## Fifty-First

Annual Actuarial Report

## OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM

as of September 1, 2002

May 29, 2003

Board of Trustees
O maha School Employees' Retirement System
3215 Cuming
Omaha, Nebraska 68131

## Re: Fifty-First Annual Actuarial Report

Members of the Board:
Pursuant to our contract with the Omaha School District, we are pleased to submit theFiftyFirst Annual Actuarial Report of the Omaha School Employees' Retirement System (O SERS). This valuation has been performed as of September 1, 2002 for the plan year ending August 31, 2003.

The actuarial valuation is based upon employee data and assets of the retirement fund furnished by O SERS and upon factors prepared and/ or in use by Milliman USA, Inc.

In preparing our report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

We hereby further certify that all costs, liabilities, rates of interest and other factors for the System have been determined on the basis of actuarial assumptions and methods which are internally consistent, individually reasonable (taking into account the experience of the System and reasonable expectations of future experience); and which, in combination, offer our best estimate of anticipated experience under the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. D eterminations for purposes other than this may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. Any distribution of this report must be in its entirety including this cover letter, unless prior written consent from Milliman USA is obtained.

We would like to express our appreciation to Mike Smith, Director of the System, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

I, Patrice A. Beckham F.S.A., am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Brent A. Banister F.S.A., am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We respectfully submit the following report and look forward to discussing it with you.
MILLIMAN USA, Inc.
Sincerely,

## Patuci Beckhem

Patrice A. Beckham, F.S.A. Consulting Actuary


Brent A. Banister, F.S.A. Actuary

## OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM

## Table Of Contents

Page
EXECUTIVE SUMMARY ..... 1
EXHIBITS
1 SUMMARY OF FUND ACTIVITY (Market Value Basis) ..... 6
2 ACTUARIAL VALUE OF NET ASSETS ..... 7
3 ACTUARIAL BALANCE SHEET ..... 8
4 UNFUNDED ACTUARIAL LIABILITY ..... 9
5 ANALYSIS OF CONTRIBUTION RATE ..... 10
6 CALCULATION OF ACTUARIAL GAIN/ (LOSS) ..... 11
7 SCHEDULE OF EMPLOYER CONTRIBUTIONS ..... 13
8 SCHEDULE OF FUNDING PROGRESS. ..... 14
9 THREE YEAR TREND INFORMATION ..... 15
10 DEVELOPMENT OF THE NET PENSION OBLIGATION ..... 16

## APPENDICES

| Appendix A - | Historical Background |
| :--- | :--- |
| Appendix B - | Summary of Benefit and Contribution Provisions |
| Appendix C - | Actuarial Assumptions and Valuation Methods |
| Appendix D - | Membership Data |

## EXECUTIVE SUMMARY

This report presents the results of the September 1, 2002 actuarial valuation of the Omaha School Employees' Retirement System (OSERS). The primary purposes of performing the valuation are as follows:

- to certify that School District contributions equal to $100 \%$ of member's contributions, in addition to contributions paid by the members and the State, for the Plan Year beginning September 1, 2002 will be sufficient to fund the benefits expected to be paid to members, or determine the actuarial contribution rate necessary to maintain the solvency of the System,
- to disclose various asset and liability measures as of September 1,2002, and
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

The actuarial cost method and the benefit provisions reflected in this report are unchanged from last year's report. This valuation does reflect a change in assumptions as a result of the Experience Study completed in July 2002. The specific changes in the actuarial assumptions, first reflected in this valuation report, were changes to the retirement rates, withdrawal rates and probabilities of members electing a refund of contributions, as outlined below:

- Create separate retirement rates forcertificated and classified members. Experience during the study period indicated very different retirement rates for the two groups. Since the liabilities of the two groups have very different profiles, the liabilities of the System can be better approximated by using different assumptions forcertificated and classified members. The revised rates reflect higher rates of retirement forcertificated members and lower rates for classified members.
- Adjust the termination of employment assumptions to partially reflect the experience during the study period, using a new basis for analysis that weights experience by liability. Overall the recommended assumptions result in higher termination rates, particularly at younger ages.
- Modify the election of refund by vested members to reflect actual experience during the study period. The result is a move away from rates that are heavily correlated to age to rates that are fairly level regardless of age.

The net impact of the change in assumptions was a $\$ 7$ million increase in the UAL and a decrease in the normal cost rate of $0.58 \%$.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on September 1, 2002 based on the System's membership and assets on that date. The valuation results reflect net unfavorable experience for the past plan year as demonstrated by an unfunded actuarial liability that was higher than expected based on the actuarial assumptions. The unfavorable experience was the impact of a small experience loss on liabilities and a significant loss on the actuarial value of assets.

## A ssets

As of September 1, 2002, the System had total funds of $\$ 658$ million, when measured on a market value basis. This was a decrease of $\$ 104$ million from the prior year and represents a rate of return of approximately $-14.6 \%$. The components of this change are shown below:

|  | Market Value (\$M) |  |
| :--- | :---: | :---: |
| Net Assets, September 1, 2001 | $\$$ | 762 |
| - District, State and Member Contributions | + | 30 |
| - Benefit Payments and Refunds | - | 45 |
| - Administrative Expenses | - | 4 |
| - Investment G ain/ (Loss) | - | 85 |
| Net A ssets, September 1, 2002 | $\$$ | 658 |

The market value of assets is not used directly in the actuarial valuation process. The actuarial value of assets is equal to the expected asset value based on the assumed interest rate of $8.0 \%$ plus $25 \%$ of the difference between the actual market value and the expected asset value.

The change in the actuarial value of assets from September 1,2001 to September 1, 2002 is shown below:

|  | Actuarial Value (\$M) |  |
| :--- | :---: | :---: |
| Actuarial A ssets, September 1, 2001 | $\$$ | 801 |
| - District, State and Member Contributions | + | 30 |
| - Benefit Payments and Refunds | - | 45 |
| - Expected Investment Income (Based on 8.0\% assumption) | + | 62 |
| - Actuarial Investment Gain/ (Loss) | - | 47 |
| Actuarial A ssets, September 1, 2002 | $\$$ | 801 |

The dollar-weighted rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was approximately $+2.0 \%$. A comparison of asset values on both the market and actuarial basis is shown below:

|  | September 1 |  |  |
| :--- | :---: | :---: | :---: |
|  | $\underline{\mathbf{2 0 0 2}}$ | $\mathbf{2 0 0 1}$ | $\underline{\mathbf{2 0 0 0}}$ |
| Market Value of Assets | 658 | 762 | 945 |
| Actuarial Value of Assets | 801 | 801 | 764 |
| Actuarial Value/ Market Value | $122 \%$ | $105 \%$ | $81 \%$ |

The estimated rate of return on the actuarial and market value of assets for the recent past is shown below:


## Experience for Year Ended 2002

As of the valuation date, the actuarial liability is $\$ 964$ million and the actuarial value of assets is $\$ 801$ million, resulting in an unfunded actuarial liability (UAL) of $\$ 163$ million. This is an increase of $\$ 66$ million from last year's UAL. Numerous factors contributed to the change in the Systems' UAL between September 1, 2001 and September 1, 2002. The components are examined in the following discussion.

Actuarial gains (or losses) result from actual experience that is more (or less) favorable than anticipated based on the actuarial assumptions. These "experience" (or actuarial) gains or losses are reflected in the UAL and are measured as the difference between the expected unfunded actuarial liability and the actual unfunded actuarial liability, taking into account any changes due to assumption or benefit provision changes. Overall, the System experienced a net actuarial loss of $\$ 58.5$ million. Nearly $\$ 48$ million of the loss was due to the loss on the actuarial value of assets. The balance of $\$ 10$ million was due to liability experience. The largest components of liability loss were salary increases and retirement experience.

The change in the unfunded actuarial liability between September 1,2001 and 2002 is shown below (in millions):

| Unfunded Actuarial Liability, September 1, 2001 | $\$$ | 97 |
| :--- | :---: | ---: |
| - $\quad$ Expected change in UAL | + | 2 |
| - Investment experience | + | 47 |
| - Liability experience |  |  |
| - $\quad$ Salary increases | + | 6 |
| - $\quad$ New entrants/ Rehires | - | 1 |
| - Retirements | + | 4 |
| - $\quad$ Other demographic experience | + | 1 |
| - Benefit enhancements | + | 0 |
| - $\quad$ Change in actuarial assumptions | + | 7 |
| Unfunded Actuarial Liability, September 1, 2002 | $\$$ | 163 |

## Contribution Rate

The Retirement System is supported by contributions from members, the School District and the State. Members contribute $6.3 \%$ of pay by statute. The District is obligated to pay the greater of (a) one hundred percent of the member contributions or (b) such amount as may be necessary to maintain the solvency of the system. The State contributes both $0.70 \%$ of payroll and a flat dollar amount of $\$ 973,301$ each year. The valuation is performed to determine whether these contributions, with School District's contribution at $6.3 \%$ of pay, will be sufficient to fund the future benefits expected to be paid by the System. The level contribution of $\$ 973,301$ is assumed to finance the UAL. The remaining contributions, which are all related to payroll, are first applied to fund the normal cost rate. The balance is then used to amortize the remaining unfunded actuarial liability (after adjusted by the present value of future State contributions of $\$ 973,301$ ). The amortization payment is determined as a level percentage of payroll, assuming a $4 \%$ growth in payroll. The current valuation results indicate that, based on the current benefit structure and assuming all actuarial assumptions are met in future years, a District contribution rate of $6.3 \%$ of pay (the same as the member contribution rate) will not be sufficient to maintain the solvency of the System. The D istrict's actuarial contribution rate for the year ending August 31, 2003 is $7.23 \%$ of pay.

## Comments

The Nebraska statutes provide that the School District shall contribute the greater of (a) one hundred percent of the contributions by the employees or (b) such amount as may be necessary to maintain the solvency of the system, as determined annually by the board upon recommendation of the actuary and the trustees. The Trustees have adopted the criteria established in G overnmental Accounting Standard Number 25 as the basis for determining the contribution amount necessary to maintain the solvency of the System. The results of this valuation indicate that, given the contributions made by members and the State, the School District must contribute $7.23 \%$ of pay.

A nother negative investment return on the market value of assets was the most significant occurrence during the last plan year. Due to the asset smoothing method, there is $\$ 143$ million of investment loss that has not yet been recognized in the actuarial value of assets. As a result, the actuarial value of assets exceeds the market value by $\$ 143$ million. Absent market rates of return far in excess of the $8 \%$ assumed rate, this amount will flow through the smoothing mechanism over the next few years. As this occurs, it will be reflected in the unfunded actuarial liability, resulting in a higher contribution rate to finance the higher unfunded actuarial liability.

## EXHIBIT 1

# SUMMARY OF FUND ACTIVITY <br> (Market Value Basis) 

For the Year Ended August 31, 2002

NET ASSETS ON 9/1/01 \$761,973,361

## REVENUE

$\begin{array}{ll}\text { Salary deductions } & 12,848,445\end{array}$
School D istrict contributions 12,848,445
Repayment of withdrawals 1,012,193
State service annuity receipts 527,854
Sec. 79-988.01 deposit 973,301
Taxes 17
Sec. 79-916 deposits 1,338,588
Other collections 56,697
Income from investments $\underline{23,466,200}$
Total Revenue \$ 53,071,740
Net Realized and Unrealized Gain/ (Loss) (107,560,210)

Total of Revenue and Balance $\$ \mathbf{7 0 7 , 4 8 4 , 8 9 1}$

## EXPENDITURES

| Retirement Annuities | $\$ 43,060,173$ |
| :--- | ---: |
| Refunds to Employees | $2,083,011$ |
| Professional Fees | 142,734 |
| Investment Mgmt \& Custodial Fees | $3,736,607$ |
| Other Expenditures | 39,216 |
| Fiduciary Insurance | 32,294 |
| Personnel Costs | 260,067 |
| Total Expenditures | $\mathbf{\$ 4 9 , 3 5 4 , 1 0 2}$ |

NET ASSETS ON 9/ 1/ 02
\$658,130,789

## EXHIBIT 2

## ACTUARIAL VALUE OF NET ASSETS

As of September 1, 2002

1. Actuarial value of assets as of September 1, 2001
2. Actual Contribution/ Disbursements
a. Contributions
b. Benefit Payments
c. Net Change
3. Expected Value of A ssets as of September 1, 2002
$[(1) \mathrm{x} 1.08]+\left[(2 \mathrm{c}) \mathrm{x}(1.08)^{1 / 2}\right]$
4. Market Value of Assets as of September 1, 2002
5. Difference Between Market and Expected Values (4) - (3)
6. Actuarial Value of Assets as of September 1, 2002*
(3) $+[(5) \times 25 \%]$
*Estimated Rate of Return

Actuarial Value of Assets divided by Market Value of Assets as of September 1, 2002
(6) / (4)

Market Value of Assets less Actuarial Value of Assets as of September 1, 2002

848,381,878

800,819,106
\$ 800,544,438

29,548,843
45,143,184
$(15,594,341)$

658,130,789
$(190,251,089)$
$+2.0 \%$
121.7\%
\$ $(142,688,317)$

## EXHIBIT 3

# ACTUARIAL BALANCE SHEET 

As of September 1, 2002


#### Abstract

ASSETS Actuarial value of assets Present value of future Section 79-988.01 state contributions

Present value of contributions for unfunded actuarial liability

Present value of future normal costs Total Assets


## LIABILITIES

## Present Value of Future Benefits

Retired members and beneficiaries
Inactive vested members
Refunds due and unpaid to nonvested members
Active Members

| Retirement benefits | 602,422,739 |
| :--- | ---: | ---: |
| Termination benefits | $13,125,961$ |
| D eath benefits | $10,748,727$ |
| D isability benefits | $11,235,823$ |
| Return of employee contributions | $11,534,929$ |

## Total Liabilities

\$ 800,819,106

11,387,057

151,595,920
189,259,788
\$1,153,061,871
\$ 495,149,905
7,987,080
856,707
$\$ \quad 649,068,179$
\$1,153,061,871

## EXHIBIT 4

## UNFUNDED ACTUARIAL LIABILITY

## As of September 1, 2002

1. Present Value of Future Benefits
2. Present Value of Future Normal Costs
3. Actuarial Liability
(1) - (2)
4. Actuarial Value of Assets 800,819,106
5. Unfunded Actuarial Liability (3) - (4) 162,982,977
6. Present Value of Future

State Contributions under Section 79-988.01
$11,387,057$
6. Adjusted Unfunded Actuarial Liability
(Payable from Payroll Related Contributions)
151,595,920

## EXHIBIT 5

## ANALYSIS OF CONTRIBUTION RATE

The actuarial cost method used to determine the required level of annual contributions to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability payment. The System is financed by contributions from the members, the School District and the State. The members contribute $6.3 \%$ of pay. The District is obligated to pay the greater of (a) one hundred percent of the member contributions or (b) such amount as may be necessary to maintain the solvency of the System. The Board has set a benchmark of compliance with the Governmental Accounting Standard Board (GASB) Statement Number 25 for the definition of maintaining the solvency of the System. The State contributes $0.70 \%$ of pay plus a level payment of $\$ 973,301$. Because this last payment is not related to payroll, the present value of these contributions is used to finance the UAL. The contributions related to payroll are first applied to pay the normal cost rate. The remaining contribution is then used to amortize the unfunded actuarial liability as a level percentage of payroll, which determines the period necessary to amortize the unfunded actuarial liability. For the current valuation, a District contribution equal to the member's contributions will not be sufficient to maintain the solvency of the System. As a result, the payment on the UAL, as a percent of pay is determined based on the GASB 25 standard.

1. (a) Normal Cost Adjusted to Mid-Year ..... \$ 22,758,821(b) Covered Payroll for Members UnderAssumed Retirement Age\$212,241,690(c) Normal Cost Rate
(a) / (b) ..... 10.72\%
2. Unfunded Actuarial Liability at Valuation Date ..... \$ 151,595,920
(Payable from Payroll Related Contributions)*
3. 40 Year Amortization Factor (Level Percent of Pay) ..... 21.033123
4. Payment on Unfunded Actuarial Liability (UAL), Adjusted to Mid-year [(2)/ (3)] x (1.08) ${ }^{1 / 2}$ ..... 7,490,238
5. Expected Payroll for FYE August 31, 2003 ..... \$213,231,888
6. UAL Payment as a Percent of Payroll
(4)/ (5) ..... 3.51\%
7. Total Actuarial Contribution Rate (1c) $+(6)$ ..... 14.23\%
8. Member Contribution Rate
(1c) + (6) ..... 6.30\%
9. State Contribution Rate (excluding contribution under Section 79-988.01) ..... 0.70\%
10. School District Contribution Rate

(7) - (8) - (9)

7.23\%

[^0]
## EXHIBIT 6

## CALCULATION OF ACTUARIAL GAIN/ (LOSS)

The overall actuarial gain/ (loss) is comprised of both a liability gain/ (loss) and an actuarial asset gain/ (loss). Each of these represents the difference between the expected and actual values as of September 1, 2002.

1. Expected Actuarial Liability
a. Actuarial Liability as of September 1, $2001 \quad \$ 897,398,640$
b. Normal Cost as of September 1, 2001
c. Benefit payments for Plan Year Ending

August 31, 2002
45,143,184
d. Interest on $\mathrm{a}, \mathrm{b}$. and c . to End of Year

71,761,969
e. Expected Actuarial Liability Before Benefit Changes (a) + (b) - (c)

945,780,489
f. Change in Actuarial Liability as of September 1, 2002 D ue to Changes in Assumptions 7,135,598
g. Expected Actuarial Liability as of September 1, 2002
(e) + (f)
\$ 952,916,087
2. Actuarial Liability as of September 1, 2002 \$ 963,802,083
3. Liability Gain/ (Loss) (1.g.) - (2)
\$ $(10,885,996)$
4. Liability Gain/ (Loss) as a Percent of Actuarial Liability
5. Expected Actuarial Value of Assets
a. Actuarial Value of Assets as of September 1, 2001 \$ 800,544,438
b. Contributions for Plan Year Ending August 31, 2002 29,548,843
c. Benefit Payments for Plan Year Ending August 31, 2002

45,143,184
d. Interest on a., b. and c. to End of Y ear

63,431,781
e. Expected Actuarial Value of Assets as of September 1, 2002
(a) + (b) - (c) + (d)
\$ 848,381,878
6. Actuarial Value of Assets as of September 1, 2002 \$ 800,819,106
7. Asset Gain/ (Loss)
(6) - (5.e.)
\$ $(47,562,772)$
8. Overall Actuarial Gain/ (Loss)

$$
(3)+(7)
$$

\$ $(58,448,768)$

## Gain/ (Loss) By Source

The Plan experienced an actuarial loss of $\$ 58.4$ million during the plan year ended August 31, 2002.
The major components of this overall loss are shown below:

| Liability Sources | \$Millions |
| :--- | :---: |
| Salary Increases | $\$(6.5)$ |
| Deaths | $(1.4)$ |
| Terminations | 2.4 |
| Retirements | $(4.3)$ |
| Disability | 0.0 |
| New Entrants | $(0.7)$ |
| Rehires | $\underline{(0.4)}$ |
| Total Liability Gain/ (Loss) | $\$(10.9)$ |
| Asset Gain/ (Loss) | $\$(47.5)$ |
| Net Actuarial Gain/ (Loss) | $\$(58.4)$ |

## Comments

The purpose of conducting an actuarial valuation of a retirement system is to determine the costs and liabilities for the benefits under the system, to determine the annual level of contribution required to support these benefits and, finally, to analyze the system's overall experience as it compares with the actuarial assumptions used in the valuation. The costs and liabilities of a retirement system reported in the valuation depend not only upon the level of benefits provided but also upon factors such as investment return on invested funds, mortality rates for active and retired members, withdrawal rates among active members, rates at which salaries increase, and rates of retirements for ages at which members retire. The actuarial assumptions employed as to these and other contingencies in the current valuation are set forth in Appendix C of this report.

The estimated investment return, as measured on the actuarial value of assets, is $2.0 \%$. This return produced an actuarial loss of about $\$ 47.5$ million. The amount of the loss is the difference between the actual actuarial value of assets on September 1, 2002, and the expected actuarial value on that date (where the expected value is based on the $8.0 \%$ assumed interest rate).

There was a net actuarial loss during the year from actual verses expected demographic experience. The primary source of the loss was from salary experience (increases greater then anticipated). Experience from all other assumptions had very minimal impact. Overall, the loss was about $1 \%$ of actuarial liability, indicating that the assumptions are being reasonably met. The changes to the actuarial assumptions made following the experience study are expected to reduce the liability losses in the future.

## EXHIBIT 7

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

In Accordance with Statement No. 25 of the Governmental Accounting Standards Board

| Fiscal <br> Year <br> Ending | Annual <br> Required Contribution <br> (a) | Total <br> Employer Contribution <br> (b) | Percentage of ARC Contribution (b/a) |
| :---: | :---: | :---: | :---: |
| 8/31/97 | 12,663,239 | 12,663,239 | 100.0\% |
| 8/31/98 | 12,816,177 | 12,816,177 | 100.0\% |
| 8/31/99 | 14,703,164 | 14,703,164 | 100.0\% |
| 8/31/00 | 14,750,128 | 14,750,128 | 100.0\% |
| 8/31/01 | 15,435,941 | 15,435,941 | 100.0\% |
| 8/31/02 | 15,494,083 | 15,160,351 | 97.8\% |

Notes to the Required Schedules:
1 The cost method used to determine the ARC is the Entry Age Normal Cost Method.
2 The assets are shown at actuarial value which is a market-related smoothed value.
3 Economic assumptions are:
Inflation: 3.5\%
Investment Return: 8.0\%
Salary increases: 4\% plus merit of 0 to $2.6 \%$
Post-retirement increases: 1.5\%
4 The amortization method is an open period, level percentage of payroll.

## EXHIBIT 8

## SCHEDULE OF FUNDING PROGRESS

In Accordance with Statement Nos. 25 and 27 of the Governmental Accounting Standards Board

| Actuarial Valuation Date | Actuarial Value of A ssets (a) | Actuarial Accrued Liability (AAL) <br> (b) | Unfunded AAL <br> (UAAL) <br> (b-a) | Funded Ratio (a / b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll $[(b-a) / c]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9/1/96 | 497,174,628 | 498,638,698 | 1,464,070 | 99.71\% | 155,148,974 | 0.94\% |
| 9/1/97 | 552,614,545 | 629,006,550 | 76,392,005 | 87.86\% | 159,480,000 | 47.90\% |
| 9/1/98 | 593,850,065 | 674,707,945 | 80,857,880 | 88.02\% | 163,389,532 | 49.49\% |
| 9/1/99 | 660,763,772 | 745,189,416 | 84,425,644 | 88.67\% | 172,950,471 | 48.81\% |
| 9/1/00 | 764,436,759 | 842,915,774 | 78,479,015 | 90.69\% | 184,179,640 | 42.61\% |
| 9/1/01 | 800,544,438 | 897,398,640 | 96,854,202 | 89.21\% | 199,851,531 | 48.46\% |
| 9/1/ 02 | 800,819,106 | 963,802,083 | 162,982,977 | 83.09\% | 212,241,690 | 76.79\% |

## EXHIBIT 9

## THREE YEAR TREND INFO RMATION

In Accordance with Statement No. 27 of the<br>G overnmental Accounting Standards Board

| Fiscal Year <br> Ended |  | Annual <br> Pension <br> Cost (APC) |  | Percentage <br> of APC <br> Contributed |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Net <br> Pension <br> Obligation |  |
|  |  |  | $14,750,128$ |  |
| $1 / 00$ |  | $100.00 \%$ |  | 0 |
| $8 / 31 / 01$ |  | $15,435,941$ |  | $100.00 \%$ |

Notes to the Schedule:

1 The cost method used to determine the ARC is the Entry Age Normal Cost Method.
2 The assets are shown at actuarial value which is a market-related smoothed value.
3 Economic assumptions are:
Inflation: 3.5\%
Investment Return: 8.0\%
Salary increases: 4\% plus merit of 0 to $2.6 \%$
Post-retirement increases: 1.5\%
4 The amortization method is an open period, level percentage of payroll.

## EXH IBIT 10

## DEVELO PMENT OF THE NET PENSION OBLIGATION

## In Accordance with Statement No. 27 of the Governmental Accounting Standards Board

| Fiscal Year Ending August 31, |  | 1998 |  | 1999 |  | 2000 |  | 2001 | 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A ssumptions and Method: |  |  |  |  |  |  |  |  |  |
| Interest Rate |  | 8.00\% |  | 8.00\% |  | 8.00\% |  | 8.00\% | 8.00\% |
| Amortization Period |  | 11.66 years |  | 16.41 years |  | 16.65 years |  | 29.27 years | 40.00 years |
| Cost Method |  | Entry Age Normal |  | Entry Age Normal |  | Entry Age Normal |  | Entry Age Normal | Entry Age <br> Normal |
| Annual Pension Cost: |  |  |  |  |  |  |  |  |  |
| Annual Required Contribution (ARC) | \$ | 12,816,177 | \$ | 14,703,164 | \$ | 14,750,128 | \$ | 15,435,941 | 15,494,083 |
| Interest on NPO |  | 0 |  | 0 |  | 0 |  | 0 | 0 |
| Adjustment to ARC |  | 0 |  | 0 |  | 0 |  | 0 | 0 |
| Annual Pension Cost | \$ | 12,816,177 | \$ | 14,703,164 | \$ | 14,750,128 | \$ | 15,435,941 | 15,494,083 |
| Contribution for the Year: | \$ | 12,816,177 | \$ | 14,703,164 | \$ | 14,750,128 | \$ | 15,435,941 | 15,160,351 |
| N et Pension 0 bligation ( NPO ): |  |  |  |  |  |  |  |  |  |
| NPO at beginning of year | \$ | 0 | \$ | 0 | \$ | 0 | \$ | 0 | 0 |
| Annual Pension Cost for year |  | 12,816,177 |  | 14,703,164 |  | 14,750,128 |  | 15,435,941 | 15,494,083 |
| Contributions for year |  | $(12,816,177)$ |  | $(14,703,164)$ |  | $(14,750,128)$ |  | $(15,435,941)$ | $(15,160,351)$ |
| NPO at end of year | \$ | 0 | \$ | 0 | \$ | 0 | \$ | 0 | 333,732 |

## Appendix A

## HISTO RICAL BACKGRO UND

Since 1909, the O maha School District has maintained a retirement system for its teachers. Since then, systems covering other employees were added. In 1951, the Nebraska Legislature consolidated the existing systems into one new System. Amendments of significance in the Nebraska statutes and federal Social Security Act have occurred from time to time. These changes in order of their occurrence are outlined briefly below:

## 1951 - New System

Prior to 1951, three separate retirement systems existed. In 1951 the Nebraska Legislature repealed these three separate systems and created the present single System covering all employees. This act provided, however, that a member of a pre-existing system might elect to retain his benefit and contribution rights under one of the former systems in lieu of the new System benefits and contributions. The members who so elected then became known by the following titles for retirement purposes:
(1) Employees covered by the former Omaha Teachers Retirement System were known as "Teachers,"
(2) Employees covered by the former Non-Teaching Employee Retirement System were known as "Non-Teachers,"
(3) Employees covered by the former Cafeteria Employee Retirement System were known as "Cafeteria."

All other employees became members of the new System and received credit for membership service starting September 1, 1951. Benefits as well as contributions under the new System became directly related to a member's compensation by formula. The maximum covered annual compensation under the new System became $\$ 5,000$, but the maximum for Teachers, Non-Teachers and Cafeteria remained $\$ 3,000$.

## 1955 A mendments

On September 24, 1955, O maha School employees voted to become particpants in the federal Social Security program. All Social Security benefits are payable in addition to the System benefits. As a result of Social Security coverage, changes were made in the benefit and contribution formulas of the System effective August 31, 1955. In general, the changes reduced contributions and benefits to $60 \%$ of the rates formerly in effect. In addition, the maximum covered compenstion was increased from $\$ 5,000$ to $\$ 6,000$ except for Teachers, NonTeachers and Cafeteria which remained at $\$ 3,000$.

The amount contributed by the School District was also reduced to $60 \%$ of the rates in effect prior to the change and the School District's contributions, matching the refunds paid upon the withdrawal or death of employees, were retained in the retirement fund rather than being returned to the School D istrict.

## 1963 A mendments

Effective September 1, 1963, several changes were made in the new System. The limit on covered compensation for contributions and benefits of members was removed.

The service retirement annuity credit was increased in order to integrate with the modifications in federal Social Security between 1955 and 1963. The disability annuity for members was increased to $100 \%$ of the service retirement annuity accrued to date of disability and the restriction as to the number of years for which it was payable was removed. The offset in the benefit formula for the Nebraska State Service Annuity credit was placed on a year-to-year basis for all members, increasing the annuity credit for service after September 1, 1951 for active and retired alike.

The employees who were participating as Teachers, Non-Teachers and Cafeteria began to make contributions and receive benefit credits at the same rates as other members of the System. It should be noted that any employee who retained rights under a pre-existing system still receives credit in accordance with the provisions of the former system if this is more than the credit, after the State service annuity offset, would be under the 1963 amendments.

The contribution rate for employees was changed to integrate with the modifications in Social Security and was no longer subject to revision depending upon the degree of actuarial soundness of the System as had been provided in 1962. The School District became solely responsible for maintaining the solvency of the System on the basis of annual actuarial valuations. The School District again became entitled to refunds equal to the refunds paid upon withdrawal or death of employees.

The restriction prohibiting the crediting of interest on refunds to employees who withdraw from employment during the first ten years of service was removed. Thus, all employees who withdraw after one year or more of service receive interest on their contributions made since September 1, 1951.

## 1965 A mendments

Effective September 1, 1965, a pre-retirement survivor's annuity was added to the System for long-service employees. This change gave an employee with 25 or more years of service protection at death approxmately equivalent in value to the vesting which already existed at termination of employment for an employee with the same period of service.

Effective January 1, 1966, the Social Security tax base was increased from $\$ 4,800$ to $\$ 6,600$ per year. This change became effective in the System's contribution and benefit formulas as of September 1, 1966.

## 1967 A mendments

The 77th Session of the Nebraska Legislature enacted LB 494 which amended the Nebraska School Retirement System, effective October 23, 1967. A major change was the increase in the State service annuity credit from $\$ 1.50$ to $\$ 3.00$ per month for each year of credited service after July 1, 1968 and the removal of the 35 year limitation on credited State service. For the purpose of detemining the new State service annuity offset in calculating the net O maha annuity, the additional $\$ 1.50$ per month for each year of service after July 1, 1968 is not applicable, but removal of the 35 year limitation does apply. This means that the State service annuity offset is still determined on the basis of $\$ 1.50$ per month for each year of service. The increase in the State service annuity offset by virtue of eliminating the 35 year limitation represents a lower cost to the Omaha System for those members having more than 35 years of State service by age 65 .

Another change with regard to the State service annuity was the manner in which the funds are transferred from the State to the O maha System to pay these annuities. For retirements occurring after the effective date of the amendments (October 23, 1967), the State transfers the commuted value (equivalent single sum) of the individual State service annuity to the Omaha System and then the payment of the monthly annuity to the retired member is the School District's responsibility.

In 1967 the eligibility provisions for the preretirement suvivors' annuity and the vested retirement rights were changed, reducing the service required from 25 years to 20 years and thereby granting these options to a larger number of employees.

Effective January 1, 1968, the federal Social Security taxable wage base was increased from $\$ 6,600$ to $\$ 7,800$ per year. This change became effective in the System's contribution and benefit formulas as of September 1, 1968.

## 1969 A mendments

The 80th Session of the Nebraska Legislature enacted LB 530 which amended the System effective August 11, 1969. The provisions of this bill improved the benefit structure of the System in two ways. The membership annuity credits (credits after $9 / 1 / 51$ ) were increased approximately $10 \%$ and the Social Security wage base was "frozen" at the $\$ 7,800$ level for purposes of calculating benefit credits and employee contributions.

By freezing the Social Security base, benefit credits and employee contributions for service after September 1, 1969 will not be reduced by virtue of future increases in the Social Security wage base. The System benefits will remain integrated with the Social Security program at the level provided by the $\$ 7,800$ base.

## 1972 A mendments

D uring 1972, the Nebraska Legislature enacted LB 1116 which amended the System. These amendments were to become effective for retirements occurring on or after September 1, 1972. The provisions of this bill improved the benefit structure of the System and liberalized the eligibility condition for qualification upon termination for the deferred vested retirement benefit.

The benefits of the System were improved by increasing the membership annuity credits (credits after 9/1/51) by approximately $20 \%$ over those in existence on September 1, 1971.

In order to be eligible upon resignation to elect a deferred vested service annuity, the years of creditable service was reduced from 20 years to 15 years.

## 1973 A mendments

The 1973 Session of the Nebraska Legislature enacted LB 445 which created increases in the State service annuity of the Nebraska School Retirement System. LB 445 provides for (a) a State service annuity credit of $\$ 3.00$ per month for each year of creditable service for all emeritus members and for all full time school employees who retire on or after July 1, 1973 and (b) for increases in the State service annuity for members who retired prior to July 1, 1973 based upon the difference between the Consumers Price Index on the date of retirement and July 1, 1973.

## 1976 A mendments

The 1976 Session of the Nebraska Legislature enacted LB 994 which increased the membership annuity credits (credits after $9 / 1 / 51$ ) by $20 \%$.

The members' contributions were increased to $2.90 \%$ of compensation up to $\$ 7,800$ per year plus $5.25 \%$ of salary in excess of that amount.

## 1979 A mendments

The 1979 Session of the Nebraska Legislature changed the mandatory retirement date from age 65 to age 70 . Late retirement benefits are actuarially increased from what would have been payable at the normal retirement date.

## 1982 A mendments

The 1982 Session of the Nebraska Legislature enacted LB 131 which made considerable changes to the System. LB 131 was approved by the G overnor on February 19, 1982.

The most major revision in the System was to change the previous primary benefit formula from the step rate formula based on each year of salary to a final average compensation formula. The primary benefit formula became $1.5 \%$ of final average compensation for each year of creditable service not in excess of 30 . Final average compensation was then defined to be $1 / 36$ of the total compensation received during the three fiscal years of highest compensation. Also, the creditable service not in excess of 30 years was allowed to continue to accrue after the fiscal year in which the employee attains age 65. In addition, the State service annuity offset of $\$ 1.50$ per year of creditable service was removed with respect to the final average compensation formula. The prior provisions of the System were retained as a minimum benefit, recognizing creditable service for those provisions through the earlier of the date of retirement or August 31, 1983.

Another major revision in the System was to change the step rate formula for employee contributions to a level $4.90 \%$ of compensation. In addition, the provision entitling the School District to receive refunds of its own contributions equal to the contributions refunded to employees was removed.

The early retirement date was liberalized. Previously an employee needed to have either 35 years of creditable service or to have attained age 60 with 25 years of creditable service. Now an employee can retire early if he has at least 10 years of creditable service and has attained age 55.

The actuarial equivalent of the annuity payable at the end of the fiscal year in which the employee attains age 65 was changed in the following two ways:

1. for employees retiring before age 62, the monthly formula retirement annuity is a reduced amount based on the actuarial equivalent of the annuity deferred to the employee's 62nd birthday. If retirement is at age 62 or later, there is no actuarial reduction. Previously there was an actuarial reduction, based on the benefit deferred to age 65, for any retirement before age 65.
2. For employees retiring on or after age 65, the monthly formula retirement annuity is to be based on total years of creditable service (not in excess of 30) and the employee's entire compenstion history at date of retirement. Consequently, for retirements after the fiscal year in which the employee attains age 65 there is no longer an actuarial increase from the benefit available at the normal retirement date.

The eligibility provision to elect a deferred vested service annuity upon resignation was changed from 15 years of creditable service to 10 years.

## 1983 A mendments

The 1983 Session of the Nebraska Legislature enacted LB 488 which created benefit increases effective September 1, 1983 for members having retired before February 21, 1982. The amount of benefit increase was limited to the smaller of:

1. The percentage increase in the Consumer Price Index for all Urban consumers from the effective date of retirement to June 30, 1983 applied to benefits being paid and
2. The sum of $\$ 1.50$ per month for each year of creditable service and $\$ 1.00$ per month for each completed year of retirement from the effective date of retirement to June 30, 1983, actuarially adjusted for joint and survivor elections.

## 1985 A mendments

The 1985 Session of the Nebraska Legislature enacted LB 215 which removed the 30 year limit on years of service used in the benefit formula, provided for vesting after five years of service rather than ten years, and reduced the eligibility period for disability from ten years of service to five years of service.

LP215 also provided for the employer "pick up" of employee contribution under IRC 414(h), thereby allowing employee contributions to be made on a pre tax basis.

Unisex factors are now being used for determining early retirement reductions and actuarial equivalents for joint and survivor optional benefits.

## 1986 A mendments

The 1985 Session of the Nebraska Legislature enacted LB 1048 which granted increases in benefits for most retirees to reflect cost-of-living increases over the last several years. The increases ranged up to a maximum of $10.5 \%$.

## 1987 A mendments

A "window of opportunity" was created for the buy-in or buy-back of service credits for participants qualifying for that right.

## 1989 A mendments

LB 237 was enacted by the 1989 Session of the Nebraska Legislature and provided annual benefit accruals of $1.65 \%$ of final average compensation (up from 1.50\%), unreduced benefits if a member retires with 35 or more years of service, a five year certain and life thereafter annuity as the normal form of benefit (instead of just a life annuity), employee contributions of $5.8 \%$ of pay (up from 4.9\%), and increased benefits to retirees (the increases ranged up to $9.0 \%$ ). There were some other changes as a result of this bill, but none that had a direct actuarial cost impact.

## 1992 A mendments

The 1992 Session of the Nebraska Legislature enacted LB 1001 which increased annual benefit accruals from $1.65 \%$ of final average compensation to $1.70 \%$, and increased benefits to retirees ( $3 \%$ increase per year of retirement, not exceeding $9 \%$ total increase), a change in the preretirement joint and survivor option to allow it to become effective automatically after 20 years of service, and allowed employees to "buy-in" their time with other public school systems by means of a tax-deferred rollover of their refund from that System.

## 1995 A mendments

The 1995 Session of the Nebraska Legislature enacted LB505 which increased annual benefit accruals from $1.70 \%$ to $1.80 \%$ of final average compensation. It also provided for unreduced retirement benefits when the sum of age and service equals or exceeds 85 (still maintaining the age 55 minimum), and reduced early retirement reductions to $.25 \%$ per month prior to age 62 . Early retirement at 84,83 , or 82 points is also allowed with a maximum reduction of $3 \%, 6 \%$ and $9 \%$ respectively. Employee contributions were increased to $6.3 \%$ of pay. The bill also provided for a one time increase to current retirees of $3 \%$ per year since retirement (not to exceed $9 \%$ ), or if larger, $90 \%$ restoration of the purchasing power of their original pension. There are other changes resulting from this bill, which are not included since they did not have a direct actuarial impact. One change with no actuarial impact but worth noting is the provision for employer "pick up" of employee contributions to the System used to buy in outside service, pursuant to Section 414(h) of the Internal Revenue Code.

## 1998 A mendments

The 1998 Session of the Nebraska Legislature enacted LB497 which increased annual benefit accruals from $1.80 \%$ to $1.85 \%$ of final average compensation. The bill also provided for a one time increase to current retirees of 3\% per year since retirement (not to exceed 9\%) and provides an annual automatic cost of living adjustment, not greater than $1.5 \%$, beginning January $1,2000$.

## 2000 A mendments and Cost of Living Adjustment

The 2000 session of the Nebraska Legislature enacted LB155 which increased accruals from $1.85 \%$ to $2.00 \%$ of final average compensation.

Pursuant to LB497, the OSERS Board and the Omaha School District Board authorized a 1.5\% discretionary COLA beginning January 1,2000 in addition to the automatic CO LA.

## 2001 A mendments and Cost of Living Adjustment

The 2001 session of the Nebraska Legislature enacted LB711 which provided that certain members who previously left employment due to pregnancy could purchase their "lost" service. It also provided a postretirement supplemental benefit to assist with medical costs. The supplement commences 10 years after retirement, beginning at $\$ 10$ per month for each year retired and increasing by $\$ 10$ each year to a maximum of $\$ 250$ per month. For retirees with less than twenty years of service, the benefit is reduced proportionately.

Additionally, the O SERS Board and the Omaha School Board authorized a discretionary COLA to restore full purchasing power, beginning January 1, 2001, in addition to the automatic CO LA.

## 2002 Cost of Living A djustment

The automatic 1.5\% COLA was granted beginning January 1, 2002.

## Appendix B

## SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS

(Based on Latest Amendments Outlined in Appendix A.)

## Contributions

Employee Contributions: Employees contribute 6.30\% of compensation. Such contributions are payable each year while employed. Contributions accumulated with interest are refundable at resignation unless the vested retirement benefit has been elected and at death unless the pre-retirement survivor's benefit has been elected.

State Contribution: The State contributes annually an amount equal to $0.7 \%$ of the members' compensation plus a level payment of $\$ 973,301$.

School District Contribution: The School District contributes the greater of (a) one hundred percent of the contributions by the employees or (b) such amount as may be necessary to maintain the solvency of the system, as determined annually by the board upon recommendation of the actuary and the trustees.

Interest Credited on Refunds Contributions made prior to September 1, 1951 and refunded at withdrawal or death are not credited with interest. Contributions after September 1, 1951 are credited with interest at the rate declared annually by the Board of Education upon the recommendation of the Board of Trustees.

## Benefits

General: The System provides annuities upon retirement from service or disability and upon death to designated survivors.

The service annuity formula is the greater of:

1. $2.00 \%$ per year of creditable service times the final average compensation, or
2. the minimum formulas as summarized on the next page of this report (for service to August 31, 1983).

Final average compensation is defined as $1 / 36$ of the total compenstion received during the three fiscal years of highest compensation.

The disability annuity, the pre-retirement survivor annuity and the vested retirement right are summarized in the following sections.

Benefits in pay status are subject to an annual cost of living adjustment of $15 \%$ beginning January $1,2000$. Effective $O$ ctober 3, 2001, a medical cost of living adjustment is payable to retired members. Such amount will commence 10 years after retirement and shall be an amount equal to $\$ 10$ per month for each year retired (subject to a maximum of $\$ 250$ per month), prorated for years of service less than 20.

Retirement A nnuities To begin receiving a retirement annuity the employee must have left the employment of the School district, selected a retirement date and
(a) remained employed until his or her 65th birthday and completed at least five years of creditable O maha service,
or
(b) have 10 years of creditable service (with at least five of those years being creditable O maha service) and attained age 55.

If an employee begins receiving an annuity after age 62 or when age and service equals or exceeds 85 , there is no adjustment for the retirement annuity. If, however, an employee begins receiving an annuity before age 62 , such annuity shall be reduced by $.25 \%$ for each month prior to age 62 , provided that if 84 points have been achieved the reduction is limited to $3 \%$, if 83 points, $6 \%$, and 82 points, $9 \%$.

Disability Retirement Annuities Each employee who becomes totally disabled and who has completed five or more years of creditable 0 maha service is entitled to a disability retirement annuity equal to the amount of service annuity earned to date of disability. The disability retirement annuity is payable each month until the earlier of the following events:

1. disability ceases,
2. the disabled employee reaches age 65.

If the disabled employee reaches age 65 , he is then entitled to the retirement allowance without reduction for amounts paid on account of disability, without credit for service during the period of disabilify.

Pre-Retirement Survivor Annuities Upon the death of a member who has completed 20 or more years of creditable service and who has not retired, a pre retirement survivor annuity shall be paid to the member's primary beneficiary. The survivor must be a spouse or one other person whose attained age in the calendar year of the member's death is no more than 10 years less than the attained age of the member in such calendar year. The survivor annuity is the actuarial equivalent of the member's annuity accrued to the date of death, determined on the basis of the member's and beneficiary's attained ages on said date. The survivor annuity is payable in lieu of a refund of the member's accumulated contributions. However, a member may elect out of the survivor annuity and specify that such a refund be paid in lieu of the annuity. An election out of the pre-retirement survivor annuity is entirely independent of the election of a joint and survivor option at retirement. Within 60 days after the member's death, the beneficiary may request a refund of the member's accumulated contributions instead of the annuity; provided, however, that the member may direct the System to pay only an annuity.

If the member (not retired) has less than 20 years of creditable service, or the beneficiary does not meet the requirements stated above, a refund of the member's accumulated contributions shall be paid.

Vested Retirement Right: Each employee who has completed five or more years of creditable Omaha service is eligible upon resignation to elect a deferred vested service annuity, first payable as an unreduced amount at age 65 , in lieu of a refund of his accumulated contributions. With ten or more years of total creditable service (including at least five years of creditable O maha service), the deferred vested service annuity could commence, unreduced, at age 62 . If benefits start before age 62 (but not earlier than attained age 55), the benefit shall then be reduced as described above.

## Appendix C

## ACTUARIAL ASSUMPTIONS AND VALUATION METHODS

The valuation assumptions and methods used in conducting the current actuarial valuation are as follows:

## Actuarial Assumptions

Interest Rate:
Mortality Rates:
$8.0 \%$ per annum, compounded annually, net of expenses.
1994 G roup Annuity Table for males. 1994 Group Annuity Table for females.

Illustrative rates of mortality are as follows:

| Annual Deaths <br> per 100 Members |  |  |
| :---: | :---: | :---: |
| Age <br> 20 | Male | Female <br> 25 |
| 0.05 | 0.03 |  |
| 30 | 0.07 | 0.03 |
| 35 | 0.08 | 0.04 |
| 40 | 0.09 | 0.05 |
| 45 | 0.11 | 0.07 |
| 50 | 0.16 | 0.10 |
| 55 | 0.26 | 0.14 |
| 60 | 0.44 | 0.23 |
| 65 | 0.80 | 0.44 |
| 70 | 1.45 | 0.86 |
| 75 | 3.37 | 1.37 |
| 80 | 6.72 | 2.27 |
|  |  | 3.94 |

For disabled retirees these rates are set forward ten years.
Disability Rates:
Illustrative rates of disability are as follows:

| Annual Disabilities <br> per 100 Members |  |  |  |
| :---: | :---: | :---: | :---: |
| Age | $\frac{\text { Number }}{20}$ | $\frac{\text { Age }}{45}$ | $\frac{\text { Number }}{0.08}$ |
| 20 | 0.03 | 50 | 0.12 |
| 30 | 0.04 | 50 | 0.20 |
| 35 | 0.04 | 55 | 0.42 |
| 40 | 0.06 |  |  |
|  |  |  |  |

Withdrawal Rates: (prior to retirement eligibility):

Illustrative rates of withdrawal are as follows:
Certificated:
Annual Withdrawals
per 100 Members
(first five years)

| Age | $\frac{\text { Male }}{}$ | Female |
| ---: | ---: | ---: |
| 20 | 12.0 | 19.0 |
| 25 | 12.0 | 16.0 |
| 30 | 12.0 | 10.5 |
| 35 | 12.0 | 10.0 |
| 40 | 11.0 | 10.0 |
| 45 | 11.0 | 6.0 |
| 50 | 11.0 | 5.0 |
| 55 | 4.0 | 3.5 |
| ove | 4.0 | 3.5 |

Annual Withdrawals
per 100 Members
(after five years)

| $\frac{\text { Age }}{}$ | $\underline{\text { Male }}$ |  |
| ---: | ---: | ---: |
| 20 | 10.0 | Female |
| 25 | 10.0 | 13.0 |
| 30 | 9.0 | 11.0 |
| 35 | 8.0 | 7.0 |
| 40 | 1.5 | 2.0 |
| 45 | 1.1 | 1.5 |
| 50 | 1.0 | 1.0 |
| 55 | 0.8 | 0.8 |
| ove | 0.8 | 0.8 |

Classified:

| Annual Withdrawals <br> per 100 Members <br> (first five years) |  |  |
| ---: | ---: | ---: |
| $\frac{\text { Age }}{20}$ | $\frac{\text { Male }}{25.0}$ | $\frac{\text { Female }}{30.0}$ |
| 25 | 25.0 | 28.5 |
| 30 | 13.0 | 21.0 |
| 35 | 6.0 | 16.0 |
| 40 | 6.0 | 11.0 |
| 45 | 6.0 | 9.0 |
| 50 | 6.0 | 9.0 |
| 55 | 6.0 | 9.0 |
| 60 \& above | 6.0 | 9.0 |

Annual Withdrawals
per 100 Members
(after five years)

| Age | $\quad$ Male | Female |
| :---: | :---: | :---: |
| 10.0 | 25.0 |  |


| 25 | 10.0 | 28.0 |
| :--- | :--- | :--- |


| 30 | 9.7 | 18.0 |
| :--- | :--- | :--- |

$35 \quad 4.4 \quad 9.0$
$40 \quad 2.4 \quad 4.6$
$45 \quad 2.0 \quad 4.0$

| 50 | 1.7 | 3.0 |
| :--- | :--- | :--- |

$55 \quad 1.4 \quad 3.0$
60 \& above $\quad 1.4 \quad 3.0$
Retirement Rates:
Early retirement rates are assumed to occur according to the schedule illustrated below:
Certificated:

| $\frac{\text { Age }}{55}$ | $\frac{\text { Early }}{10 \%}$ | $\frac{84 \text { Points }}{50 \%}$ | $\frac{83 \text { Points }}{30 \%}$ | $\frac{82 \text { Points }}{20 \%}$ |
| :--- | :---: | :---: | :---: | :---: |
| 55 | 10 | 45 | 20 | 30 |
| 56 | 10 | 40 | 30 | 30 |
| 57 | 10 | 30 | 20 | 20 |
| 58 | 10 | 42 | 20 | 10 |
| 59 | 10 | 42 | 40 | 45 |
| 60 | 10 | 30 | 40 |  |
| 61 | 25 | 20 | 10 | 60 |

Classified:

| $\frac{\text { Age }}{}$ | Early | 84 Points | 83 Points |  |  | 82 Points |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 55 | $5 \%$ | $5 \%$ | $5 \%$ | $5 \%$ |  |  |
| 56 | 5 | 5 | 5 | 5 |  |  |
| 57 | 5 | 5 | 5 | 5 |  |  |
| 58 | 5 | 5 | 30 | 5 |  |  |
| 59 | 5 | 40 | 10 | 5 |  |  |
| 60 | 5 | 10 | 10 | 10 |  |  |
| 61 | 20 | 30 | 70 | 5 |  |  |

Unreduced (age 62 or 85 points) retirement rates are assumed to occur according to the schedule illustrated below:

## Certificated:

| Age | 1st Y ear Eligible | Ultimate |
| :---: | :---: | :---: |
| 55 | 45 | 30\% |
| 57 | 45 | 30 |
| 59 | 33 | 30 |
| 61 | 35 | 35 |
| 63 | 50 | 30 |
| 65 | 35 | 30 |
| 67 | 35 | 35 |
| 69 | 100 | 100 |

Classified:

| $\frac{\text { Age }}{}$ | 1st Year Eligible |  |  |
| :---: | :---: | :---: | :---: |
| 55 | 30 |  | Ultimate |
| 57 | 30 | 30 |  |
| 57 | 20 | 30 |  |
| 59 | 10 | 30 |  |
| 61 | 20 |  | 35 |
| 63 | 20 | 35 |  |
| 65 | 20 | 35 |  |
| 67 | 20 |  | 25 |
| 69 | 100 | 100 |  |
| 70 |  |  | 100 |

Salary Scale:
Salaries are assumed to increase according to the schedule illustrated below:

Certificated:

| Age | Annual <br> Salary Increase |
| :---: | :---: |
| 20 | $5.6 \%$ |
| 25 | 5.6 |
| 30 | 5.6 |
| 35 | 5.6 |
| 40 | 5.6 |
| 45 | 5.0 |
| 50 | 4.6 |
| 55 | 4.3 |
| 60 | 4.1 |
| 65 | 4.0 |
| 70 | 4.0 |

Classified:

| Age | Annual <br> Salary Increase |
| :---: | :---: |
|  | $4.7 \%$ |
| 25 | 4.7 |
| 30 | 4.7 |
| 35 | 4.7 |
| 40 | 4.7 |
| 45 | 4.7 |
| 50 | 4.5 |
| 55 | 4.3 |
| 60 | 4.1 |
| 65 | 4.0 |
| 70 | 4.0 |

Pre-Retirement Survivor Annuity:

Refunds to Members:

It is assumed that females are three years younger than males, and that the percent of members married varies by age and sex.

The probability of withdrawing contributions rather than taking a deferred vested benefit assumed to follow the schedule below:

| Age  Certificated <br> 25 $80 \%$  | Classified <br> 30 | 80 | 70 |
| :---: | :---: | :---: | :---: |
| 30 | 80 | 70 |  |
| 35 | 80 | 70 |  |
| 40 | 75 | 70 |  |
| 45 | 75 | 60 |  |
| 50 |  | 50 |  |

7.00\% annually, compounded.
3.50\% annually, compounded
4.00\% annually, compounded

## Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the individual entry-age actuarial cost method, and has the following characteristics.
(i) The annual normal costs for individual active member are sufficient to accumulate the value of the member's pension at time of retirement.
(ii) Each annual normal cost is a constant percentage of the member's year-by-year projectedpensionable compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry-age of the member and the assumed exit-ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accred liability determines the unfunded actuarial accrued liability.

## Asset Valuation Method

Assets are valued at expected value at the valuation date plus $25 \%$ of the difference between the market value and expected value. As a starting point for implementation of this asset valuation method, the actuarial value of assets as of September 1, 1996 was set equal to the market value.

## Appendix D

## SUMMARY OF MEMBERSHIP DATA

|  | Active and <br> Leave of <br> absence | Deferred <br> Vested | Retired <br> and <br> Beneficiaries |
| :--- | :---: | :---: | :---: |
| Members on $9 / 1 / 01$ | 6,259 | 368 | 2,529 |
| New Entrants | +741 | +56 | $+202^{*}$ |
| Terminations: | -451 | -24 | 0 |
| Withdrawals | -1 | 0 | 0 |
| Death | -175 | -6 | $-89 * *$ |
| Retirement | +10 | -10 | 0 |
| Back to Active | 6,383 | 384 | 0 |
| Members on $9 / 1 / 02$ |  |  | 2,642 |

* In addition to the retirements from actives, leave of absence, or deferred vested, this new entrant number includes any beneficiaries of actives or retirees who died in the last fiscal year.
** This death number includes any period certain payments ending during the year.


# OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS 

as of September 1, 2002
Males and Females

| Age | 0 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | Service $20 \text { to } 24$ | 25 to 29 | 30 to 34 | 35 \& Up | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 25 | 291 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 291 |
| 25 to 29 | 678 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 727 |
| 30 to 34 | 407 | 226 | 41 | 0 | 0 | 0 | 0 | 0 | 674 |
| 35 to 39 | 284 | 127 | 149 | 28 | 1 | 0 | 0 | 0 | 589 |
| 40 to 44 | 292 | 154 | 124 | 146 | 24 | 1 | 0 | 0 | 741 |
| 45 to 49 | 310 | 183 | 129 | 99 | 147 | 80 | 0 | 0 | 948 |
| 50 to 54 | 271 | 157 | 195 | 125 | 105 | 238 | 111 | 0 | 1,202 |
| 55 to 59 | 175 | 88 | 124 | 113 | 54 | 77 | 67 | 8 | 706 |
| 60 to 64 | 83 | 57 | 80 | 49 | 37 | 18 | 10 | 11 | 345 |
| 65 \& Up | 40 | 46 | 26 | 14 | 15 | 9 | 6 | 4 | 160 |
| Total | 2,831 | 1,087 | 868 | 574 | 383 | 423 | 194 | 23 | 6,383 |

Age Distribution


Service Distribution


# OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM SUMMARY OF DEFERRED VESTED MEMBERS 

as of September 1, 2002

Age

| Number |  |  |
| :---: | :--- | :--- |
| Males | Females | Total |


| Monthly Benefit at Unreduced Retirement |  |  |
| :--- | :--- | :--- |
| Males | Females | Total |


| Under 25 | 0 | 0 | 0 | $\$$ | - | $\$$ | - |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25 to 29 | 2 | 2 | 4 |  | 544 | 491 | 1,034 |
| 30 to 34 | 8 | 54 | 62 |  | 2,385 | 16,078 | 18,464 |
| 35 to 39 | 15 | 51 | 66 |  | 5,679 | 19,170 | 24,850 |
| 40 to 44 | 7 | 52 | 59 |  | 3,085 | 24,259 | 27,344 |
| 45 to 49 | 7 | 58 | 65 |  | 4,392 | 27,826 | 32,218 |
| 50 to 54 | 6 | 66 | 72 |  | 8,973 | 37,021 | 45,993 |
| 55 to 59 | 12 | 28 | 40 |  | 7,323 | 13,032 | 20,356 |
| 60 to 64 | 0 | 16 | 16 |  | - | 4,688 | 4,688 |
| 65 \& Up | 0 | 0 | 0 |  | - | - | - |
|  | Total | 57 | 327 | 384 | $\$$ | 32,381 | $\$$ |

Age Distribution


# OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM SUMMARY OF RETIRED MEMBERS 

## as of September 1, 2002

| Age | Number |  |  | Total Monthly Benefit |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Total |  | Males |  | emales |  | Total |
| Under 50 | 5 | 7 | 12 | \$ | 1,145 | \$ | 1,540 | \$ | 2,685 |
| 50 to 54 | 4 | 7 | 11 |  | 5,592 |  | 10,861 |  | 16,453 |
| 55 to 59 | 149 | 205 | 354 |  | 388,562 |  | 425,186 |  | 813,748 |
| 60 to 64 | 164 | 295 | 459 |  | 360,226 |  | 480,247 |  | 840,473 |
| 65 to 69 | 165 | 361 | 526 |  | 293,889 |  | 462,356 |  | 756,245 |
| 70 to 74 | 131 | 292 | 423 |  | 190,001 |  | 317,957 |  | 507,958 |
| 75 to 79 | 124 | 251 | 375 |  | 156,203 |  | 253,808 |  | 410,011 |
| 80 to 84 | 70 | 172 | 242 |  | 75,353 |  | 159,348 |  | 234,702 |
| 85 to 89 | 34 | 114 | 148 |  | 20,683 |  | 76,013 |  | 96,696 |
| 90 to 94 | 12 | 50 | 62 |  | 7,400 |  | 27,257 |  | 34,657 |
| 95 \& Up | 4 | 26 | 30 |  | 2,336 |  | 15,304 |  | 17,639 |
| Total | 862 | 1,780 | 2,642 | \$ | 1,501,390 | \$ | 2,229,878 | \$ | 3,731,268 |

Age Distribution


Average Benefit


# OMAHA SCHOOL EMPLOYEES' RETIREMENT SYSTEM SUMMARY OF ACTIVE MEMBERS 

as of September 1, 2002

| Age | Number |  |  | Salaries |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Total |  | Males |  | Females |  | Total |
| Under 25 | 58 | 233 | 291 | \$ | 1,511,487 | \$ | 5,592,392 | \$ | 7,103,879 |
| 25 to 29 | 168 | 559 | 727 |  | 4,940,808 |  | 16,454,584 |  | 21,395,392 |
| 30 to 34 | 168 | 506 | 674 |  | 5,537,189 |  | 15,643,116 |  | 21,180,305 |
| 35 to 39 | 154 | 435 | 589 |  | 5,203,797 |  | 13,754,909 |  | 18,958,706 |
| 40 to 44 | 185 | 556 | 741 |  | 6,690,518 |  | 17,584,966 |  | 24,275,484 |
| 45 to 49 | 250 | 698 | 948 |  | 9,277,356 |  | 23,572,304 |  | 32,849,660 |
| 50 to 54 | 305 | 897 | 1,202 |  | 13,751,601 |  | 34,188,629 |  | 47,940,230 |
| 55 to 59 | 191 | 515 | 706 |  | 7,868,474 |  | 18,374,484 |  | 26,242,958 |
| 60 to 64 | 98 | 247 | 345 |  | 2,857,199 |  | 6,754,168 |  | 9,611,367 |
| 65 \& Up | 78 | 82 | 160 |  | 1,913,978 |  | 1,759,929 |  | 3,673,907 |
| Total | 1,655 | 4,728 | 6,383 | \$ | 59,552,407 | \$ | 53,679,481 | \$ | 13,231,888 |

## Average Salary by Age




[^0]:    *Unfunded actuarial liability after reduction for present value of future State contributions under Section 79-988.01.

