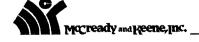
# ACTUARIAL VALUATION JULY 1, 2009



### ACTUARIAL VALUATION

VALUATION DATE

July 1, 2009

PLAN YEAR

July 1, 2009 -- June 30, 2010

#### Summary of Actuarial Valuation as of July 1, 2009

#### Introduction

As of the valuation date there were 147,792 active members, 65,099 pensioners and 10,670 terminated participants entitled to future benefits. See the exhibit labeled <u>Summary of Employee Data</u> for a breakdown of the members between state employees and employees of political subdivisions.

This report establishes the following contributions for the 2009-2010 Year:

	 State	Political Subdivisions		 Total
Total Annual Cost	\$ 118,199,909	\$	241,983,391	\$ 360,183,300
Cost as % of Anticipated Payroll	7.00%		7.88%	7.57%

Beginning with the 2007 valuation, smoothing rules have been applied to the State employer contribution rate to help reduce wide variations in the employer contribution rates from year to year. These smoothing rules are also applied to individual political subdivisions participating in PERF. For the 2008 and 2009 valuations, an additional smoothing rule was applied such that no employer contribution rate decreases from the employer contribution rate developed from the 2007 valuation. The PERF Board of Trustees approved this additional smoothing rule upon recommendation by the actuary and PERF management. The additional smoothing rule is intended for the 2008 and 2009 valuations only, but may be extended to future valuations if deemed necessary.

This report reflects the plan provisions in effect as of July 1, 2009. Refer to the exhibit titled <u>Summary of Major Plan Provisions</u> for a brief description of benefits provided by this plan.

Prior to smoothing, the Total Annual Cost is composed of employer normal cost of \$298,159,870 and an amortization payment of \$72,839,046. As of July 1, 2009, the Unfunded Actuarial Accrued Liability is \$936,944,440. A breakdown and a comparison with the results of the prior valuation are provided in the exhibits titled Contribution Breakdown and Comparison.



#### Introduction, continued

Prior to smoothing, the Total Annual Cost for 2009, as a percent of anticipated payroll, increased to 7.796% as compared to 6.869% for 2007. The Fund had experience losses from investments yielding less than the assumed 7.25% (estimated return for the 2008 plan year was negative 0.94% on an actuarial value basis). In terms of actual dollars and prior to smoothing, the Total Annual Cost increased by \$20,240,065 from \$304,924,107 for the 2008 plan year to \$370,998,916 for the 2009 plan year.

#### Actuarial Methods and Assumptions

The Entry Age Normal Cost Method was continued for determining the cost of retirement benefits, death benefits, disability benefits, and termination benefits. Valuation assets continue to be developed on an actuarial basis.

The actuarial assumptions used in this Valuation have been reviewed and continued from the prior Valuation. These assumptions are deemed to be representative of actual and anticipated future experience.

A brief explanation of the methods and a complete summary of the assumptions used may be found in the exhibits titled <u>Actuarial Methods</u> and <u>Actuarial Assumptions</u>.

#### Valuation Data and Disclaimer

The valuation census data was provided by the Public Employees' Retirement Fund and transposed into a computer file for processing. Similar information has been furnished to us in the past, and the accuracy of this report depends on the accuracy of all data that has been furnished to us from time to time. Trust information was also furnished by the Public Employees' Retirement Fund. It is noted that we make no representation concerning the accuracy of any employee data or valuation information that has been furnished to us.

The Valuation has been prepared for the sole purpose of determining the contribution requirements for the respective plan year and for providing accounting data to meet the requirements of GASB #25 and #27. The figures in this Valuation should not be used as the basis for any other purpose for which it was not designed.

### Summary of Trust Experience

On an actuarial basis, the entire asset portfolio had net investment income for the 2008-2009 plan year that resulted in an estimated yield of negative 0.94%. The approximate market basis return during the same time period was negative 21.11%. See the exhibit labeled <u>Ten Year Historical Investment Experience</u> for more detail.

We will be pleased to furnish any additional information or answer any questions which may arise after your review of this report.

#### **ACTUARIAL CERTIFICATION**

The information and valuation results shown in this report are, to the best of my knowledge, complete and accurate and are based upon:

- 1. Employee census data as of July 1, 2009 submitted by the Public Employees' Retirement Fund (PERF). Although we did not audit this data, it appears to be sufficient and reliable for purposes of the report.
- 2. Financial data as of July 1, 2009 submitted by PERF. Although we did not audit this data, it appears to be sufficient and reliable for purposes of this report.
- 3. Actuarial assumptions which were chosen by the PERF Board of Trustees after consultation with the actuary with each assumption deemed to be reasonably related to past experience and to anticipated future experience.
- 4. Generally accepted actuarial principles and in accordance with the standards of practice by the Actuarial Standards Board.
- 5. Actuarial methods as stated in the report and our interpretation of plan provisions as summarized in the report.

Prepared and Submitted by McCready and Keene, Inc.

Douglas Todd

**&**.A., M.A.A.A., E.A

Senior Actuary

F.S.A., M.A.A.A., E.A.

Chief Actuary

#### **SUMMARY OF CONTRIBUTIONS**

	July 1, 2009					
		State**	Po	litical Subdiv.		Total
TOTAL ANNUAL COST	\$	118,199,909	\$	241,983,391	\$	360,183,300
COST AS PERCENTAGE OF ANTICIPATED PAYROLL (interest adjusted for mid-year contribution)		7.00%		7.88%		7.57%
				July 1, 2008		
		State**	<u>Pc</u>	olitical Subdiv.		Total
TOTAL ANNUAL COST	\$	107,981,141	\$	202,590,260	\$	310,571,401
COST AS PERCENTAGE OF ANTICIPATED PAYROLL (interest adjusted for mid-year contribution)		6.5%		7.1%		6.8%

### \*\* Smoothing rules:

McCready and Reene, Inc.

- 1. Any increase or decrease between the current year's true rate and the previous year's actual rate shall be limited to one-half the increase or decrease rounded up to the next 0.25% multiple.
- 2. After the rounding describe in #1, any decrease in the emplyer contribution rate shall be equal to the excess, if any, of the decrease over 1%.
- 3. The employer contribution rate may not be less than the preceding year's employer contribution rate.

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### **DEVELOPMENT OF FUNDED STATUS**

		July 1, 2008		July 1, 2009	
	Actuarial Accrued Liability				
	Non-Retired Members	\$	6,181,524,200	\$ 6,225,705,492	
	Annuity Savings Account		2,694,331,410	2,669,318,240	
	Retired, Beneficiaries, and Disabled		4,227,365,567	4,611,256,619	
	Total	\$	13,103,221,177	\$ 13,506,280,351	
Less:	Total Actuarial Assets		12,780,116,052	12,569,335,911	
Equals:	Unfunded Actuarial Accrued Liability	\$	323,105,125	\$ 936,944,440	
Funded S	Status		97.5%	93.1%	

### CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

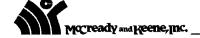
		, <del></del>	2007 - 2008		2008 - 2009	
	Unfunded Actuarial Accrued Liability, Prior Year	\$	218,863,969	\$	323,105,125	
Plus:	Asset Experience (Gain) or Loss	\$	235,548,704	\$	1,042,333,456	
Plus:	Liability Experience (Gain) or Loss		(128,898,590)		(424,818,257)	
Plus:	Additional Liability Due to Change in Actuarial Assumptions		0		0	
Plus:	Additional Liability Due to Change in Plan Provisions		0		0	
Plus:	Amortization of Existing Bases		(2,408,958)		(3,675,884)	
Equals:	Change in Unfunded Actuarial Accrued Liability	\$	104,241,156	\$	613,839,315	
	Unfunded Actuarial Accrued Liability, Current Year	\$	323,105,125	\$	936,944,440	

### CONTRIBUTION BREAKDOWN AND COMPARISON

				July 1, 2009		
		State	_P	olitical Subdiv.	-	Total
TOTAL ANNUAL COST						
Employer Normal Cost	\$	103,491,300	\$	194,668,570	\$	298,159,870
Amortization of Unfunded Actuarial Accrued Liability	4	24,800,374	4	48,038,672	4	72,839,046
Total	\$	128,291,674	\$	242,707,242	\$	370,998,916
ANTICIPATED PAYROLL	\$	1,749,780,803	\$	3,181,642,137	\$	4,931,422,940
COST AS PERCENTAGE OF ANTICIPATED PAYROLL		7.598%		7.905%		7.796%
(interest adjusted for mid-year contribution)						
DEVELOPMENT OF UNFUNDED	AC	ΓUARIAL ACCR	UEC	<u>LIABILITY</u>		
				July 1, 2009		
		State	P	olitical Subdiv.		Total
Actuarial Accrued Liability			,			
- Active Members	\$	2,263,622,086	\$	3,552,449,183	\$	5,816,071,269
- Terminated Vested Members		179,417,239		230,216,984		409,634,223
Total	\$	2,443,039,325	\$	3,782,666,167	\$	6,225,705,492
Less: Non-Retired Member Assets		2,121,550,162		3,167,210,890		5,288,761,052
Equals: Actual Unfunded Actuarial Accrued Liability (UAAL)	\$	321,489,163	\$	615,455,277	\$	936,944,440
Unfunded Actuarial Accrued Liability, Prior Year	\$	44,359,668	\$	278,745,457	\$	323,105,125
Less: Amortization of Unfunded Actuarial Liability, PY		3,417,230		21,851,773		25,269,003
Plus: Interest for Full Year at 7.25%		2,968,327		18,624,792		21,593,119
Equals: Expected UAAL, prior to changes	\$	43,910,765	\$	275,518,476	\$	319,429,241
Plus: Increase (Decrease) - Change in Assumptions		0		0		0
Plus: Increase (Decrease) - Change in Plan Provisions		0		0		0
Equals: Expected UAAL	\$	43,910,765	\$	275,518,476	\$	319,429,241
Experience (Gain)/Loss [Actual UAAL - Expected UAAL]	\$	277,578,398	\$	339,936,801	\$	617,515,199

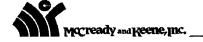
### CONTRIBUTION BREAKDOWN AND COMPARISON

				July 1, 2008	
		State	P	olitical Subdiv.	Total
TOTAL ANNUAL COST					
Employer Normal Cost	\$	98,916,617	\$	180,738,487	\$ 279,655,104
Amortization of Unfunded Actuarial Accrued Liability		3,417,230		21,851,773	 25,269,003
Total	\$	102,333,847	\$	202,590,260	\$ 304,924,107
ANTICIPATED PAYROLL	\$	1,661,248,319	\$	2,939,105,575	\$ 4,600,353,894
COST AS PERCENTAGE OF ANTICIPATED PAYROLL		6.383%		7.143%	6.869%
(interest adjusted for mid-year contribution)					
DEVELOPMENT OF UNFUNDED	ACT	TUARIAL ACCR	UED	LIABILITY	
				July 1, 2008	
		State	P	olitical Subdiv.	Total
Actuarial Accrued Liability					
- Active Members	\$	2,272,481,545	\$	3,427,008,829	\$ 5,699,490,374
- Terminated Vested Members		241,309,734		240,724,092	 482,033,826
Total	\$	2,513,791,279	\$	3,667,732,921	\$ 6,181,524,200
Less: Non-Retired Member Assets		2,469,431,611		3,388,987,464	 5,858,419,075
Equals: Actual Unfunded Actuarial Accrued Liability (UAAL)	\$	44,359,668	\$	278,745,457	\$ 323,105,125
Unfunded Actuarial Accrued Liability, Prior Year	\$	(15,570,370)	\$	234,434,339	\$ 218,863,969
Less: Amortization of Unfunded Actuarial Liability, PY		(1,199,457)		18,240,572	17,041,115
Plus: Interest for Full Year at 7.25%		(1,041,891)		15,674,048	14,632,157
Equals: Expected UAAL, prior to changes	\$	(15,412,804)	\$	231,867,815	\$ 216,455,011
Plus: Increase (Decrease) - Change in Assumptions		0		0	0
Plus: Increase (Decrease) - Change in Plan Provisions		0		0	 0
Equals: Expected UAAL	\$	(15,412,804)	\$	231,867,815	\$ 216,455,011
Experience (Gain)/Loss [Actual UAAL - Expected UAAL]	\$	59,772,472	\$	46,877,642	\$ 106,650,114



### ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS FOR NON-RETIRED MEMBERS

	July 1, 2009					
				Political		
	State		Subdivisions			Total
Vested Benefits				_		
- Active Members	\$	1,406,256,075	\$	2,129,593,866	\$	3,535,849,941
- Terminated Vested Members		179,417,239		230,216,984		409,634,223
Total	\$	1,585,673,314	\$	2,359,810,850	\$	3,945,484,164
Nonvested Benefits		169,136,195	<u> </u>	337,765,851		506,902,046
Total Non-Retired Actuarial Present Value of Accumulated Benefits	\$	1,754,809,509	\$	2,697,576,701	\$	4,452,386,210
Non-Retired Member Assets						
- Market Value	\$	867,175,446	\$	1,294,585,235	\$	2,161,760,681
- Actuarial Value		2,121,550,162		3,167,210,890		5,288,761,052
Ratio of Assets to Present Value of Vested Accumulated Plan Benefits						
- Market Value		0.547		0.549		0.548
- Actuarial Value		1.338		1.342		1.340
Ratio of Assets to Present Value of Total Accumulated Plan Benefits						
- Market Value		0.494		0.480		0.486
- Actuarial Value		1.209		1.174		1.188



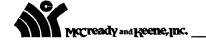
### ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS FOR NON-RETIRED MEMBERS

	July 1, 2008					
	State			Political		
			Subdivisions			Total
Vested Benefits		· · · ·				
- Active Members	\$	1,407,354,886	\$	2,010,460,879	\$	3,417,815,765
- Terminated Vested Members		241,309,734		240,724,092		482,033,826
Total	\$	1,648,664,620	\$	2,251,184,971	\$	3,899,849,591
Nonvested Benefits		168,391,735		329,145,752		497,537,487
Total Non-Retired Actuarial Present Value of Accumulated Benefits	\$	1,817,056,355	\$	2,580,330,723	\$	4,397,387,078
Non-Retired Member Assets						
- Market Value	\$	2,171,567,250	\$	2,980,205,711	\$	5,151,772,961
- Actuarial Value		2,469,431,611		3,388,987,464		5,858,419,075
Ratio of Assets to Present Value of Vested Accumulated Plan Benefits						
- Market Value		1.317		1.324		1.321
- Actuarial Value		1.498		1.505		1.502
Ratio of Assets to Present Value of Total Accumulated Plan Benefits						
- Market Value		1.195		1.155		1.172
- Actuarial Value		1.359		1.313		1.332



## STATEMENT OF CHANGES IN THE PRESENT VALUE OF ACCUMULATED PLAN BENEFITS ("PVAB") FOR NON-RETIRED MEMBERS

Actuarial Present Value of Accumulated Plan Benefits, July 1, 2008	\$ 4,397,387,078
Plus: Increase Due to Additional Benefits Accumulated	349,421,838
Less: Transfers to Retired and Disabled Status	535,970,005
Plus: Interest Due to Decrease in the Discount Period (@ 7.25%	365,191,635
Plus: Increase (Decrease) Due to Change in Plan Provisions	0
Plus: Increase (Decrease) Due to Change in Actuarial Assumptions	0
Plus: Actuarial Experience (Gain)/Loss and Other Miscellaneous Items	(123,644,336)
Actuarial Present Value of Accumulated Plan Benefits, June 30, 2009	\$ 4,452,386,210



### STATEMENT OF INCOME

July 1, 2008 - June 30, 2009

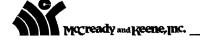
		 Market Value
Net Value of Assets for Benefits, July 1, 2008		\$ 12,073,469,938
Receipts:		
Employer Contributions Made During the Year		
State	\$ 112,826,503	
Political Subdivisions	210,324,589	323,151,092
Employee Contributions Made During the Year		
State	\$ 102,720,013	
Political Subdivisions	57,313,849	160,033,862
Investment Income and Dividends Net of Fees		(2,517,954,977)
Security Lending Income Net of Fees		-
Net Transfers In		3,147,867
Miscellaneous Income		 _
Total Receipts		\$ (2,031,622,156)
Disbursements:		
Benefits Paid During the Year		\$ 536,783,325
Refund of Contributions and Interest		36,098,593
Administrative Expenses		21,497,782
Net Transfers Out		5,132,542
Miscellaneous Disbursements		 _
Total Disbursements		\$ 599,512,242
Net Value of Assets for Benefits, June 30, 2009		\$ 9,442,335,540
_		

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### DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	July 1, 2008		July 1, 2009	
Actuarial Value, Prior June 30	\$	12,220,934,214	\$	12,780,116,052
Receipts				
Employer Contributions Made During the Year	\$	303,912,775	\$	323,151,092
Member Contributions Made During the Year		155,729,094		160,033,862
Miscellaneous Income - Not Investment Related		0		3,147,867
Expected Investment Earnings - Beginning Value		886,017,731		926,558,414
Expected Investment Earnings - Contributions		16,662,018		17,629,565
Total Receipts	\$	1,362,321,618	\$	1,430,520,800
<u>Disbursements</u>				
Benefits Paid During the Year	\$	501,636,888	\$	536,783,325
Refund of Contributions and Interest		45,610,365		36,098,593
Miscellaneous Expenses - Not Investment Related		488,405		5,132,542
Expected Investment Expenses - Disbursements		19,855,418		20,953,024
Total Disbursements	\$	567,591,076	\$	598,967,484
Expected Actuarial Value, Current June 30	\$	13,015,664,756	\$	13,611,669,368
Actual Market Value, Current June 30	\$	12,073,469,938	\$	9,442,335,540
Actuarial Value, Current June 30 [75% of Expected Actuarial Value] plus [25% of Actual Market Value]	\$	12,780,116,052	\$	12,569,335,911



### **ALLOCATION OF ASSETS**

	July 1, 2008		July 1, 2009	
Total Assets Available for Benefits - Market Value - Actuarial Value	\$ \$	12,073,469,938 12,780,116,052	\$ \$	9,442,335,540 12,569,335,911
Less: Annuity Savings Accounts	\$	2,694,331,410	\$	2,669,318,240
Less: Retired, Beneficiaries, and Disabled	\$	4,227,365,567	\$	4,611,256,619
Equals: Total Non-Retired Assets - Market Value - Actuarial Value	\$	5,151,772,961 5,858,419,075	\$	2,161,760,681 5,288,761,052
Total Ledger Assets	\$	5,205,044,878	\$	2,353,380,818
<ul><li>State Share of Total</li><li>State Percent of Total</li></ul>	\$	2,194,022,337 42.151843%	\$	944,042,551 40.114313%
<ul><li>Political Subdivisions Share of Total</li><li>Political Subdivisions Percent of Total</li></ul>	\$	3,011,022,542 57.848157%	\$	1,409,338,267 59.885687%
State Portion (Based on Ledger Share)				
<ul><li>- Market Value</li><li>- Actuarial Value</li></ul>	\$	2,171,567,250 2,469,431,611	\$	867,175,446 2,121,550,162
Political Subdivisions Portion (Based on Ledger Share) - Market Value - Actuarial Value	\$	2,980,205,711 3,388,987,464	\$	1,294,585,235 3,167,210,890

Each year the assets of the plan are allocated first to the Annuity Savings Account and second to retired and disabled lives. Residual assets are then allocated to non-retired members to determine necessary contribution levels for non-retired members.



### REQUIRED PENSION DISCLOSURE UNDER GASB #25 AND #27

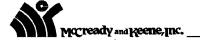
(State Members Only)

## Schedule of Employer Contributions (Dollar Amounts in Thousands)

Plan Year	Annua	al Required	A	ctual (Cash	
Ending	C	ontribution	Basis	) Employer	% of
June 30		(ARC)	Contribution		ARC
2004	\$	54,579	\$	90,709	166.2%
2005		69,647		62,760	90.1%
2006		87,947		72,890	82.9%
2007		96,430		89,801	93.1%
2008		99,135		106,867	107.8%
2009		107,981		111,214	103.0%

### <u>Three-Year Trend Information</u> (Dollar Amounts in Thousands)

Plan Year			A	ctual (Cash			
Ending	N	let Pension	Basis	s) Employer	% of		
June 30		Cost (NPC)		Cost (NPC) Contribution		Contribution	NPC
2007	\$	97,043	\$	89,801	92.5%		
2008		99,675		106,867	107.2%		
2009		108,594		111,214	102.4%		



### REQUIRED PENSION DISCLOSURE UNDER GASB #25 AND #27

(State Members Only)

### Schedule of Funding Progress

Actuarial	(a)	(b)	(c)		(d)	UAAL (Excess
Valuation	Non-Retired	Actuarial	Unfunded AAL	Funded	Annual	Assets) as a
Date	Actuarial Value	Accrued	(UAAL)	Ratio	Anticipated	% of Payroll
July 1	of Assets	Liability (AAL)	(b) - (a)	$\underline{\hspace{1cm}}$ (a)/(b)	Payroll	(c)/(d)
2000	\$ 1,960,018,018	\$ 1,701,091,436	\$ (258,926,582)	115.2%	\$ 1,371,496,425	(18.9%)
2001	2,063,626,964	1,896,505,744	(167,121,220)	108.8%	1,429,768,169	(11.7%)
2002	2,061,789,940	2,010,177,846	(51,612,094)	102.6%	1,475,076,791	(3.5%)
2003	2,078,952,509	1,860,101,326	(218,851,183)	111.8%	1,491,661,265	(14.7%)
2004	2,138,655,367	2,019,492,456	(119,162,911)	105.9%	1,612,048,954	(7.4%)
2005	2,145,805,051	2,189,336,721	43,531,670	98.0%	1,645,247,889	2.6%
2006	2,169,619,411	2,210,376,679	40,757,268	98.2%	1,592,207,236	2.6%
2007	2,350,652,206	2,335,081,836	(15,570,370)	100.7%	1,573,566,285	(1.0%)
2008	2,469,431,611	2,513,791,279	44,359,668	98.2%	1,661,248,319	2.7%
2009	2,121,550,162	2,443,039,325	321,489,163	86.8%	1,749,780,803	18.4%

<sup>\*</sup> Actuarial assumptions and/or method changed

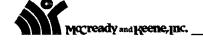
### REQUIRED PENSION DISCLOSURE UNDER GASB #25 AND #27

(State Members Only)

### <u>Development of Net Pension Obligation (NPO)</u> (Dollar Amounts in Thousands)

D1 17	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Plan Year	Annual	Interest	ARC		Net Pens	Actual	Change		NPO
Ending	Required	on NPO	Adjust.	Amort.	Cost	Employer	in NPO	NPO	@ EOY
June 30	Contrib.	@ 7.25%	(8) / (4)	Factor	(1)+(2)-(3)	Contrib.	(5) - (6)	@ BOY	(7) + (8)
1997	\$ 79,101	\$ -	\$ -	12.9541	\$ 79,101	\$ 81,585	\$ (2,484)	\$ -	\$ (2,484)
1998	81,546	(180)	(192)	12.9541	81,558	80,146	1,412	(2,484)	(1,072)
1999	67,481	(78)	(83)	12.8933	67,486	77,821	(10,335)	(1,072)	(11,407)
2000	61,762	(827)	(889)	12.8280	61,824	84,354	(22,530)	(11,407)	(33,937)
2001	66,559	(2,460)	(2,660)	12.7581	66,759	76,219	(9,460)	(33,937)	(43,397)
2002	72,333	(3,146)	(3,422)	12.6830	72,609	76,304	(3,695)	(43,397)	(47,092)
2003	79,641	(3,414)	(3,891)	12.1037	80,118	80,796	(678)	(47,092)	(47,770)
2004	54,579	(3,463)	(3,947)	12.1037	55,063	90,709	(35,646)	(47,770)	(83,416)
2005	69,647	(6,102)	(6,953)	12.1037	70,498	62,760	7,738	(84,159)	(76,421)
2006	87,947	(5,541)	(6,314)	12.1037	88,720	72,890	15,830	(76,421)	(60,591)
2007	96,430	(4,393)	(5,006)	12.1037	97,043	89,801	7,242	(60,591)	(53,349)
2008	99,135	(3,868)	(4,408)	12.1037	99,675	106,867	(7,192)	(53,349)	(60,541)
2009	107,981	(4,389)	(5,002)	12.1037	108,594	111,214	(2,620)	(60,541)	(63,161)

<sup>\*</sup> A negative \$743 thousand was included to represent the addition of the Toll Road Commission to the State account.



## REQUIRED PENSION DISCLOSURE UNDER GASB #25 AND #27 (All PERF)

### Schedule of Funding Progress

Actuarial Valuation Date July 1	(a) Non-Retired Actuarial Value of Assets	(b) Actuarial Accrued Liability (AAL)	(c) Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a)/(b)	(d) Annual Anticipated Payroll	UAAL (Excess Assets) as a % of Payroll (c)/(d)
2004	\$ 9,853,976,178	\$ 9,844,353,064	\$ (9,623,114)	100.1%	\$ 4,198,941,906	(0.2%)
2005	10,471,937,382	10,858,322,359	386,384,977	96.4%	4,318,450,314	8.9%
2006	11,177,971,455	11,450,928,351	272,956,896	97.6%	4,322,179,849	6.3%
2007	12,220,934,214	12,439,798,183	218,863,969	98.2%	4,385,675,869	5.0%
2008	12,780,116,052	13,103,221,177	323,105,125	97.5%	4,600,353,894	7.0%
2009	12,569,335,911	13,506,280,351	936,944,440	93.1%	4,931,422,940	19.0%

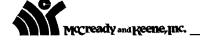
#### Schedule of Employer Contributions

Plan Year Ending June 30	An	nual Required Contribution (ARC)	Actual (Cash Basis) Employer Contribution	% of ARC
2005	\$	212,657,732	\$ 206,323,040	97.0%
2006		248,120,174	230,357,341	92.8%
2007		275,170,690	253,854,486	92.3%
2008		291,397,103	294,527,388	101.1%
2009		316,059,105	318,532,691	100.8%



### SUMMARY OF EMPLOYEE DATA

	J	uly 1, 2008	J·	uly 1, 2009
Active Members				
State		45,713		46,749
Political Subdivisions		94,433		101,043
Total		140,146		147,792
Retired Members and Beneficiaries Receiving Benefits		57,971		60,740
Annual Benefits Payable from Trust	\$	413,098,677	\$	453,741,633
Average Annual Benefit	\$	7,126	\$	7,470
Disabled Members Receiving Benefits		4,453		4,359
Annual Benefits Payable from Trust	\$	23,650,317	\$	23,810,874
Average Annual Benefit	\$	5,311	\$	5,462
Terminated Members Entitled to Future Benefits				
<u>STATE</u>		7,259		4,481
Deferred Annual Benefits	\$	55,300,438	\$	28,475,342
Average Annual Beenfit	\$	7,618	\$	6,355
POLITICAL SUBDIVISIONS		8,191		6,189
Deferred Annual Benefits	\$	44,708,334	\$	29,280,317
Average Annual Beenfit	\$	5,458	\$	4,731



#### SCHEDULED AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

STATE PORTION Outstanding Balance Date Base Years Remaining Amortization Established at July 1, 2009 at July 1, 2009 Reason Amount 7/1/2008 Fresh Start 29 \$ 3,417,230 \$ 43,910,765 7/1/2009 Actuarial 30 21,383,144 277,578,398 **Experience Loss** Total \$ 24,800,374 \$ 321,489,163

### SCHEDULED AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

POLITICAL	SUBDIVISION PORTIO	N
- FURLITIES AL	SUDDIVISION FURTIO	ı v

		1 OFFICAL SUBDIVISION FOR HON						
Date Base Established	Reason	Years Remaining at July 1, 2009		Amortization Amount	Outs	tanding Balance at July 1, 2009		
7/1/2006	Fresh Start	27	\$	17,887,408	\$	224,626,885		
7/1/2007	Actuarial Experience Gain	28		(7,231,867)		(91,909,258)		
7/1/2007	Change in Actuarial Assumptions	28		7,585,031		96,397,591		
7/1/2008	Actuarial Experience Loss	29		3,611,201		46,403,258		
7/1/2009	Actuarial Experience Loss	30		26,186,899		339,936,801		
		Total	\$	48,038,672	\$	615,455,277		

### TEN YEAR HISTORY OF EMPLOYER CONTRIBUTION RATES

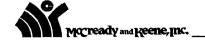
Valuation Date	State	Political Subdivisions	Total
v diddion Date	State	<u> </u>	
July 1, 2000	5.0%	5.0%	5.0%
July 1, 2001 *	5.2%	5.0%	5.1%
July 1, 2002 *	5.6%	6.2%	5.9%
July 1, 2003 *	3.8%	4.7%	4.4%
July 1, 2004 *	4.5%	5.3%	5.0%
July 1, 2005 *	5.5%	6.3%	6.0%
July 1, 2006 *	6.3%	6.9%	6.7%
July 1, 2007 *	6.3%	6.9%	6.6%
July 1, 2008 *	6.50% **	7.14%	6.75%
July 1, 2009	7.00% **	7.88%	7.57%

<sup>\*</sup> Plan changes and/or changes in actuarial assumptions

<sup>\*\*</sup> After application of smoothing parameters

### TEN YEAR HISTORICAL INVESTMENT EXPERIENCE

	Estimated Annual Rate	Assumed	
Year Ending June 30	Actuarial Basis	Market Basis	Interest Rate
2000	8.53%	5.80%	7.25%
2001	5.77%	(2.14%)	7.25%
2002	3.08%	(4.85%)	7.25%
2003	4.20%	3.48%	7.25%
2004	6.29%	16.19%	7.25%
2005	7.00%	9.23%	7.25%
2006	7.85%	10.44%	7.25%
2007	10.37%	17.74%	7.25%
2008	5.32%	(8.33%)	7.25%
2009	(0.94%)	(21.11%)	7.25%



Actuarial

### SCHEDULE OF ACTIVE MEMBER VALUATION DATA

		Active Members					
As of	Active	Annual		Average	Percent		
July 1	Members	Payroll		Pay	Increase		
		(in 000's)					
2004	142,913	\$ 4,198,942	\$	29,489	4.5%		
2005	141,428	4,318,450		30,535	3.5%		
2006	140,563	4,322,180		30,749	4.3%		
2007	138,863	4,385,676		31,583	2.7%		
2008	140,146	4,600,354		32,825	3.9%		
2009	147,792	4,931,423		33,367	1.7%		

### SCHEDULE OF RETIREES AND BENEFICIARIES

Year	Added	Added to Rolls Removed from Rol		from Rolls	Rolls - End of Year		% Increase	Average
Beginning		Annual		Annual		Annual	in Annual	Annual
July 1	Number	Allowances	Number	Allowances	Number	Allowances	Allowances	Allowances
		(in 000's)		(in 000's)		(in 000's)		
2003	3,975	\$ 34,244	2,577	\$ 12,511	54,354	\$ 325,711	12.4%	\$ 5,992
2004	4,499	35,845	1,732	8,358	57,121	354,285	8.8%	6,202
2005	3,403	29,572	2,241	14,440	58,283	377,611	6.6%	6,479
2006	4,633	42,653	2,584	15,229	60,332	412,745	9.3%	6,841
2007	5,376	43,915	3,284	18,022	62,424	436,749	5.8%	6,996
2008	6,047	55,726	3,372	19,103	65,099	477,553	9.3%	7,336

### SOLVENCY TEST

### <u>Portion of Actuarial Liability Provided by Assets</u> (In thousands of Dollars)

As of July 1	Accumulated Employee Contributions	Retired and Beneficiaries	Non-Retired Members (Er Financed Portion)	Total Actuarial Accrued Liabilites	Actuarial Value of Assets
2004 *	\$ 2,211,326 100.0%	\$ 2,927,884 100.0%	\$ 4,705,143 100.0%	\$ 9,844,353 100.1%	\$ 9,853,976
2005 *	2,382,280 100.0%	3,301,265 100.0%	5,174,777 92.5%	10.17% 10,858,322 96.4%	10,471,937
2006 *	2,515,984 100.0%	3,648,764 100.0%	5,286,181 94.8%	11,450,929 97.6%	11,177,971
2007 *	2,707,176 100.0%	4,007,389 100.0%	5,725,233 96.2%	12,439,798 98.2%	12,220,934
2008 *	2,694,331 100.0%	4,227,366 100.0%	6,181,524 94.8%	13,103,221 97.5%	12,780,116
2009	2,669,318 100.0%	4,611,257 100.0%	6,225,705 85.0%	13,506,280 93.1%	12,569,336

<sup>\*</sup> Actuarial assumptions and/or method changed

#### ACTUARIAL METHODS

	Actuarial Funding	Present Value of Accumulated Plan Benefits
ACTUARIAL COST METHOD	Entry Age Normal Cost	Accrued Benefit (Unit Credit)
ASSET VALUATION METHOD	75% of Expected Actuarial Value Plus 25% of Market Value	75% of Expected Actuarial Value Plus 25% of Market Value

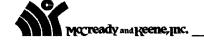
#### **Entry Age Normal Cost**

The normal cost is calculated separately for each active participant and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The unfunded actuarial accrued liabilities on any valuation date is the accumulated value of such normal costs from entry age to the valuation date less the actuarial value of assets.

The effect of this valuation method is to spread all actuarial gains and losses, resulting from experience different from that anticipated in our assumptions, over a fixed period. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

### Accrued Benefit (Unit Credit)

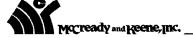
The accrued liability is equal to the sum of the individual accrued liabilities for all participants. The individual's accrued liability is the present value of the benefit accrued in prior plan years. The normal cost is the present value of benefits accruing in the plan year.



### **ACTUARIAL ASSUMPTIONS**

Interest (Net of Administrative Expenses)	7.25%
Future Salary Increases (Based on PERF experience 2000-2005)* Inflation Component Merit/Seniority Component	4.00% 3.00% 1.00%
Post-Retirement Ad Hoc Benefit Increases	1.50% annually applied to the employer pension. No increase is assumed to be applied to the PERF annuity benefit.
Mortality - Pre-Retirement	Based on PERF experience 1995-2000
Mortality - Post-Retirement	UP-1994
Disability	Based on PERF experience 1995-2000
Termination	Select and ultimate tables based on PERF experience 2000-2005. Separate tables are used for state employees and political subdivision employees,
Retirement Age	Based on PERF experience 2000-2005. Revised effective July 1, 2007.
Spouse's Benefit	90% of members are assumed either to be married or to have a dependent beneficiary.
Age Difference in Participant and Spouse	Males three years older than females
Administrative Expense	Netted against investment earnings.

<sup>\*</sup> No salary increases are assumed for determining the Present Value of Accumulated Plan Benefits (PVAB).



#### SUMMARY OF PLAN PROVISIONS

#### **PARTICIPATION**

All full time employees of the State of Indiana and all full time employees of political subdivisions which have adopted the plan must become members of PERF upon date of hire.

#### **ELIGIBILITY FOR BENEFITS:**

Normal Retirement

Earliest of:

(1) Age 65 with 10 years of creditable service;

(2) Age 60 with 15 years of creditable service;

(3) Sum of age and creditable service equal to 85 (but not earlier than age 55).

Early Retirement

Age 50 and 15 years of Vesting Service

Late Retirement

Subject to continued employment after the Normal Retirement Date

**Disability Retirement** 

5 years of creditable service and qualified for Social Security disability benefits or federal Civil Service disability benefits.

**Termination Benefit** 

10 years of creditable service and election not to take lump sum payment of employee account

balance with interest.

Pre-Retirement Death Benefit

If death occurs in service, 15 years of creditable service. If death occurs after separating from

service, age 50 with 15 years of creditable service.

#### SUMMARY OF PLAN PROVISIONS

#### AMOUNT OF BENEFITS:

equal to 1.1% of average monthly earnings\* times years and months of creditable service

earned.

Early Retirement Benefit The early retirement benefit is the accrued retirement benefit determined as of the early

retirement date and payable commencing at the normal retirement date. A member may elect to have the benefit commence prior to normal retirement provided the benefit is reduced by 1/10% for each of the first 60 months and by 5/12% for each of the next 120 months that the

benefit commencement date precedes the normal retirement date.

Late Retirement Benefit The late retirement benefit is calculated in the same manner as the normal retirement benefit.

Creditable service and earnings earned after normal retirement is included in the computation.

Disability Retirement Benefit The disability retirement benefit is the accrued retirement benefit determined as of the

disability date and payable commencing the month following disability date without reduction

for early commencement.

Termination Benefit The termination benefit is the accrued retirement benefit determined as of the termination date

and payable commencing at 65. If the member has 15 or more years of creditable service,

then the member may elect to receive a reduced early retirement benefit.

\* Average monthly earnings is the monthly average of earnings during the 20 quarters (in groups of 4 consecutive quarters) preceding retirement that produce the highest such average. Earnings include basic salary, the member's 3% mandatory contribution paid by the employer, the member's salary reduction agreement under Section 125, 403(b) or 457 of the Internal Revenue Code, and up to \$2,000 of additional compensation received from the employer in anticipation of the member's termination or retirement.

is

#### **SUMMARY OF PLAN PROVISIONS**

#### AMOUNT OF BENEFITS:

continued

Pre-Retirement Death Benefit

The spouse or dependent beneficiary is entitled to receive the monthly life annuity under the assumption that the member retired on the later of age 50 or the day before the date of death and elected the joint and full survivor option.

**Employee Contributions** 

Each member is required to contribute to an employee annuity at the rate of 3% of pay (unless the employer has opted to make all or a portion of the contribution for the employee). These contributions are kept on deposit and credited with interest until such time as they are refunded or used to provide the annuity benefit at retirement.

The benefits provided by employee contributions are in addition to the benefits provided by employer contributions. The monthly annuity provided at a normal retirement age of 65 is equal to \$1.00 for each \$108.79 of accumulated employee contributions plus interest.

NOTE: If information given in this Summary disagrees or appears to disagree with statutory provisions, the statutory provisions prevail.