 24,315 | 25,810 | 30,427 | 31,369 | 36,158 |  | 25,220 |
|  | 46-50 | 18,775 | 19,148 | 19,293 | 23,789 | 22,090 | 22,737 | 26,731 | 30,532 | 32,644 | 33,134 | 33,649 | 26,142 |
|  | 51-55 | 16,433 | 20,003 | 19,800 | 23,035 | 23,137 | 22,859 | 26,512 | 28,733 | 32,560 | 35,455 | 32,927 | 26,037 |
|  | 56-60 | 17,919 | 21,041 | 21,617 | 20,674 | 19,853 | 21,962 | 23,022 | 28,028 | 29,707 | 30,917 | 31,320 | 24,377 |
|  | 61-65 | 15,525 | 19,308 | 21,577 | 21,452 | 26,110 | 21,428 | 23,255 | 26,592 | 28,428 | 35,451 | 29,935 | 24,601 |
|  | 66-70 | 22,574 | 18,768 | 19,209 | 36,659 | 15,618 | 20,314 | 20,764 | 22,210 | 24,393 | 28,583 | 31,019 | 22,749 |
|  | 71 \& Over | 59,775 | 17,005 | 15,092 | 27,285 | 12,155 | 13,764 | 16,858 | 27,305 | 31,981 | 23,510 | 20,009 | 20,186 |
|  | Average | 16,491 | 18,907 | 19,666 | 21,223 | 21,147 | 22,560 | 25,785 | 28,986 | 31,252 | 33,051 | 30,685 | 23,753 |

PLAN A - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

plan a - SERVICE RETIREES:
Completed Years Since Retirement

|  | Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 3080ver | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-50 | 12 | 3 | 8 |  | 1 |  |  |  |  |  |  | 24 |
|  | 51-55 | 17 | 12 | 16 | 3 | 5 | 1 | 1 |  |  |  |  | 55 |
|  | 56-60 | 29 | 13 | 8 | 10 | 10 | 16 | 4 |  |  |  |  | 90 |
|  | 61-65 | 49 | 41 | 35 | 28 | 25 | 66 | 28 | 6 | 2 | 1 |  | 281 |
|  | 66-70 | 9 | 22 | 27 | 34 | 20 | 139 | 59 | 31 | 2 | 1 |  | 344 |
|  | 71-75 | 5 | 4 | 12 | 11 | 12 | 99 | 113 | 45 | 12 |  |  | 313 |
| 0 | 76-80 |  | 2 | 1 | 4 | 3 | 23 | 97 | 97 | 22 |  |  | 249 |
| 0 | 81-85 |  | 2 | 1 | 1 |  | 5 | 15 | 61 | 52 | 8 |  | 145 |
| - | 86-90 |  | 1 |  | 1 |  | 2 | 4 | 10 | 34 | 14 |  | 66 |
| ( | 91 \& Over |  |  |  |  |  |  | 1 | 1 | 2 | 12 | 2 | 18 |
| 0 | Totals | 121 | 100 | 108 | 92 | 76 | 351 | 322 | 251 | 126 | 36 | 2 | 1585 |

plan a - average annual benefits payable to service retirees:

|  | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 3080vex | Average Benefit |
| 0-50 | 14,286 | 15,908 | 18,155 |  | 5,287 |  |  |  |  |  |  | 15,404 |
| 51-55 | 18,188 | 17,265 | 22,653 | 26,352 | 24,966 | 23,754 | 7,109 |  |  |  |  | 20,247 |
| 56-60 | 18,096 | 23,224 | 22,950 | 17,265 | 27,225 | 20,689 | 11,004 |  |  |  |  | 20,336 |
| 61-65 | 12,344 | 13,342 | 11,893 | 15,771 | 16,536 | 18,047 | 19,321 | 12,026 | 8,383 | 4,374 |  | 15,119 |
| 66-70 | 12,806 | 8,638 | 9,830 | 10,542 | 12,297 | 12,820 | 19,132 | 19,605 | 10,773 | 3,954 |  | 13,718 |
| 71-75 | 10,167 | 7,313 | 10,694 | 10,436 | 10,821 | 11,183 | 11,541 | 15,370 | 17,839 |  |  | 12,045 |
| 76-80 |  | 7,674 | 3,551 | 5,444 | 10,846 | 8,915 | 11,268 | 10,061 | 11,956 |  |  | 10,483 |
| 81-85 |  | 12,875 | 11,398 | 7,126 |  | 11,486 | 14,501 | 8,434 | 8,658 | 8,195 |  | 9,307 |
| 86-90 |  | 3,447 |  | 23,837 |  | 3,890 | 9,350 | 7,719 | 7,128 | 5,299 |  | 7,063 |
| 91 \& Ovex |  |  |  |  |  |  | 7,343 | 2,233 | 14,671 | 4,521 | 1,193 | 5,309 |
| Average | 14,680 | 13,677 | 14,039 | 13,253 | 16,106 | 13,405 | 13,603 | 11,719 | 9,820 | 5,620 | 1,193 | 12,979 |

PLAN A - DISABILITY RETIREES:
Completed Years Since Retirement

|  | Ages | 0 | 1 | 2 | 3 | 4. | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-30 |  |  | 1 |  |  |  |  |  |  |  |  | 1 |
|  | 31-35 |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
|  | 36-40 |  | 1 |  | 1 |  | 7 |  |  |  |  |  | 9 |
|  | 41-45 | 4 | 1 | 1 | 2 |  | 4 | 2 |  |  |  |  | 14 |
|  | 46-50 | 5 | 2 | 3 | 3 | 6 | 9 | 5 | 1 |  |  |  | 34 |
|  | 51-55 | 1 | 6 | 4 | 4 | 2 | 13 | 6 | 2 | 1 |  |  | 39 |
|  | 56-60 | 5 | 4 | 3 | 3 |  | 12 | 4 | 2 | 3 |  |  | 36 |
|  | 61-65 |  | 2 | 1 |  |  | 11 | 3 | 1 | 4 | 1 |  | 23 |
| 0 | 66-70 |  |  |  |  | 1 | 5 | 4 | 3 | 1 |  |  | 14 |
| 0 | 71-75 |  |  |  |  | 1 | 5 | 3 | 2 | 1 | 2 |  | 14 |
|  | 76-80 |  |  | 1 | 1 |  | 1 | 2 | 1 | 1 | 3 | 1 | 11 |
| $Q$ | 81-85 |  |  |  |  |  |  |  | 1 | 1 |  |  | 2 |
| E | $86-90$ |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 0 | 91 \& Over |  |  |  |  |  |  |  |  |  |  | 1 | 1 |
| $\frac{8}{7}$ | Totals | 15 | 16 | 14 | 14 | 10 | 68 | 29 | 13 | 12 | 6 | 2 | 199 |

plan a - average annual 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 <br> Benefit |
| 0-30 |  |  | 8,208 |  |  |  |  |  |  |  |  | 8,208 |
| 31-35 |  |  |  |  |  | 12.062 |  |  |  |  |  | 12,062 |
| 36-40 |  | 5,568 |  | 14,175 |  | 7,888 |  |  |  |  |  | 8,329 |
| 41-45 | 8,999 | 7,384 | 15,410 | 8,388 |  | 8,913 | 5,577 |  |  |  |  | 8,741 |
| 46-50 | 10,226 | 8,886 | 6,657 | 11,030 | 7,803 | 10,026 | 8,690 | 6,060 |  |  |  | 9,074 |
| 51-55 | 6,031 | 9,928 | 11,575 | 12,970 | 10,662 | 12,117 | 7,045 | 7,128 | 2,686 |  |  | 10,303 |
| 56-60 | 7,829 | 12,211 | 6,656 | 8,034 |  | 9,986 | 13,049 | 7,597 | 5,273 |  |  | 9,142 |
| 61-65 |  | 5,104 | 9,081 |  |  | 9,038 | 8,307 | 8,741 | 5,392 | 5,611 |  | 7,806 |
| 66-70 |  |  |  |  | 4,188 | 5,823 | 7,959 | 9,255 | 9,815 |  |  | 7,337 |
| 71-75 |  |  |  |  | 4,582 | 3,833 | 4,783 | 6,767 | 4,353 | 5,165 |  | 4,737 |
| 76-80 |  |  | 3,054 | 13,175 |  | 5,206 | 5,096 | $8,458$ |  | 3,971 | 3,574 |  |
| 81-85 |  |  |  |  |  |  |  | 10,027 | $6,795$ |  | 3,578 | $8,411$ |
| $86-90$ |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 91 \& Over |  |  |  |  |  |  |  |  |  |  | 1,437 | 1,437 |
| Average | 8,820 | 9,334 | 8,285 | 10,943 | 7,691 | 9,168 | 7,944 | 8,003 | 5,107 | 4,643 | 2,505 | 8,441 |

plan a - surviving beneficiaries of former members:
Completed Years Since Retirement

pLAN A - aVERAGE ANNUAL bENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

|  | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 308Over | Average <br> Benefit |
| 0-20 |  | 7,125 | 4.443 |  |  | 11,546 |  |  |  |  |  | 7,821 |
| 21-25 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 26-30 |  |  |  |  |  |  | 7,042 |  |  |  |  | 7,042 |
| 31-35 |  |  |  | 4,554 |  |  |  |  | 797 |  |  | 2,675 |
| 36-40 |  |  | 20,823 | 7,286 | 15,682 | 6,217 | 7,931 |  | 1,288 |  |  | 7,470 |
| 41-45 | 9,224 |  | 6,859 | 10,702 |  | 9,938 | 3,199 | 5,564 |  |  |  | 7,774 |
| 46-50 |  | 7,125 | 20,220 | 13,908 | 8,486 | 7,909 | 4,386 | 9,826 |  |  |  | 8,408 |
| 51-55 | 5,276 |  |  | 4,554 | 5,782 | 5,611 | 5,760 | 6,672 |  |  |  | 5,830 |
| 56-60 | 27,232 | 8,727 | 7,149 | 14,276 | 13,445 | 9,347 | 5,930 | 5,759 | 8,180 |  |  | 9,615 |
| 61-65 | 13,502 | 7,439 | 13,176 | 11,065 | 8,811 | 8,144 | 10,163 | 5,191 | 6,150 | 3,767 |  | 8,483 |
| 66-70 |  | 5,666 |  | 6,614 | 13,480 | 7,336 | 6,049 | 8,214 | 2,556 | 3,431 | 257 | 6,880 |
| 71-75 |  |  | 8,042 | 6,118 |  | 11,018 | 9,545 | 11,079 | 5,281 | 1,398 |  | 8,968 |
| 76-80 |  |  |  | 11,732 |  | 6,800 | 12,288 | 8,167 | 7,163 | 3,854 | 941 | 7,893 |
| 81-85 |  |  |  |  |  | 20,875 | 6,362 | 7,289 | 5,064 | 3,089 | 2,061 | 5,718 |
| 86-90 |  |  |  |  |  |  | 5,118 | 9, 745 | 6,020 | 3,040 | 858 | 4,415 |
| 91 \& Ovex |  |  |  |  |  |  |  | 9,421 | 6,720 | 4,231 | 982 | 4,064 |
| Average | 11,891 | 6,773 | 10,256 | 9,292 | 9,976 | 8,890 | 8,389 | 8,238 | 5,330 | 3,357 | 1,040 | 7,318 |

## EXHIBIT XI <br> PLAN A: YEAR-TO-YEAR COMPARISON

|  |  | Fiscal 2002 |  | Fiscal 2001 |  | Fiscal 2000 |  | Fiscal 1999 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Active Members |  | 5,481 |  | 5,455 |  | 5,558 |  | 5,706 |
| Number of Retirees and Survivors |  | 2,316 |  | 2,255 |  | 2,213 |  | 2,130 |
| Number Terminated Due Deferred Benefits |  | 193 |  | 189 |  | 187 |  | 150 |
| Number Terminated Due Refund |  | 2,158 |  | 2,122 |  | 2,108 |  | 2,010 |
| Active Lives Payroll | \$ | 130,191,230 | \$ | 125,304,827 | \$ | 124,683,590 | \$ | 120,568,583 |
| Retiree Benefits in Payment | \$ | 26,145,224 | \$ | 24,838,273 | \$ | 23,418,404 | \$ | 21,553,214 |
| Market Value of Assets | \$ | 432,669,352 | \$ | 447,796,046 | \$ | 469,525,372 | \$ | 436,446,684 |
| Ratio of Actuarial Value of Assets to Actuarial Accrued Liability |  | 87.26\% |  | 87.53\% |  | 87.33\% |  | 86.57\% |
| Actuarial Accrued Liability (As defined by GASB-25) | \$ | 531,127,529 | \$ | 531,562,970 | \$ | 512,465,288 | \$ | 472,653,880 |
| Actuarial Value of Assets | \$ | 463,477,324 | \$ | 465,259,344 | \$ | 447,557,888 | \$ | 409,182,585 |
| Unfunded Actuarial Accrued Liability | \$ | 67,650,205 | \$ | 66,303,626 | \$ | 64,907,400 | \$ | 63,471,295 |
| Present Value of Future Employer Normal Cost | \$ | 100,815,782 | \$ | 67,974,883 | \$ | 59,512,163 | \$ | 48,158,874 |
| Present Value of Future Employee Contributions | \$ | 83,902,996 | \$ | 82,237,210 | \$ | 83,646,334 | \$ | 81,782,562 |
| Present Value of Future Benefits | \$ | 715,846,307 | \$ | -681,775,063 | \$ | 655,623,785 | \$ | 602,595,316 |

Fiscal 2003 Fiscal 2002 Fiscal 2001 Fiscal 2000

| Employee Contribution Rate | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| Proj. Tax Contribution as \% of Projected Payroll | $2.28 \%$ | $2.17 \%$ | $2.02 \%$ | $2.02 \%$ |
| Actuarially Req'd Net Direct Employer Cont. Rate | $10.78 \%$ | $7.89 \%$ | $7.03 \%$ | $6.20 \%$ |
| Actual Employer Direct Contribution Rate | $8.00 \%$ | $7.00 \%$ | $6.25 \%$ | $5.75 \%$ |


|  | Fiscal 1998 |  | Fiscal 1997 |  | Fiscal 1996 |  | Fiscal 1995 | Fiscal 1994 | Fiscal 1993 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5,740 |  | 5,880 |  | 5,820 |  | 5,668 | 5,655 | 5,639 |
|  | 2,081 |  | 2,045 |  | 2,022 |  | 1,951 | 1,923 | 1,832 |
|  | 152 |  | 163 |  | 158 |  | 135 | 124 | 126 |
|  | 1,942 |  | 1,882 |  | 1,888 |  | 1,827 | 1,755 | 1,700 |
| \$ | 116,609,501 | \$ | 115,687,749 | \$ | 112,212,880 | \$ | 105,755,181 | \$ 102,250,546 | \$ 98,361,409 |
| \$ | 20,129,226 | \$ | 18,865,469 | \$ | 17,947,961 | \$ | 16,540,168 | \$ 15,975,744 | \$ 14,436,698 |
| \$ | 408,685,269 | \$ | 358,812,541 | \$ | 317,277,291 | \$ | 290,829,063 | \$ 265,002,413 | \$ 264,500,017 |
|  | 85.65\% |  | 85.05\% |  | 84.36\% |  | 83.37\% | 82.87\% | 82.51\% |
| \$ | 432,158,125 | \$ | 404,727,303 | \$ | 377,279,030 | \$ | 345,626,503 | \$ 326,696,611 | \$ 311,303,558 |
| \$ | 370,154,019 | \$ | 344,213,563 | \$ | 318,271,740 | \$ | 288,135,401 | \$ 270,725,765 | \$ 256,851,992 |
| \$ | 62,004,106 | \$ | 60,513,740 | \$ | 59,007,290 | \$ | 57,491,102 | \$ 55,970,846 | \$ 54,451,566 |
| \$ | 38,443,452 | \$ | 45,413,959 | \$ | 46,384,507 | \$ | 46,295,326 | \$ 46,572,782 | \$ 35,853,896 |
| \$ | 86,763,021 | \$ | 87,008,081 | \$ | 85,308,608 | \$ | 80,932,808 | \$ 79,722,087 | \$ 76,682,342 |
| \$ | 557,364,598 | \$ | 537,149,343 | \$ | 508,972,145 | \$ | 472,854,637 | \$ 452,991,480 | \$ 423,839,796 |


| Fiscal 1999 | Fiscal 1998 | Fiscal 1997 | Fiscal 1996 | Fiscal 1995 | Fiscal 1994 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $=9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ | $9.25 \%$ |
| $2.08 \%$ | $1.93 \%$ | $1.76 \%$ | $1.81 \%$ | $1.80 \%$ | $1.76 \%$ |
| $4.92 \%$ | $5.73 \%$ | $5.91 \%$ | $6.24 \%$ | $6.55 \%$ | $5.49 \%$ |
| $5.75 \%$ | $5.75 \%$ | $6.25 \%$ | $6.75 \%$ | $5.50 \%$ | $6.00 \%$ |

## Plan B Exhibits

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

1. Present Value of Future Benefits ..... \$ 140,579,807
2. Frozen Unfunded Actuarial Accrued Liability. ..... \$ 6,683,817
3. Actuarial Value of Assets ..... \$ 88,697,416
4. Present Value of Future Employee Contributions ..... \$ 16,666,322
5. Present Value of Future Employer Normal Costs (1-2-3-4). ..... 28,532,252
6. Present Value of Future Salaries ..... \$ 367,248,684
7. Employer Normal Cost Accrual Rate $(5 \div 6)$ ..... 7.769191\%
8. Projected Fiscal 2003 Salary for Current Membership ..... \$ 41,220,803
9. Employer Normal Cost as of July 1, $2002(7 \times 8)$ ..... \$ ..... 3,202,523
10. Amortization Payment on Frozen Unfunded Accrued Liability of $\$ 6,683,817$ with Payments decreasing at 2\% per year ..... \$11. TOTAL Employer Normal Cost \& Amortization Payment $(9+10)$\$
3,918,822
11. Employer Normal Cost and Amortization Payment Interest Adjusted for Midyear Payment ..... \$ ..... 4,072,559
12. Estimated Administrative Cost for Fiscal 2003 ..... \$ ..... 334,187
13. TOTAL Employer Actuarially Required Contribution for Fiscal $2003(12+13)$ ..... \$
4,406,746
14. Projected Tax Contributions for Fiscal 2003 ..... \$16. Projected Revenue Sharing Funds for Fiscal 2003\$40,709
15. Net Direct Employer Actuarially Required Contribution for Fiscal 2003 (14-15-16) ..... 3,385,457
16. Projected Payroll (July 1, 2002 through June 30, 2003) ..... \$ 44,965,293
17. Net Direct Employer Actuarially Required Contribution as a \% of Projected Payroll for Fiscal $2003(17 \div 18)$ ..... 7.53\%
18. Actual Employer Contribution Rate for Fiscal 2003 ..... 6.25\%
19. Contribution Gain (Loss) as a Percentage of Payroll (20-19) ..... (1.28\%)
20. Adjustment to Following Year Payment for Contribution Gain(Loss) ..... (0.14\%)
21. Recommended Net Direct Employer Contribution Rate for 2004 (19-22) (Rounded to nearest .25\%) ..... $7.75 \%$

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

Present Value of Future Benefits for Active Members:
Retirement Benefits ..... $\$ 83,057,092$
Survivor Benefits ..... 3,878,239
Disability Benefits ..... 4,034,017
Vested Deferred Termination Benefits ..... 5,069,375
Contribution Refunds ..... 2,578,765
TOTAL Present Value of Future Benefits for Active Members ..... \$
Present Value of Future Benefits for Terminated Members:
Terminated Vested Members Due Benefits at Retirement.... \$ ..... $1,027,543$
Terminated Members with Reciprocals
Due Benefits at Retirement ..... 138,280
Terminated Members Due a Refund ..... 187,668
TOTAL Present Value of Future Benefits for Terminated Members ..... \$ ..... 1,353,491
Present Value of Future Benefits for Retirees:
Regular Retirees ..... $\$ 31,307,217$
Disability Retirees ..... 2,193,841
Survivors \& Widows ..... 6,693,565
Reserve for Accrued Retiree DROP Account Balances. ..... 414,205
TOTAL Present Value of Future Benefits for Retirees \& Survivors ..... \$ ..... $40,608,828$
TOTAL Present Value of Future Benefits ..... \$ 140,579,807

## EXHIBIT XIV <br> PLAN B: ACTUARIAL VALUE OF ASSETS

## Current Assets:

Cash ..... 481,366
Contributions Receivable from Members ..... 524,914
Contributions Receivable from Employers ..... 490,400
Accrued Interest on Investments ..... 486,600
Dividends Receivable ..... 18,290
Investments Receivable ..... 265,573
TOTAL CURRENT ASSETS ..... \$ ..... $2,267,143$
Allocated Share of the Expense Fund ..... \$ ..... 679,437
Property, Plant \& Equipment ..... \$ ..... 178,460
Investments:
Common Stock ..... $\$ 36,831,845$
Federal National Mortgage Corporation. ..... 17,904,831
Corporate Bonds ..... 16,956,847
US Treasury Bonds and Notes ..... 4,174,773
Federal Home Loan Mortgage Corporation ..... 1,592,374
Cash Equivalents ..... 1,159,500
Government National Mortgage Association ..... 1,031,462
Deferred Capital Loses on Common Stock ..... 7,425,439
TOTAL INVESTMENTS ..... \$ 87,077,071
TOTAL ASSETS ..... \$ 90,202,111
Current Liabilities:
Investments Payable ..... \$ ..... 250,637
Accounts Payable. ..... 43,598
Refunds Payable ..... 31,097
Funds Payable to Plan A ..... 1,179,363
TOTAL CURRENT LIABILITIES ..... $\$ 1,504,695$
ACTUARIAL VALUE OF ASSETS ..... \$ 88,697,416

## EXHIBIT XV <br> PLAN B: PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund ..... \$ 16,666,322
Employer Normal Contributions to the Pension Accumulation Fund ..... 28,532,252
Employer Amortization Payments to the Pension Accumulation Fund ..... 6,683,817
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS ..... \$ 51,882,391
EXHIBIT XVI
PLAN B: CHANGE IN FROZEN UNFUNDED ACTUARIAL ACCRUED LIABILITY
Prior Year Frozen Unfunded Accrued Liability ..... \$ 6,919,636
Interest on Frozen Unfunded Accrued Liability ..... \$ 553,571
Employer Normal Cost for Prior Year ..... 2,512,850
Interest on the Normal Cost ..... 201,028
Administrative Expenses ..... 204,467
Interest on Expenses ..... 8,021
TOTAL Increases to Frozen Unfunded Accrued Liability ..... \$ 3,479,937
Gross Employer Contributions ..... \$ 3,067,078
Interest on Employer Contributions ..... 120,323
Contribution Shortfall (Excess) ..... 508,411
Interest on Contribution Shortfall (Excess) ..... 19,944
TOTAL Decreases to Frozen Unfunded Accrued Liability ..... \$ 3,715,756
CURRENT YEAR FROZEN UNFUNDED ACCRUED LIABILITY ..... \$ ..... 6,683,817

## EXHIBIT XVII <br> PLAN B: ANALYSIS OF INCREASE IN ASSETS

Actuarial Value of Assets (June 30, 2001) ..... $\$ 89,937,940$
Income:
Member Contributions ..... \$ 2,128,739
Employer Contributions ..... 1,984,801
Ad Valorem Taxes ..... 1,035,673
Revenue Sharing Funds ..... 46,604
Irregular Contributions ..... 25,218
Total Contribution Income ..... \$
5,221,035
Interest and Dividend Income ..... \$ 3,281,290
Recognized Realized Capital Gains (Losses) ..... 1,253,773
Recognized Unrealized Capital Gains (Losses) ..... $(4,467,577)$
Bond Amortization Expense ..... $(25,830)$
Realized Gains (Losses) on Fixed Income Securities ..... 522,090
Investment Expense ..... $(309,664)$
Net Investment Income ..... $\$ \quad 254,082$
TOTAL Income ..... \$ 5,475,117
Expenses:
Retirement Benefits ..... \$ 4,967,190
Refunds of Contributions ..... 590,408
Funds Transferred to Another System ..... 476,997
DROP Disbursements ..... 435,407
Administrative Expenses ..... 204,467
TOTAL Expenses. ..... \$ 6,674,469
Net Income for Fiscal 2002 (Income - Expenses) ..... $\$(1,199,352)$
Unadjusted Fund Balance as of June 30, 2002
(Fund Balance Previous Year + Net Income) ..... $\$ 88,738,588$
Adjustment for Change in Allocated Expense Fund Balance ..... \$ ..... $(41,172)$
Actuarial Value of Assets (June 30, 2002) ..... \$ 88,697,416

# EXHIBIT XVIII <br> PLAN B: FUND BALANCE 

Present Assets of the System Creditable to:
Annuity Savings Fund ..... \$ $15,028,665$
Annuity Reserve Fund ..... 40,194,623
Pension Accumulation Fund ..... $24,597,250$
Deferred Retirement Option Plan Account ..... 1,946,593
NET MARKET VALUE OF ASSETS ..... \$ ..... $81,767,131$
ADJUSTMENT FOR DEFERRAL OF REALIZED AND UNREALIZED CAPITAL GAINS ON COMMON STOCK ..... 7,425,439
ADJUSTMENT FOR UNRECOGNIZED CHANGE IN VALUE OF FIXED INCOME SECURITIES ..... (1,174,591)
ALLOCATION OF EXPENSE FUND. ..... 679,437
ACTUARIAL VALUE OF ASSETS ..... \$ ..... 88,697,416
EXHIBIT XIX
PLAN B: PENSION BENEFIT OBLIGATION
Present Value of Credited Projected Benefits Payable to Current Employees ..... \$ ..... 59,507,526
Present Value of Benefits Payable to Terminated Employees ..... $1,353,491$
Present Value of Benefits Payable to Current Retirees and Beneficiaries ..... $40,608,828$
TOTAL PENSION BENEFIT OBLIGATION ..... $\$ 101,469,845$

## 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: ..... 19.50\%
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\%
3. TOTAL Adjustments ..... (10.39\%)
Amortization of Adjustments in Funded Ratio over 30 years:
Changes for Fiscal 1988 ..... (1.12\%)
Changes for Fiscal 1989 ..... 1.27\%
Changes for Fiscal 1995 ..... 0.28\%
Changes for Fiscal 1997 ..... 0.64\%
Changes for Fiscal 1998 ..... 0.49\%
Changes for Fiscal 2000 ..... 0.15\%
Changes for Fiscal 2001 ..... (0.04\%)
4. TOTAL Amortization of Adjustments ..... 1.67\%
5. Target Ratio for Current Fiscal Year (Lesser of $1+2+3+4$ or $100 \%$ ) ..... 74.22\%
6. Actuarial Value of Assets Divided by PBO as of June 30, 2002 ..... 87.41\%

EXHIBIT XXI
PLAN B - CENSUS DATA

|  | Active | Terminated with Funds on Deposit | DROP | Retired | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of members as of June 30, 2001 | 2,020 | 766 | 49 | 700 | 3,535 |
| Additions to Census <br> Initial membership <br> Death of another member Omitted in error last year | 264 (3) | 14 $(1)$ | (1) | 5 | 278 |
| 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 <br> Omitted in error last year | (64) <br> (23) <br> (23) <br> 2 <br> 8 <br> 7 | 64 <br> (2) <br> (1) <br> 10 | $23$ <br> (10) <br> (7) | 23 1 10 | 18 |
| Eliminated from Census <br> Refund of contributions <br> Deaths <br> Included in error last year <br> Adjustment for multiple records | (171) <br> (5) <br> 1 | (28) <br> (1) | (1) | (34) | (199) <br> (41) <br> 1 |
| Number of members as of June 30, 2002 | 2,013 | 821 | 53 | 705 | 3,592 |

PLAN B - ACTIVES CENSUS BY AGE:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Salary | $\begin{aligned} & \text { Total } \\ & \text { Salayy } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16-20 | 19 | 5 | 24 | 12,878 | 309,063 |
| 21-25 | 82 | 26 | 108 | 14,789 | 1,597,204 |
| 26-30 | 90 | 37 | 127 | 16,305 | 2,070,787 |
| 31-35 | 151 | 57 | 208 | 18,537 | 3,855,787 |
| 36-40 | 154 | 63 | 217 | 20,600 | 4,470,130 |
| 41-45 | 239 | 122 | 361 | 21,389 | 7,721,524 |
| 46-50 | 236 | 85 | 321 | 23,011 | 7,386,624 |
| 51-55 | 180 | 73 | 253 | 22,662 | 5,733,421 |
| 56-60 | 149 | 48 | 197 | 23,236 | 4,577,554 |
| 61-65 | 112 | 32 | 144 | 23,406 | 3,370,439 |
| 66-70 | 52 | 17 | 69 | 26,456 | 1,825,430 |
| 71-75 | 20 | 4 | 24 | 19,579 | 469,889 |
| 76-80 | 10 | 1 | 11 | 12,498 | 137,477 |
| 81-85 | 1 | 1 | 2 | - 17,337 | 34,673 |
| TOTAL | 1,495 | 571 | 2,066 | 21,084 | 43,560,002 |

THE ACTIVE CENSUS INCLUDES 797 ACTIVES WITH VESTED BENEFITS, INCLUDING 53 DROP PARTICIPANTS AND 29 ACTIVE FORMER DROP PARTICIPANTS.

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

| Age | Number Male | Number <br> Female | Total <br> . Number | Average <br> Benefit |  | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21-25 | 0 | 1 | 1 | 729 |  | 729 |
| 26-30 | 1 | 0 | 1 | 5,400 |  | 5,400 |
| 31-35 | 1 | 1 | 2 | 5,820 |  | 11,640 |
| 36-40 | 3 | 0 | 3 | 5,690 |  | 17,070 |
| 41-45 | 6 | 3 | 9 | 5,407 |  | 48,662 |
| 46-50 | 4 | 3 | 7 | 5,321 |  | 37,247 |
| 51-55 | 8 | 6 | 14 | 5,849 |  | 81,892 |
| 56-60 | 12 | 2 | 14 | 3,220 | ! | 45,085 |
| 61-65 | 5 | 1 | 6 | 773 |  | 4,640 |
| 71-75 | 0 | 2 | 2 | 1,184 |  | 2,367 |
| 76-80 | 0 | 1 | 1 | 1,812 |  | 1,812 |
| TOTAL | $\triangle 0$ | 20 | 60 | 4,276 |  | 256,544 |

PLAN B - TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

| Contributions Ranging |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| From |  | To | Number | Contributions |
| 0 | - | 99 | 606 | 14,143 |
| 100 | - | 499 | 85 | 18,379 |
| 500 | - | 999 | 21 | 14,072 |
| 1000 | - | 1999 | 19 | 27,796 |
| 2000 | - | 4999 | 22 | 71,499 |
| 5000 | - | 9999 | 7 | 45,999 |
| 10000 | - 1 | 19999 | 1 | 11,747. |
|  |  | TAL | 761 | 203,635 |

PLAN B - REGULAR RETIREES:

| Age | Number Male | Number <br> Female | Total <br> Number | Average <br> Benefit | rotal <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 46-50 | 1 | 0 | 1 | 18,604 | 18,604 |
| 51-55 | 2 | 1 | 3 | 16,440 | 49,320 |
| 56-60 | 9 | 0 | 9 | 13,944 | 125,500 |
| 61-65 | 55 | 17 | 72 | 9,195 | 662,062 |
| 66-70 | 106 | 26 | 132 | 8,190 | 1,081,123 |
| 71-75 | 84 | 28 | 112 | 7,725 | 865,150 |
| 76-80 | 70 | 26 | 96 | 7,343 | 704,894 |
| 81-85 | 39 | 15 | 54 | 5,987 | 323,286 |
| 86-90 | 16 | 4 | 20 | 4,751 | 95,012 |
| 91-99 | 4 | 4 | 8 | 3,425 | 27,400 |
| TOTAL | 386 | 121 | 507 | 7,796 | 3,952,351 |

PLAN B - DISABILITY RETIREES:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Benefit | Total <br> Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 41-45 | 3 | 0 | 3 | 4,369 | 13,107 |
| 46-50 | 6 | 2 | 8 | 4,669 | 37,353 |
| 51-55 | 9 | 2 | 11 | 7,286 | 80,149 |
| 56-60 | 2 | 3 | 5 | 6,409 | 32,046 |
| 61-65 | 5 | 1 | 6 | 6,450 | 38,700 |
| 66-70 | 1 | 0 | 1 | 10,023 | 10,023 |
| 76-80 | 2 | 1 | 3 | 3,263 | 9,789 |
| total | 28 | 9 | 37 | 5,977 | 221,167 |

PLAN B - SURVIVORS:

| Age | Number Male | Number <br> Female | Total <br> Number | Average Benefit | Total Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26-30 | 0 | 1 | 1 | 4,143 | 4,143 |
| 41-45 | 1 | 0 | 1 | 5,022 | 5,022 |
| 46-50 | 2 | 3 | 5 | 3,937 | 19,684 |
| 51-55 | 0 | 4 | 4 | 5,243 | 20,973 |
| 56-60 | 0 | 8 | 8 | 6,379 | 51,030 |
| 61-65 | 1 | 20 | 21 | 6,604 | 138,693 |
| 66-70 | 0 | 23 | 23 | 6,720 | 154,549 |
| 71-75 | 1 | 23 | 24 | 6,694 | 160,664 |
| 76-80 | 0 | 34 | 34 | 4,347 | 147,784 |
| 81-85 | 2 | 24 | 26 | 4,577 | 119,004 |
| 86-90 | 0 | 11 | 11 | 3,626 | 39,881 |
| 91-99 | 0 | 3 | 3 | 1,504 | 4,513 |
| TOTAL | 7 | 154 | 161 | 5,379 | 865,940 |

PLAN B - ACTIVE MEMBERS:
Completed Years of Service

|  | Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-20 | 20 | 4 |  |  |  |  |  |  |  |  |  | 24 |
|  | 21-25 | 50 | 27 | 10 | 6 | 10 | 5 |  |  |  |  |  | 108 |
|  | 26-30 | 32 | 23 | 10 | 22 | 7 | 30 | 3 |  |  |  |  | 127 |
|  | 31-35 | 42 | 26 | 24 | 18 | 20 | 46 | 28 | 4 |  |  |  | 208 |
|  | $36-40$ | 35 | 22 | 25 | 20 | 16 | 45 | 31 | 13 | 10 |  |  | 217 |
|  | 41-45 | 39 | 31 | 23 | 28 | 26 | 63 | 75 | 35 | 39 | 2 |  | 361 |
| 0 | 46-50 | 31 | 23 | 13 | 18 | 11 | 56 | 72 | 31 | 46 | 18 | 2 | 321 |
|  | 51-55 | 23 | 17 | 12 | 15 | 6 | 49 | 56 | 24 | 21 | 21 | 9 | 253 |
| $\infty$ | 56-60 | 9 | 12 | 14 | 7 | 5 | 44 | 40 | 22 | 20 | 16 | - 8 | 197 |
| 0 | 61-65 | 4 | 4 | 6 | 5 | 7 | 29 | 38 | 20 | 13 | 11 | 7 | 144 |
| E | 66-70 |  | 2 | 4 | 1 | 8 | 11 | 14 | 12 | 8 | 3 | 6 | 69 |
| \% | 71 \& Over |  | 2 |  |  |  | 16 | 8 | 6 | 3 | 2 |  | 37 |
| 5 | Totals | 285 | 193 | 141 | 140 | 116 | 394 | 365 | 167 | 160 | 73 | 32 | 2066 |

plan b - average annual salary of active members:
Completed Years of Service

| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 308Over | Average Salary |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-20 | 12,842 | 13,056 |  |  |  |  |  |  |  |  |  | 12,878 |
| 21-25 | 13,723 | 14,073 | 13,994 | 16,680 | 19,055 | 20,105 |  |  |  |  |  | 14,789 |
| 26-30 | 13,868 | 14,286 | 16,745 | 16,544 | 17,460 | 19,445 | 20,476 |  |  |  |  | 16,305 |
| 31-35 | 14,495 | 16,389 | 17,496 | 23,265 | 17,508 | 20,172 | 21,734 | 23,893 |  |  |  | 18,537 |
| 36-40 | 16,775 | 20,510 | 18,275 | 20,058 | 17,161 | 20,354 | 26,037 | 26,031 | 23,766 |  |  | 20,600 |
| 41-45 | 15,956 | 17,676 | 17,241 | 19,160 | 20,839 | 19,414 | 23,356 | 26,206 | 28,855 | 29,561 |  | 21,389 |
| 46-50 | 17,684 | 17,398 | 19,794 | 19,530 | 20,951 | 18,376 | 24,958 | 26,787 | .28,978 | 33,068 | 38,180 | 23,011 |
| 51-55 | 17,039 | 19,334 | 24,224 | 17,251 | 19,537 | 19,688 | 22,209 | 24,621 | 28,298 | 32,815 | 29,280 | 22,662 |
| 56-60 | 18,364 | 19,028 | 20,288 | 23,064 | 17,548 | 18,601 | 25,575 | 23,404 | 23,110 | 37,192 | 29,648 | 23,236 |
| 61-65 | 21,975 | 24,945 | 14,524 | 19,836 | 22,483 | 18,216 | 23,198 | 24,342 | 30,811 | 24,189 | 39.400 | 23,406 |
| 66-70 |  | 22,394 | 18,197 | 7,400 | 26,134 | 13,144 | 28,139 | 32,700 | 33,182 | 26,061 | 36,135 | 26,456 |
| 71 \& Over |  | 33,906 |  |  |  | 12,191 | 22,365 | 15,939 | 23,079 | 17,692 |  | 17,352 |
| Average | 15,432 | 17,387 | 18,246 | 19,277 | 19,666 | 18,860 | 23,964 | 25,151 | 28,048 | 31,756 | 33,427 | 21,084 |

PLAN B - TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

|  | Attained Ages | Years Until Retirement Eligibility |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
|  | 0-20 |  |  |  |  |  |  |  |  |  |  |  | 0 |
|  | 21-25 |  |  |  |  |  |  |  |  |  |  | 1 | 1 |
|  | 26-30 |  |  |  |  |  |  |  |  |  |  | 1 | 1 |
|  | 31-35 |  |  |  |  |  |  |  |  |  | 2 |  | 2 |
|  | 36-40 |  |  |  |  |  |  |  |  | 3 |  |  | 3 |
|  | 41-45 |  |  |  |  |  |  | 2 | 7 |  |  |  | 9 |
|  | 46-50 |  |  |  |  |  |  | 7 |  |  |  |  | 7 |
| Q | 51-55 |  |  |  |  |  | 14 |  |  |  |  |  | 14 |
| 0 | 56-60 | 3 | 6 | 3 |  | 1 | 1 |  |  |  |  |  | 14 |
| 0 | 61-65 | 6 |  |  |  |  |  |  |  |  |  |  | 6 |
| 0 | 66-70 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| $\stackrel{\square}{8}$ | 71-75 | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| 3 | 76-80 | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| 0 | 81 \& over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 2 | Totals | 12 | 6 | 3 | 0 | 1 | 15 | 9 | 7 | 3 | 2 | 2 | 60 |

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

| Attained Ages | Years Until Retirement Eligibility |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average Benefit |
| 0-20 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 21-25 |  |  |  |  |  |  |  |  |  |  | 729 | 729 |
| 26-30 |  |  |  |  |  |  |  |  |  |  | 5,400 | 5,400 |
| 31-35 |  |  |  |  |  |  |  |  |  | 5,820 |  | 5,820 |
| 36-40 |  |  |  |  |  |  |  |  | 5,690 |  |  | 5,690 |
| 41-45 |  |  |  |  |  |  | 4.409 | 5,692 |  |  |  | 5,407 |
| 46-50 |  |  |  |  |  |  | 5,321 |  |  |  |  | 5,321 |
| 51-55 |  |  |  |  |  | 5,849 |  |  |  |  |  | 5,849 |
| 56-60 | 3,816 | 3,018 | 2,130 |  | 9,128 | 12 |  |  |  |  |  | 3,220 |
| 61-65 | 773 |  |  |  |  |  |  |  |  |  |  | 773 |
| 66-70 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 71-75 | 1,183 |  |  |  |  |  |  |  |  |  |  | 1,183 |
| 76-80 | 1,812 |  |  |  |  |  |  |  |  |  |  | 1,812 |
| 81 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Average | 1,689 | 3,018 | 2,130 | 0 | 9,128 | 5,460 | 5,118 | 5,692 | 5,690 | 5,820 | 3,065 | ©,276 |

PLAN B - SERVICE RETIREES:


PLAN B - DISABILITY RETIREES:
Completed Years Since Retirement

| Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-40 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 41-45 |  |  |  |  |  | 1 | 2 |  |  |  |  | 3 |
| 46-50 | 1 | 2 | 2 | 1 | 1 | 1 |  |  |  |  |  | 8 |
| 51-55 | 2 |  | 4 | 1 |  | 1 | 3 |  |  |  |  | 11 |
| 56-60 | 1 |  |  | 1 |  | 1 | 1 |  | 1 |  |  | 5 |
| 61-65 |  |  |  | 1 |  | 3 | 1 | 1 |  |  |  | 6 |
| 66-70 |  |  |  |  |  |  | 1 |  |  |  |  | 1 |
| 71-75 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 76-80 |  |  |  |  |  |  |  | 1 | 2 |  |  | 3 |
| 81 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Totals | 4 | 2 | 6 | 4 | 1 | 7 | 8 | 2 | 3 | 0 | 0 | 37 |

plan b - average annual benefits payable to disability retirees:

| Attained Ages | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30\&Over | Average <br> Benefit |
| 0-40 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| $41-45$ |  |  |  |  |  | 4,619 | 4,244 |  |  |  |  | 4,369 |
| 46-50 | 4,416 | 4,845 | 3,847 | 4,282 | 8,476 | 2,795 |  |  |  |  |  | 4,669 |
| 51-55 | 11,191 |  | 5,481 | 7,169 |  | 5,611 | 7,689 |  |  |  |  | 7,286 |
| 56-60 | 6,637 |  |  | 12,789 |  | 3,928 | 2,690 |  | 6,002 |  |  | 6,409 |
| 61-65 |  |  |  | 9,969 |  | 5,310 | 9,349 | 3,453 |  |  |  | 6,450 |
| 66-70 |  |  |  |  |  |  | 10,023 |  |  |  |  | 10,023 |
| 71-75 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| $76-80$ |  |  |  |  |  |  |  | 3,870 | 2,959 |  |  | 3,263 |
| 81 \& Over |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Average | 8,359 | 4,845 | 4,936 | 8,552 | 8,476 | 4,697 | 6,702 | 3,661 | 3,974 | 0 | 0 | 5,977 |

plan a - SURVIVING benefictartes of former members:

| Attained Ages | Completed Years Since Retirement |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 308Over | Total |
| 0-25 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 26-30 |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
| 31-35 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 36-40 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 41-45 |  |  |  |  |  |  |  | 1 |  |  |  | 1 |
| 46-50 | 1 |  | 1 |  |  | 1 | 1 | 1 |  |  |  | 5 |
| 51-55 |  |  |  |  | 1 | 2 |  | 1 |  |  |  | 4 |
| 56-60 | 2 | 1 | 1 | 1 |  | 2 | 1 |  |  |  |  | 8 |
| 61-65 | 1 | 1 | 1 | 1 | 1 | 9 | 5 | 1 |  | 2 |  | 21 |
| 66-70 |  | 1 |  | 1 |  | 5 | 8 | 7 | 1 |  |  | 23 |
| 71-75 | 1 |  |  | 1 |  | 3 | 11 | 5 | 3 |  |  | 24 |
| 76-80 |  |  |  |  |  | 2 | 8 | 9 | 13 | 2 |  | 34 |
| 81-85 |  |  | 1 |  |  |  | 1 | 7 | 11 | 4 | 2 | 26 |
| 86-90 |  |  |  |  |  | 1 |  | 3 | 2 | 5 |  | 11 |
| 91 \& Over |  |  |  |  |  |  |  |  |  | 1 | 2 | 3 |
| Totals | 5 | 3 | 4 | 4 | 2 | 26 | 35 | 35 | 30 | 13 | 4 | 161 |

PLAN B - AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:
Completed Years Since Retirement

| Attained Ages | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 3080ver | Average Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-25 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 26-30 |  |  |  |  |  | 4,143 |  |  |  |  |  | 4,143 |
| 31-35 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 36-80 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 41-45 |  |  |  |  |  |  |  | 5,022 |  |  |  | 5,022 |
| 46-50 | 2,759 |  | 3,531 |  |  | 3,954 | 6,687 | 2,753 |  |  |  | 3,937 |
| 51-55 |  |  |  |  | 6,965 | 5,095 |  | 3,818 |  |  |  | 5,243 |
| 56-60 | 9,662 | 3,087 | 4,649 | 3,312 |  | 8,293 | 4,072 |  |  |  |  | 6,379 |
| 61-65 | 3,731 | 9,894 | 2,980 | 12,992 | 3,840 | 6,514 | 7,655 | 7,402 |  | 953 |  | 6,604 |
| 66-70 |  | 2,877 |  | 4,809 |  | 8,177 | 7,974 | 5,585 | 3,093 |  |  | 6,720 |
| 71-75 | 1,807 |  |  | 8,013 |  | 7,300 | 8,574 | 2,737 | 6,981 |  |  | 6,694 |
| 76-80 |  |  |  |  |  | 10,684 | 3,702 | 6,533 | 2,633 | 1,883 |  | 4,347 |
| 81-85 |  |  | 2,022 |  |  |  | 5,328 | 7,936 | 4,042 | 2,043 | 1,731 | 4,577 |
| 86-90 |  |  |  |  |  | 4,552 |  | 8,901 | 2,113 | $880$ |  | $3,626$ |
| 91 \& Ovex |  |  |  |  |  |  |  |  |  | 1,645 | 1,434 | 1,504 |
| Average | 5,524 | 5,286 | 3,296 | 7,282 | 5,402 | 7,008 | 6,917 | 6,081 | 3,565 | 1,457 | 1,583 | 5,379 |

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

|  | Fiscal 2002 | Fiscal 2001 | Fiscal 2000 | Fiscal 1999 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Active Members | 2,066 | 2,069 | 2,068 | 2,152 |  |  |
| Number of Retirees and Survivors |  | 705 | 700 | 689 | 664 |  |
| Number Terminated Due Deferred Benefits |  | 60 | 53 | 52 | 58 |  |
| Number Terminated Due Refund |  | 761 | 713 | 715 | 702 |  |
| Active Lives Payroll | $\$$ | $43,560,002$ | $\$$ | $42,572,472$ | $\$$ | $41,586,147$ |

Fiscal 2003 Fiscal 2002 Fiscal 2001 Fiscal 2000

| Employee Contribution Rate | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| Proj. Tax Contribution as \% of Projected Payroll | $2.27 \%$ | $2.18 \%$ | $2.01 \%$ | $2.01 \%$ |
| Actuarially Req'd Net Direct Employer Cont. Rate | $7.53 \%$ | $6.16 \%$ | $3.68 \%$ | $3.32 \%$ |
| Actual Employer Direct Contribution Rate | $6.25 \%$ | $4.50 \%$ | $4.50 \%$ | $4.50 \%$ |

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

|  | Fiscal 1998 |  | Fiscal 1997 |  | Fiscal 1996 |  | Fiscal 1995 |  | Fiscal 1994 |  | Fiscal 1993 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2,102 |  | 2,056 |  | 2,012 |  | 1,998 |  | 1,984 |  | 1,979 |
|  | 653 |  | 651 |  | 646 |  | 628 |  | 614 |  | 604 |
|  | 63 |  | 61 |  | 68 |  | 80 |  | 78 |  | 73 |
|  | 680 |  | 664 |  | 632 |  | 701 |  | 690 |  | 700 |
| \$ | 37,963,401 | \$ | 36,584,814 | \$ | 34,234,222 | \$ | 33,750,064 | \$ | 32,721,647 | \$ | 32,274,879 |
| \$ | 3,926,054 | \$ | 3,713,381 | \$ | 3,502,189 | \$ | 3,279,414 | \$ | 3,129,478 | \$ | 2,879,766 |
| \$ | 87,582,921 | \$ | 76,245,708 | \$ | 66,737,143 | \$ | 61,752,808 | \$ | 55,524,052 | \$ | 56,062,732 |
|  | 90.88\% |  | 89.95\% |  | 88.92\% |  | 87.77\% |  | 86.73\% |  | 85.88\% |
| \$ | 87,395,782 | \$ | 81,392,511 | \$ | 75,655,433 | \$ | 70,206,923 | \$ | 66,254,195 | \$ | 63,722,611 |
| \$ | 79,421,207 | \$ | 73,216,211 | \$ | 67,276,177 | \$ | 61,623,243 | \$ | 57,464,395 | \$ | 54,724,776 |
| \$ | 7,974,575 | \$ | 8,176,300 | \$ | 8,379,256 | \$ | 8,583,680 | \$ | 8,789,800 | \$ | 8,997,835 |
| \$ | 12,607,109 | \$ | 9,440,170 | \$ | 4,991,127 | \$ | 6,659,816 | \$ | 6,623,442 | \$ | 4,621,051 |
| \$ | 15,103,116 | \$ | 14,674,371 | \$ | 13,851,727 | \$ | 13,965,323 | \$ | 13,584,705 |  | 13,342,706 |
| \$ | 115,106,007 | \$ | 105,507,052 | \$ | 94,498,287 | \$ | 90,832,062 | \$ | 86,462,342 |  | 81,686,368 |


| Fiscal 1999 | Fiscal 1998 | Fiscal 1997 | Fiscal 1996 | Fiscal 1995 | Fiscal 1994 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ | $5.00 \%$ |
| $2.03 \%$ | $1.93 \%$ | $1.77 \%$ | $1.80 \%$ | $1.76 \%$ | $1.76 \%$ |
| $4.31 \%$ | $2.73 \%$ | $2.72 \%$ | $3.34 \%$ | $3.00 \%$ | $4.00 \%$ |
| $3.75 \%$ | $2.75 \%$ | $3.25 \%$ | $.3 .75 \%$ | $4.00 \%$ | $5.00 \%$ |

## 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 July 1, 2002, 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 elective 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 three-year 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, election 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 elective service.

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

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

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

## PROVISIONS APPLICABLE TO BOTH PLAN A AND B:

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

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

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

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

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

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 an annual basis. 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. 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.

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

## ACTUARIAL ASSUMPTIONS

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

| Factor | Increase in Factor Results in |
| :---: | :---: |
| Investment Earnings Rate | Decrease in Cost |
| Annual Rate of Salary Increase | Increase in Cost |
| Rates of Retirement | Increase in Cost |
| Rates of Termination | Decrease in Cost |
| Rates of Disability | Increase in Cost |
| Rates of Mortality | Decrease in Cost |
| ACTUARIAL COST METHOD: | Frozen Attained Age Normal Actuarial Cost Method with allocation based on earnings. The frozen actuarial accrued liabilities were calculated on the projected unit credit cost method. |
| ACTUARIAL ASSET VALUES: | Fixed income investments are carried at amortized cost based on information provided by the system's auditors. Stocks are carried at market value adjusted to smooth all realized and unrealized capital gains or losses over a three-year period. The smoothing is accomplished by releasing into income one third of current year capital gains or losses, one third of prior year capital gains or losses, and one third of capital gains or losses from two years ago. In addition, expense fund assets were allocated to each plan in proportion to covered payroll. |
| VALUATION INTEREST RATE: | 8\% (Net of Investment Expense) |
| ANNUAL SALARY INCREASE RATE: | 6\% (3.25\% Inflation / 2.75\% Merit) |
| ANNUITANT MORTALITY: | 110\% of 1971 Group Annuity Mortality Table (Female rates are based on 6 year setback of male rates) |

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

RATES OF RETIREMENT: The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. Members are assumed to retire no earlier than normal retirement age.

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 Plan A, the tabular rate is multiplied by 2.5 in the first year of eligibility.

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 81 | 0.30 |
| $81-89$ | 0.90 |
| 90 | 1.00 |

DISABLITY RATES: $70 \%$ of the base disability rates listed in the table.of rates included later in the report.

RATES OF WITHDRAWAL: The table of these rates is included later in the report. In the first ten years of service, the tabular rates were multiplied by the following adjustment factors:

| Service | Adjustment Factor |
| :---: | :---: |
| 1 | 7.000 |
| 2 | 5.500 |
| 3 | 4.000 |
| 4 | 3.500 |
| 5 | 3.000 |
| 6 | 2.666 |

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

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

FAMILY STATISTICS: Assumptions utilized in determining the costs of various survivor benefits as listed below:

| Age at | \% With <br> Children | Number of <br> Children | Average <br> Age |
| :---: | :---: | :---: | :---: |
| 25 | $55 \%$ | 2.2 | 7 |
| 35 | $80 \%$ | 2.7 | 11 |
| 45 | $60 \%$ | 1.9 | 13 |
| 55 | $20 \%$ | 1.5 | 14 |
| 65 | $2 \%$ | 1.0 | 17 |

DISABLED LIVES MORTALITY: 175\% of 1971 Group Annuity Table (Female rates are based on 6 year setback of male rates)

VESTING ELECTING PERCENTAGE: $65 \%$ of those vested elect deferred benefits in lieu of contribution refunds.

## ACTUARIAL TABLES AND RATES

| Age | Mortality Rates | Plan A Retirement Rates | Plan B Retirement Rates | Plan A DROP Entry Rates | Plan B DROP Entry Rates | Withdrawal Rates | Base Disability Rates | Remarriage <br> Rates |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | 0.00052 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.04000 | 0.00105 | 0.05665 |
| 19 | 0.00053 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.04000 | 0.00105 | 0.05665 |
| 20 | 0.00055 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.04000 | 0.00105 | 0.05665 |
| 21 | 0.00057 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03950 | 0.00105 | 0.05213 |
| 22 | 0.00060 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03900 | 0.00105 | 0.04834 |
| 23 | 0.00062 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03850 | 0.00105 | 0.04522 |
| 24 | 0.00065 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03800 | 0.00105 | 0.04270 |
| 25 | 0.00068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03750 | 0.00105 | 0.04070 |
| 26 | 0.00071 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03700 | 0.00105 | 0.03915 |
| 27 | 0.00075 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03650 | 0.00105 | 0.03799 |
| 28 | 0.00079 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03600 | 0.00109 | 0.03714 |
| 29 | 0.00084 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03550 | 0.00115 | 0.03654 |
| 30 | 0.00089 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03500 | 0.00123 | 0.03611 |
| 31 | 0.00095 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03450 | 0.00133 | 0.03578 |
| 32 | 0.00101 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03400 | 0.00145 | 0.03549 |
| 33 | 0.00108 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03350 | 0.00158 | 0.03515 |
| 34 | 0.00115 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03300 | 0.00173 | 0.03471 |
| 35 | 0.00123 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03250 | 0.00189 | 0.03409 |
| 36 | 0.00132 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03200 | 0.00206 | 0.03286 |
| 37 | 0.00142 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03150 | 0.00225 | 0.03139 |
| 38 | 0.00154 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03100 | 0.00244 | 0.02973 |
| 39 | 0.00166 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03050 | 0.00264 | 0.02787 |
| 40 | 0.00180 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.03000 | 0.00284 | 0.02585 |
| 41 | 0.00197 | 0.15000 | 0.00000 | 0.17000 | 0.00000 | 0.02950 | 0.00304 | 0.02352 |
| 42 | 0.00220 | 0.15000 | 0.00000 | 0.17000 | 0.00000 | 0.02900 | 0.00325 | 0.02111 |
| 43 | 0.00249 | 0.15000 | 0.00000 | 0.17000 | 0.00000 | 0.02850 | 0.00344 | 0.01868 |
| 44 | 0.00283 | 0.15000 | 0.00000 | 0.17000 | 0.00000 | 0.02800 | 0.00363 | 0.01629 |
| 45 | 0.00321 | 0.15000 | 0.00000 | 0.17000 | 0.00000 | 0.02750 | 0.00383 | 0.01400 |
| 46 | 0.00365 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02700 | 0.00403 | 0.01208 |
| 47 | 0.00413 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02650 | 0.00425 | 0.01034 |
| 48 | 0.00465 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02600 | 0.00614 | 0.00879 |
| 49 | 0.00521 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02550 | 0.00803 | 0.00744 |
| 50 | 0.00581 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02500 | 0.00992 | 0.00629 |
| 51 | 0.00645 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02450 | 0.01052 | 0.00551 |
| 52 | 0.00713 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02400 | 0.01120 | 0.00493 |
| 53 | 0.00784 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02350 | 0.01192 | 0.00451 |
| 54 | 0.00859 | 0.15000 | 0.18000 | 0.17000 | 0.25000 | 0.02300 | 0.01276 | 0.00423 |
| 55 | 0.00937 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02250 | 0.01123 | 0.00406 |
| 56 | 0.01019 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02200 | 0:00970 | 0.00000 |
| 57 | 0.01104 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02150 | 0.00815 | 0.00000 |
| 58 | 0.01198 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02100 | 0.00896 | 0.00000 |
| 59 | 0.01312 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02050 | 0.00991 | 0.00000 |
| 60 | 0.01443 | 0.15000 | 0.20000 | 0.17000 | 0.30000 | 0.02000 | 0.01100 | 0.00000 |
| 61 | 0.01588 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02000 | 0.01226 | 0.00000 |
| 62 | 0.01745 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02000 | 0.01370 | 0.00000 |
| 63 | 0.01915 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02000 | 0.01482 | 0.00000 |
| 64 | 0.02110 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02000 | 0.01596 | 0.00000 |
| 65 | 0.02339 | 0.15000 | 0.15000 | 0.17000 | 0.20000 | 0.02000 | 0.01710 | 0.00000 |

## GLOSSARY

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 an allocation of pension costs to each fiscal year. Although all proper cost methods will accumulate sufficient assets to provide for members pensions, some accumulate assets more or less rapidly than others by producing higher or lower costs in the earlier years with corresponding decreasing or increasing costs in future years.

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 possibility 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.

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

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

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

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.

Net Direct Employer Contribution Rate - Contribution rate applied to the employers' active payroll. This does not include contributions made to the plan by revenue sharing or ad valorem taxes.

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 member's expected final average compensation at retirement. For current retirees or terminated members this is equivalent to the actuarial present value of their accrued benefit.

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.

