Fifty-third Actuarial Report for State Fiscal Year Ending June 30, 2010 and System Plan Year Beginning July 1, 2008

### December 2008

Submitted By:
Buck Consultants
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December 9, 2008

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

### RE Certification of Actuarial Valuation State Patrol Retirement System

Ladies and Gentlemen:

This report summarizes the results of the actuarial valuation of the State Patrol Retirement System as of July 1, 2008 performed by Buck Consultants.

The actuarial valuation is based on unaudited financial and member data provided to us by the Nebraska Public Employees Retirement System as summarized in this report. The benefits considered are those delineated in Nebraska State Statutes, effective as amended July 1, 2008.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. This report fully and fairly discloses the actuarial position of the plan.

Based on the results of our actuarial valuation, an additional contribution to the State Patrol Retirement System will keep it actuarially sound. Annual funding required from the State as defined under statute for current plan members is equal to the member contributions and appropriations, plus an additional payment necessary to meet the actuarially required contribution. For the 2009/2010 fiscal year, the State's additional payment requirement is \$812,087.

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.

Respectfully submitted,

**BUCK CONSULTANTS** 

David H. Slishinsky, A.S.A., E.A., M.A.A.A.

Principal and Consulting Actuary

# SUMMARY OF ACTUARIAL REPORT FOR CONTRIBUTION REQUIREMENTS AND FUNDED STATUS FOR PLAN YEAR 2008/2009

The main purposes of this report are:

- 1. To determine the level of State contributions for the fiscal year ending June 30, 2010, sufficient to meet the funding policy defined under Nebraska State statutes;
- 2. To review the current funded status of the system; and
- 3. To compare actual and expected experience under the plan during the plan year beginning July 1, 2007 and ending June 30, 2008.

The 2008 actuarial valuation is based upon the plan provisions as of July 1, 2008, as described in Exhibit 8. The actuarial methods and assumptions are described in Exhibits 9 and 10.

Highlights from the current valuation:

- 1. Under Legislative Bill 324, members who are at least 50 and have 25 years of service may elect to participate in a Deferred Retirement Option Plan (DROP).
- 2. An additional State contribution of \$812,087 is required for the 2009/2010 fiscal year to meet the actuarially required contribution. Expected member contributions and State contributions and appropriations fall short of the total funding requirement. The system's actuarial liability has increased by \$7,044,765 from \$10,396,061 as of July 1, 2007 to \$17,440,826 as of July 1, 2008.
- 3. A gain was experienced on the Actuarial Value of Assets during the 2007/2008 plan year. The annual rate of return on Market Value was (5.7%). The rate of return on Actuarial Value of 9.2% surpassed the 8.0% assumed investment return rate by 1.2%, resulting in an increase to the Actuarial Value by \$2,898,265.
- 4. The plan experienced a decremental loss in the actuarial accrued liability since the July 1, 2007 actuarial valuation. The actuarial accrued liability increased by \$3,661,898 as a result of decremental experience. This increase is due primarily to more retirements than expected, new entrants with past service, and salary increases greater than expected.
- 5. The funded status of the system as measured by the ratio of the system assets over the Pension Benefit Obligation (PBO) increased. 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, 2007 actuarial valuation, the funded percentage on Actuarial Value increased from 94.4% to 94.5%.



#### **EXECUTIVE SUMMARY**

#### **Basic Actuarial Valuation Results**

The 2008 actuarial valuation results are based upon the plan provisions as of July 1, 2008 as described in Exhibit 8. The actuarial methods and assumptions are described in detail in Exhibits 9 and 10, respectively.

#### 1. State Contribution

The State's funding policy is to contribute 15% of pay and make additional payments if necessary, to meet the actuarially required contribution. The member contribution rate is 13% of pay. The actuarially required contribution is equal to the normal cost plus an amortization payment for unfunded liabilities. Unfunded liabilities created due to experience gains or losses, plan changes or assumption changes are amortized over 30 years.

Total expected State funding for the 2008/2009 plan year is \$5,173,833. Member contributions and matching State contributions and appropriations are not expected to meet the total actuarially required funding. The additional State funding required for the 2008/2009 plan year, payable July 1, 2009, is \$812,087.

History of Expected State Contributions					
Plan Year	State Contribution*	Additional Contributions	Total		
2008/2009	\$ 4,361,746	\$ 812,087	\$ 5,173,833		
2007/2008	4,225,729	365,020	4,590,749		
2006/2007	3,942,430	813,159	4,755,589		
2005/2006	3,766,098	1,080,050	4,846,148		
2004/2005	3,050,645	948,654	3,999,299		
2003/2004	2,745,970	434,202	3,180,172		
2002/2003	2,413,762	0	2,413,762		
2001/2002	2,257,610	0	2,257,610		
2000/2001	1,958,304	0	1,958,304		
1999/2000	2,298,256**	0	2,298,256		
1998/1999	1,753,478	0	1,753,478		

<sup>\*</sup> Includes State Appropriations.



<sup>\*\*</sup> Includes accrued State contributions of \$436,759.

### **EXECUTIVE SUMMARY**

#### 2. Asset Values

The total assets of the system as of the current and prior valuation date at both market value and actuarial value, and the rate of return during the period is as follows:

		J	July 1, 2007	July 1, 2008	Annual Rate of Return
(a)	Market value	\$	279,618,100	\$ 259,479,803	(5.7%)
(b)	Actuarial value, an adjusted value intended to reduce the effect of market fluctuations (See Exhibit 1B)	\$	254,662,819	\$ 273,393,928	9.2%

### 3. Actuarial Liability/(Reserve)

The actuarial liability of the system 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, (ii) the present value of future member and matching State contributions, and (iii) the present value of future State appropriations). 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, 2007	July 1, 2008
(a)	Present value of future benefits	\$ 333,820,004	\$ 356,942,151
(b)	Actuarial value of assets	254,662,819	273,393,928
(c)	Present value of future member contributions	31,318,098	30,169,683
(d)	Present value of matching State contributions	36,136,267	34,811,173
(e)	Present value of future State appropriations*	1,306,759	<u>1,126,541</u>
(f)	Actuarial Liability/(Reserve) [(a) - (b) - (c) - (d) - (e)]	\$ 10,396,061	\$ 17,440,826

<sup>\*</sup> Includes appropriation for COLA benefit under LB 137.



### **EXECUTIVE SUMMARY**

### 4. 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.

Funded Status	July 1, 2007	July 1, 2008
(a) Pension Benefit Obligation i) retirees, disabled members and beneficiaries receiving benefits and deferred vested members not yet receiving benefits ii) active members iii) total pension benefit obligation	\$ 163,157,856 106,638,504 \$ 269,796,360	\$ 172,308,606
(b) Assets available for benefit (actuarial value)	254,662,819	273,393,928
(c) Unfunded Pension Benefit Obligation/(Reserve)	\$ 15,133,541	\$ 16,032,233
(d) Funded percentage on actuarial value of assets [(b) ÷ (a)(iii)]	94.4%	94.5%



#### EXECUTIVE SUMMARY

#### 5. Benefit Accrual Cost

The cost of benefits accruing over an active member's working career can be expressed as a level percentage of compensation. 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 are as follows:

		July 1, 2007	July 1, 2008
(a)	Benefit accrual cost amount	\$ 7,012,837	\$ 7,070,557
(b)	Annual compensation before assumed retirement age	\$ 26,011,498	\$ 26,979,643
(c)	Benefit accrual cost rate [(a) ÷ (b)]	26.961%	26.207%

#### 6. Forecast of Disbursements

A forecast of the annual benefit disbursements expected over the next thirty years is presented in Exhibit 7. This forecast is based on the same actuarial assumptions with respect to salary increases and decrement rates used to determine the funding requirements. 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.

### 7. Actuarial Methods and Assumptions

The required contribution developed in this report is an estimate of the amount necessary to provide ongoing 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. The actuarial method used to determine the actuarial contribution requirement is the Entry Age Actuarial Cost Method.

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.

A summary of the actuarial methods and assumptions used in the current valuation is presented in Exhibits 9 and 10, respectively.



### **EXECUTIVE SUMMARY**

### 8. Changes Since the Last Actuarial Valuation

There have been no changes in the actuarial cost method since the last actuarial valuation as of July 1, 2007.

The changes in plan provisions and assumptions that have been adopted, effective July 1, 2008 are:

• LB 324 – Adds a Deferred Retirement Option Plan (DROP) for members who are at least 50 and have 25 years of service. The retirement rates used in the valuation were increased to 100% for members who are eligible for the DROP.



# **SYSTEM ASSETS**

A.	Summary of Assets	Market Value as of June 30, 2007	Market Value as of June 30, 2008
1.	Cash and Equivalents	\$ 143,483	\$ 179,527
2.	Investments	288,463,718	262,833,561
3.	Capital Assets	701,915	428,527
4.	Receivables and Prepaids	5,299,266	16,379,019
5.	Accounts Payable	(14,990,282)	(20,340,831)
6.	Net Assets Available for Pension Benefits Considered [1 + 2 + 3 + 4 + 5]	\$ 279,618,100	\$ 259,479,803

В.	Development of Actuarial Value of Assets	Amount
1.	Actuarial Value of Assets as of July 1, 2007	\$ 254,662,819
2.	Unrecognized Return as of July 1, 2007	\$ 24,955,281
3.	Contributions	
	(a) Member (includes purchased service)	\$ 3,670,281
	(b) State	4,175,880
	(c) State appropriations	 679,82 <u>0</u>
	(d) Total	\$ 8,525,981
4.	Distributions	
	(a) Benefit payments	\$ 12,781,649
	(b) Refund of contributions	 <u> 154,540</u>
	(c) Total	\$ 12,936,189
5.	Expected Return at 8.0% on	
	(a) Item 1	\$ 20,373,026
	(b) Item 2	1,996,422
	(c) Item 3 (d)	334,478
	(d) Item 4 (c)	 464,452
	(e) Total $[(a) + (b) + (c) - (d)]$	\$ 22,239,474
6.	Actual Return on Market Value for Plan Year, Net of Expenses	\$ (15,728,089)
7.	Return to be Spread for Plan Year [6 - 5(e)]	\$ (37,967,563)

### **SYSTEM ASSETS**

B.	Development of Actuarial Value of Assets	Amount
8.	Total Market Value of Assets as of July 1, 2008	\$ 259,479,803

### 9. Return to be Spread

Plan Year	Return to be Spread	Unrecognized Percent	Unrecognized Return
2007/2008	\$ (37,967,563)	80%	\$ (30,374,050)
2006/2007	23,067,019	60%	13,840,211
2005/2006	5,139,046	40%	2,055,618
2004/2005	2,820,479	20%	564,096
		Total	\$ (13,914,125)

10. Total Actuarial Value of Assets at July 1, 2008 [8 - 9]	\$ 273,393,928
11. Asset Ratios	
(a) Actuarial Value to Market Value [10 ÷ 8]	105.4%
(b) Market Value to Actuarial Value [8 ÷ 10]	94.9%



### System Assets

C.	Change in Asset Values During 2007/2008	Ac	ctuarial Value	IV	larket Value
1.	Asset value as of July 1, 2007				
	(a) Reported last year	\$	254,662,819	\$	279,618,100
	(b) Adjustment		N/A		4 <u>,761</u>
	(c) Reported this year [(a) + (b)]	\$	254,662,819	\$	279,622,861
2.	Contributions for 2007/2008				
	(a) Member contributions paid during the year	\$	3,670,281	\$	3,670,281
	(b) State contributions paid		4,175,880		4,175,880
	(c) State appropriations for the year		679,820		679,820
	(d) Contributions for 2007/2008 [(a) + (b) + (c)]	\$	8,525,981	\$	8,525,981
3.	Disbursements for 2007/2008				
	(a) Benefit payments	\$	12,781,649	\$	12,781,649
	(b) Expenses and fees		1,038,186		1,038,186
	(c) Refund of contributions		<u> 154,540</u>		154,540
	(d) Disbursements for 2007/2008 [(a) + (b) + (c)]	\$	13,974,375	\$	13,974,375
4.	Investment return for 2007/2008				
	(a) Investment income	\$	7,172,079	\$	7,172,079
	(b) Securities lending income		556,797		556,797
	(c) Securities lending expense		(472,973)		(472,973)
	(d) Net appreciation/(depreciation) in fair value				
	of investments		(21,950,591)		(21,950,591)
	(e) Other		24		24
	(f) Unrecognized return including adjustment		38,874,167		N/A
	(g) Investment return for 2007/2008				
	[(a) + (b) + (c) + (d) + (e) + (f)]		24,179,503		(14,694,664)
5.	Asset value as of July 1, 2008				
	[1(c) + 2(d) - 3(d) + 4(g)]	\$	273,393,928	\$	259,479,803
6.	Approximate rate of investment return,				
	net of expenses		9.2%		(5.7%)



### **ACTUARIAL CONTRIBUTION REQUIREMENT**

Α.	Development of Actuarially Required Funding Rate	July 1, 2008
1.	Actuarial present value of benefits	
	<ul><li>(a) Active members</li><li>(b) Inactive members</li><li>(c) Retired members, disabilities and beneficiaries</li><li>(d) Total</li></ul>	\$ 184,633,545 410,339 <u>171,898,267</u> \$ 356,942,151
2.	Present Value of Future Normal Costs	64,945,432
3.	Total Actuarial Accrued Liability [1(d) - 2]	\$ 291,996,719
4.	Actuarial Value of Assets	273,393,928
5.	Unfunded Actuarial Accrued Liability/(Reserve) [3 - 4]	\$ 18,602,791
6.	<ul><li>30-Year Amortization of the Unfunded Actuarial Accrued Liability/(Reserve)</li><li>(a) Amount</li><li>(b) Amount as % of Pay</li></ul>	\$ 1,609,697 5.96%
7.	Normal Cost (a) Amount (b) Amount as % of Pay	\$ 7,070,557 26.21%
8.	Total Actuarially Required Contribution (a) Amount (b) Amount as % of Pay	\$ 8,680,254 32.17%



### **ACTUARIAL CONTRIBUTION REQUIREMENT**

В.	Development of Additional State Contributions for Fiscal Year 2009/2010	_	al Amount % of Pay
1.	Actuarially Required Contribution  (a) Total Contribution Amount  (b) State Appropriations  (c) Expected State Appropriation for LB 137 COLA benefit  (d) Net Contribution Amount [(a) - (b) - (c)]  (e) Net Amount as % of Pay	\$	8,680,254 210,220 104,580 8,365,454 31.01%
2.	Statutory Contribution Rates during 2008/2009  (a) Employee Contribution Rate  (b) Employer Contribution Rate  (c) Total Employee/Employer Contribution Rate [(a) + (b)]		13.00% 15.00% 28.00%
3.	Additional Required State Contribution  (a) Additional Required State Contribution Rate  [1(e) - 2(c), not less than 0.00%]  (b) Additional Required State Contribution Amount	\$	3.01% 812,087
4.	Expected Statutory Employer Contribution (a) Annual Compensation (b) Employer Contribution Amount [2(b) x 4(a)]	\$ \$	26,979,643 4,046,946
5.	Total Expected Employer Contribution Amount and State Appropriations [1(b) + 1(c) + 3(b) + 4(b)]	\$	5,173,833



### **ACTUARIAL CONTRIBUTION REQUIREMENT**

C. Schedule of Amortization Bases	Original Amount	July 1, 2008 Remaining Payments	Date of Last Payment	Outstanding Balance as of July 1, 2008	Annual Contribution
2006 Unfunded Actuarial Accrued Liability Base	\$ 13,632,330	28	07/01/2036	\$ 13,382,025	\$ 1,165,213
2007 Unfunded Actuarial Accrued Liability Base	\$ (2,328,213)	29	07/01/2037	(2,307,661)	(199,002)
2008 Unfunded Actuarial Accrued Liability Base	\$ 7,528,427	30	07/01/2038	7,528,427	\$ 643,486
Total				\$ 18,602,791	\$ 1,609,697



# ACTUARIAL (GAIN)/LOSS

A.	Change in Actuarial Accrued Liability		-	
1.	Actual Actuarial Accrued Liability as of July 1, 2007		\$	265,846,597
2.	Benefits accrued during the 2007/2008 plan year			7,012,837
3.	Benefit payments during the 2007/2008 plan year			12,936,189
4.	Interest at 8%			21,078,393
5.	Expected Actuarial Accrued Liability as of July 1, 2008 [1 + 2 - 3 + 4]		\$	281,001,638
<ul><li>7.</li><li>8.</li></ul>	<ul> <li>(c) Disability</li> <li>(d) Pre-retirement mortality</li> <li>(e) Post-retirement mortality</li> <li>(f) Salary</li> <li>(g) New Entrants / Rehires</li> <li>(h) Post-retirement mortality</li> </ul>	,620 ,983 ,864 ,166) ,625) ,077 ,795 ,650)	\$	3,661,898 7,333,183 291,996,719
B.	Change in Actuarial Value of Assets			
1.	Expected Actuarial Value of Assets as of July 1, 2008		\$	270,495,663
2.	Actual Actuarial Value of Assets as of July 1, 2008			273,393,928
3.	Actuarial (Gain)/Loss from Asset Sources [1 – 2]		\$	(2,898,265)
C.	Total Actuarial (Gain)/Loss for the 2007/2008 plan year [A(6)(i) + B(3)]	_	\$	763,633



# ACTUARIAL BALANCE SHEET

Α.	Financial Resources	July 1, 2008
1.	Actuarial Value of Assets	\$ 273,393,928
2.	Present Value of Future Contributions (a) Member \$ 30,169,683 (b) Employer \$ 34,811,173 (c) State Appropriations \$ 1,126,541 (d) Total	66,107,397
3.	Actuarial Liability/(Reserve)	 17,440,826
4.	Total Assets [1 + 2(d) + 3]	\$ 356,942,151

В.	Benefit Obligations			July 1, 2008
1.	Present Value of Future Benefits  (a) Active members  (b) Inactive members  (c) Retirees, disabilities and beneficiaries  (d) Total	\$ 184,633 410 <u>171,898</u>	,339	\$ 356,942,151

#### ACCOUNTING INFORMATION

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

	July 1, 2007	July 1, 2008
Pension Benefit Obligation (PBO)		
Vested PBO		
(a) members currently receiving payments	\$ 162,565,102	\$ 171,898,267
(b) other members		
i) accumulated member contributions	31,785,494	34,609,596
ii) employer financed vested	58,562,459	59,529,238
Total Vested PBO	\$ 252,913,055	\$ 266,037,101
Nonvested PBO	16,883,305	23,389,060
Total PBO	\$ 269,796,360	\$ 289,426,161
Actuarial Value of Assets	254,662,819	273,393,928
Unfunded Pension Benefit Obligation/(Reserve)	\$ 15,133,541	\$ 16,032,233
Funded Percentage		
(a) on vested PBO	100.7%	102.8%
(b) on total PBO	94.4%	94.5%

### B. Change in Pension Benefit Obligation from July 1, 2007 to July 1, 2008

Pension Benefit Obligation at July 1, 2007	\$ 269,796,360
Increase/(Decrease) during Period	
Plan Provision and Assumption Changes	\$ 411,027
Benefits Accumulated	5,850,244
Benefits Paid	(12,936,189)
Interest Cost	21,587,276
Plan Experience	 4,717,443
Total Change	\$ 19,629,801
Pension Benefit Obligation at July 1, 2008	\$ 289,426,161

Exhibits 9 and 10 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, 2008 and 2007, respectively, as outlined in Exhibit 8. The determination of the Pension Benefit Obligation has been made in accordance with generally accepted actuarial principles and practices.



### **ACCOUNTING INFORMATION**

### C. Schedule of Employer Contributions - Disclosure Requirements Under GASB No. 25

Plan Year Ending	Annual Required Contributions	Percentage Contributed
June 30, 2008	\$ 4,855,700	100%
June 30, 2007	5,058,621	100%
June 30, 2006	5,081,930	100%
June 30, 2005	3,868,904	82%
June 30, 2004	3,018,366	96%
June 30, 2003	2,652,857	100%

### D. Actuarial Assumptions, Method and Additional Information under GASB No. 25

Valuation Date	June 30, 2008
Actuarial Cost Method	Entry Age
Amortization Method	Level dollar amount, closed
Equivalent Single Amortization Period	29 years
Asset Valuation Method	5 year smoothed market
Actuarial Assumptions: Investment rate of return* Projected salary increases*	8.0% 4.5% - 9.0%
*Includes inflation at	3.5%
Cost-of-living adjustment	2.5% with a floor benefit equal to 60% purchasing power of original benefit



# **ACCOUNTING INFORMATION**

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

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Accrued Liabilities (UAL) (b-a)	Funded Ratio (a÷b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
June 30, 2008	\$273,393,928	\$ 291,996,719	\$ 18,602,791	93.6%	\$ 26,979,643	69.0%
June 30, 2007	254,662,819	265,846,597	11,183,778	95.8%	26,072,859	42.9%
June 30, 2006	231,740,772	245,373,102	13,632,330	94.4%	24,057,960	56.7%
June 30, 2005	219,831,273	236,026,471	16,195,198	93.1%	22,882,413	70.8%
June 30, 2004	216,422,556	222,161,512	5,738,956	97.4%	22,640,907	25.3%
June 30, 2003	214,657,454	210,930,784	(3,726,670)	101.8%	21,929,399	(17.0)%



# SUMMARY OF MEMBER DATA

A.	Active Members		July 1, 2007	July 1, 2008
1.	Number of active members  (a) Before assumed retirement age  (b) Beyond assumed retirement age  (c) Total		483 1 484	484 12 496
2.	Annual considered compensation  (a) Before assumed retirement age  (b) Beyond assumed retirement age*  (c) Total	\$	26,011,498 61,361 26,072,859	\$ 26,979,643 683,569 27,663,212
3.	Accumulated contributions	\$	31,192,740	\$ 34,199,257
4.	Active member averages  (a) Age (b) Service (c) Compensation (d) Accumulated contributions	<b>\$</b>	38.9 11.4 53,870 64,448	\$ 39.0 11.4 55,773 68,950
B.	Inactive Members			
1. 2. 3.	Number of inactive members  Accumulated member contributions  Inactive member averages	\$	15 592,754	\$ 9 410,339
	<ul><li>(a) Age (vesteds only)</li><li>(b) Accumulated member contributions</li></ul>	\$	42.9 39,517	\$ 44.2 45,593
C.	Retired and Disabled Members and Beneficiarie	S		
1.	Number of members  (a) Retired  (b) Disabled  (c) Beneficiaries  (d) Total		275 7 59 341	283 8 <u>61</u> 352
2.	Annual benefits  (a) Retired  (b) Disabled  (c) Beneficiaries  (d) Total	\$	11,016,606 214,370 <u>1,210,704</u> 12,441,680	\$ 11,715,908 242,068 <u>1,264,922</u> 13,222,898

<sup>\*</sup> For 2008, compensation beyond assumed retirement age only includes compensation payable to DROP participants after their DROP date.



# SUMMARY OF MEMBER DATA

### D. Distribution of Retired and Disabled Members and Beneficiaries as of July 1, 2008

Age Range	Number	Annual Benefit	Average Annual Benefit
Kange	Number	Allitual Belletit	Deficit
59 & Under	121	\$ 5,384,390	\$ 44,499
60-64	62	2,599,815	41,932
65-69	50	1,842,765	36,855
70-74	50	1,556,524	31,130
75-79	23	603,622	26,244
80-84	32	882,688	27,584
85-89	11	291,656	26,514
90 & Over	3	61,438	20,479
Total	352	\$ 13,222,898	\$ 37,565

### E. Member Data Reconciliation

		Inactive Members							
	Active Members	With Deferred Benefits	Terminated With Balance	Retired Members and Beneficiaries	Disabled Members	Total			
As of July 1, 2007	484	8	7	334	7	840			
Changes in status  a) Normal & early retirements b) Deaths c) Nonvested terminations d) Vested terminations e) Contribution refund f) Beneficiaries in receipt g) Disability retirements h) Return to active service i) Expired or forfeited benefits Total changes in status	(12) 0 (2) (1) (1) 0 (1) 5 0 (12)	0 0 0 1 (1) 0 0 (3) <u>0</u> (3)	0 0 2 0 (3) 0 0 (2) 0 (3)	12 (7) 0 0 0 4 0 0 0 ——————9	0 0 0 0 0 1 0 <u>0</u>	0 (7) 0 0 (5) 4 0 0 0			
New entrants / Data Changes a) Without prior service b) With prior service Total new members	24 0 24	0 _0 0	0 _0 0	0 1 1	0 0	24 1 25			
Net change	12	(3)	(3)	10	1	17			
As of July 1, 2008	496	5	4	344	8	857			

### SUMMARY OF MEMBER DATA

### F. Age and Service Distribution of Active Members as of July 1, 2008

Age Last Birthday		0-4	5-9	10-14		15-19	20-24	25-29	30-34	_	over 34	Total
20-24	Number	17	0	0	<u> </u>	0	0	0	0		0	17
20-24	Total Salary	\$ 595,058	\$ 0	\$ 0	\$	0	\$ 0	\$ 0	\$ 0	\$	0	\$ 595,058
	Average Sal.	\$ 35,003	\$ 0	\$ 0	\$	0	\$ 0	\$ 0	\$ 0	\$	0	\$ 35,003
25-29	Number	49	17	0		0	0	0	0		0	66
	Total Salary	\$ 2,065,295	\$ 851,568	\$ 0	\$	0	\$ 0	\$ 0	\$ 0	\$	0	\$ 2,916,863
	Average Sal.	\$ 42,149	\$ 50,092	\$ 0	\$	0	\$ 0	\$ 0	\$ 0	\$	0	\$ 44,195
30-34	Number	11	74	8		0	0	0	0		0	93
	Total Salary	\$ 464,802	\$ 3,778,496	\$ 433,984	\$	0	\$ 0	\$ 0	\$ 0	\$	0	\$ 4,677,282
	Average Sal.	\$ 42,255	\$ 51,061	\$ 54,248	\$	0	\$ 0	\$ 0	\$ 0	\$	0	\$ 50,293
35-39	Number	12	42	39		8	0	0	0		0	101
	Total Salary	\$ 514,104	\$ 2,123,921	\$ 2,220,942	\$	514,701	\$ 0	\$ 0	\$ 0	\$	0	\$ 5,373,668
	Average Sal.	\$ 42,842	\$ 50,570	\$ 56,947	\$	64,338	\$ 0	\$ 0	\$ 0	\$	0	\$ 53,205
40-44	Number	1	23	20		30	9	0	0		0	83
	Total Salary	\$ 39,748	\$ 1,250,653	\$ 1,233,793	\$	1,918,722	\$ 657,368	\$ 0	\$ 0	\$	0	\$ 5,100,284
	Average Sal.	\$ 39,748	\$ 54,376	\$ 61,690	\$	63,957	\$ 73,041	\$ 0	\$ 0	\$	0	\$ 61,449
45-49	Number	0	12	2		21	20	31	0		0	86
	Total Salary	\$ 0	\$ 689,202	\$ 125,521	\$	1,370,040	\$ 1,367,997	\$ 2,110,336	\$ 0	\$	0	\$ 5,663,096
	Average Sal.	\$ 0	\$ 57,433	\$ 62,760	\$	65,240	\$ 68,400	\$ 68,075	\$ 0	\$	0	\$ 65,850
50-54	Number	0	6	3		3	9	13	3		0	37
	Total Salary	\$ 0	\$ 362,103	\$ 169,186	\$	202,959	\$ 569,049	\$ 954,630	\$ 227,412	\$	0	\$ 2,485,339
	Average Sal.	\$ 0	\$ 60,351	\$ 56,395	\$	67,653	\$ 63,228	\$ 73,433	\$ 75,804	\$	0	\$ 67,171
55 &	Number	0	4	0		0	4	3	1		1	13
Up	Total Salary	\$ 0	\$ 270,353	\$ 0	\$	0	\$ 243,972	\$ 184,254	\$ 63,158	\$	89,885	\$ 851,622
	Average Sal.	\$ 0	\$ 67,588	\$ 0	\$	0	\$ 60,993	\$ 61,418	\$ 63,158	\$	89,885	\$ 65,509
TOTAL	Number	90	178	72		62	42	47	4		1	496
	Total Salary	\$ 3,679,007	\$ 9,326,296	\$ 4,183,426	\$	4,006,422	\$ 2,838,386	\$ 3,249,220	\$ 290,570	\$	89,885	\$ 27,663,212
	Average Sal.	\$ 40,878	\$ 52,395	\$ 58,103	\$	64,620	\$ 67,581	\$ 69,132	\$ 72,643	\$	89,885	\$ 55,773



### SUMMARY OF MEMBER DATA

# G. Reconciliation of Data Submitted By NPERS and Valuation Data

		Inactive	Retired Members, Beneficiaries,	
	Active Members	Members	and Disabled	Total
Number of Data Records Submitted By NPERS	498	7	370	875
Additions a) 2008 Active b) 2007 Balance Only c) 2007 Deferred Vested d) 2007 Retired	0 0 0 0	0 0 0 0	0 0 0 0 <u>0</u>	0 0 0 0 <u>0</u>
Total	0	0	0	0
Subtractions a) Also Listed as Deaths b) Also Listed as Inactives or Retirees	0	0	0	0
c) Also Listed as Contribution Refunds d) Benefits Expired e) Dependents not in receipt	0 0 0	0 0 0	0 0 (18)	0 0 (18)
f) Also Listed as Active g) Assumed Terminated based on Date of Last Contribution	0 (2)	0 2	0 _0	0 _0
Total	(2)	2	(18)	(18)
Net change	(2)	2	(18)	(18)
Number of Members Included in the Valuation as of July 1, 2008	496	9	352	857



### FORECAST OF EXPECTED DISBURSEMENTS

Plan Year Ending June 30	Act	ive Employees	N	ed and Disabled Jembers and Beneficiaries	Total
2009	\$	1,547,986	\$	13,173,098	\$ 14,721,084
2010		2,285,191		13,386,487	15,671,678
2011		2,575,613		13,591,976	16,167,589
2012		3,649,830		13,788,198	17,438,028
2013		4,506,011		13,973,596	18,479,607
2014		5,961,455		14,149,105	20,110,560
2015		6,912,583		14,314,792	21,227,375
2016		7,901,204		14,466,166	22,367,370
2017		8,861,024		14,602,692	23,463,716
2018		9,613,818		14,722,407	24,336,225
2019	\$	10,568,797	\$	14,824,683	\$ 25,393,480
2020		12,149,578		14,907,172	27,056,750
2021		13,440,995		14,968,298	28,409,293
2022		14,858,576		15,006,627	29,865,203
2023		16,068,122		15,020,345	31,088,467
2024		18,010,594		15,006,634	33,017,228
2025		20,128,034		14,966,386	35,094,420
2026		22,282,320		14,894,539	37,176,859
2027		24,133,082		14,787,477	38,920,559
2028		27,847,214		14,642,626	42,489,840
2029	\$	29,495,148	\$	14,460,811	\$ 43,955,959
2030		31,166,043		14,237,106	45,403,149
2031		33,096,277		13,970,150	47,066,427
2032		34,841,447		13,659,033	48,500,480
2033		36,949,575		13,304,049	50,253,624
2034		38,630,047		12,906,471	51,536,518
2035		39,890,646		12,465,966	52,356,612
2036		40,913,630		11,984,385	52,898,015
2037		41,742,179		11,464,612	53,206,791
2038		42,677,759	<u> </u>	10,909,413	53,587,172

**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. These amounts include expected deposits to DROP accounts.



### SUMMARY OF PLAN PROVISIONS

Member Any member of the Nebraska State Patrol, permanent force.

**Participation Date** Date of becoming a member.

**Definitions** 

Covered pay Gross annual earnings subject to contributions. For a patrol officer

with service prior to January 4, 1979, total salary includes pay for unused sick leave accrued during his final three years of service, and pay for unused vacation leave (including leave not allowed to

be carried over).

Final average earnings

The average of the highest three 12-month periods of covered pay,

ending on the earlier of the participant's termination date or retirement date. For a patrol officer with service prior to January 4, 1979, it includes pay for 25% of unused sick leave accrued during his final three years of service, and pay for unused vacation leave

(including leave not allowed to be carried over).

Fiscal year Twelve month period ending June 30.

Member and employer

contributions

13% of monthly salary plus 13% of pay received at termination for unused sick leave and vacation leave for a patrol officer with service prior to January 4, 1979. Such contributions are credited with regular interest in conformity with the statutes. Employer contributions are 15% of monthly salary. The State makes any additional contributions that are actuarially required.

Pension benefit 3% of final average salary times pension service. The benefit is

subject to a maximum of 75% of Final Average Salary. Effective July 1, 2001, an automatic annual cost-of-living adjustment (COLA) equal to the CPI-W index, with a maximum increase of 2.5% in any one year is provided for current and future retirees by LB 711. Also provided is a minimum floor benefit equal to 60% of the purchasing

power of the original benefit.

Normal Retirement Date (NRD) First of month coinciding with or next following (a) the completion

of 25 years of service and attaining age 50, (b) the completion of ten years of service and attaining age 55, or (c) attaining age 60

regardless of service.

Pension service Length of service includes all service with the Nebraska State

Patrol, permanent force, computed to the nearest one-twelfth year,

plus declared emergency service in the armed forces.

#### SUMMARY OF PLAN PROVISIONS

**Eligibility for Benefits** 

Deferred vested Termination for reasons other than death, disability, or retirement

after completing at least six years of pension service.

Disability retirement Retirement by reason of disability as defined by statute.

Early retirement Retirement before NRD and on or after both attaining age 50 and

completing ten years of pension service.

Normal retirement Retire on NRD.

Postponed retirement Retire after NRD.

Post-retirement death benefit Death after retirement with surviving spouse or dependent

children under age 19. For non-disability retirement, the surviving spouse must have been married to the member at the date of

retirement.

Pre-retirement death benefit Death prior to retirement.

#### Monthly Benefits Paid Upon the Following Events

Normal retirement Pension benefit determined as of NRD.

Early retirement Pension benefit determined as of early retirement date, reduced

by 5/9% for each month that commencement (which must be after age 50 and ten years of service) of payment precedes the earlier of age 55 or completion of 25 years of service. No

reduction is made after 25 years of service.

Postponed retirement Monthly pension benefit determined as of actual retirement date.



#### SUMMARY OF PLAN PROVISIONS

Termination with deferred vested benefit

Refund of contributions with regular interest <u>or</u> a percentage of the pension benefit determined as of termination date, reduced by 5/9% for each month that commencement (which must be after age 50 and ten years of service) of payment precedes the earlier of age 55 or completion of 25 years of service. This percentage is based upon completed years of pension service as follows:

<u>Years</u>	Vested Percentage
5 and under	0%
6	20
7	40
8	60
9	80
10 or more	100

Disability retirement

A monthly benefit equal to 50% of current monthly salary at the date of disablement for members with less than 17 years of service.

For members with more than 17 years of service, a monthly benefit equal to the product of 3% of final monthly salary, times total years of service subject to a maximum of 75% of final average monthly salary.

Pre-retirement death benefits

### Surviving spouse or dependent children under age 19:

Benefit is computed as if member retired for disability on the date of death. This benefit is payable to the surviving spouse as long as spouse has dependent children under age 19. If spouse dies or remarries, 75% of this benefit continues to children until the youngest attains age 19. If there are no dependent children under age 19, 75% of this benefit is payable to the surviving spouse until death or remarriage.

No surviving spouse or dependent children under age 19: A lump sum equal to the member's contributions plus regular interest.

Post-retirement death benefits

100% of member's annuity is payable to the surviving spouse provided spouse has dependent children under 19. If there is no surviving spouse or spouse dies or remarries, 75% of member's annuity continues to children until the youngest attains age 19. If there are no dependent children under age 19, 75% of member's annuity continues to surviving spouse.

Forms of payment

Normal form is 75% Joint and Survivor benefit. Members may also elect a refund of contributions. If there is no surviving spouse or dependent children under age 19, the member's accumulated contributions with interest are paid to the beneficiary or estate.



#### SUMMARY OF PLAN PROVISIONS

Deferred Retirement Option Plan (DROP)

A member may elect to participate in the DROP after they attain age 50 with 25 years of service. A member can continue to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's retirement benefits would be calculated as of the DROP entry date. The monthly payments that begin at entry into the DROP are accumulated until the member terminates service, at which time the DROP accumulated benefits and investment income can be paid as a lump sum, rollover or annuity. The COLA for retirees would not apply to the member during participation in the DROP and both the member and employer contributions cease upon entry into the DROP.

#### **State Appropriations**

LB 700, passed in 1996, provided for annual cost of living increases of 0.3%, beginning in the sixth year after retirement for members ceasing employment on or after April 10, 1996. Funding for these benefits shall be made by the State into the State Patrol Purchasing Power Stabilization Fund. Beginning with the 1996/1997 fiscal year, the funding shall be 3.04888% of \$6,895,000, or \$210,220 will be made for each year through the 2010/2011 Fiscal Year.

LB 137 provides cost-of-living benefits for members who retired prior to 1985. This benefit is funded by an annual state appropriation and declines over time.

LB 674, passed in 2000 (effective July 1, 2001), provided 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 60% of the purchasing power of the original benefit and the elimination of the State Patrol Purchasing Power Stabilization Fund. The existing assets in the State Patrol PPSF were transferred to the Nebraska State Patrol Retirement Fund. The State appropriation continues, as defined above to the Nebraska Patrol Retirement Fund through the 2010/2011 Fiscal Year. LB 711, passed in 2001, increased the maximum annual cost-of-living increase in any one year from 2% to 2.5%.

#### **Benefits Reflected in Valuation**

All benefits were valued, including future cost of living increases granted by LB 711.

#### Plan Provisions Effective After July 1, 2008

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 the Prior Year**

LB 324 adds a Deferred Retirement Option Plan (DROP) for members who are at least 50 and have 25 years of service.



### Summary of Actuarial Methods and Procedures as of July 1, 2008

#### A. ACTUARIAL METHODS

 Calculation of Normal Cost and Actuarial Accrued Liability: The method used to determine the normal cost and actuarial accrued liability was the Entry Age Actuarial Cost Method described below.

### **Entry Age Actuarial Cost Method**

Projected pension and preretirement spouse's death benefits were determined for all active members under age 60. Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year from the assumed entry age to the assumed retirement age were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members under age 60 and determining an average normal cost rate which is then related to the total payroll of active members under age 60. The actuarial assumptions shown in Exhibit 10 were used in determining the projected benefits and cost factors. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, active members age 60 and over, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date. The initial unfunded actuarial accrued liability established July 1, 2004, is amortized with a level dollar payment amount over 25 years. At subsequent valuation dates, amortization bases equal to changes in the unfunded actuarial accrued liability are established and amortized with a level dollar payment over a 25-year period. The unfunded liability was reinitialized as of July 1, 2006 and amortized over a 30-year period. At subsequent valuation dates, amortization bases equal to changes in the unfunded actuarial accrued liability are established and amortized over a level dollar payment over a 30-year period. If the unfunded actuarial accrued liability is \$0 or less on the valuation date, all previous amortization bases are considered fully amortized.

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 the unfunded actuarial accrued liability.



### SUMMARY OF ACTUARIAL METHODS AND PROCEDURES AS OF JULY 1, 2008

- 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, and
  - (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. 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. VALUATION 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 determined from the prior plan year compensation. Actual historical compensation is not included in our calculations.

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

#### Changes in Methods and Procedures Since the Prior Year

The compensation amounts used in the projection of benefits and liabilities for active members are now determined only from the prior plan year compensation. Actual historical compensation is no longer included for calculations.



### SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2008

### **ECONOMIC ASSUMPTIONS**

1. Investment Return 8.0% per annum, compounded annually, net of

expenses.

2. Inflation 3.5% per annum, compounded annually.

3. Salary Increases Rates vary by service. Sample rates are as follows:

Rates by Service							
Years	Rate*						
<1	9.0%						
1	8.5						
5	6.5						
10	5.0						
15	5.0						
20	5.0						
25+	4.5						

<sup>\*</sup> Projected pay at retirement is adjusted by 8.7% to reflect Halpin decision for members hired before January 4, 1979.

4. Interest on Employee Contributions

5.5% per annum, compounded annually.

#### **DEMOGRAPHIC ASSUMPTIONS**

1. Mortality

a. Healthy lives – Active members 1994 Group Annuity Mortality Table, projected to

2010 using scale AA (65% of male rates for males,

50% of female rates for females)

 b. Healthy lives – Retired members and beneficiaries 1994 Group Annuity Mortality Table, projected to

c. Disabled lives

2010 using scale AA (sex distinct)

1983 Railroad Retirement Board Disabled Annuitants

Mortality (unisex)



# SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2008

d. Healthy mortality rates and life expectancies are shown below at sample ages:

	Pre-retirement Mortality			
	Mortality Rate		Life Expectancy (Years)	
Sample Age	Males	Females	Males	Females
20	0.02%	0.01%	65.6	71.7
30	0.05	0.02	55.8	61.8
40	0.06	0.03	46.1	51.9
50	0.13	0.05	36.4	42.1
60	0.40	0.20	27.1	32.5
70	1.21	0.63	18.7	23.5

_	Post-retirement Mortality			
	Mortality Rate		Life Expectancy (Years)	
Sample Age	Males	Females	Males	Females
50	0.19%	0.11%	32.4	35.7
60	0.62	0.41	23.3	26.3
70	1.86	1.27	15.4	17.9
80	5.28	3.52	8.9	10.7
90	14.34	11.08	4.6	5.5

e. Disabled mortality rates and life expectancies are shown below at sample ages:

	Disabled Mortality		
Sample Age	Mortality Rate	Life Expectancy (Years)	
30	1.06%	30.5	
40	1.35	23.6	
50	3.16	17.7	
60	4.25	13.6	
70	6.75	9.6	
80	10.77	6.3	

# SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2008

#### 2. Retirement

Retirement is assumed to occur upon attaining certain age and service requirements. The retirement assumption varies depending on benefit eligibility age at retirement, and years elapsed since first eligible for benefits.

Early / Normal Retirement Eligibility	Age and Service Requirements	Retirement Assumption
Reduced	Age 50 Service: 10 years	2% at each age
Unreduced	Age 55 Service: 10 years	<ul><li>67% in the first year eligible</li><li>37% in the second year eligible</li><li>30% in the third year eligible</li><li>16% thereafter</li></ul>
Unreduced (Eligible for DROP)	Age 50 Service: 25 years	100% at each age
Unreduced (Mandatory)	Age 60	100% at each age

### 3. Termination

Rates vary by service. Sample rates are as follows:

Rates by Service		
Years	Rate	
<1	4.0%	
1	3.8	
5	2.0	
10	1.5	
15	1.0	
20	1.0	



# SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2008

4. Disability

Rates vary by age. Sample rates are as follows:

Rates by Age		
Age	Rate	
25	.08%	
30	.10	
35	.13	
40	.20	
45	.31	
50	.52	
55	.91	
60	1.36	

#### **OTHER ASSUMPTIONS**

1. Form of Payment

75% Joint & Survivor Annuity. Deferred vesteds are assumed to take a refund of contributions.

2. Marital Status

a. Percent married

b. Spouse's age

100% married

Females assumed to be three years younger

than males.

3. Children All members are assumed to have one

dependent child at death or retirement. The child is assumed to be 28 years younger than the member, and is assumed to always

survive until age 19.

3. Administrative Expense Investment return is assumed to be net of

expenses.

4. Cost of living adjustments 2.5% per annum, compounded annually, and

3.5% per annum, compounded annually, after reaching 60% purchasing power floor benefit.

5. DROP participation All members elect the DROP at the earliest

possible date and remain in the DROP for

4 years or to age 60, if earlier.



# SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2008

### **CHANGES IN ASSUMPTIONS SINCE THE PRIOR YEAR**

Due to LB 324, retirement rates were increased to 100% for members who are eligible for the DROP.



#### **GLOSSARY OF TERMS**

Actuarial Accrued Liability Total accumulated cost to fund pension benefits arising

from service in all prior years.

Actuarial Cost Method Technique used to assign or allocate, in a systematic and

consistent manner, the expected cost of a pension plan for a group of participants to the years of service that give rise

to that cost.

Actuarial Present Value

of Future Benefits

Amount which, together with future interest, is expected

to be sufficient to pay all future benefits.

Actuarial Valuation Study of probable amounts of future pension benefits and

the necessary amount of contributions to fund those

benefits.

Actuary Person who performs mathematical calculations pertaining

to pension and insurance benefits based on specific

procedures and assumptions.

Annual Required Contribution Disclosure measure of annual pension cost.

GASB 25 Governmental Accounting Standards Board Statement

number 25 which specifies how the Annual Required

Contribution is to be calculated.

Normal Cost That portion of the actuarial present value of benefits

assigned to a particular year in respect to an individual

participant or the plan as a whole.

Unfunded Actuarial

Accrued Liability

The portion of the actuarial accrued liability not offset by

plan assets.

Vested Benefits Benefits which are unconditionally guaranteed regardless

of employment status.

