# Nebraska Public Employees Reti rement Systems School Reti rement System 2001 <br> Forty-ninth Actuarial Report for <br> State Fiscal Year Ending June 30, 2003 <br> and <br> System Plan Year Beginning July 1, 2001 

November 2001

# Nebraska Public Employees Retirement Systems SCHOOL SYSTEM 

## TABLE OF CONTENTS

Letter of Certification
Summary of Actuari al Report
Executive Summary
Exhibit
Number Title Page
1 System Assets ..... 1
2 Excess Formula Annuity Funding ..... 5
3 Service Annuity Funding ..... 6
4 Actuarial (Gain)/Loss ..... 10
5 Actuarial Balance Sheet ..... 12
6 Accounting Information ..... 14
7 Summary of Member Data ..... 16
8 Forecast of Expected Disbursements ..... 20
9 Summary of Plan Provisions ..... 21
10 Summary of Actuarial Methods and Procedures as of July 1, 2001 ..... 27
11 Summary of Actuarial Assumptions as of July 1, 2001 ..... 30

November 30, 2001

Public Employees Retirement Board
Nebraska Public Employees Retirement Systems
Post Office Box 94816
Lincoln, NE 68509

## Certification of Actuarial Valuation School Retirement System

Ladies and Gentlemen:
This report summarizes the results of the actuarial valuation of the School Retirement System as of July 1, 2001, performed by Buck Consultants, Inc.
The actuarial valuation is based on unaudited financial and member data provided to us by the Nebraska Public Employees Retirement Systems and summarized in this report. The benefits considered are those delineated in Nebraska State Statutes, effective as amended July 1, 2001, including plan changes made by LB 711, effective July 1, 2001.
All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures, using actuarial cost methods, which we believe, are reasonable and that follow the Nebraska State Statutes. This report fully and fairly discloses the actuarial position of the plan.
In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and reasonable expectations, and represent our best estimate of the anticipated experience under the plan. Summaries of the actuarial assumptions used in this actuarial valuation are shown in Exhibit 11.
Based on the results of our actuarial valuation, the School Retirement System is actuarially sound. The contributions paid by members, school employers, and the State defined by statute to fund the Excess Formula Annuity are more than sufficient to meet the actuarially required contribution. Annual funding required from the State defined by statute for Service Annuity benefits is equal to the sum of the annual normal cost and the annual payment necessary to amortize unfunded frozen liabilities over 25 years. For the 2002-2003 fiscal year, that amount is $\$ 0$.
We are available to answer any questions on the material contained in this report, or to provide explanations to further details as may be appropriate.
Respectively submitted,
BUCK CONSULTANTS, INC.

William B. Fornia, F.S.A., E.A., M.A.A.A. Principal and Consulting Actuary

## Summary of Actuarial Report for Contribution Requi rements and Funded Status for Plan Year 2001/ 2002

The main purposes of this report are:

1. To determine the level of State contributions necessary to fund the Service Annuity for the fiscal year ending June 30, 2003, defined under Nebraska State Statutes;
2. To determine the actuarial soundness of the School District and member contributions defined under Nebraska State Statutes to fund the Excess Formula Annuity, and whether additional contributions are required for the fiscal year ending June 30, 2003;
3. To review the current funded status of the System; and
4. To compare actual and expected experience under the plan during the plan year beginning July 1, 2000 and ending June 30, 2001.

The 2001 actuarial valuation is based upon the plan provisions as of July 1, 2001, as described in Exhibit 9. The actuarial methods and assumptions are described in Exhibit 10 and 11.

Highlights from the current valuation:

1. No State contribution is required for the 2002-2003 fiscal year to pay the State normal cost and amortize any unfunded liabilities for the Service Annuity. The net present value of the State normal costs and the unfunded frozen actuarial accrued liability is less than $\$ 0$. The present value of future Service Annuity benefits is less than the Actuarial Value of Assets and State appropriations, resulting in a reserve of $\$ 31,010,037$ in Service Annuity funding.
2. Under Legislative Bill 711, the formula annuity multiplier was increased to $2 \%$, the maximum cost-of-living increase was raised to $2.5 \%$ and the plan now offers survivor death benefits to vested member with less than 20 years of credited service. These changes increased the total present value of the Formula Annuity benefits by $\$ 404,491,300$.
3. A gain was experienced on the actuarial value of assets during the 2000/2001 plan year. However, there was a loss on market value. The annual rate of return on Market Value was $-4.3 \%$. The rate of return on Actuarial Value of $9.7 \%$ exceeded the $8 \%$ assumed investment return rate by $1.7 \%$, resulting in an increase to the actuarial reserve of $\$ 66,835,720$.
4. The plan experienced a decremental loss over the period, primarily due to new members added to the system and salary increases greater than expected. The actuarial reserve decreased by $\$ 110,133,547$ as a result of total liability experience.
5. The funded status of the system as measured by the ratio of the system assets over the Pension Benefit Obligation (PBO) decreased, primarily due to benefit improvements under Legislative Bill 711. The PBO is calculated using the Projected Unit Credit Method, which determines the benefit by using service at the valuation date and projecting salary to assumed termination or retirement. Since the July 1, 2000 actuarial valuation, the funded percentage on Actuarial Value decreased from $112.5 \%$ to $107.1 \%$.

# Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM 

## EXECUTI VE SUMMARY

## Basic Actuarial Valuation Results

The 2001 actuarial valuation results are based upon the plan provisions as of July 1, 2001 as described in Exhibit 9. The key findings of the actuarial valuation are summarized below.

## 1. Funding of the Excess Formula Annuity

The member contribution rate is equal to the greater of $7.25 \%$ of pay and $49.75 \%$ of the total actuarially required contribution rate. The School District's funding toward excess formula annuity liabilities is equal to $101 \%$ of the employee contribution rate, currently $7.32 \%$ of pay. The State contributes $.7 \%$ of covered pay toward the excess formula annuity benefits, as well as funding required for the service annuity.

The minimum total required contribution rate increased from $9.15 \%$ to $11.98 \%$ of pay from the 2000/2001 plan year to the 2001/2002 plan year. A history of required contribution rates is shown below. For fiscal years 1994/1995 through 1996/1997, this contribution rate includes the $0.3 \%$ COLA contribution made to the School Employees Retirement System Reserve Fund.

| History of Required Contribution Rates <br> and Current Year's Contribution Rate |  |  |  |
| :---: | :---: | :---: | :---: |
| Fiscal Year | Member Rate | School District <br> Rate | Total |
| $2002-2003$ | $5.96 \%$ | $6.02 \%$ | $11.98 \%$ |
| $2001-2002$ | 4.55 | 4.60 | 9.15 |
| $2000-2001$ | 5.93 | 5.99 | 11.92 |
| $1999-2000$ | 2.83 | 2.86 | 5.69 |
| $1998-1999$ | 4.41 | 4.45 | 8.86 |
| $1997-1998$ | 6.94 | 7.00 | 13.94 |
| $1996-1997$ | 7.23 | 7.30 | 14.53 |
| $1995-1996$ | 7.31 | 7.38 | 14.69 |
| $1994-1995$ | 7.26 | 7.33 | 14.59 |

Based on the 2001 actuarial valuation, the total required contribution rate is below $14.57 \%$. As a result, the actuarial value of future funding is expected to exceed the funding required to meet the System's liabilities. For the current participant group, the present value of the additional funding is $\$ 224,375,462$. This amount is referenced as an actuarial reserve on the plan's balance sheet, and will be available to offset actuarial losses or plan changes, or to allow for reduced contribution rates in the future.

## Nebraska Public Employees Reti rement Systems SCHOOL SYSTEM

## 2. Required State Deposit to Fund the Service Annuity

The law requires annual State deposits equal to the current normal cost and a level payment to fund the unfunded frozen actuarial accrued liabilities of the system in level payments over 25 years. The level payments are required to amortize each change (base) in the unfunded actuarial accrued liability during the 25 year period following the effective date of increase in benefits, method change, or assumption change that created the base. See page 7.

Exhibit 3 summarizes the required State deposits for amortization of the changes to the unfunded actuarial accrued liability, and the current normal cost for Service Annuities. These amortization payments will fund thirteen changes to the unfunded actuarial accrued liability.

Please note that the State's normal cost, as shown on page 6, is less than \$0. This negative normal cost is primarily a result of the better than expected asset performance in recent years. The current actuarial value of assets plus the present value of remaining amortization payments and future State appropriations are currently more than adequate to fund the Service Annuity. This funded status will be affected by future plan experience, benefit improvements (if any), and the addition of new members into the System.

The required State deposit for the Service Annuity remains at $\$ 0$ for the 2002-2003 fiscal year. This is primarily attributable to higher than expected asset returns in the recent past and other experience, which over time has offset benefit improvements. The required State deposit consists of the State normal cost and amortization payments. A history of the required State deposits is shown below:

| History of Required State Deposits for <br> Service Annuities |  |
| :---: | :---: |
| Fiscal Year | Amount |
| $2002-2003$ | $\$$ |
| $2001-2002$ | 0 |
| $2000-2001$ | 0 |
| $1999-2000$ | 0 |
| $1998-1999$ | 0 |
| $1997-1998$ | 0 |
| $1996-1997$ | 0 |
| $1995-1996$ | $4,413,418$ |
| $1994-1995$ | $1,709,842$ |

## 3. Asset Values

The total assets of the system as of the current and prior valuation date including the Retirement System Reserve Fund (RSRF) at both market value and actuarial value, and the rate of return during the period is as follows:

|  | July 1, 2000 | July 1, 2001 | Annual Rate <br> of Return |
| :---: | :---: | :---: | :---: |
| (a) Market value | $\$ 4,423,138,686^{*}$ | $\$ 4,270,376,860$ | $-4.3 \%$ |
| (b) Actuarial value, an adjusted <br> value intended to reduce the <br> effect of market fluctuations <br> (Exhibit 2) | $\$ 4,140,568,607$ | $\$ 4,579,772,296$ | $9.7 \%$ |

*After adjustment.

## 4. Actuarial Liability/ (Reserve) of the Excess Formula Annuity

The actuarial liability of the Excess Formula Annuity benefits is the excess of the total benefit obligation (present value of future benefits) over the projected financial resources (sum of (i) the actuarial value of assets and (ii) the present value of future member, employer, and State contributions). If the projected financial resources exceed the total benefit obligation, the system has a Reserve. The actuarial position of the system as of the current and prior valuation dates are as follows:

|  |  | July 1, 2000 | July 1, 2001 |  |
| :---: | :---: | :---: | :---: | :---: |
| (a) Present value of future benefits | \$ | 3,572,647,222 | \$ | 4,163,779,970 |
| (b) Net actuarial value of assets (excluding RSRF, PPSF, and Service Annuity funds)* |  | 2,767,064,197 |  | 3,067,857,238 |
| (c) Present value of future member contributions |  | 593,034,381 |  | 626,870,131 |
| (d) Present value of future employer contributions |  | 598,760,231 |  | 632,922,671 |
| (e) Present value of future State contributions |  | 57,258,492 |  | 60,525,392 |
| (f) Actuarial Liability/(Reserve) $\text { (a) - (b) - (c) }-(\mathrm{d})-(\mathrm{e})$ | \$ | $(443,470,079)$ | \$ | $(224,375,462)$ |

* During the 2000/2001 plan year, the remaining assets in the School Purchasing Power Stabilization Fund (PPSF) were transferred to the School Annuity Reserve Account as mandated in LB674.


## 5. Pension Benefit Obligation (PBO)

The Pension Benefit Obligation represents a standardized disclosure measure of the present value of pension benefits payable in the future, which incorporates the effects of projected salary increases, based on service earned at the valuation date. The measure is intended to provide information regarding the Plan's funded status on an ongoing-concern basis, progress made in accumulating sufficient assets to pay benefits when due, and comparability to other plans.


## 6. School Employees Retirement System Reserve Fund

Effective July 1, 1993, members began contributing .3\% of covered pay into this fund, with school districts matching at $101 \%$ of this amount. This fund is used to provide periodic ad-hoc COLA increases to retirees. Contributions ceased when sufficient funds were available to provide a one-time 3\% COLA benefit. For members ceasing employment prior to April 10, 1996 and receiving benefits as of September 1996, a one-time 3\% COLA increase was approved by the Board effective September 1996. The benefits payable from this fund were not included in this actuarial valuation report.

## 7. School Purchasing Power Stabilization Fund

The School Purchasing Power Stabilization Fund was created by LB 700 in 1996. This fund provided cost-of-living benefit adjustments to members ceasing employment on or after April 10, 1996. The adjustment is equal to $.3 \%$ per year, beginning six years after retirement, and is funded solely by State contributions. The benefits payable from this fund were not included in the July 1, 1998 valuation. LB 674, passed in 1999 (effective July 1, 2000), provides for an annual cost-of-living increase equal to the CPI-W index, with a maximum of $2 \%$ in any one year, a minimum floor benefit equal to $75 \%$ of the purchasing power of the original benefit and the elimination of the Schools Purchasing Power Stabilization Fund. The existing assets in the Schools PPSF were transferred to the School Annuity Reserve Account. The State appropriation to the PPSF as defined above, is directed to the School Annuity Reserve Account through the 2010-2011 Fiscal Year beginning in year 2000.

## 8. Benefit Accrual Cost

The cost of benefits accruing over an active member's working career can be expressed as a level percentage of compensation or a level dollar amount. This cost represents the true cost of accruing benefits since it is not adjusted for any overfunding or underfunding which may exist on the valuation date. It is determined using the Entry Age Actuarial Cost Method and is also called the Normal Cost. The level benefit accrual cost determined during the current and prior valuation dates for both the Formula Annuity and the Service Annuity are as follows:

| Formula Annuity Benefit | J uly 1, 2000 | July 1, 2001* |
| :---: | :---: | :---: |
| (a) Benefit accrual cost amount: | \$ 110,573,862 | \$ 128,257,557 |
| (b) Annual compensation before assumed normal retirement age: | \$ 984,773,253 | \$ 1,049,876,059 |
| (c) Benefit accrual cost rate as a level percentage of compensation (a) $\div(\mathrm{b})$ | 11.228\% | 12.216\% |


| Service Annuity Benefit | July 1, 2000 | July 1, 2001* |
| :--- | :---: | :---: |
| (a) Benefit accrual cost amount: | $\$ 2,616,473$ | $\$$ |
| (b)Number of active members (including <br> Omaha): | 40,371 |  |
| (c) Benefit accrual cost per active member as <br> a level dollar amount (a) $\div$ (b):  | $\$$ | 64.81 |

*Includes benefit improvements under LB711.
9. Forecast of Disbursements

A forecast of the annual benefit disbursements expected over the next thirty years is presented in Exhibit 8. This forecast is based on the same actuarial assumptions with respect to salary increases and decrement rates used to determine the funding requirements of the Excess Formula Annuity and the Service Annuity including the new plan provision implemented by Legislative Bill 711. The forecast should be a useful guide in discussing the cash-flow needs of the system with investment managers and in projecting the future financing needs of the system.

## 10. Actuarial Methods and Assumptions

The required contributions developed in this report are estimates of the amounts necessary to provide the benefits to plan members assuming the system is funded in a systematic manner. These estimates are based upon the actuarial method defined under State Statutes to allocate the total cost of the plan to various years and actuarial assumptions regarding the return on investments, salary rates, employee termination rates, mortality rates and other risk factors.

## Nebraska Public Employees Reti rement Systems SCHOOL SYSTEM

The actuarial method used to determine the State contribution necessary to fund the Service Annuity is the Frozen Entry Age Actuarial Cost Method. The actuarial method used to determine the actuarial soundness of employer and member contributions funding the Excess Formula Annuity is the Aggregate Actuarial Cost Method. A description of these methods can be found in Exhibit 10.

The actuarial assumptions represent the expected long-term experience of the system on an explicit basis for each risk area considered. The experience is reviewed periodically. Where necessary, changes are recommended by the actuary and adopted by the Public Employees Retirement Board. Summaries of the actuarial methods and assumptions used in the current valuation are presented in Exhibits 10 and 11, respectively.

## 11. Changes Since the Last Actuarial Valuation

There have been no changes in the actuarial cost method or assumptions since the last valuation as of July 1, 2000. The following changes in plan provisions have been adopted due to LB 711, effective July 1,2001 :

- an increase in the formula annuity multiplier from $1.9 \%$ to $2.0 \%$,
- an increase in the maximum cost-of-living increase from $2.0 \%$ to $2.5 \%$ (the $75 \%$ purchasing power minimum floor still applies), and
- an enhanced death benefit for members who die after meeting the 5 -year vesting service requirement but with less than 20 years of service. The surviving spouse has a choice between (1) a lump sum consisting of member's contributions with interest plus $101 \%$ of member's contributions with interest and (2) a monthly annuity of the survivor portion of the member's accrued benefit with the $100 \%$ Joint and Survivor option applied, payable when the member would have been age 60 , or age at death if greater.


## Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM

## System Assets

| A. Summary of Assets | Market Value as of June 30, 2000 | Market Value as of J une 30, 2001 |
| :---: | :---: | :---: |
| 1. Cash and Equivalents | \$ 3,625,446 | \$ 5,767,554 |
| 2. Investments | 4,382,039,655 | 4,233,273,034 |
| 3. Receivables and Prepaids | 40,694,995 | 34,767,633 |
| 4. Accounts Payable | $(4,260,845)$ | $(3,431,361)$ |
| 5. Total Assets Before Adjustment ( $1+2+3+4$ ) | \$ 4,422,099,251 | \$ 4,270,376,860 |
| 6. Adjustment to Market Value | 1,039,435 | N/A |
| 7. Total Assets after Adjustment (5+6) | \$ 4,423,138,686 | \$ 4,270,376,860 |
| 8. Retirement System Reserve Fund | 26,659,186 | 24,156,236 |
| 9. Net Assets Considered (7-8) | \$ 4,396,479,500 | \$ 4,246,220,624 |


| B. Development of Actuarial Value of Assets | Amount |  |
| :---: | :---: | :---: |
| 1. Actuarial Value of Assets as of July 1, 2000 | \$ | 4,140,568,607 |
| 2. Unrecognized Return as of July 1, 2000 | \$ | 281,530,644 |
| 3. Contributions <br> (a) Member <br> (b) Employer <br> (c) State <br> (d) State appropriation to the School Annuity Reserve Account and Supplemental Benefit Fund | \$ | $\begin{array}{r} 76,626,869 \\ 77,062,239 \\ 7,786,514 \\ 6,665,144 \\ \hline \end{array}$ |
| (e) Total ( $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$ ) | \$ | 168,140,766 |
| 4. Benefit Payments (including transfers to Omaha) | \$ | 130,932,390 |
| 5. Expected Return at $8 \%$ on: <br> (a) Item 1 <br> (b) Item 2 <br> (c) Item 3(e) <br> (d) Item 4 <br> (e) Total $(a+b+c-d)$ | \$ | $\begin{array}{r} 331,245,489 \\ 22,522,452 \\ 6,596,244 \\ 4,708,315 \\ \hline 355,655,870 \\ \hline \end{array}$ |
| 6. Actual Return on Market Value for 2000/2001 Plan Year, net of expenses | \$ | $(188,930,767) *$ |
| 7. Return to be Spread for 2000/2001 Plan Year [6-5(e)] | \$ | $(544,586,637)$ |

*Includes adjustment to market value at J une 30, 2000 of $\$ 1,039,435$.


| C. Change in Asset Values During 2000/ 2001 | Actuarial Value | Market Value |
| :---: | :---: | :---: |
| 1. Total asset value as of July 1, 2000 | \$ 4,140,568,607 | \$ 4,423,138,686* |
| 2. Contributions for 2000/2001: |  |  |
| (a) Member contributions paid during the year | \$ 76,626,869 | \$ 76,626,869 |
| (b) Employer contributions paid during the year | 77,062,239 | 77,062,239 |
| (c) State contributions and appropriations during the year | 14,451,658 | 14,451,658 |
| (d) Contributions for 2000/2001: $(\mathrm{a})+(\mathrm{b})+$ (c) | \$ 168,140,766 | \$ 168,140,766 |
| 3. Disbursements for 2000/2001: |  |  |
| (a) Benefit payments** | \$ 130,932,390 | \$ 130,932,390 |
| (b) Expenses and fees | 12,613,569 | 12,613,569 |
| (c) Disbursements for 2000/2001: (a) + (b) | \$ 143,545,959 | \$ 143,545,959 |
| 4. Investment return for 2000/2001: | \$ 414,608,882 | \$ $(177,356,633)$ |
| 5. Total asset value as of July 1,2001 : $[1+2(d)-3(c)+4]$ | \$ 4,579,772,296 | \$ 4,270,376,860 |
| 6. Asset value of RSRF | 25,906,393 | 24,156,236 |
| 7. Net asset value as of July 1, 2001: (5) - (6) | \$ 4,553,865,903 | \$ 4,246,220,624 |
| 8. Approximate rate of investment return, net of expenses | 9.7\% | (4.3\%) |

*After adjustment.
**Includes transfers to Omaha and distributions from RSRF.

| Summary of Reserve Fund Assets | As of J une 30, 2001 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | tuarial Value |  | Market Value |
| 1. Excess Formula Annuity Assets <br> (a) Employee Savings Account <br> (b) Employer Deposit Account <br> (c) Total | \$ | $\begin{aligned} & 1,226,108,187 \\ & 1,841,749,051 \\ & \hline 3,067,857,238 \\ & \hline \end{aligned}$ | \$ | $\begin{array}{r} 1,143,276,061 \\ 1,717,326,107 \\ \hline 2,860,602,168 \\ \hline \end{array}$ |
| 2. Service Annuity Assets <br> (a) Service Annuity Account <br> (b) Annuity Reserve Account <br> (c) Expense Fund <br> (d) Contingent Account <br> (e) Retired Teachers Supplementary Fund <br> (f) Total | \$ | $127,106,811$ <br> $1,418,618,911$ <br> $(61,637)$ <br> $(59,726,957)$ <br> 71,537 <br> $1,486,008,665$ | \$ | $118,519,863$ <br> $1,322,781,348$ <br> $(57,473)$ <br> $(55,691,986)$ <br> 66,704 <br> $1,385,618,456$ |
| 3. Retirement System Reserve Fund | \$ | 25,906,393 | \$ | 24,156,236 |
| 4. Total Assets: $[1(\mathrm{c})+2(\mathrm{~g})+3]$ | \$ | 4,579,772,296 | \$ | 4,270,376,860 |

## Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM

## ExCESS FORMULA ANNUITY FUNDING

A. Development of Required Funding Rate

J uly 1, 2001

1. Actuarial present value of benefits
(a) Active members
(b) Inactive members
(c) Total
2. Net Actuarial Value of Assets*
3. Present value of future State contributions
4. Present value of future employee/employer contributions [1(c)-2-3]
5. Present value of future compensation
6. Total required funding rate: $(4) \div(5)$
7. Required employee funding rate: (6) $\times .4975$
8. Required employer funding rate: (7) $\times 101 \%$ 6.02\%
B. Summary of Actual Contribution Rate
9. Employee contribution rate
7.25\%
10. Employer contribution rate
11. Total employee/employer contribution rate: $(1)+(2)$ 14.57\%
C. Additional Required Contribution Rate
12. Additional employee contribution rate: $[\mathrm{A}(7)-\mathrm{B}(1)$, not less than $0 \%$ ]
0.00\%
13. Additional employer contribution rate: $[A(8)-B(2)$, not less than $0 \%$ ]
0.00\%
14. Total additional required contribution rate 0.00\%
[^0]
## Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM

## Service Annuity Funding

| A. Development of State Normal Cost |  | J uly 1, 2001 |
| :---: | :---: | :---: |
| 1. Actuarial present value of benefits |  |  |
| (a) Active members | \$ | 111,356,668 |
| (b) Inactive members |  | 11,038,876 |
| (c) Retired members and beneficiaries |  | 1,355,359,649 |
| (d) Omaha |  |  |
| (i) active |  | 15,018,928 |
| (ii) retired |  | 64,226 |
| (e) Total | \$ | 1,492,838,347 |
| 2. State Unfunded Frozen Actuarial Accrued Liability |  | 218,192,847 |
| 3. Net Actuarial Value of Assets* |  | 1,486,008,665 |
| 4. Present Value of Future PPSF appropriations |  | 37,839,719 |
| 5. Present Value of Future State Normal Costs: [1(e)-2-3-4] | \$ | $(249,202,884)$ |
| 6. Average Future Service Annuity Value |  | 5.85365 |
| 7. State Normal Cost: $(5) \div(6)$ | \$ | $(42,572,221)$ |

[^1]
## Nebraska Public Employees Reti rement Systems SCHOOL SYStem

| B. Schedule of State Amortization Bases | June 30, 2002 Remaining Payments | Date of Last Payment | Outstanding Balance as of June 30, 2001 | J une 30, 2002 Contribution |
| :---: | :---: | :---: | :---: | :---: |
| 1. 1981 change to the unfunded actuarial accrued liability | 5 | 07/01/2005 | \$ 2,739,792 | \$ 686,197 |
| 2. 1984 change to the unfunded actuarial accrued liability | 9 | 07/01/2009 | $(4,651,766)$ | $(744,652)$ |
| 3. 1987 increase in the unfunded actuarial accrued liability due to the service buy-back and assumption changes | 12 | 07/01/2012 | 18,671,166 | 2,477,571 |
| 4. 1988 change in unfunded actuarial accrued liability due to service buy-back | 13 | 07/01/2013 | 777,078 | 98,317 |
| 5. 1989 change in the unfunded actuarial accrued liability due to the service buy-back and actuarial assumption changes | 14 | 07/01/2014 | $(1,525,364)$ | $(185,021)$ |
| 6. 1990 change in unfunded actuarial accrued liability due to service buy-back | 15 | 07/01/2015 | 68,310 | 7,980 |
| 7. 1991 change in unfunded actuarial accrued liability due to service buy-back | 16 | 07/01/2016 | 83,297 | 9,411 |
| 8. 1993 change in unfunded actuarial accrued liability due to actuarial assumption changes | 18 | 07/01/2018 | 35,212,730 | 3,757,271 |
| 9. 1997 change in unfunded actuarial accrued liability due to actuarial assumption changes | 21 | 07/01/2022 | $(27,258,664)$ | $(2,721,293)$ |
| 1. 1998 change in unfunded actuarial accrued liability due to actuarial assumption changes | 22 | 07/01/2023 | $(52,785,349)$ | $(5,174,656)$ |
| 11. 1999 change in unfunded actuarial accrued liability due to plan provision changes | 23 | 07/01/2024 | 212,128,099 | 20,453,851 |
| 12. 2000 change in asset valuation method | 24 | 07/01/2025 | $(9,501,326)$ | $(902,417)$ |
| 13. 2001 change in unfunded actuarial accrued liability due to plan provision changes | 25 | 07/01/2026 | 44,234,844 | 4,143,866 |

## Nebraska Public Employees Reti rement Systems

SchOOL SYSTEM

## Exhibit 3

(cont'd)

## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

| C. | Development of Required State Deposit for 2002/ 2003 | Annual Amount |
| :--- | :--- | ---: |
| 1. | State Normal Cost | $\$$ |
| 2. | State Amortization Payment | $(42,572,221)$ |
| 3.Total Required State Deposit as of July 1, 2002: <br> $[(1)+(2)$, not less than \$0] | $\$ 21,906,425$ |  |

## Nebraska Public Employees Reti rement Systems <br> School System

## Actuarial (Gain)/ Loss

## A. Change in Actuarial Liability

1. Actual Actuarial Liability as of July 1, 2000
(a) Excess formula annuity
\$ 3,572,647,222
(b) Service annuity
1,310,662,456
(c) Total
\$ 4,883,309,678
2. Benefit payments during the 2000/2001 plan year*

125,734,602
3. Interest at $8 \%$
$386,150,486$
4. Expected liability as of July 1, $2001(1-2+3)$
\$ 5,143,725,562
5. Change in Actuarial Liability by Source:
(a) Retirement
(b) Termination
(c) Disability
(d) Pre-retirement mortality
(e) Post-retirement mortality
(f) Salary
(g) New entrants
\$ $(31,415,301)$
(h) Data changes/miscellaneous
(i) Total
642,931
951,938
$(1,411,417)$
6,420,710
26,274,529
78,607,100
28,350,965
\$ 108,421,455
6. Change in Actuarial Assumptions
\$
0
7. Change in Plan Provisions 404,491,300
8. Change in Actuarial Methods
9. Actual Actuarial Liability as of July 1, 2001 $(4+5+6+7+8)$
\$ 5,656,638,317

* Excludes transfer to Omaha and distributions from RSRF.


## Exhibit 4

(cont'd)

## Nebraska Public Employees Reti rement Systems

SCHOOL SYstem

| B. Change in Net Actuarial Value of Assets | Amount |
| :---: | :---: |
| 1. Net Actuarial Value of Assets as of July 1, 2000 | \$ 4,115,606,664 |
| 2. Contributions <br> (a) Member <br> (b) Employer <br> (c) State* <br> (d) State appropriation to the Annuity Reserve Account* and Supplemental Benefit Fund <br> (e) Total |  |
| 3. Benefit Payments** | \$ 125,734,602 |
| 4. Expected Return at 8\% on: <br> (a) Item 1 <br> (b) Item 2(e) <br> (c) Item 3 <br> (d) Total (a) + (b) - (c) | $\begin{aligned} & \$ \quad \begin{array}{r} 329,248,533 \\ 6,508,899 \\ \\ \\ \hline \end{array} \begin{array}{r} 4,514,289 \\ \hline \end{array} \quad 331,243,143 \\ & \hline \end{aligned}$ |
| 5. Expected Net Actuarial Value of Assets at June 30, 2001 $[1+2(\mathrm{e})-3+4(\mathrm{~d})]$ <br> 6. Actual Net Actuarial Value of Assets at June 30, 2001 | $\begin{array}{r} \$ 4,487,029,532 \\ 4,553,865,903 \\ \hline \end{array}$ |
| 7. Actuarial (Gain)/Loss on Asset Sources (5-6) before change in asset valuation method | \$ (66,836,371) |

* Excludes transfers to Omaha.
**Benefit payments exclude transfer to Omaha and distributions from RSRF.


## C. Total Actuarial (Gain)/ Loss for the 2000/ 2001

 plan year [A(5)(i) + B(7)]
## Nebraska Public Employees Reti rement Systems <br> School System

## Actuarial Balance Sheet

## A. Financial Resources <br> July 1, 2001

1. Net Actuarial Value of Assets
(a) Excess formula annuity
(b) Service annuity
\$ 3,067,857,238
1,486,008,665
(c) Total
\$ 4,553,865,903
2. Present Value of Future Excess Formula Annuity Contributions
(a) Member
\$ 626,870,131
(b) Employer
632,922,671
(c) State
60,525,392
1,320,318,194
3. Present Value of Future Service Annuity

Contributions
(a) State normal cost
\$ $(249,202,884)$
(b) State payments for unfunded frozen actuarial accrued liability
218,192,847
(c) State PPS appropriations to the Annuity Reserve Account
37,839,719
(d) Total
4. Actuarial Reserve for Excess Formula Annuity $(224,375,462)$
5. Total Assets $[1(c)+2(d)+3(d)+4]$
\$ 5,656,638,317

## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

## B. Benefit Obligations <br> J uly 1, 2001

1. Present Value of Future Excess Formula Annuity

Benefits
(a) Active members
(b) Inactive members
\$ 3,924,198,196
(c) Total
239,601,774
\$ 4,163,799,970
2. Present Value of Future Service Annuity Benefits
(a) Active members $\$ 111,356,668$
(b) Inactive members
(c) Retirees and beneficiaries

11,038,876
(d) Omaha
(i) active
15,018,928

1,355,359,649
(ii) retired
(e) Total
3. Total Liabilities [1(c) $+2(e)$ ]
\$ 5,656,638,317

## Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM

## Accounting Information

## A. Pension Benefit Obligation under the Projected Unit Credit Cost Method.

|  |  | J uly 1, 2000 |  | July 1, 2001 |
| :---: | :---: | :---: | :---: | :---: |
| Pension Benefit Obligation (PBO): |  |  |  |  |
| Vested PBO <br> (a) members currently receiving payments <br> (b) other members <br> (i) accumulated member contributions <br> (ii) employer financed vested |  | $\begin{aligned} & 1,177,372,522 \\ & 1,055,243,094 \\ & 1,279,771,542 \end{aligned}$ | \$ | $\begin{aligned} & 1,355,423,875 \\ & 1,137,561,776 \\ & 1,584,717,814 \\ & \hline \end{aligned}$ |
| Total Vested PBO | \$ | 3,512,387,158 | \$ | 4,077,703,465 |
| Nonvested PBO |  | 144,535,091 |  | 172,346,678 |
| Total PBO | \$ | 3,656,922,249 | \$ | 4,250,050,143 |
| Net Actuarial Value of Assets* |  | 4,115,606,664 |  | 4,553,865,903 |
| Unfunded Pension Benefit Obligation (Reserve) |  | $(458,684,415)$ | \$ | $(303,815,760)$ |
| Funded Percentage |  |  |  |  |
| (a) on vested PBO |  | 117.2\% |  | 111.7\% |
| (b) on total PBO |  | 112.5\% |  | 107.1\% |

* The Actuarial Value of Assets includes the PPSF as of July 1, 2000. Per LB 674, the PPSF assets were transferred to the School Annuity Reserve Account during the 2000/2001 Plan year.
B. Change in Pension Benefit Obligation from July 1, 2000 to J uly 1, 2001

| Pension Benefit Obligation at J uly 1, 2000 | $\$ 3,656,922,249$ |  |
| :--- | :--- | ---: |
| Increase/(Decrease) during Period: |  |  |
| Plan Provision Changes | $\$$ | $292,255,686$ |
| Assumption Changes |  | 0 |
| Benefits Accumulated |  | $(125,539,445$ |
| Benefits Paid* | $298,082,647$ |  |
| Interest Cost |  | $2,984,718$ |
| Plan Experience | $\$$ | $593,127,894$ |
| Total Change | $\$$ | $4,250,050,143$ |

[^2]
## Nebraska Public Employees Reti rement Systems <br> School System

Exhibit 10 and 11 provide a more detailed summary of the underlying actuarial methods and assumptions used in the calculations of the Pension Benefit Obligation. The benefits valued are those in effect on July 1, 2001 and 2000, respectively, as outlined in Exhibit 9. The determination of the Pension Benefit Obligation has been made in accordance with generally accepted actuarial principles and practices.
C. Schedule of Contributions from Employers and other Contributing Entities Disclosure Requirements under GASB No. 25

| Plan Year Ending | Annual Required Contributions* |  |  | Percentage Contributed |
| :---: | :---: | :---: | :---: | :---: |
|  | School | State | Total |  |
| June 30, 2001 | \$ 77,062,239 | \$ 14,451,658 | \$ 91,513,897 | 100\% |
| June 30, 2000 | 69,945,377 | 14,102,170 | 84,047,547 | 100\% |
| June 30, 1999 | 69,983,866 | 27,637,589 | 97,621,455** | 100\% |
| June 30, 1998 | 65,135,713 | 13,511,201 | 78,646,914 | 100\% |
| June 30, 1997 | 63,187,899 | 13,271,330 | 76,459,229 | 100\% |
| June 30, 1996 | 59,799,324 | 7,128,691 | 66,928,015 | 100\% |

* Includes funding for the Excess Formula Annuity, the Service Annuity and supplemental funds.
** Includes accrued School and State contributions of $\$ 2,920,270$ and $\$ 13,882,513$, respectively.
D. Actuarial Assumptions, Method and Additional Information under GASB No. 25

| Valuation Date | June 30, 2001 |
| :--- | :--- |
| Actuarial Cost Method | Frozen Entry Age |
| Amortization Method | Level dollar amount, closed |
| Amortization Period | 25 years |
| Asset Valuation Method | 5 year smoothing |
| Actuarial Assumptions: |  |
| Investment rate of return* <br> Projected salary increases* | *Includes inflation at <br> Cost-of-living adjustment |

## Nebraska Public Employees Reti rement Systems

SCHOOL SYSTEM

## E. Schedule of Funding Progress under GASB No. 25

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) <br> (b) | Unfunded Accrued Liabilities (UAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAL as a \% of Covered Payroll [(b-a)/c] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J une 30, 2001 | \$ 1,486,008,665 | \$ 1,704,201,512 | \$ 218,192,847 | 87.2\% | \$ 995,348,331 | 21.9\% |
| J une 30, 2000 | 1,348,542,467 | 1,526,061,507 | 177,519,040 | 88.4 | 933,339,432 | 19.0 |
| J une 30, 1999 | 1,129,546,860 | 1,345,494,742 | 215,947,882 | 84.0 | 893,801,152 | 24.2 |
| J une 30, 1998 | 892,780,966 | 865,412,669 | $(27,368,297)$ | 103.2 | 882,963,179 | (3.1) |
| J une 30, 1997 | 742,015,212 | 771,343,623 | 29,328,411 | 96.2 | 853,842,959 | 3.4 |
| J une 30, 1996 | 656,168,309 | 715,569,602 | 59,401,293 | 91.7 | 820,092,017 | 7.2 |
| J une 30, 1995 | 579,448,575 | 640,162,938 | 60,714,363 | 90.5 | 786,569,231 | 7.7 |

The Schedule of Funding Progress includes liabilities and assets for the Service Annuity benefits for active and inactive members, and all benefits for retired members and beneficiaries. The Excess Formula Annuity benefits for active and inactive members are funded using the Aggregate Actuarial Cost Method and are not required to be disclosed under GASB No. 25.

## Nebraska Public Employees Reti rement Systems <br> School System

## Summary of Member Data

| A. | Active Members |  | J uly 1, 2000 |  | J uly 1, 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Active Members <br> (a) Before assumed retirement age <br> (b) Beyond assumed retirement age <br> (c) Total |  | $\begin{array}{r} 34,507 \\ 211 \\ \hline 34,718 \end{array}$ |  | $\begin{array}{r} 35,361 \\ \quad 228 \\ \hline 35,589 \end{array}$ |
| 2. | Annual Considered Compensation* <br> (a) Before assumed retirement age <br> (b) Beyond assumed retirement age <br> (c) Total |  | $\begin{array}{r} 984,773,253 \\ 2,475,513 \\ \hline 987,248,766 \end{array}$ | \$ | $\begin{array}{r} 1,049,876,059 \\ 2,834,050 \\ \hline 1,052,710,109 \end{array}$ |
| 3. | Accumulated Contributions |  | 1,003,917,825 | \$ | 938,051,273 |
| 4. | Active Member Averages <br> (a) Age <br> (b) Service <br> (c) Compensation <br> (d) Accumulated Contributions | \$ | $\begin{array}{r} 44.7 \\ 11.7 \\ 28,436 \\ 28,209 \\ \hline \hline \end{array}$ | \$ | $\begin{array}{r} 45.0 \\ 11.5 \\ 29,580 \\ 27,019 \\ \hline \hline \end{array}$ |
| B. I nactive Members |  |  |  |  |  |
| 1. | Number of inactive members <br> Accumulated member contributions <br> Inactive member averages <br> (a) Age <br> (b) Accumulated member contributions | \$ | $\begin{array}{r} 13,918 \\ 120,867,354 \\ \\ 49.9 \\ 8,684 \\ \hline \hline \end{array}$ | \$ | $\begin{array}{r} 15,158 \\ 133,643,951 \\ \\ 50.0 \\ 8,817 \\ \hline \hline \end{array}$ |
| Retired Members and Beneficiaries |  |  |  |  |  |
| 1. | Number of members <br> (a) System retirees <br> (b) Omaha retirees |  | $\begin{array}{r} 10,371 \\ 4 \end{array}$ |  | 10,925 4 |
| 2. | Annual benefits - regular <br> (a) System retirees <br> (b) Omaha retirees <br> (c) Total | \$ | $\begin{array}{r} 95,834,006 \\ 3,027 \\ \hline 95,837,033 \end{array}$ | \$ | $\begin{array}{r} 108,264,586 \\ 3,027 \\ \hline 108,267,613 \end{array}$ |
| 3. | Annual benefits-supplemental <br> (a) System retirees <br> (b) Omaha retirees <br> (c) Total | \$ | $\begin{array}{r} 6,750,795 \\ 4,036 \\ \hline 6,754,831 \\ \hline \hline \end{array}$ | \$ | $\begin{array}{r} 9,513,920 \\ 4,036 \\ \hline 9,517,956 \\ \hline \hline \end{array}$ |

D. Distribution of Retired Members and Beneficiaries as of July 1, 2001

| Age <br> Range | Number | Annual Benefit | Average Annual <br> Benefit |
| :---: | ---: | ---: | ---: |
| $59 \&$ Under | 586 | $\$$ | $13,315,773$ |
| $60-64$ | 1,612 | $\$ 8,867,391$ | 22,723 |
| $65-69$ | 2,368 | $30,860,437$ | 17,908 |
| $70-74$ | 2,238 | $21,418,935$ | 13,032 |
| $75-80$ | 1,585 | $12,272,588$ | 9,571 |
| $80-84$ | 1,154 | $6,082,661$ | 7,743 |
| $85-89$ | 811 | $3,011,429$ | 5,271 |
| $90 \&$ Over | 571 | $1,949,292$ | 3,713 |
| Total | 10,925 | $\$$ | $117,778,506$ |

## E. Member Data Reconciliation

|  | Active Members | I nactive Members |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | With Deferred Benefits | Terminated with Balance | Retired Members and Beneficiaries |  |
| As of July 1, 2000 | 34,718 | 4,662 | 9,256 | 10,371 | 59,007 |
| Changes in status |  |  |  |  |  |
| a) Normal \& early retirements | (627) | 0 | 0 | 637** | 10 |
| b) Became payable | 0 | (135) | 0 | 135 | 0 |
| c) Deaths | (26) | (21) | (22) | (284) | (353) |
| d) Nonvested terminations | $(1,234)$ | 0 | 1,234 | 0 | 0 |
| e) Vested terminations | (773) | 773 | 0 | 0 | 0 |
| f) Contribution refund | (972) | (284) | (706) | (8) | $(1,970)$ |
| g) Beneficiaries in receipt | 0 | 0 | 0 | 98 | 98 |
| h) Disability retirements | (11) | (6) | 0 | 17 | 0 |
| i) Return to active service | 686 | (198) | (426) | 0 | 62** |
| j) Expired benefits | 0 | 0 | 0 | (58) | (58) |
| Total changes in status | $(2,957)$ | 129 | 80 | 537 | $(2,211)$ |
| New entrants |  |  |  |  |  |
| a) Without prior service | 3,826 | 0 | 0 | 0 | 3,826 |
| b) With prior service | 2 | 10 | 1,021 | 17 | 1,050 |
| Total new members | 3,828 | 10 | 1,021 | 17 | 4,876 |
| Net change | 871 | 139 | 1,101 | 554 | 2,665 |
| As of July 1, 2001 | 35,589 | 4,801 | 10,357 | 10,925 | 61,672 |

* 9 members as of July 1,2001 retired and returned to active but are still receiving pensions. One of thee provided two retiree records.
** 62 members returned to active from retiree status but continue to receive pensions.


## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

## F. Reconciliation Between Data Submitted By NPERS and Valuation Data

|  | Active Members | I nactive Members | Retired Members, Beneficiaries, and Disabled | Total |
| :---: | :---: | :---: | :---: | :---: |
| Number of Data Records Submitted By NPERS | 35,591 | 14,894 | 11,008 | 61,493 |
| Additions <br> a) 2000 Balance Only <br> b) 2000 Deferred Vested <br> c) New Alternate Payees <br> d) New Beneficiaries <br> Total Additions | $\begin{array}{r} 0 \\ 0 \\ 0 \\ 0 \\ \hline 0 \end{array}$ | $\begin{array}{r} 350 \\ 11 \\ 4 \\ 0 \\ \hline 365 \end{array}$ | $\begin{array}{r} 0 \\ 0 \\ 1 \\ 7 \\ \hline 8 \end{array}$ | 350 <br> 11 <br> 5 <br> 7 <br> 373 |
| Subtractions <br> a) Also Listed as Deaths <br> b) Also Listed as Retirees <br> c) Also Listed as Contribution Refunds <br> d) Cancelled Retirement/Refunds <br> Total Subtractions | $(2)$ <br> 0 <br> 0 <br> 0 <br> $(2)$ | (1) <br> (97) <br> (3) <br> $\begin{array}{r}0 \\ \hline(101)\end{array}$ | $(84)$ <br> 0 <br> $(6)$ <br> $(1)$ <br> $(91)$ | $\begin{array}{r} (87) \\ (97) \\ (9) \\ (1) \\ \hline(194) \\ \hline \end{array}$ |
| Net change | (2) | 264 | (83) | 179 |
| Number of Members Included in the Valuation As of July 1, 2001 | 35,589 | 15,158 | 10,925 | 61,672 |

## G. Age and Service Distribution of Active Members as of J uly 1, 2001



## Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM

## Forecast of Expected Disbursements

| Plan Year Ending J une 30 | Active Employees |  | Retired and Disabled Members and Beneficiaries |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002 | \$ | 12,051,443 | \$ | 120,453,391 | \$ | 132,504,834 |
| 2003 |  | 28,246,963 |  | 121,749,995 |  | 149,996,958 |
| 2004 |  | 46,334,946 |  | 122,964,842 |  | 169,299,788 |
| 2005 |  | 67,473,317 |  | 123,836,243 |  | 191,309,560 |
| 2006 |  | 91,263,724 |  | 124,721,928 |  | 215,985,652 |
| 2007 |  | 117,730,540 |  | 125,260,994 |  | 242,991,534 |
| 2008 |  | 146,171,073 |  | 125,710,125 |  | 271,881,198 |
| 2009 |  | 176,559,020 |  | 125,600,793 |  | 302,159,813 |
| 2010 |  | 208,967,993 |  | 125,358,118 |  | 334,326,111 |
| 2011 |  | 242,912,532 |  | 124,818,325 |  | 367,730,857 |
| 2012 | \$ | 278,162,397 | \$ | 124,063,548 | \$ | 402,225,945 |
| 2013 |  | 314,533,836 |  | 122,323,229 |  | 436,857,065 |
| 2014 |  | 352,004,259 |  | 120,072,551 |  | 472,076,810 |
| 2015 |  | 389,592,080 |  | 117,432,473 |  | 507,024,553 |
| 2016 |  | 426,613,692 |  | 114,668,511 |  | 541,282,203 |
| 2017 |  | 463,270,602 |  | 111,925,531 |  | 575,196,133 |
| 2018 |  | 499,591,217 |  | 109,166,782 |  | 608,757,999 |
| 2019 |  | 537,024,023 |  | 106,041,763 |  | 643,065,786 |
| 2020 |  | 573,712,689 |  | 102,601,233 |  | 676,313,922 |
| 2021 |  | 609,535,317 |  | 98,772,280 |  | 708,307,597 |
| 2022 | \$ | 645,430,873 | \$ | 94,731,466 | \$ | 740,162,339 |
| 2023 |  | 680,794,971 |  | 90,332,591 |  | 771,127,562 |
| 2024 |  | 715,022,230 |  | 85,817,658 |  | 800,839,888 |
| 2025 |  | 747,542,817 |  | 80,995,138 |  | 828,537,955 |
| 2026 |  | 778,660,367 |  | 75,922,493 |  | 854,582,860 |
| 2027 |  | 809,053,136 |  | 70,641,505 |  | 879,694,641 |
| 2028 |  | 838,327,974 |  | 65,358,732 |  | 903,686,706 |
| 2029 |  | 867,169,614 |  | 59,989,755 |  | 927,159,369 |
| 2030 |  | 894,675,899 |  | 54,599,296 |  | 949,275,195 |
| 2031 |  | 921,060,502 |  | 49,317,595 |  | 970,378,097 |

Note: These amounts exclude distributions for vested inactive members eligible to receive future benefit payments. Benefit amounts for these members have not yet been determined.

# Nebraska Public Employees Reti rement Systems <br> School System 

## Summary of PLAN Provisions

Member

## Participation Date

## Definitions

Final average earnings

Fiscal year
Member contributions

Monthly pension benefit

Any person employed by a public school 15 or more hours per week and age 21 by August 15 preceding the school year shall be a member of the system. Employees at the date of establishment could have elected not to participate, and those covered under another system do not participate.

Date of becoming a member.

The average of the highest three fiscal years after July 1, 1968 of pensionable pay during the period ending on the earlier of the participant's termination date or retirement date. For employees who become a member on or after July 1, 1996, earnings will be capped at the maximum earnings defined in Code 401(a)(17).

Twelve month period ending June 30 .
Beginning with 1996-97 fiscal year, members contribute at a rate equal to $49.75 \%$ of the greater of (i) the overall rate necessary to fund the liability attributable to benefits in excess of the service annuities, or (ii) $7.25 \%$ of pensionable pay. The School Districts contribute at a rate equal to $101 \%$ of the members' rate. Such contributions are credited with interest in accordance with State Statutes.

The greater of (1) or (2).
(1) Amount: A monthly benefit equal to the sum of:
(a) A savings annuity which is the actuarial equivalent of the member's accumulated contributions, and
(b) A service annuity equal to $\$ 3.50$ per year of service.
(2) Amount: Members employed by a class I, II, III, IV, or VI School District may receive a formula annuity. The formula annuity is a monthly amount equal to the product of $2.00 \%$ of final average earnings times total years of service for those members who are employed on or after July 1, 2001.

To receive this benefit, retirement must occur after meeting the Rule of 85 requirements (minimum age 55 ) or attaining age 65 with five years of service.

Normal Retirement Date (NRD)

Service

Pensionable pay

## Eligibility for Benefits

Deferred vested Termination for reasons other than death or disability retirement after completing five years of service.

Retirement by reason of disability.
Retirement before NRD and on or after both attaining age 60 and completing five years of service, or attaining 35 years of service regardless of age, or attaining age 55 and age plus service equals at least 85 (Rule of 85).

Normal retirement
Postponed retirement
Pre-retirement spouse benefit

Retire on NRD.
Retire after NRD.
Death prior to retirement.

## Monthly Benefits Paid Upon the Following Events

Normal retirement
Early retirement
Postponed retirement
Termination with deferred vested
benefit

Monthly pension benefit determined as of NRD.
Monthly pension benefit determined as of early retirement date, reduced by $3 \%$ for each year that commencement of payment precedes age 65 (member must be age 60 with five years of service). Unreduced benefits are available to members who have attained age 55 and whose age plus service is greater than or equal to 85 . Benefits payable upon retirement prior to age 60 (based on the 35 year service rule) are actuarially reduced from age 65.

Monthly pension benefit determined as of actual retirement date.

Monthly pension benefit determined as of termination date, reduced by $3 \%$ for each month that commencement of payment precedes the earlier of the Rule of 90 or age 65 (Early Commencement requires attainment of age 60).

Disability retirement Monthly pension benefit determined as of disability retirement date.

Death with pre-retirement benefits Survivor portion of $100 \%$ Joint and Survivor Annuity paid to spouse assuming retirement by member at death if the member is age 65 or has 20 years of service at death. If the member has met the 5 -year vesting service requirement, has less than 20 years of service and is under age 65, the spouse may choose between the following two options:
(1) a lump sum equal to the member's contributions with interest plus $101 \%$ of the member's contributions with interest, and
(2) an annuity which equals the survivor portion of the $100 \%$ Joint and Survivor value of the member's accrued benefit, payable when the member would have been age 60, or age at death if greater, reduced for commencement before age 65 and the $100 \%$ joint and survivor form of payment.

## Nebraska Public Employees Retirement Systems

## SCHOOL SYStem

Forms of payment
Pre-retirement death benefits are payable only as described above.

Monthly pension benefits are paid under the form of payment elected by the retiree at retirement. Payment forms include: life annuity, five year certain and life annuity, $100 \%$ joint and survivor annuity (spouse only), 10-year certain and life annuity, 15 -year certain and life annuity, or a modified cash refund annuity.

## Funding Arrangement

There are five funds established in the State Treasury, which receive monies and pay the expenses and benefits of the retirement system, as follows:

1. School Retirement Fund which is divided into five accounts:
A) School Employees Savings Account - receives the required member contributions and pays any contribution withdrawals. Upon retirement, a member's account is transferred to the Annuity Reserve Account. Upon forfeiture, a member's account is transferred to the Contingent Account.
B) School Employers Deposit Account - receives contributions from the State and applicable employers to fund all formula annuities over the prospective future salaries of eligible members. Upon retirement, the value of a member's formula annuity is transferred to the Annuity Reserve Account.
C) Service Annuity Account - receives annual deposits from the State to fund service annuities currently being earned and to amortize the unfunded actuarial accrued liability for service annuities by January 1, 1994. Upon retirement, the value of a member's service annuity is transferred to the Annuity Reserve Account.
D) Annuity Reserve Account - receives transfers of the value of all annuities upon commencement, and pays all annuity benefits.
E) Contingent Account - receives all interest, dividends, and miscellaneous income, pays all regular interest allocated to the other accounts or funds, and meets any deficiencies occurring in the other accounts or funds.
2. Expense Fund - pays all expenses connected with the operation and administration of the system, and receives annual contributions to cover anticipated expenses.
3. Retired Teachers Supplementary Benefits Fund - pays certain supplemental benefits.
4. School Employees Retirement System Reserve Fund (RSRF) - pays a 3\% cost-of-living adjustment to members who ceased employment prior to April 10, 1996 and began receiving benefits as of September 1996. The benefit was funded with $.3 \%$ of pay matching contributions from employees and School Districts. This fund also pays for refund of employee contributions to future terminated members who request a refund. Effective September 1, 1996, contributions from members and School Districts going to this Reserve Fund will go to the School Employees Savings Account and School Employees Deposit Account.

## State Appropriation

LB700, passed in 1996, established a separate fund to provide for cost-of-living benefit adjustments to members ceasing employment on or after April 10, 1996. The COLA increases are $0.3 \%$ per year, beginning six years after retirement. This benefit is funded by State contributions. Beginning with the 1996-97 fiscal year, the funding shall be $81.7873 \%$ of $\$ 6,895,000$ or $\$ 5,639,235$ annually, for each year through the 2010-11 fiscal year.

LB 674, passed in 1999 (effective July 1, 2000), provided for:

- an increase in the formula annuity multiplier from $1.8 \%$ to $1.9 \%$,
- an annual cost-of-living increase equal to the CPI-W index, with a maximum of $2 \%$ in any one year,
- a minimum floor benefit equal to $75 \%$ of the purchasing power of the original benefit and
- the elimination of the School Purchasing Power Stabilization Fund.

The existing assets in the School PPSF were transferred to the School Annuity Reserve Account. The State appropriation to the PPSF as defined above, will be directed to the School Annuity Reserve Account through the 2010-2011 Fiscal Year beginning in year 2000.

## Benefits Reflected in Valuation

All benefits were valued, excluding the 3\% cost-of-living adjustment funded by the RSRF and including future cost-of-living increases as provided for by LB 674.

## Plan Provisions Effective after J uly 1, 2001

No future changes in plan provisions were recognized in determining the GASB 25 funded status and in determining the actuarial soundness of statutory contribution levels.

## Changes in Plan Provisions since Prior Year

The following plan provisions have been taken into consideration for the July 1, 2001 valuation. LB 711, effective July 1, 2001, provides for:

- an increase in the formula annuity multiplier from $1.9 \%$ to $2.0 \%$,
- an increase in the maximum cost-of-living increase from $2.0 \%$ to $2.5 \%$ (the $75 \%$ purchasing power minimum floor still applies), and
- an enhanced death benefit for members who die after meeting the 5 -year vesting service requirement but with less than 20 years of service. The surviving spouse has a choice


## Exhi bit 9

(cont'd)

## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

between (1) a lump sum consisting of member's contributions with interest plus $101 \%$ of member's contributions with interest and (2) a monthly annuity of the survivor portion of the member's accrued benefit with the $100 \%$ Joint and Survivor option applied, payable when the member would have been age 60 , or age at death if greater.

## Nebraska Public Employees Reti rement Systems <br> SCHOOL SYSTEM

## Summary of Actuarial Methods and Procedures as ofj uly 1, 2000

## A. ACTUARIAL METHODS

1. Calculation of Normal Cost and Actuarial Liability: The method used to determine the normal cost and frozen actuarial accrued liability for funding the Service Annuity is the Frozen Entry Age Actuarial Cost Method described below. The method used to determine the normal cost and actuarial liability for funding the Excess Formula Annuity was the Aggregate Actuarial Cost Method described on page 27.

Sometimes called "funding method," a cost method is a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of pension plan benefits or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the actuarially required annual contribution to the plan is the sum of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability, if any.

## Frozen Entry Age Actuarial Cost Method - Service Annuity Funding

Under the Frozen Entry Age Actuarial Cost Method, the excess of the Actuarial Present Value of Future Benefits for all members on the valuation date, over the sum of (1) the Actuarial Value of Assets, (2) the Unfunded Frozen Actuarial Accrued Liability and (3) the present value of future State appropriations, is allocated as a level dollar amount over the expected future service of the membership group between the valuation date and assumed termination or retirement, and is called the Normal Cost. This allocation is performed in the aggregate, not as a sum of individual calculations.

The initial unfunded actuarial accrued liability is determined under the Entry Age Actuarial Cost Method, frozen as of the valuation date, and is referred to as the Unfunded Frozen Actuarial Accrued Liability. Future changes in the actuarial accrued liability due to changes in plan benefits, actuarial assumptions, or methods adjust the Unfunded Frozen Actuarial Accrued Liability. The amount of change or base established as of the valuation date is amortized over a 25 year period. The Unfunded Frozen Actuarial Accrued Liability remaining at each subsequent valuation date is determined after the addition of interest and the deduction of amortization payments.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust future normal costs.

## Aggregate Actuarial Cost Method - Excess Formula Annuity Funding

Under the Aggregate Actuarial Cost Method, the Normal Cost is computed as the level percentage of compensation which, if paid from the valuation date until each member's assumed termination or retirement, will, together with assets of the plan and future State contributions (.7\% of compensation) accumulate with interest at the rate assumed in the valuation to a Fund sufficient to pay all benefits under the plan.

The present value of future normal costs is equal to the (i) actuarial present value of future benefits, less (ii) the actuarial value of assets, less (iii) the present value of future State contributions. This amount is divided by the actuarial present value of future member compensation to determine the total Normal Cost rate. The employee rate is $49.75 \%$ of the total rate with employers paying 101\% of the employee rate pursuant to Section 79-1522.01 of the Nebraska State Statutes.

Under this method, experience gains or losses, i.e. decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust future normal costs.
2. Calculation of the Actuarial Value of Assets: The actuarial value of assets is based on a five-year smoothing method and is determined by spreading the effect of each year's investment return in excess of or below the expected return. The Market Value of assets at the valuation date is reduced by the sum of the following:
(i) $80 \%$ of the return to be spread during the first year preceding the valuation date.
(ii) $60 \%$ of the return to be spread during the second year preceding the valuation date.
(iii) $40 \%$ of the return to be spread during the third year preceding the valuation date.
(iv) $20 \%$ of the return to be spread during the fourth year preceding the valuation date.

The return to be spread is the difference between (1) the actual investment return on Market Value and (2) the expected return on Actuarial Value. The Actuarial Value is determined using the total assets of the System, and is then allocated on a pro-rata basis to each reserve fund and account using Market Value. Effective July 1, 2000, the expected return on Actuarial Value includes interest on the previous year's unrecognized return.
3. Calculation of Pension Benefit Obligation: The method used to determine the Pension Benefit Obligation was the Projected Unit Credit Actuarial Cost Method without service proration. Under this method, the benefit is based on salary projected to assumed termination or retirement and service as of the valuation date.

## B. VALUATI ON PROCEDURES

No actuarial liability is included for participants who terminated without being vested prior to the valuation date, except those due a refund of contributions.

The compensation amounts used in the projection of benefits and liabilities for active members were prior plan year compensations increased one year with the salary scale.

In computing accrued benefits, average compensation was determined by applying the salary scale assumption to most recent compensation to construct any missing salary history.

Projected benefits were limited by the dollar limitation required by the Internal Revenue Code Section 415 as it applies to governmental plans and compensation limited by Section 401(a)(17).

There were approximately 1,100 active participants with missing dates of birth and gender codes. They were assumed to be age 33 (the average entry age for the group as a whole) and gender codes were randomly assigned in the ratio $75 \%$ female/ $25 \%$ male.

## Summary of Actuarial Assumptions as ofj uly 1, 2001

## ECONOMIC ASSUMPTIONS

1. Investment Return
2. Inflation
3. Salary Increases
4. Interest on Employee Contributions

## DEMOGRAPHIC ASSUMPTI ONS

1. Mortality
a. Healthy lives - active and retired members and beneficiaries
b. Disabled lives
$8 \%$ per annum, compounded annually, net of expenses.
$3.8 \%$ per annum, compounded annually.
Rates vary by age.
Sample ages are as follows:

| Age | Rate |
| :---: | :---: |
|  |  |
| 25 | $8.20 \%$ |
| 30 | $7.40 \%$ |
| 35 | $6.70 \%$ |
| 40 | $6.20 \%$ |
| 45 | $5.70 \%$ |
| 50 | $5.20 \%$ |
| 55 | $4.85 \%$ |
| 60 | $4.60 \%$ |
| $65+$ | $4.50 \%$ |

6\% per annum, compounded annually.

1994 Group Annuity Mortality Table, without setback.

1971 Group Annuity Mortality Table, without setback.

## NebrAska Public Employees Reti rement Systems

## SCHOOL SYSTEM

c. Mortality rates under the mortality tables are shown below at sample ages:

|  | Mortality Rate |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sample Age | Healthy Members |  | Disabled Members |  |
|  | Males | Females | Males | Females |
|  | $.08 \%$ | $.04 \%$ | $.08 \%$ | $.05 \%$ |
| 40 | .11 | .07 | .16 | .09 |
| 50 | .26 | .14 | .53 | .22 |
| 60 | .80 | .44 | 1.31 | .55 |
| 70 | 2.37 | 1.37 | 3.61 | 1.65 |
| 80 | 6.20 | 3.94 | 8.74 | 5.61 |

d. Life expectancies under the mortality tables are shown below at sample ages:

|  | Life Expectancy (Years) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sample Age | Healthy Members | Disabled Members |  |  |
|  | Males | Females | Males | Females |
|  | 49.7 | 54.3 | 45.6 | 51.0 |
| 40 | 40.1 | 44.5 | 36.0 | 41.3 |
| 50 | 30.7 | 34.9 | 26.9 | 31.8 |
| 60 | 21.8 | 25.6 | 18.8 | 23.5 |
| 70 | 14.3 | 17.3 | 11.9 | 15.3 |
| 80 | 8.4 | 10.3 | 7.0 | 8.9 |

## Exhibit 11

(cont'd)

## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

2. Retirement:

Rates vary by age and eligibility for unreduced benefits. Rates are as follows:

| Year <br> Eligible | Select Rates While <br> Eligible for Unreduced <br> Benefits* |
| :---: | :---: |
|  |  |
| 1st | $25 \%$ |
| 2nd | $35 \%$ |
| 3rd | $30 \%$ |
| 4th - 7th | $25 \%$ |

*Available under Rule of 85 with minimum age 55.

| Ultimate Rates and <br> Eligible for Reduced <br> Benefits |  |  |
| :---: | ---: | ---: |
| Age | Male | Female |
|  |  |  |
| 60 | $5 \%$ | $8 \%$ |
| 61 | $10 \%$ | $8 \%$ |
| 62 | $25 \%$ | $20 \%$ |
| 63 | $25 \%$ | $15 \%$ |
| 64 | $25 \%$ | $15 \%$ |
| 65 | $40 \%$ | $30 \%$ |
| 66 | $30 \%$ | $25 \%$ |
| 67 | $30 \%$ | $25 \%$ |
| 68 | $30 \%$ | $25 \%$ |
| 69 | $30 \%$ | $25 \%$ |
| 70 | $100 \%$ | $100 \%$ |

## Exhibit 11

(cont'd)

## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

3. Termination:

Rates vary by age and service. Select rates are applied by service and ultimate rates are applied by age. Sample rates are as follows:

| Select Rates by Service: |  |
| :---: | :---: |
| Years of <br> Service | Rate |
| 1 | $25 \%$ |
| 2 | $20 \%$ |
| 3 | $13 \%$ |


| Ultimate Rates by Age |  |  |
| :---: | :---: | :---: |
|  | Rate |  |
|  | Male | Female |
| 25 | $11.4 \%$ | $11.9 \%$ |
| 30 | $6.2 \%$ | $8.2 \%$ |
| 35 | $4.1 \%$ | $6.1 \%$ |
| 40 | $3.3 \%$ | $4.7 \%$ |
| 45 | $2.7 \%$ | $4.2 \%$ |
| 50 | $2.6 \%$ | $3.9 \%$ |
| 55 | $3.2 \%$ | $4.5 \%$ |
| 60 | $9.6 \%$ | $9.0 \%$ |

4. Disability:

Rates vary by age. Sample rates are as follows:

| Age | Rate |
| :---: | :---: |
|  |  |
| 25 | $.00 \%$ |
| 30 | $.00 \%$ |
| 35 | $.12 \%$ |
| 40 | $.12 \%$ |
| 45 | $.24 \%$ |
| 50 | $.35 \%$ |
| 55 | $.53 \%$ |
| 60 | $.71 \%$ |

## Exhibit 11

## Nebraska Public Employees Reti rement Systems

## SCHOOL SYSTEM

## OTHER ASSUMPTI ONS

1. Form of Payment:

Service annuity - Life annuity
Formula annuity - Five year certain and life annuity.
2. Marital Status
a. Percent married
b. Spouse's age
3. Administrative Expense Investment return is assumed to be net of expenses.
4. Commencement age for deferred vested benefit
5. Cost of Living Adjustment

85\% married
Females assumed to be three years younger than males.

Age 62.
2.5\% per annum, compounded annually, and $3.8 \%$ per annum, compounded annually, after reaching $75 \%$ purchasing power floor benefit.

Note: None of the actuarial assumptions have been changed since the last actuarial valuation was performed as of July 1, 2000.


[^0]:    * Excludes Retirement System Reserve Fund and Service Annuity Assets.

[^1]:    * Excludes Retirement System Reserve Fund and Excess Formula Annuity Assets.

[^2]:    * Excludes transfer to Omaha and distributions from RSRF.

