

A bald eagle is shown in flight, wings spread wide, flying from the left towards the center. The background features a range of snow-capped mountains under a clear sky, with a body of water in the foreground. The word "buck" is faintly visible in the background in a large, light-colored font.

State of Alaska Retirement Systems

*Actuarial Presentation to the Alaska
Retirement Management Board*

April 23, 2010

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Agenda

- Introduction
- 2009 Actuarial Valuation Results
 - PERS
 - TRS
- 2009 Roll-Forward Valuation Results
 - JRS
 - NGNMRS
- 30-Year Projections for PERS and TRS
- Questions
- Appendix

State of Alaska Retirement Systems

Introduction

- Alaska Retirement Systems consists of four traditional defined benefit (DB) pension plans and two defined contribution (DC plans)
 - Public Employees' Retirement System (PERS)
 - Teachers' Retirement System (TRS)
 - Judicial Retirement System (JRS)
 - National Guard and Naval Militia Retirement System (NGNMRS)
 - PERS Defined Contribution Retirement (DCR) Plan
 - TRS Defined Contribution Retirement (DCR) Plan
- Actuarial valuations are performed annually as of June 30. The most recent is as of June 30, 2009
- ARM Board has responsibility for PERS, TRS and NGNMRS. Commissioner of Administration and the ARM Board are responsible for JRS

A bald eagle is shown in flight, wings spread wide, flying over a large body of water. In the background, there are snow-capped mountains under a clear sky. The eagle is positioned in the center-left of the frame. The word "buck" is written in a large, light-colored, sans-serif font across the upper right portion of the image.

buck

2009 Actuarial Valuation Results for PERS and TRS DB Plans

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Changes Since Last Year

- No change in Benefit Provisions
- No change in Actuarial Assumptions except for the assumptions regarding future net healthcare benefit costs for PERS and TRS which is
 - Decreasing the assumed Medicare Part B only proportion of all current Medicare retirees from 4% to 3.5%
 - Decreased proportion assumed to be enrolled in Part B only for 4% to 3.5% for future Medicare retirees
- No change in methods except to use compound interest instead of simple interest in the amortization of the unfunded liability
- No change in Healthcare Base Claim Cost Rate methodology for PERS and TRS except for the following
 - Use of 2.57 months lag for medical claims and 0.5 months lag for prescription claims vs. 1.78 and 0.6 respectively

Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined

Pension and Postemployment Healthcare

(\$ in millions)

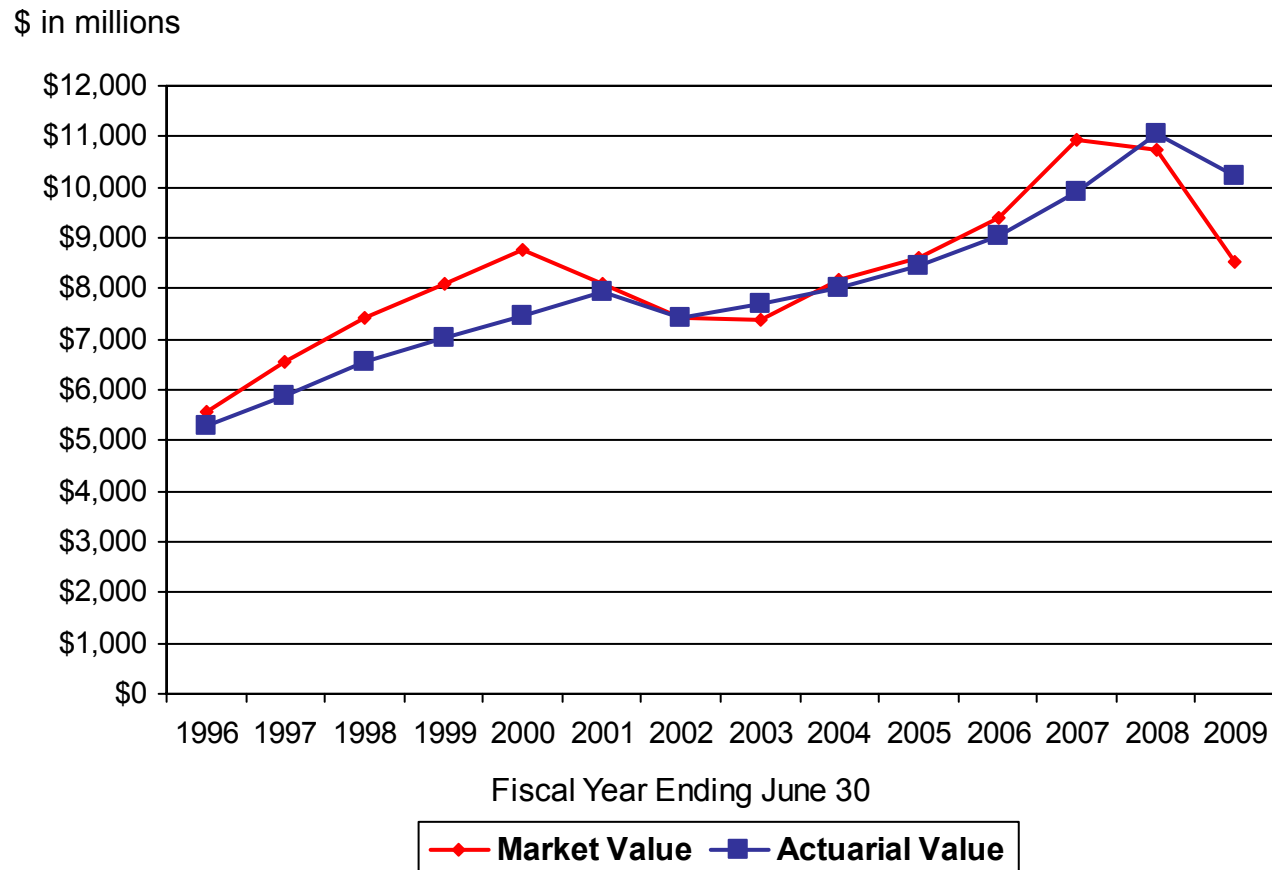
	July 1, 2008	July 1, 2009
1. Number		
- Active	28,850	27,565
- Inactive Non Vested	14,930	14,626
- Vested Terminations	6,627	6,566
- Retired, Disabled and Beneficiaries	<u>24,082</u>	<u>25,015</u>
- Total	74,489	73,772
2. Annual Compensation*	\$ 1,578	\$ 1,585
3. Assets		
- Market Value	\$10,727	\$ 8,536
- Actuarial Value	11,040	10,243
- % AV to MV	102.9%	120.0%
4. Annual Benefit Payments		
- Total	\$ 531**	\$ 735
- % of Market Value	5.0%	8.6%
5. Accumulated Member Contributions		
- Total for Actives and Inactives	\$ 1,589	\$ 1,676
- Average (actual)	\$ 31,533	\$ 34,365

*Annual Compensation for Prior Year.

**These benefit payments include actual expenditures from March 1, 2008 to June 30, 2008 from the Section 115 trust. Due to the establishment of this trust, the Retiree Health Fund paid all healthcare claims until the fund was depleted in February 2008.

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Asset Smoothing for Public Employees' Retirement System Pension and Postemployment Healthcare 1996 – 2009



Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined

Pension and Postemployment Healthcare

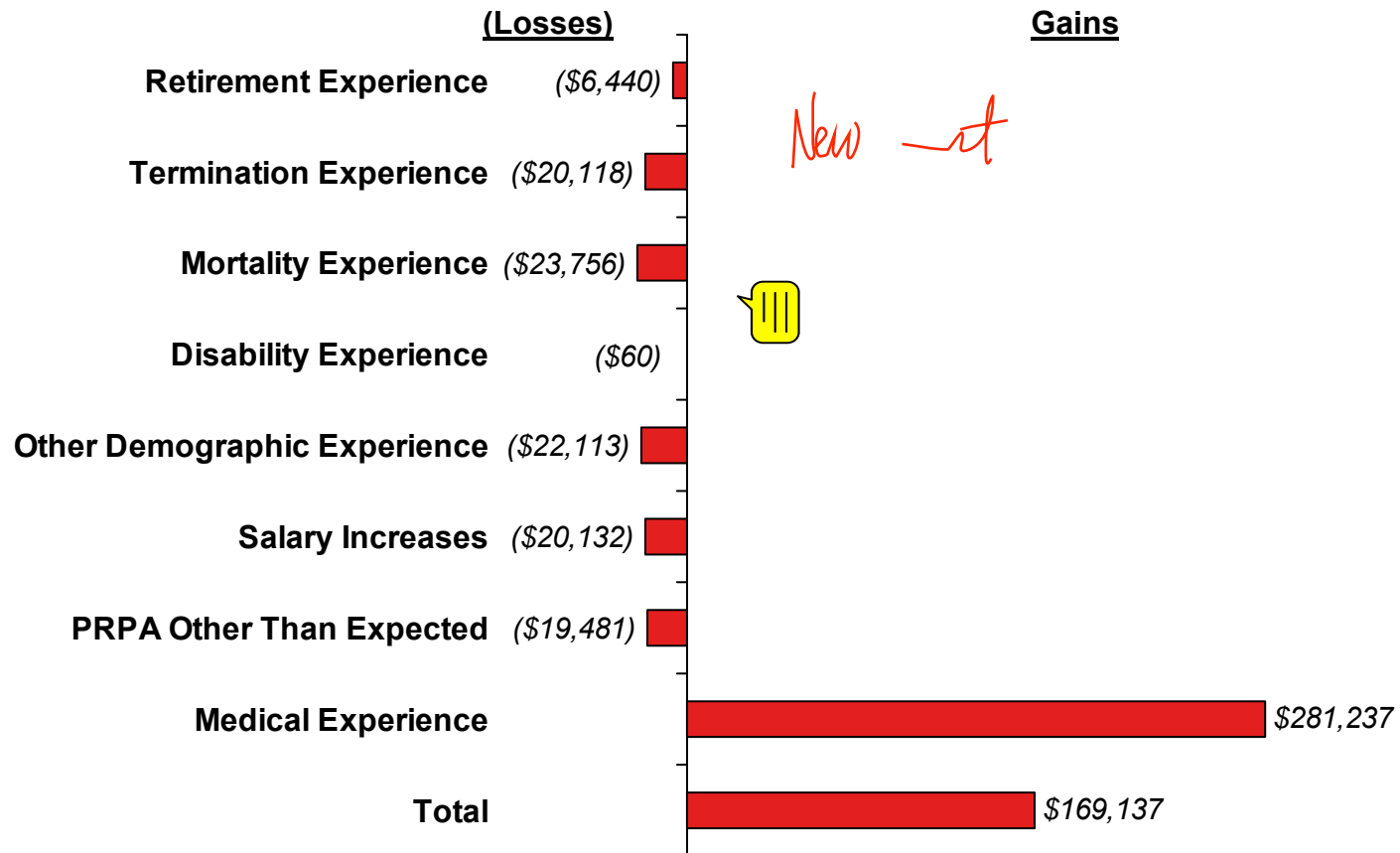
Actuarial Contribution Under Entry Age Actuarial Cost Method (\$ in millions)

Funding	Pension	Postemployment Healthcare	Total
1. Actuarial Accrued Liability	\$ 9,702	\$ 6,877	\$ 16,579
2. Actuarial Value of Assets	<u>6,109</u>	<u>4,134</u>	<u>10,243</u>
3. Unfunded Actuarial Accrued Liability	\$ 3,593	\$ 2,743	\$ 6,336
4. Funded Ratio	63.0%	60.1%	61.8%
5. Annual Actuarial Contribution			
– Normal Cost	\$ 166	\$ 115	\$ 281
– Amortization of Unfunded (25) Years	<u>243</u>	<u>207</u>	<u>450</u>
– Total Contribution	\$ 409	\$ 322	\$ 731
– % of Total Pay	20.42%	16.11%	36.53%
6. Member Contribution			
– Amount	\$ 116	\$ 0	\$ 116
– % of Total Pay	5.77%	0.00%	5.77%
7. Employer/State Contribution for FY12			
– Amount	\$ 293	\$ 322	\$ 615
– % of Total Pay	14.65%	16.11%	30.76%

Total Pay is expected to be \$2,003 million for FY10.

Public Employees' Retirement System

Gain/(Loss) on Total Accrued Liability



Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined

Change in Total Employer/State Contribution Rate

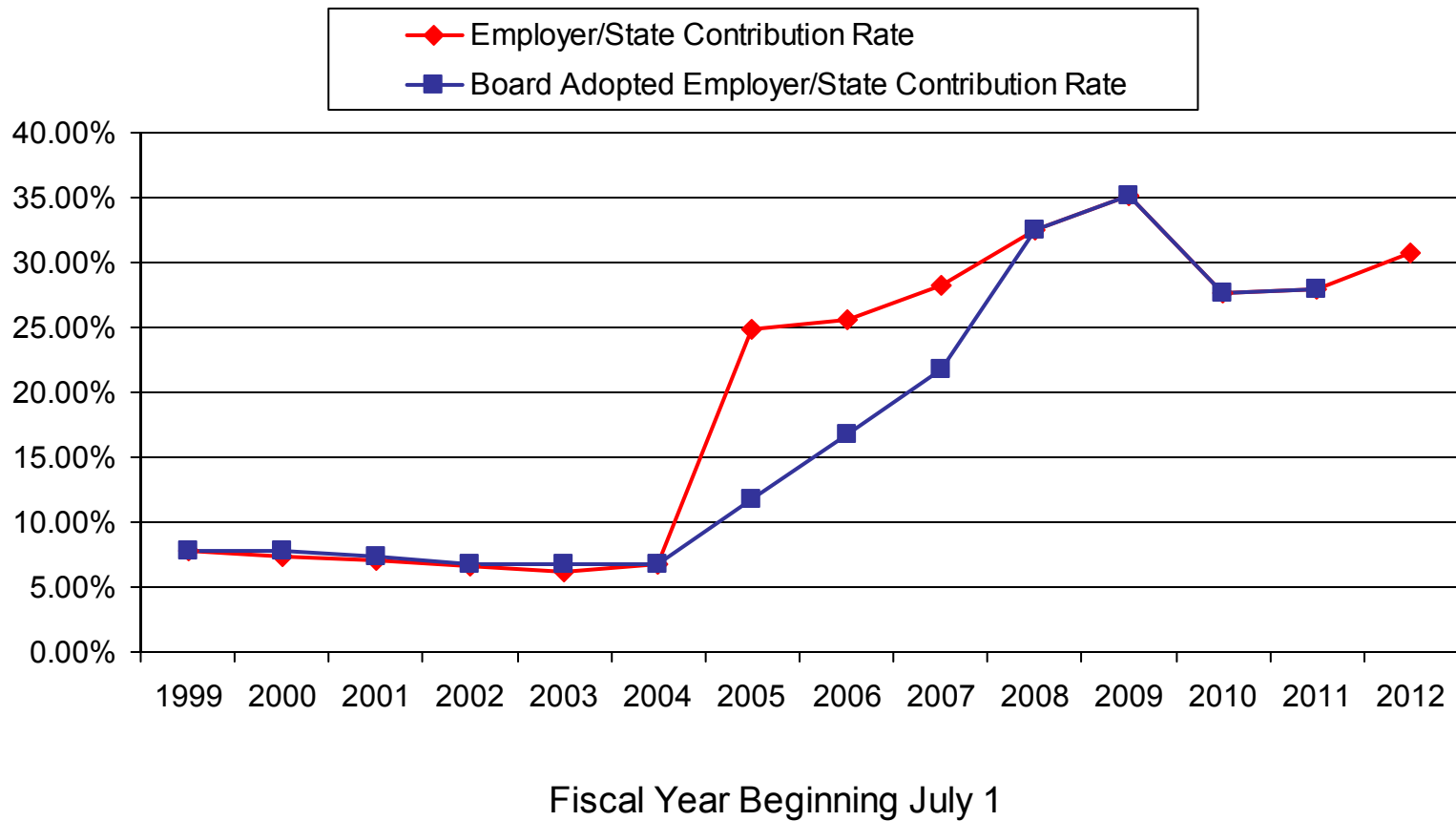
	Pension	Healthcare	Total
1. Last year's total Employer/State contribution rate	9.98%	17.98%	27.96%
2. Change due to:			
– Effect of two-year delay in the contribution rate	0.01%	(0.25%)	(0.24%)
– Investment experience	4.72%	0.59%	5.31%
– Salary increases	0.23%	N/A	0.23%
– Demographic and medical experience*	<u>(0.29%)</u>	<u>(2.21%)</u>	<u>(2.50%)</u>
3. Total Employer/State contribution rate this year	14.65%	16.11%	30.76%

*Includes changes in future healthcare claims costs.

Public Employees' Retirement System

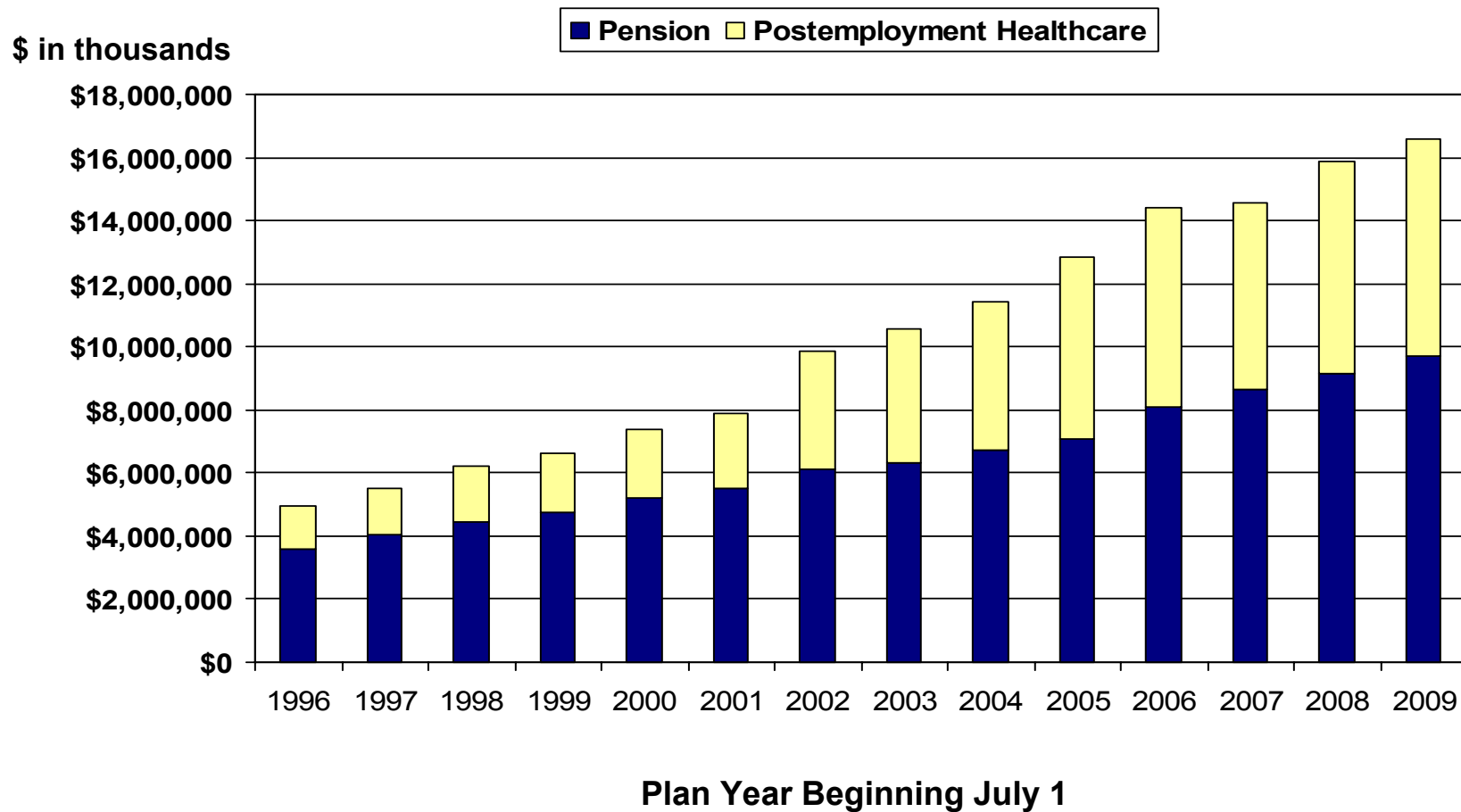
Total Employer/State Contribution Rate History

1999 - 2012



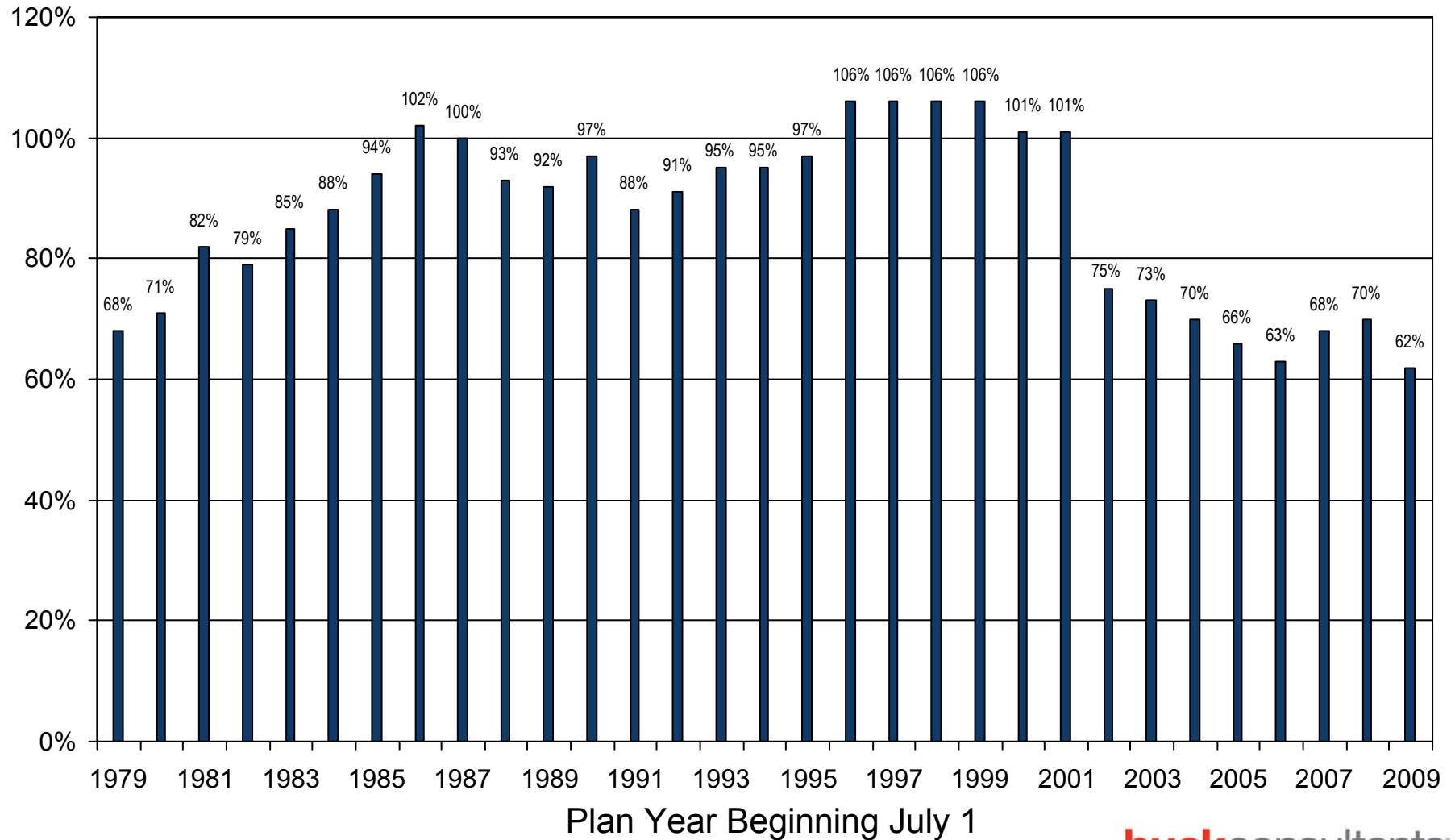
PERS Actuarial Accrued Liability History

Pension and Postemployment Healthcare



PERS Funding Ratio History

Pension and Postemployment Healthcare Based on Valuation Assets



Teachers' Retirement System

Pension and Postemployment Healthcare

(\$ in millions)

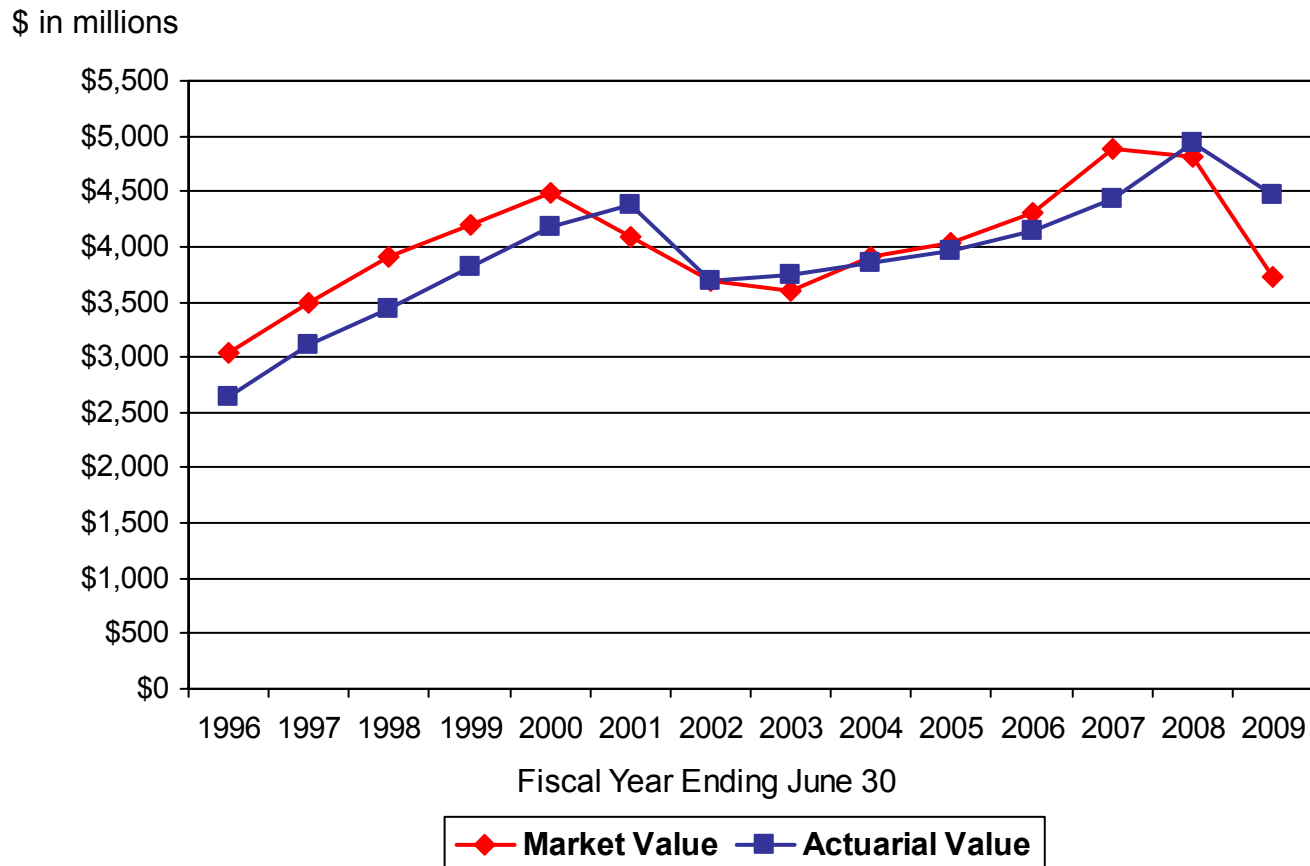
	July 1, 2008	July 1, 2009
1. Number		
- Active	8,531	8,226
- Inactive Non Vested	2,971	2,830
- Vested Terminations	873	884
- Retired, Disabled and Beneficiaries	<u>10,026</u>	<u>10,255</u>
- Total	22,401	22,195
2. Annual Compensation*	\$ 549	\$ 557
3. Assets		
- Market Value	\$ 4,804	\$ 3,727
- Actuarial Value	4,937	4,473
- % AV to MV	102.8%	120.0%
4. Annual Benefit Payments		
- Total	\$ 340**	\$ 412
- % of Market Value	7.1%	11.1%
5. Accumulated Member Contributions		
- Total for Actives and Inactives	\$ 758	\$ 800
- Average (actual)	\$61,251	\$67,035

*Annual Compensation for Prior Year.

**These benefit payments include actual expenditures from March 1, 2008 to June 30, 2008 from the Section 115 trust. Due to the establishment of this trust, the Retiree Health Fund paid all healthcare claims until the fund was depleted in February 2008.

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Asset Smoothing for Teachers' Retirement System Pension and Postemployment Healthcare 1996 – 2009



Teachers' Retirement System

Pension and Postemployment Healthcare

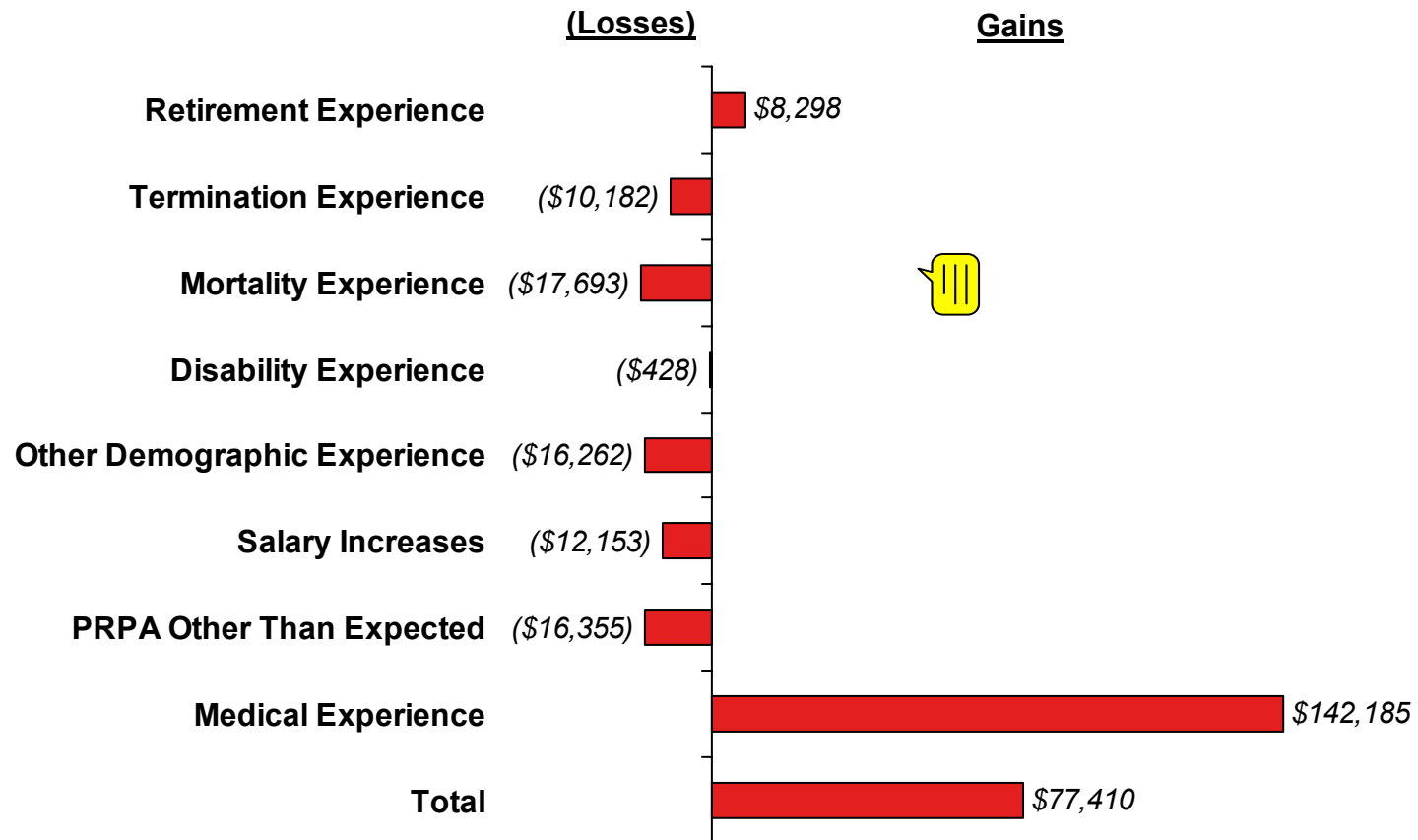
Actuarial Contribution Under Entry Age Actuarial Cost Method (\$ in millions)

Funding	Pension	Postemployment Healthcare	Total
1. Actuarial Accrued Liability	\$ 5,464	\$ 2,384	\$ 7,848
2. Actuarial Value of Assets	<u>3,116</u>	<u>1,357</u>	<u>4,473</u>
3. Unfunded Actuarial Accrued Liability	\$ 2,348	\$ 1,027	\$ 3,375
4. Funded Ratio	57.0%	56.9%	57.0%
5. Annual Actuarial Contribution			
– Normal Cost	\$ 67	\$ 28	\$ 95
– Amortization of Unfunded (25) Years	<u>164</u>	<u>81</u>	<u>245</u>
– Total Contribution	\$ 231	\$ 109	\$ 340
– % of Total Pay	34.11%	16.00%	50.11%
6. Member Contribution			
– Amount	\$ 51	\$ 0	\$ 51
– % of Total Pay	7.50%	0.00%	7.50%
7. Employer/State Contribution for FY12			
– Amount	\$ 180	\$ 109	\$ 289
– % of Total Pay	26.61%	16.00%	42.61%

Total Pay is expected to be \$679 million for FY10.

Teachers' Retirement System

Gain/(Loss) on Total Accrued Liability



Teachers' Retirement System

Change in Total Employer/State Contribution Rate

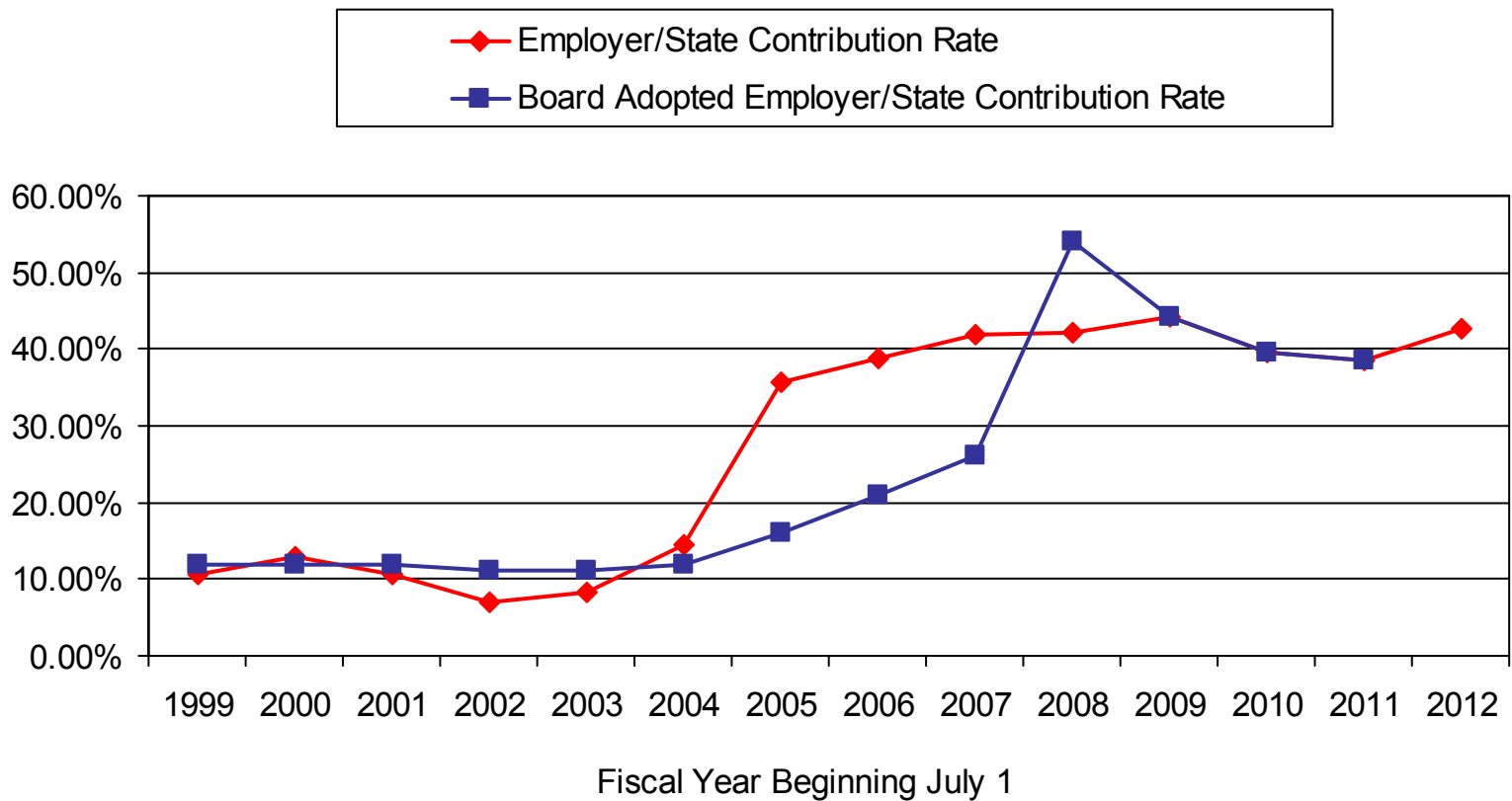
	Pension	Healthcare	Total
1. Last year's total Employer/State contribution rate	20.32%	18.24%	38.56%
2. Change due to:			
– Effect of two-year delay in the contribution rate	0.01%	(0.27%)	(0.26%)
– Investment experience	6.53%	0.70%	7.23%
– Salary increases	0.29%	N/A	0.29%
– Demographic and medical experience*	<u>(0.54%)</u>	<u>(2.67%)</u>	<u>(3.21%)</u>
3. Total Employer/State contribution rate this year	26.61%	16.00%	42.61%

*Includes changes in future healthcare claims costs.

Teachers' Retirement System

Total Employer/State Contribution Rate History

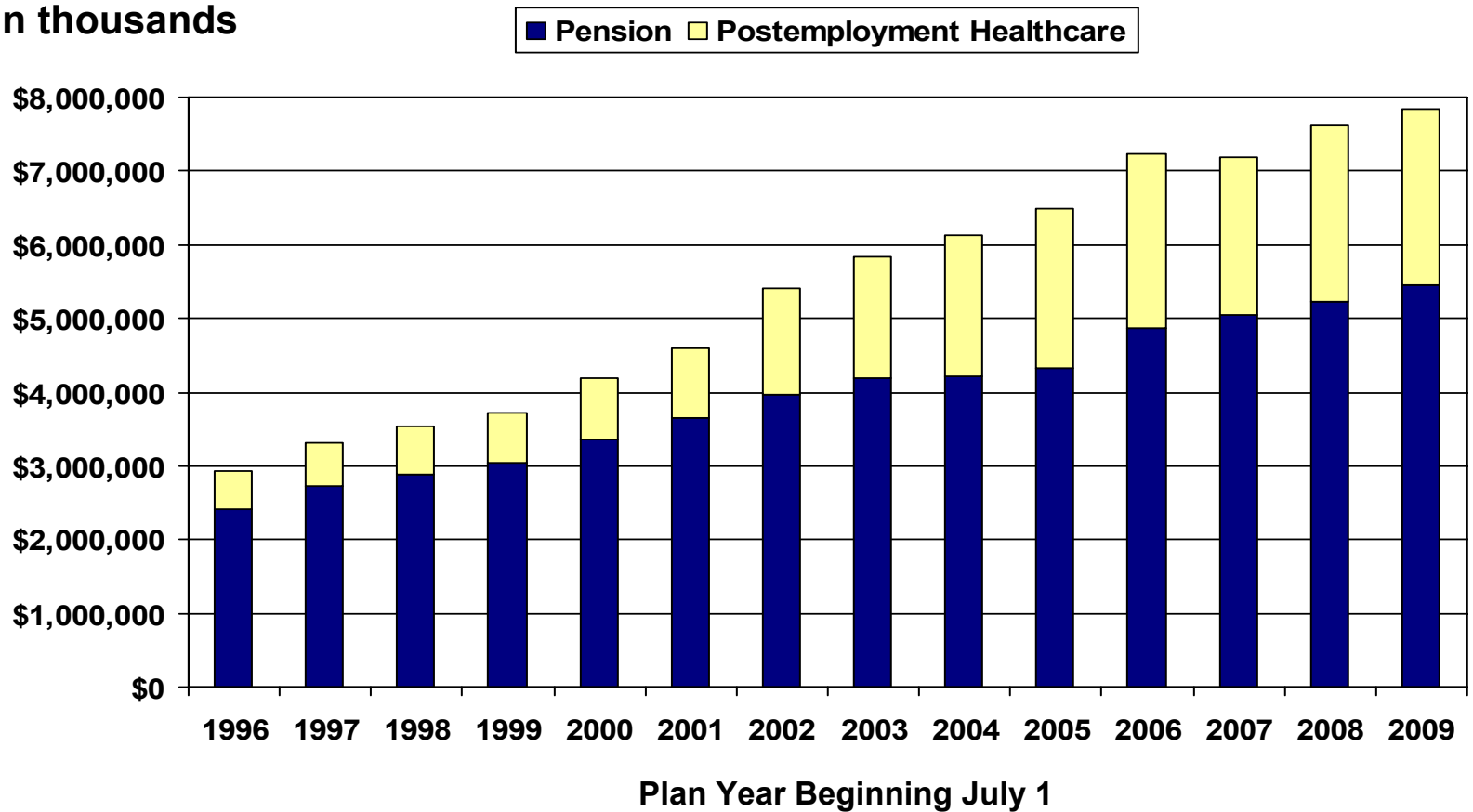
1999 – 2012



TRS Actuarial Accrued Liability History

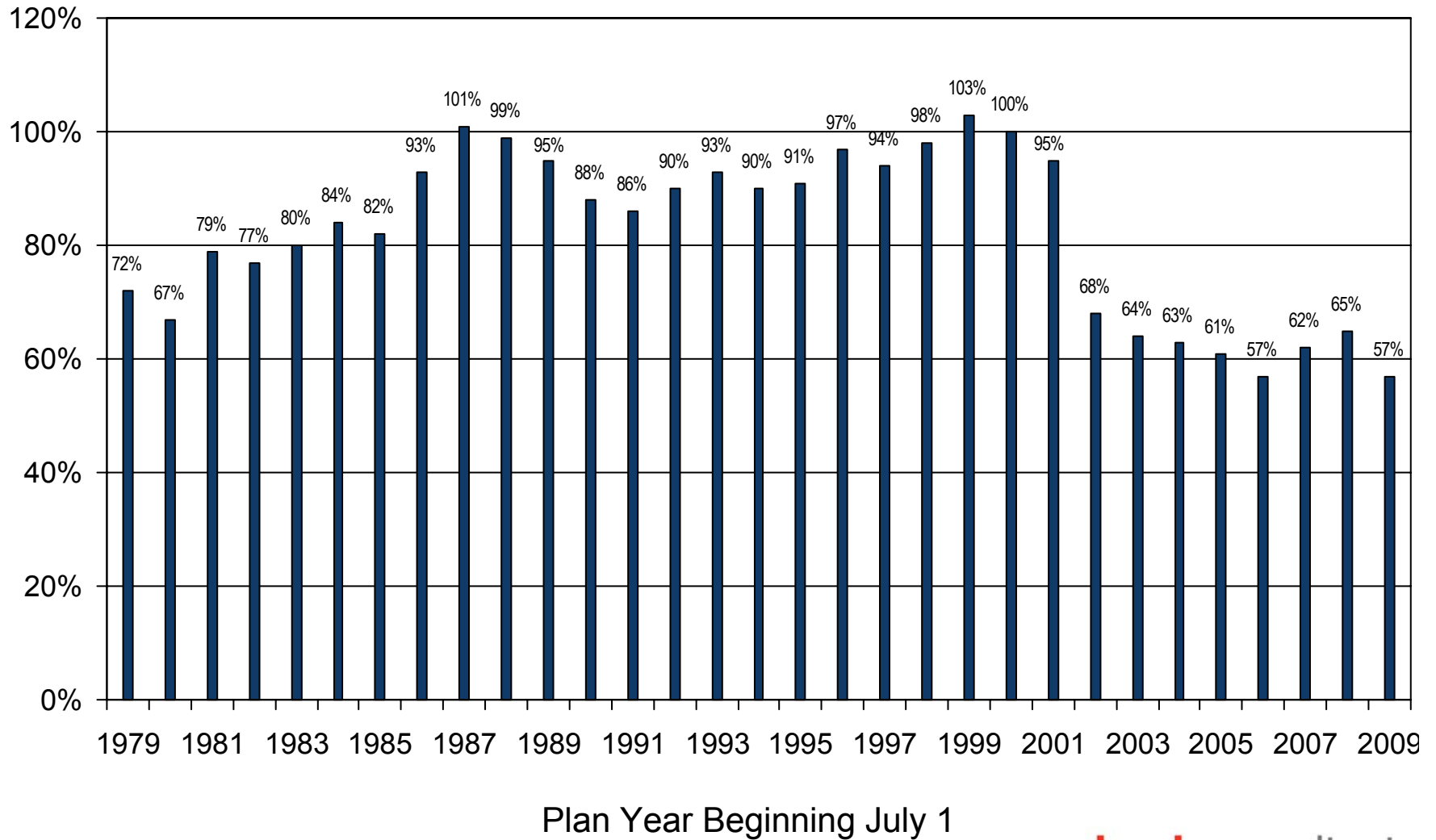
Pension and Postemployment Healthcare

\$ in thousands



TRS Funding Ratio History

Pension and Postemployment Healthcare Based on Valuation Assets



Conclusions and Comments

- Significant asset losses on market value experienced during year ending June 30, 2009. Rate of return on market value was (20.5%) for PERS and (21.0%) for TRS, or about 29% less than the 8.25% assumed rate of return
- Delayed gains from prior years along with the investment loss during last year resulted in actuarial value return of (7.3%) for PERS and (7.9%) for TRS, or about 16% less than the 8.25% assumed
- Gain on liabilities due to medical experience
 - Claims costs less than expected
- Loss on liabilities due to demographic experience
 - Fewer deaths than expected
 - Fewer terminations than expected
 - Salary increase more than expected

Conclusions and Comments (cont'd)

- Changes in Unfunded Liability

(\$ in millions)

	<u>PERS</u>	<u>TRS</u>
2008 Unfunded Liability	\$ 4,848	\$ 2,682
- Expected Increase	20	8
- Asset Loss	1,714	790
- Decremental and Other (Gains)	(169)	(77)
- Contribution Delay	<u>(77)</u>	<u>(28)</u>
2009 Unfunded Liability	\$ 6,336	\$ 3,375

Conclusions and Comments (cont'd)

- Increased Employer/State contribution rate required for both PERS and TRS

	% of Total Pay	
	<u>PERS</u>	<u>TRS</u>
– 2008	27.96%	38.56%
– 2009	30.76%	42.61%
– Change	+2.80%	+4.05%

- Funded ratios decreased over last year

	<u>PERS</u>	<u>TRS</u>
– 2008	69.5%	64.8%
– 2009	61.8%	57.0%
– Change	(7.7%)	(7.8%)

Conclusions & Comments – Healthcare Reform

- Patient Protection and Affordable Care Act (H.R. 3590) – signed March 23, 2010
- Health Care and Education Affordability Reconciliation Act – signed March 30, 2010
- Early retiree reinsurance program – waiting for guidance regarding application process; opportunity to recoup a 80% of costs between \$15k - \$90k of early retirees and dependents; restrictions apply to qualify and as to how funds are used, limited funds available for a limited time
- Removal of lifetime/annual limits – waiting for guidance as to how this will apply to retiree benefit plans
- Impact of provider fees/taxes on future healthcare cost trend
- Cadillac tax –not effective until 2018, 40% of excess benefit value over specified dollar amounts, indexed each year with adjustments for retiree groups and industry
- Plan design / contribution level requirements as they apply to retiree plans
- Taxation of RDS – not applicable here

A bald eagle is shown in flight, wings spread wide, flying over a large body of water. In the background, there are snow-capped mountains under a clear sky. The eagle is the central focus, with its wings and tail feathers clearly visible. The water is a deep blue-grey color, and the mountains are covered in patches of snow and some evergreen trees. The overall scene is a natural, scenic landscape.

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2009 Roll-Forward Actuarial Valuation Results for JRS and NGNMRS

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Judicial Retirement System – Roll-Forward Valuation

Pension and Healthcare

(\$ in thousands)

	June 30, 2008	June 30, 2009 (Roll Forward)
1. Number		
- Active	73	73
- Inactive Non Vested	1	1
- Vested Terminations	5	5
- Retired and beneficiaries	<u>90</u>	<u>90</u>
- Total	169	169
2. Total Annual Compensation*	\$ 10,462	\$ 10,881
3. Assets		
- Market Value	\$ 133,812	\$ 105,189
- Actuarial Value	141,236	126,227
- % AV to MV	105.6%	120.0%
4. Annual Benefit Payments		
- Total	\$ 6,948	\$ 8,138
- % of Market Value	5.2%	7.7%

*Total Annual Compensation for Prior Year.

Judicial Retirement System – Roll-Forward Valuation

Pension and Healthcare

Actuarial Contribution Under Entry Age Actuarial Cost Method (\$ in thousands)

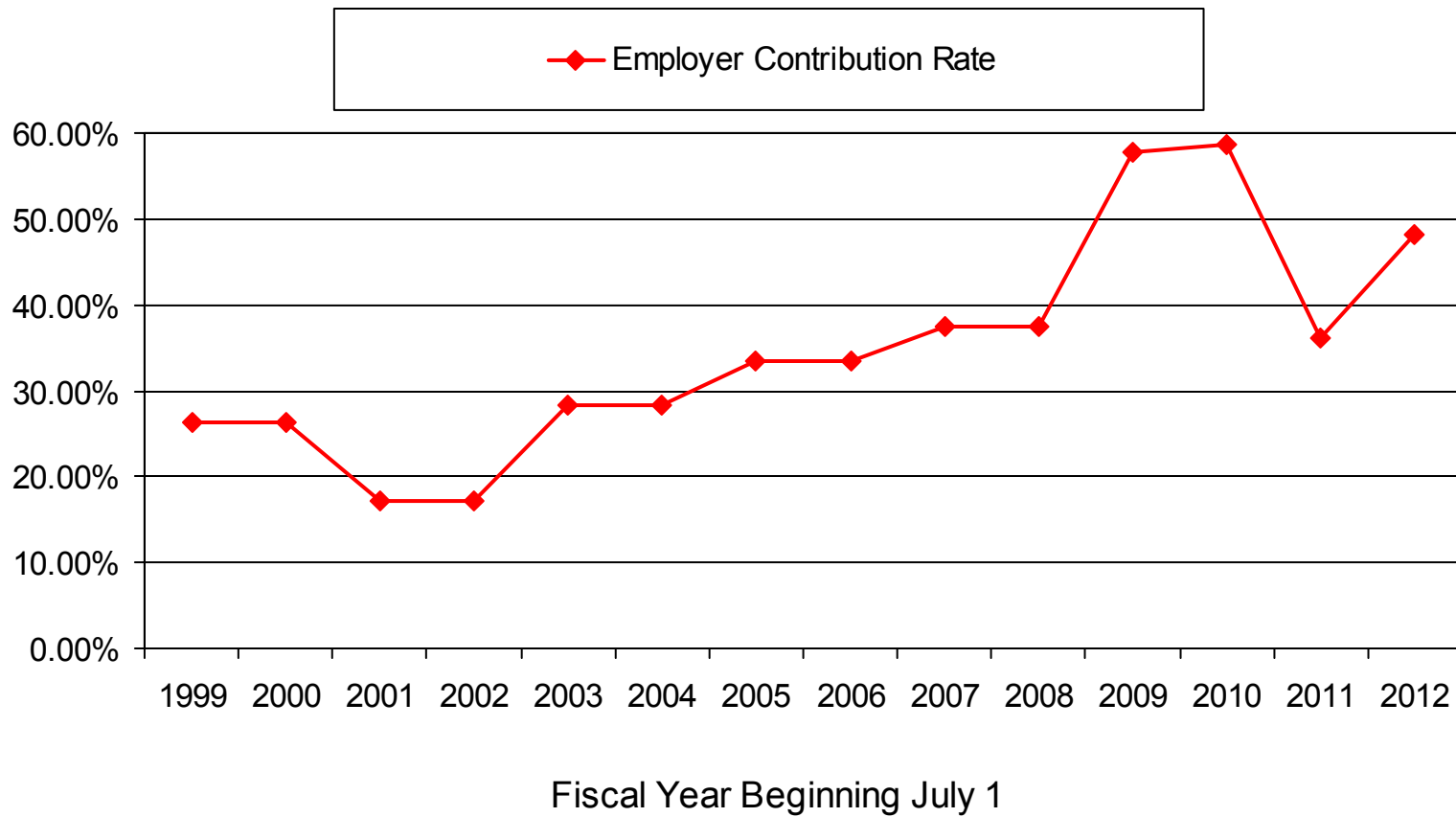
Funding	Pension	Healthcare	Total
1. Actuarial Accrued Liability	\$ 137,586	\$ 19,094	\$ 156,680
2. Actuarial Value of Assets	<u>107,818</u>	<u>18,409</u>	<u>126,227</u>
3. Unfunded Actuarial Accrued Liability	\$ 29,768	\$ 685	\$ 30,453
4. Funded Ratio	78.4%	96.4%	80.6%
5. Annual Actuarial Contribution			
– Normal Cost	\$ 3,737	\$ 463	\$ 4,200
– Amortization of Unfunded (25) Years	<u>2,094</u>	<u>121</u>	<u>2,215</u>
– Total Contribution	\$ 5,831	\$ 584	\$ 6,415
– % of Pay	48.12%	4.82%	52.94%
6. Member Contribution			
– Amount	\$ 590	\$ 0	\$ 590
– % of Pay	4.87%	0.00%	4.87%
7. Employer Required Contribution for FY12			
– Amount	\$ 5,241	\$ 584	\$ 5,825
– % of Pay	43.25%	4.82%	48.07%

Total Pay is expected to be \$12,118 for FY10.

Judicial Retirement System

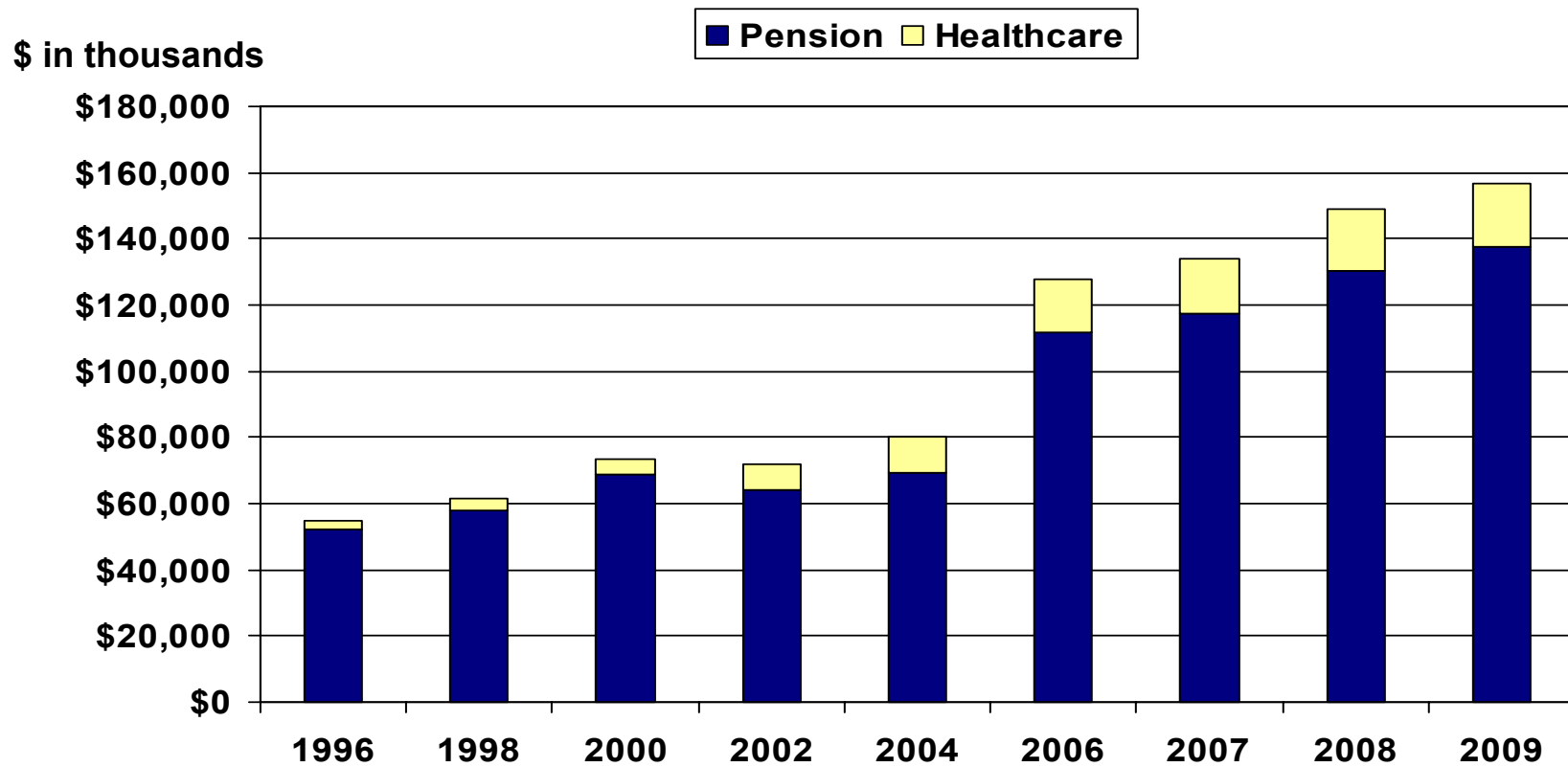
Total Employer Contribution Rate History

1999 - 2012



JRS Actuarial Accrued Liability History

Pension and Healthcare

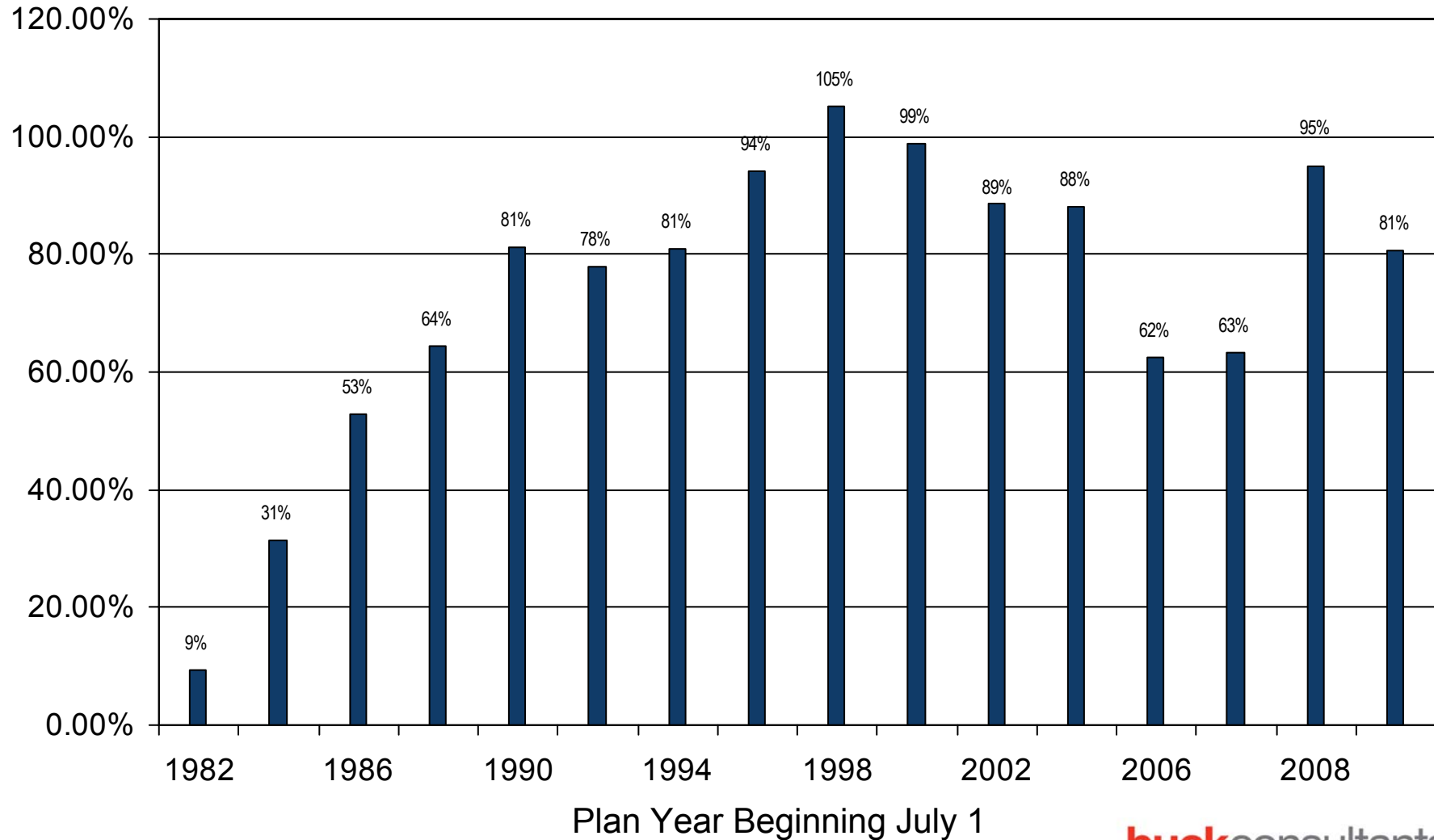


Plan Year Beginning July 1

JRS Funding Ratio History

Pension and Healthcare

Based on Valuation Assets



National Guard and Naval Militia Retirement System – Roll-Forward Valuation

(\$ in thousands)

	June 30, 2008	June 30, 2009 (Roll Forward)
1. Number		
- Active	3,897	3,897
- Vested Terminations	1,148	1,148
- Retired and Beneficiaries	<u>516</u>	<u>516</u>
- Total	5,561	5,561
2. Assets		
- Market Value	\$27,189	\$25,430
- Actuarial Value	28,371	30,123
- % AV to MV	104.3%	118.5%

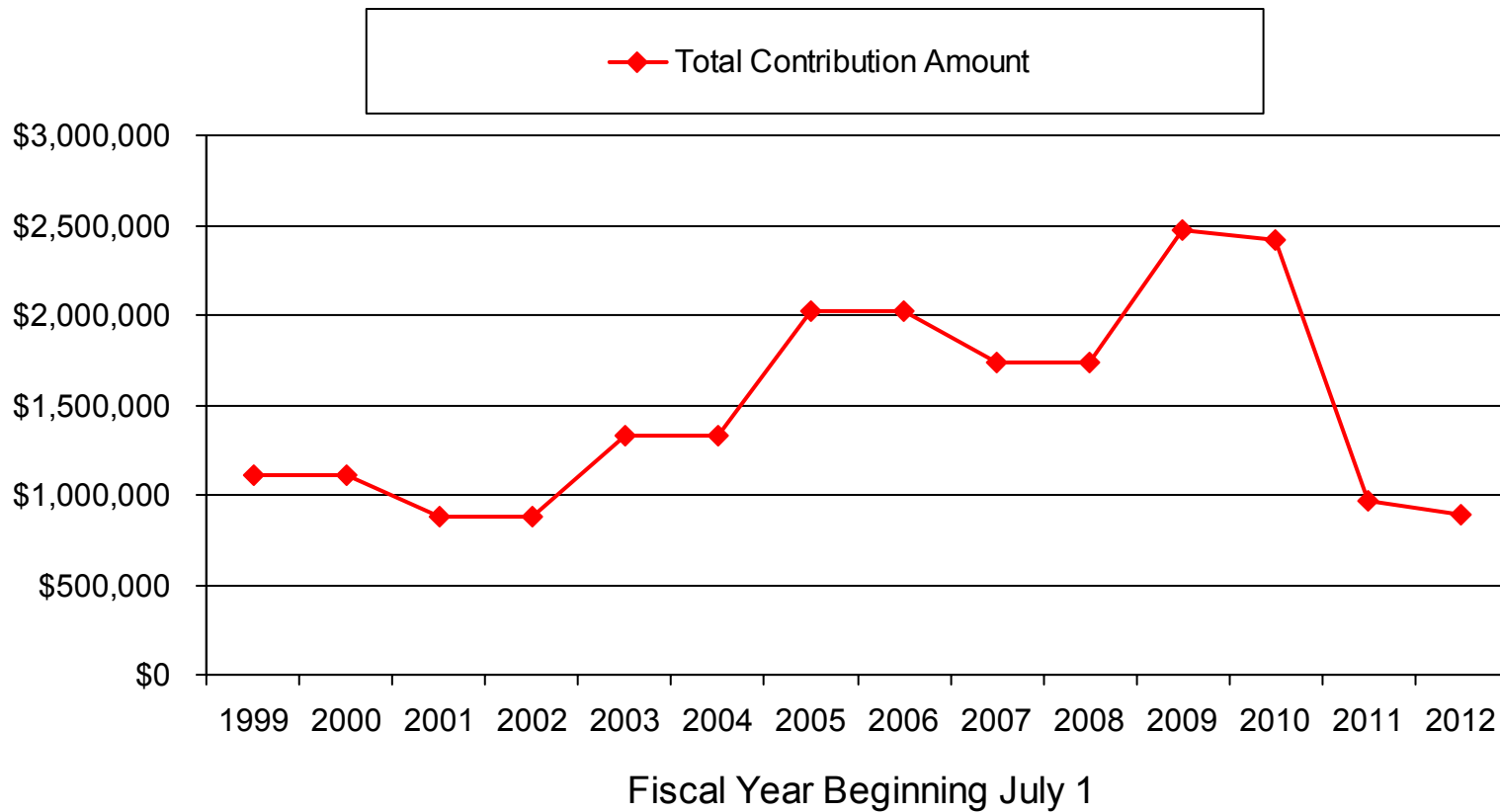
National Guard and Naval Militia Retirement System – Roll-Forward Valuation

Actuarial Contribution Under Entry Age Actuarial Cost Method (\$ in thousands)

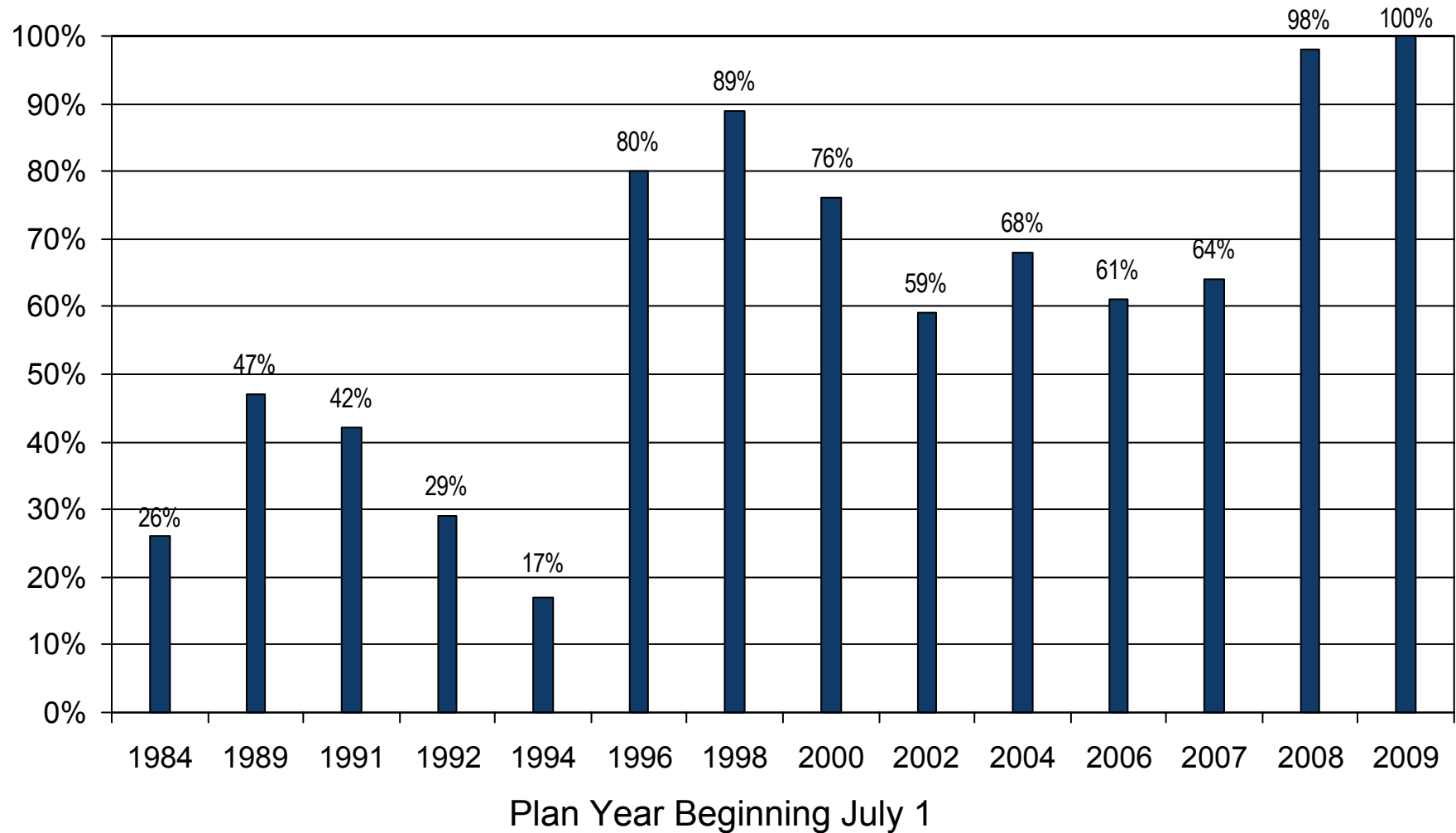
Funding	June 30, 2008*	June 30, 2009* (Roll-Forward)
1. Actuarial Accrued Liability	\$ 28,905	\$ 30,208
2. Actuarial Value of Assets	<u>28,371</u>	<u>30,123</u>
3. Unfunded Actuarial Accrued Liability	\$ 534	\$ 85
4. Funded Ratio	98.2%	99.7%
5. Annual Actuarial Contribution		
– Normal Cost	\$ 744	\$ 744
– Amortization of Unfunded	84	14
– Expense Load	<u>137</u>	<u>138</u>
– Total Contribution	\$ 965	\$ 896

* Contribution calculated by amortizing the unfunded accrued liability over 8 years.

National Guard and Naval Militia Retirement System Total Contribution Amount History 1999 - 2012



National Guard and Naval Militia Retirement System Funding Ratio History Based on Valuation Assets



Conclusions and Comments

- JRS
 - Asset losses over the past year. Rate of return on market value was (20.60%), or 28.85% less than the 8.25% assumed rate of return
- NGNMRS
 - Asset losses over the past year. Rate of return on market value was (9.75%), or 17.00% less than the 7.25% assumed rate of return

Conclusions and Comments (cont'd)

- Changes in Unfunded Liability

(\$ in thousands)

	<u>JRS</u>	<u>NGNMRS</u>
2008 Unfunded Liability	\$ 7,502	\$ 534
- Expected Increase	(171)	(199)
- Asset Loss	25,434	1,276
- Decremental and Other Losses	(253)	0
- Contribution Delay	<u>(2,059)</u>	<u>(1,526)</u>
2009 Rolled-Forward Unfunded Liability	\$ 30,453	\$ 85

Conclusions and Comments (cont'd)

- Increased employer contribution rate for JRS and decreased employer contribution amount for NGNMRS

	% of Pay	(\$ in thousands)
	<u>JRS</u>	<u>NGNMRS</u>
– 2008	36.20%	\$ 965
– 2009 (Roll Forward)	48.07%	896
– Change	+11.87%	(69)

- Funded ratio decreased for JRS and increased for NGNMRS over last year

	<u>JRS</u>	<u>NGNMRS</u>
– 2008	95.0%	98.2%
– 2009 (Roll Forward)	80.6%	99.7%
– Change	(14.4%)	+1.5%

Summary of FY12 Employer Contribution Rates

Defined Benefit Plan

	% of Total DB & DCR Pay		% of Pay	\$ Amount
	<u>PERS</u>	<u>TRS</u>	<u>JRS</u>	<u>NGNMRS</u>
Pension	14.65%	26.61%	43.25%	\$895,565
Medical	16.11%	16.00%	4.82%	N/A
Occupational Death & Disability	N/A	N/A	N/A	N/A
Total	30.76%	42.61%	48.07%	\$895,565

A bald eagle is shown in flight, wings spread wide, flying over a large body of water. In the background, there are snow-capped mountains under a clear sky. The eagle is the central focus, with its wings and tail feathers clearly visible. The water is a deep blue-grey color, and the mountains are covered in patches of snow and some evergreen trees.

30-Year Projections for PERS and TRS

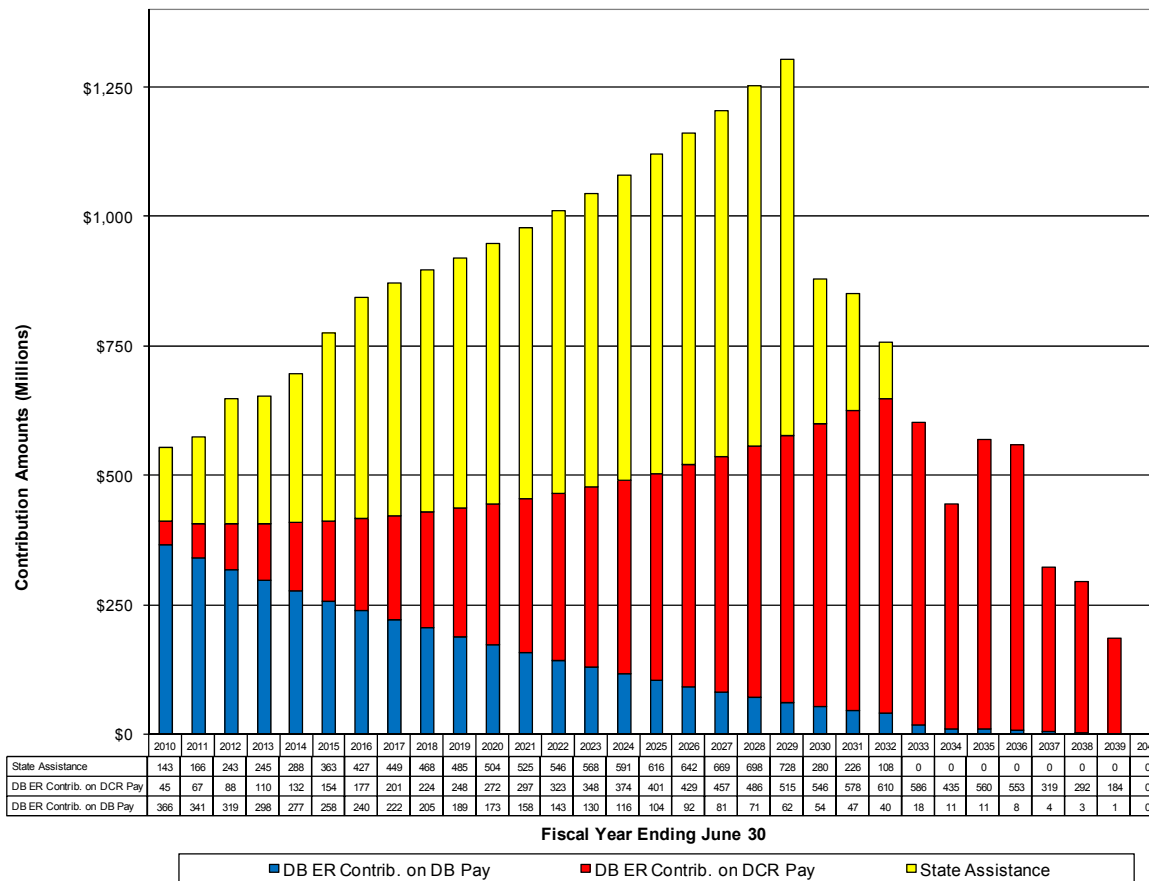
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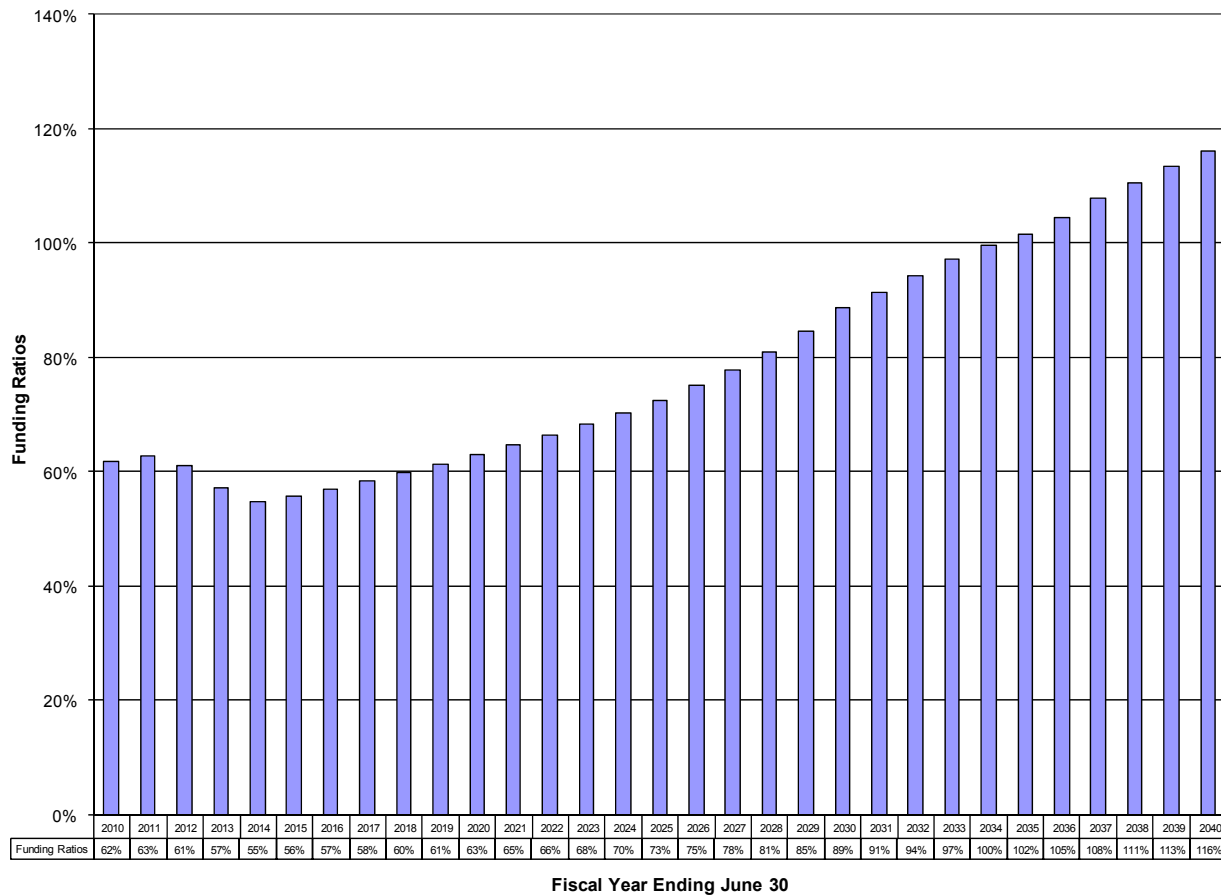
PERS Projected Contribution Amounts

**Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization**

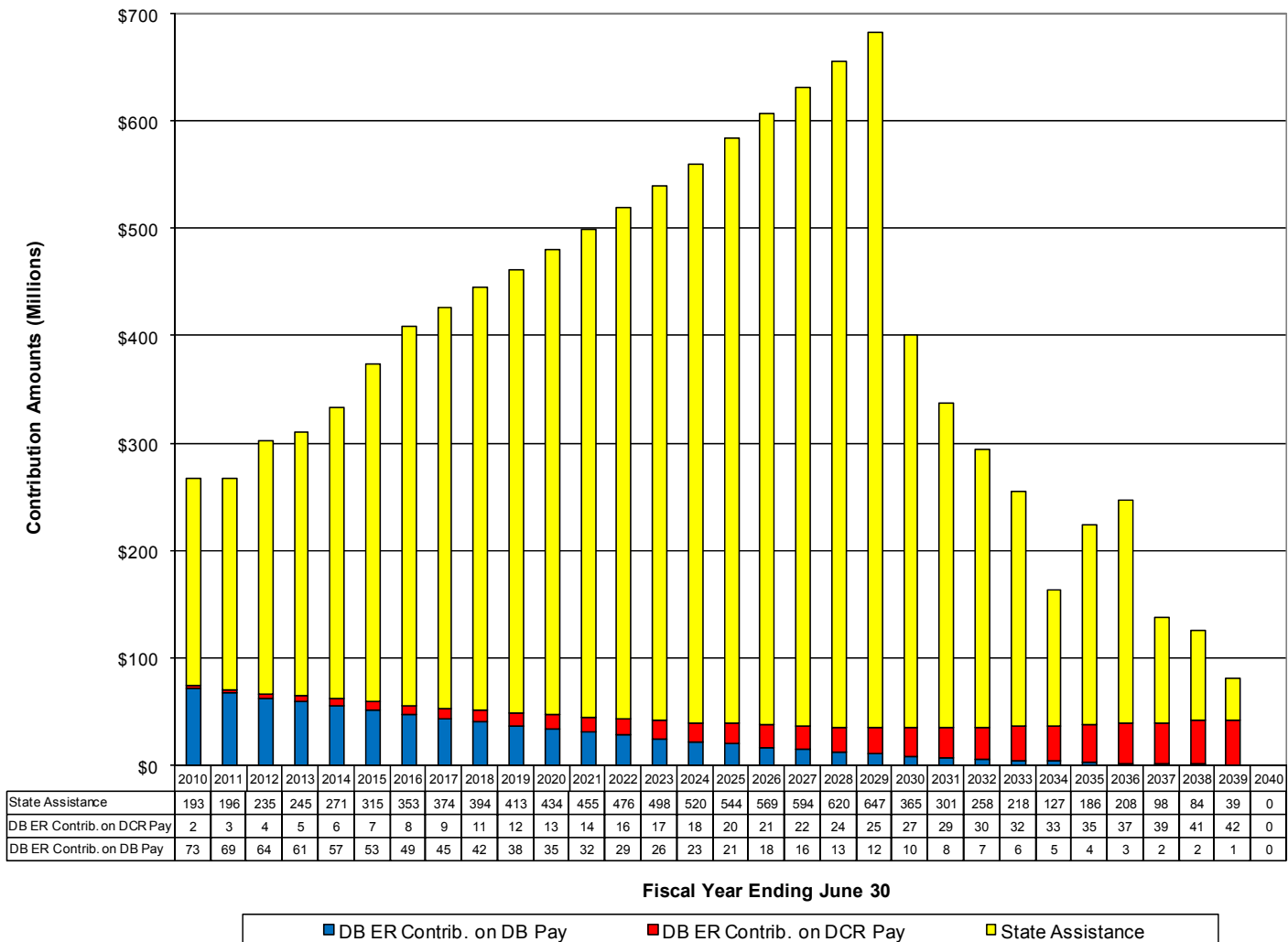


PERS Funding Ratio

**Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization**

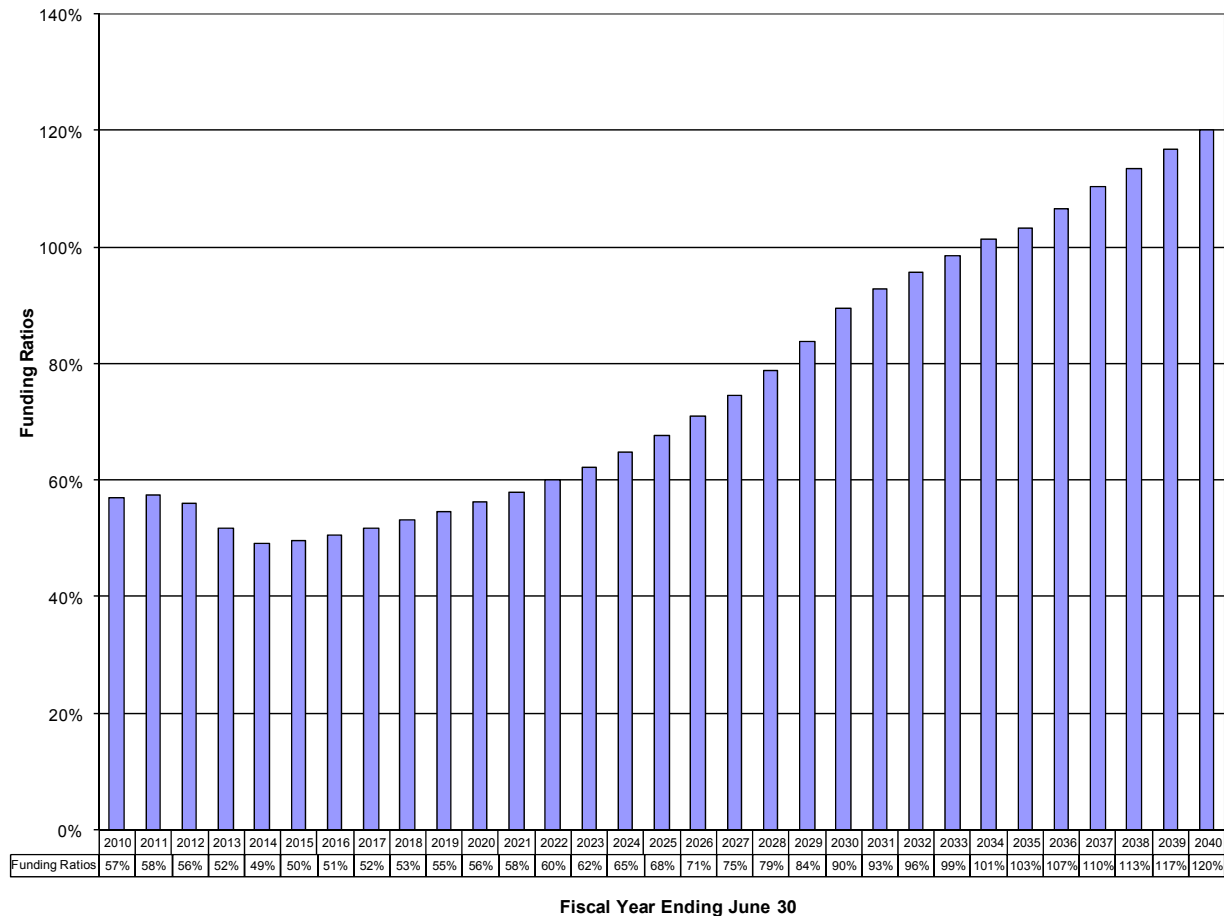


TRS Projected Contribution Amounts



TRS Funding Ratio

**Actuarial Projections – Projections at Calculated Rate
Based on DB and DC Payroll and Level Percent of Pay Amortization**



A bald eagle is shown in flight, wings spread wide, flying over a large body of water. In the background, there are snow-capped mountains under a clear sky. The eagle is the central focus, with its wings and tail feathers clearly visible. The water is a deep blue-grey color, and the mountains are covered in patches of snow and some evergreen trees.

Questions?

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Appendix



Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined

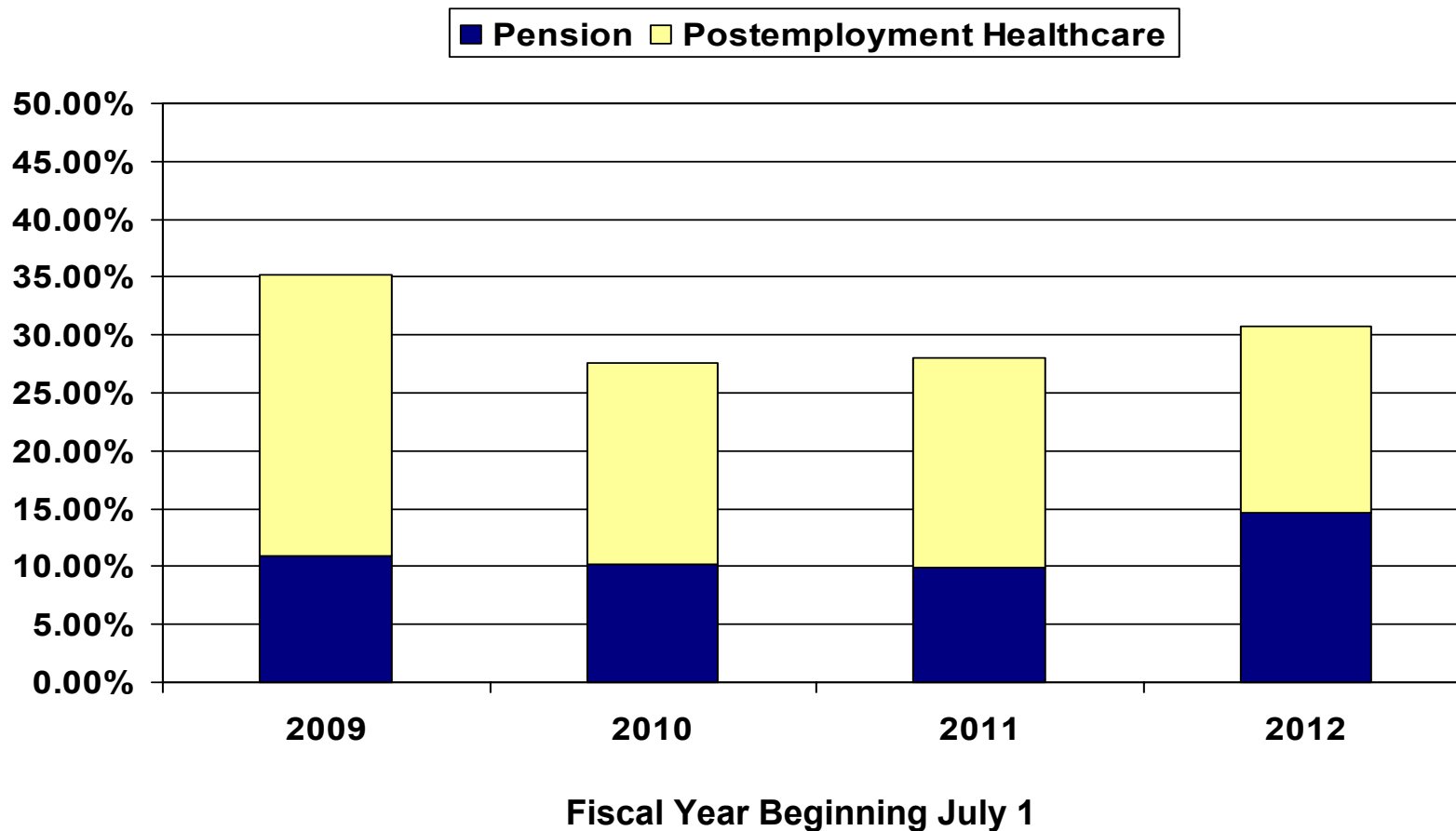
Pension and Postemployment Healthcare

Total System Assets (\$ in millions)

	Year Ending	
	June 30, 2008	June 30, 2009
1. Actuarial Value (BOY)	\$ 9,901	\$ 11,040
Contributions	670	740
Disbursements	(531)	(735)
Expected Return on Market Value	908	885
2. Expected Actuarial Value (EOY)	\$ 10,948	\$ 11,930
3. 5-year Smoothing	92	(616)
4. Preliminary Actuarial Value (EOY)	\$ 11,040	\$ 11,314
5. Future Smoothing Amount	(313)	(2,778)
6. Market Value (EOY)	\$ 10,727	\$ 8,536
7. 120% of Market Value	\$ 12,872	\$ 10,243
8. 80% of Market Value	\$ 8,582	\$ 6,829
9. Final Actuarial Value (EOY)	\$ 11,040	\$ 10,243
10. Ratio Market Value to Actuarial Value	97%	83%

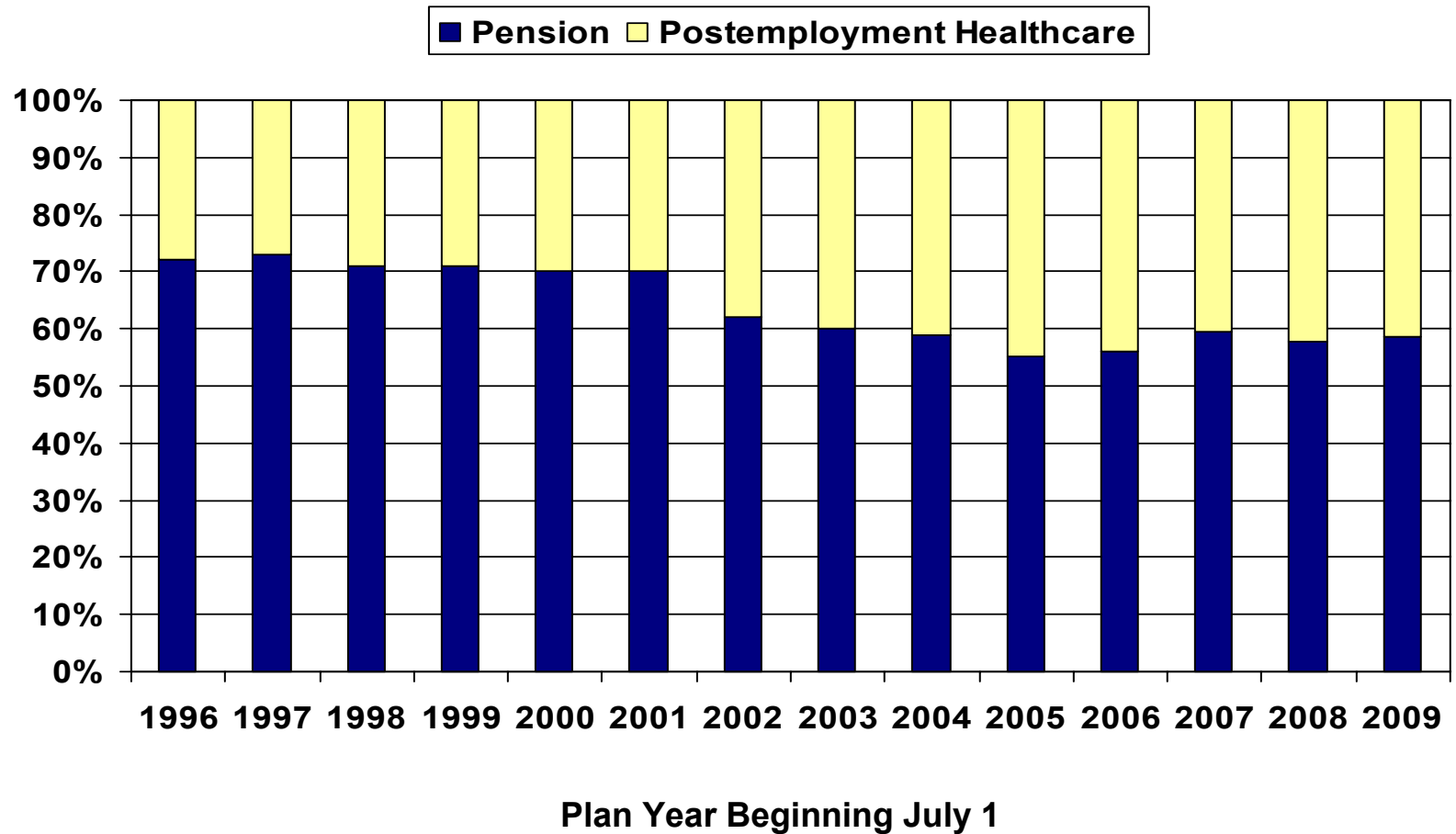
PERS Total Employer/State Contribution Rate History

Pension and Postemployment Healthcare



PERS Actuarial Accrued Liability History

Distribution % Between Pension and Postemployment Healthcare

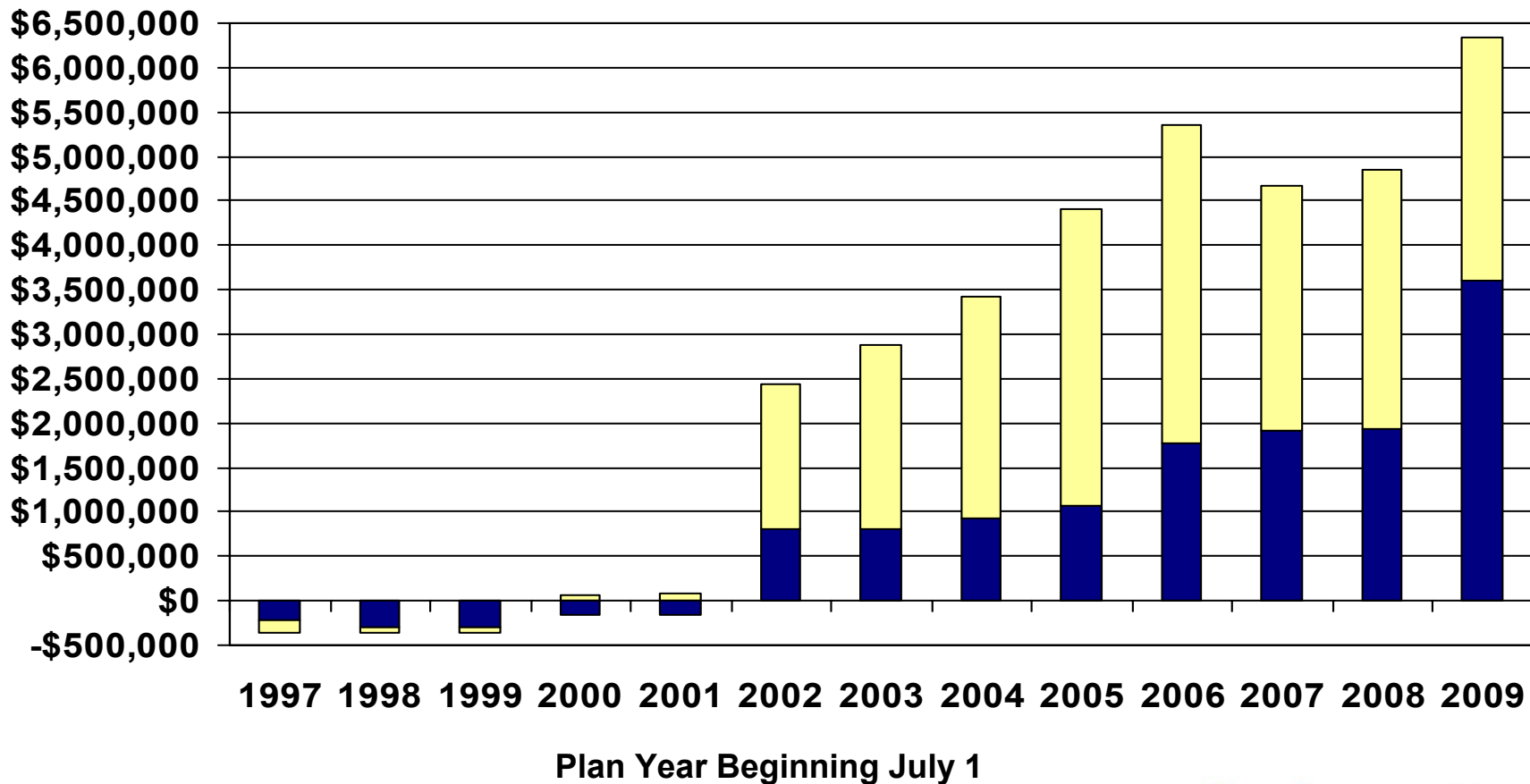


PERS Unfunded Actuarial Accrued Liability History

Pension and Postemployment Healthcare

\$ in thousands

■ Pension ■ Postemployment Healthcare



Teachers' Retirement System

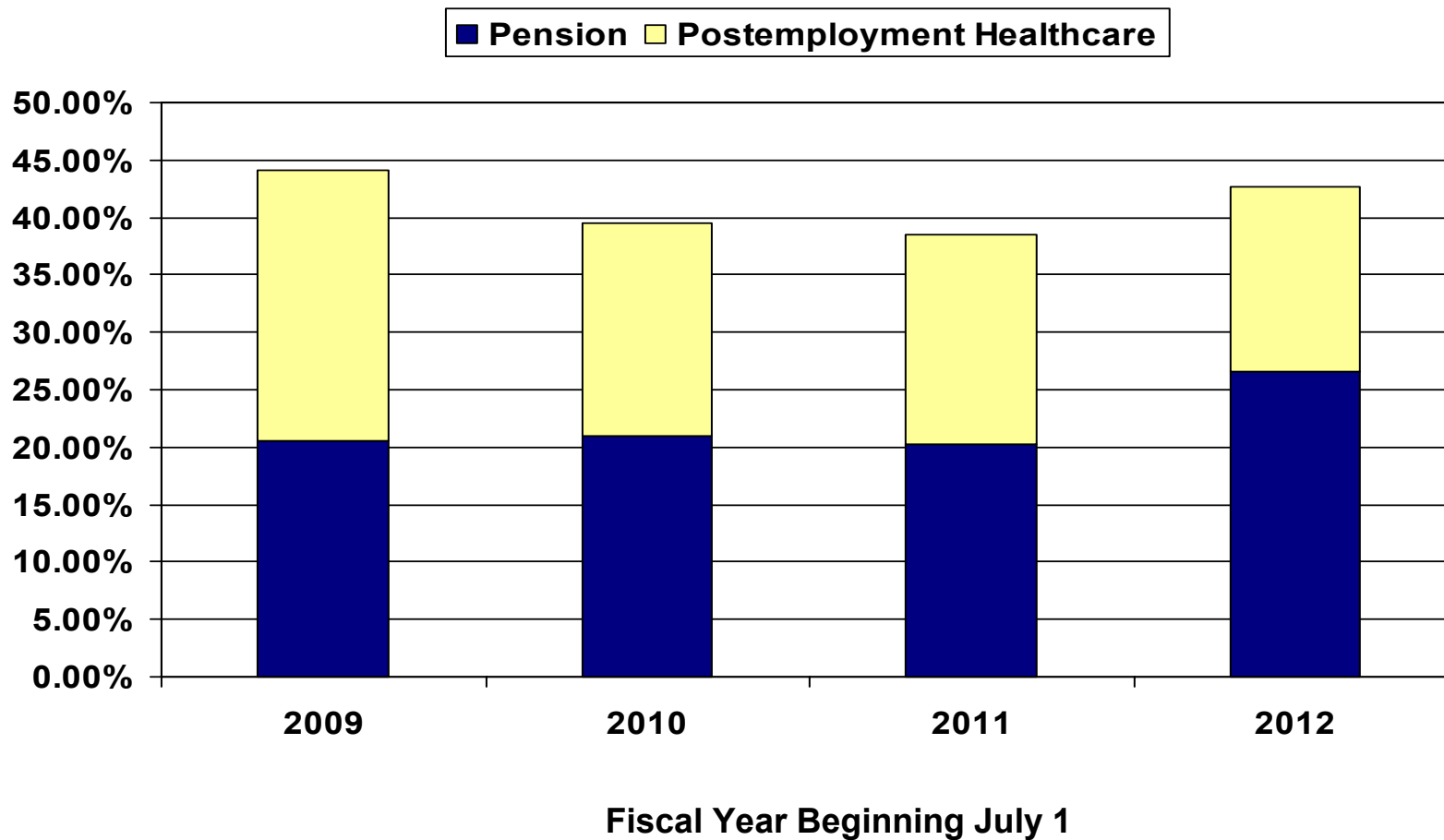
Pension and Postemployment Healthcare

Total System Assets (\$ in millions)

	Year Ending	
	June 30, 2008	June 30, 2009
1. Actuarial Value (BOY)	\$ 4,424	\$ 4,937
Contributions	399	334
Disbursements	(340)	(412)
Expected Return on Market Value	407	393
2. Expected Actuarial Value (EOY)	\$ 4,890	\$ 5,252
3. 5-year Smoothing	47	(276)
4. Preliminary Actuarial Value (EOY)	\$ 4,937	\$ 4,976
5. Future Smoothing Amount	(133)	(1,249)
6. Market Value (EOY)	\$ 4,804	\$ 3,727
7. 120% of Market Value	\$ 5,765	\$ 4,473
8. 80% of Market Value	\$ 3,843	\$ 2,982
9. Final Actuarial Value (EOY)	\$ 4,937	\$ 4,473
10. Ratio Market Value to Actuarial Value	97%	83%

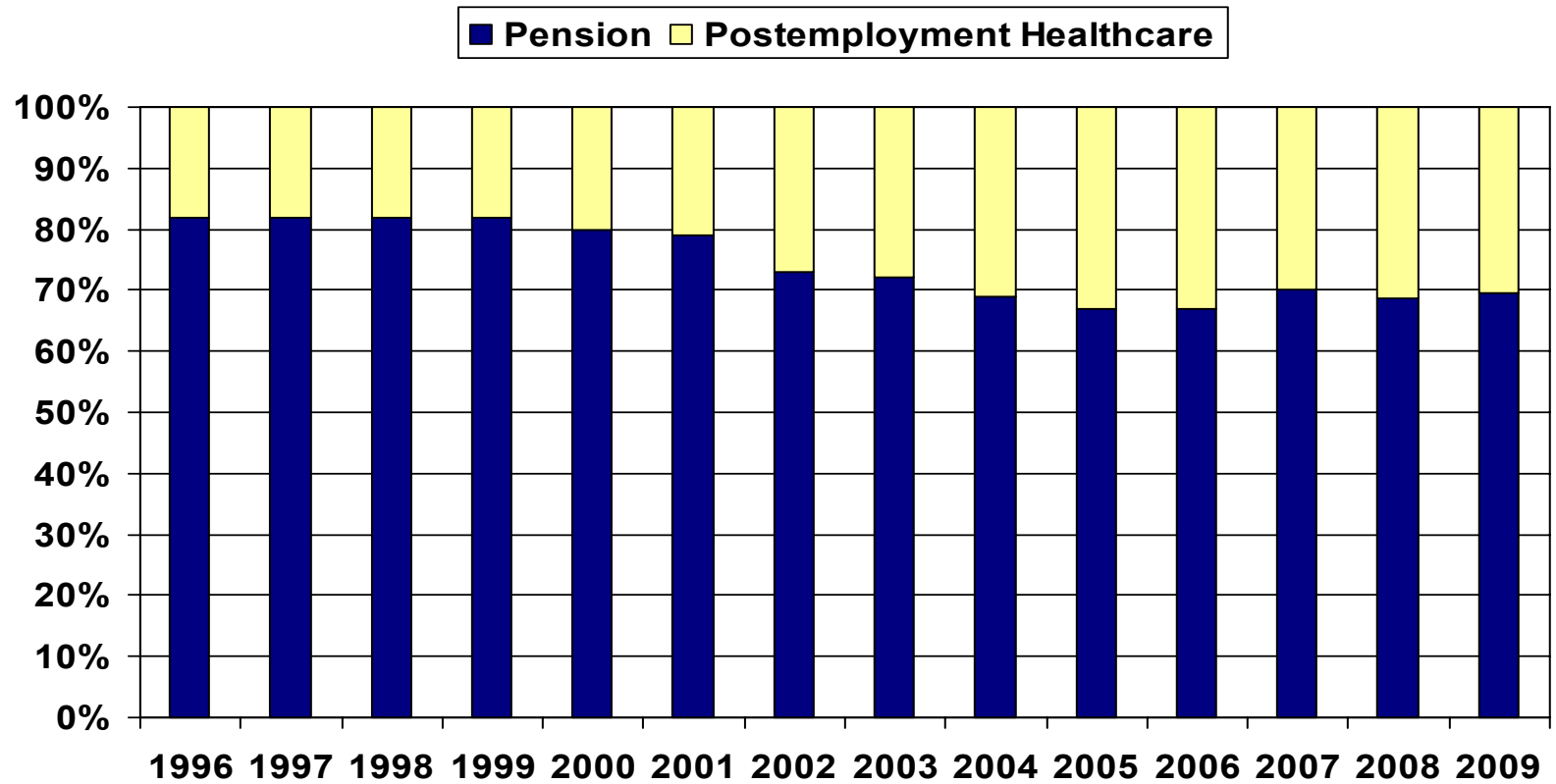
TRS Total Employer/State Contribution Rate History

Pension and Postemployment Healthcare



TRS Actuarial Accrued Liability History

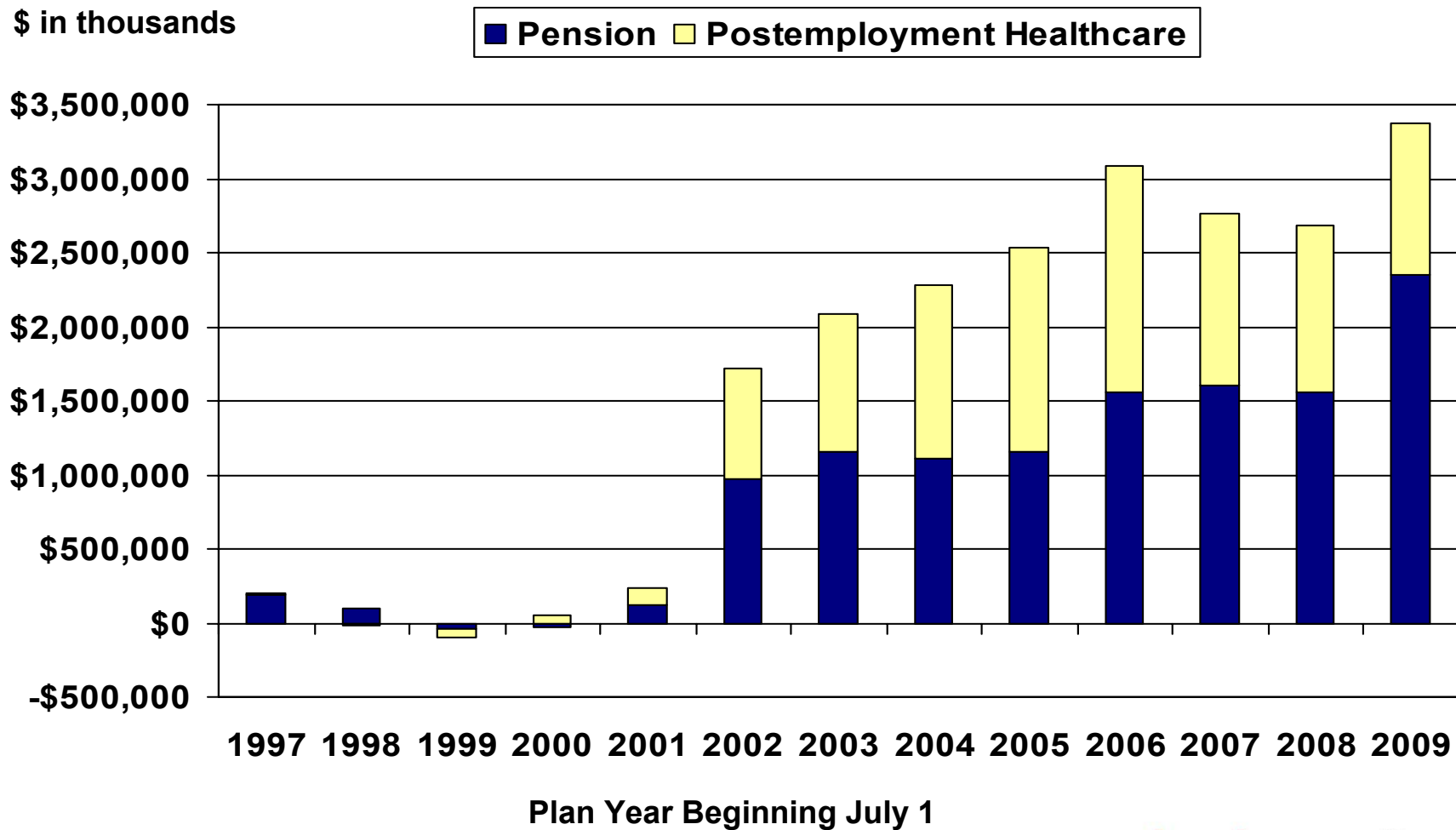
Distribution % Between Pension and Postemployment Healthcare



Plan Year Beginning July 1

TRS Unfunded Actuarial Accrued Liability History

Pension and Postemployment Healthcare



Judicial Retirement System – Roll-Forward Valuation

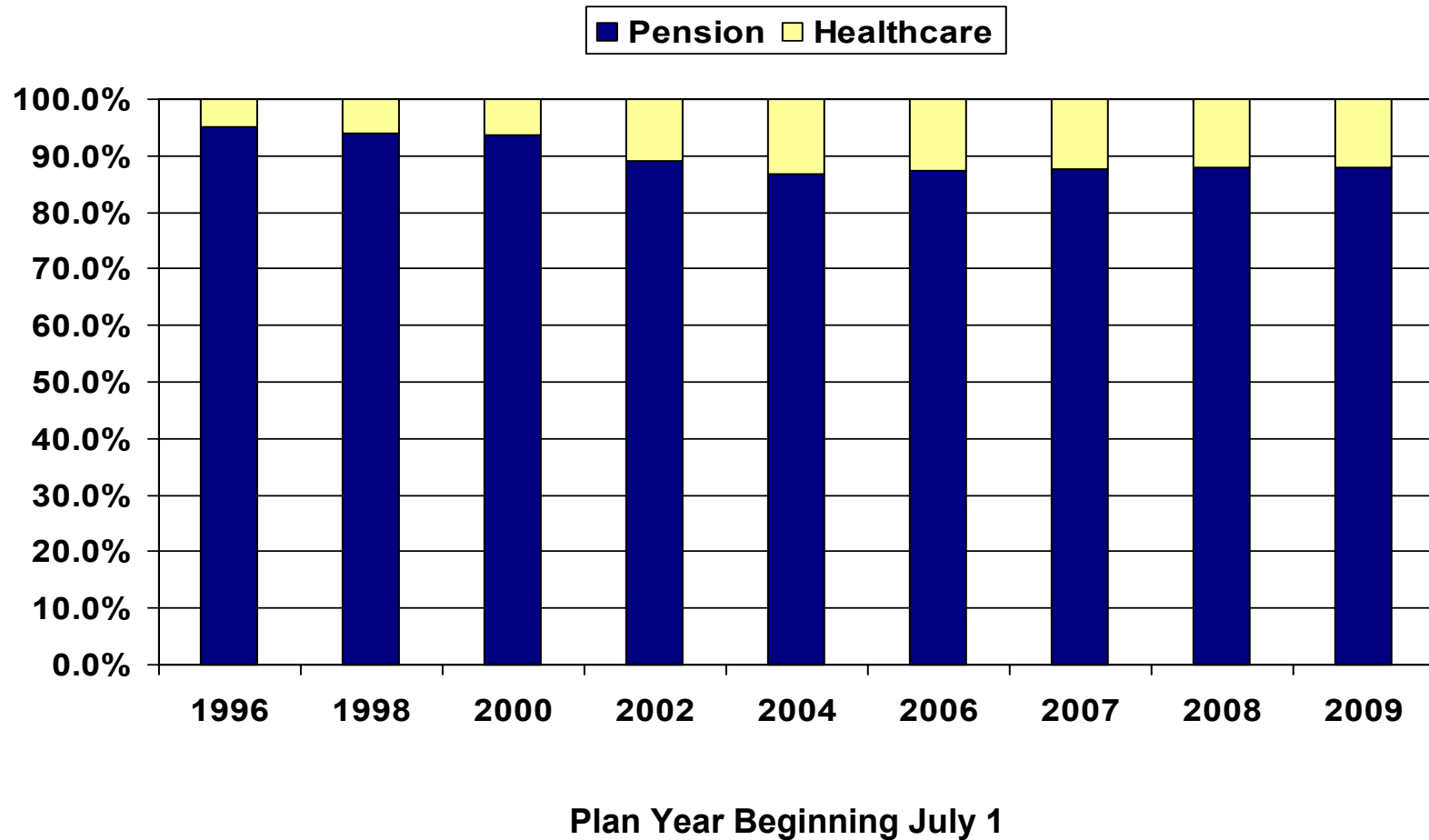
Pension and Healthcare

Total System Assets (\$ in thousands)

	Year Ending June 30, 2009
1. Actuarial Value (BOY)	\$141,236
Contributions	6,958
Disbursements	(8,138)
Expected Return on Market Value	10,992
2. Expected Actuarial Value (EOY)	\$151,048
3. 5-year Smoothing	(9,159)
4. Preliminary Actuarial Value (EOY)	\$141,889
5. Future Smoothing Amount	(36,700)
6. Market Value (EOY)	\$ 105,189
7. 120% of Market Value	\$ 126,227
8. 80% of Market Value	\$ 84,151
9. Final Actuarial Value (EOY)	\$ 126,227
10. Ratio Market Value to Actuarial Value	83%

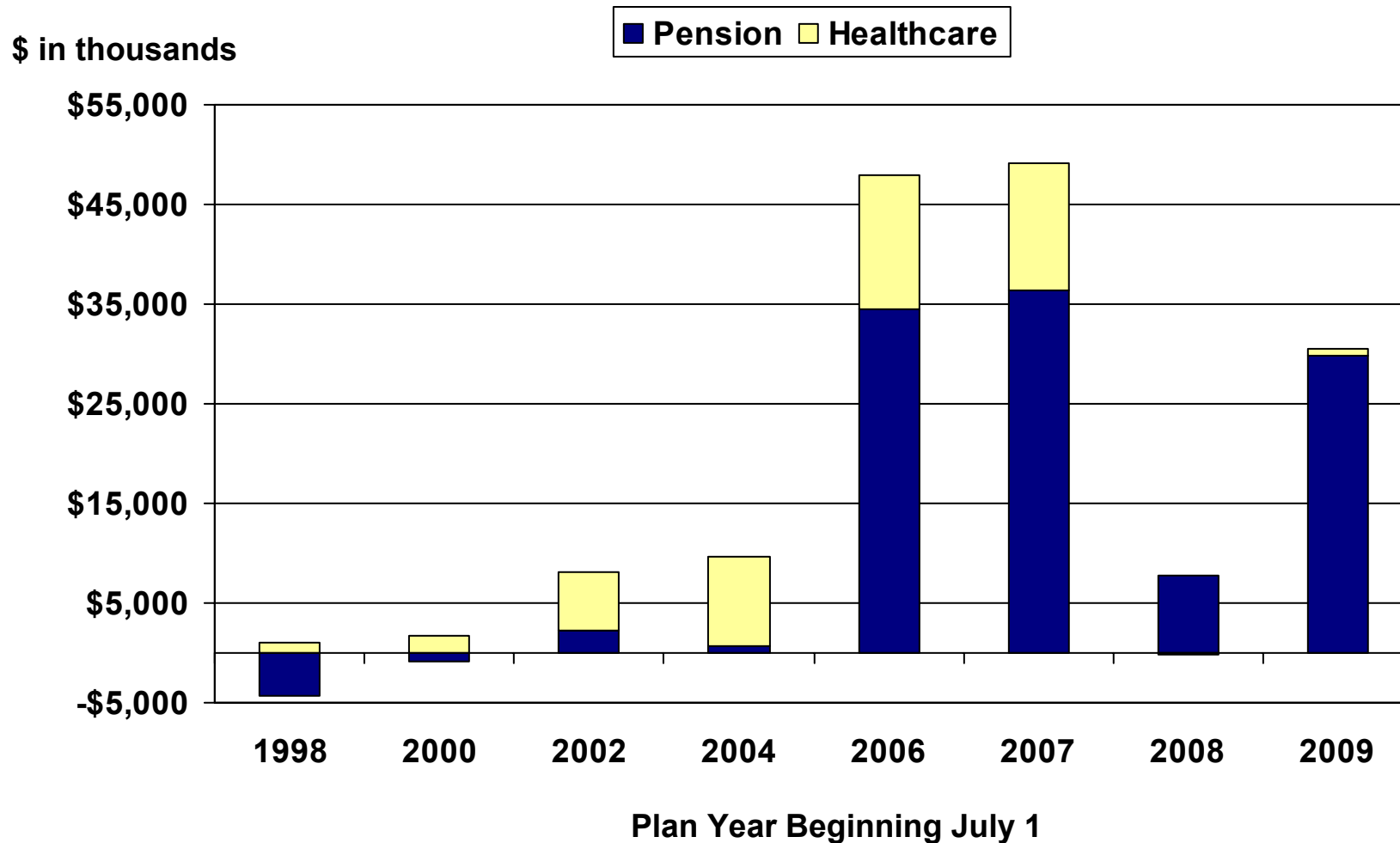
JRS Actuarial Accrued Liability History

Distribution % Between Pension and Healthcare



JRS Unfunded Actuarial Accrued Liability History

Pension and Healthcare

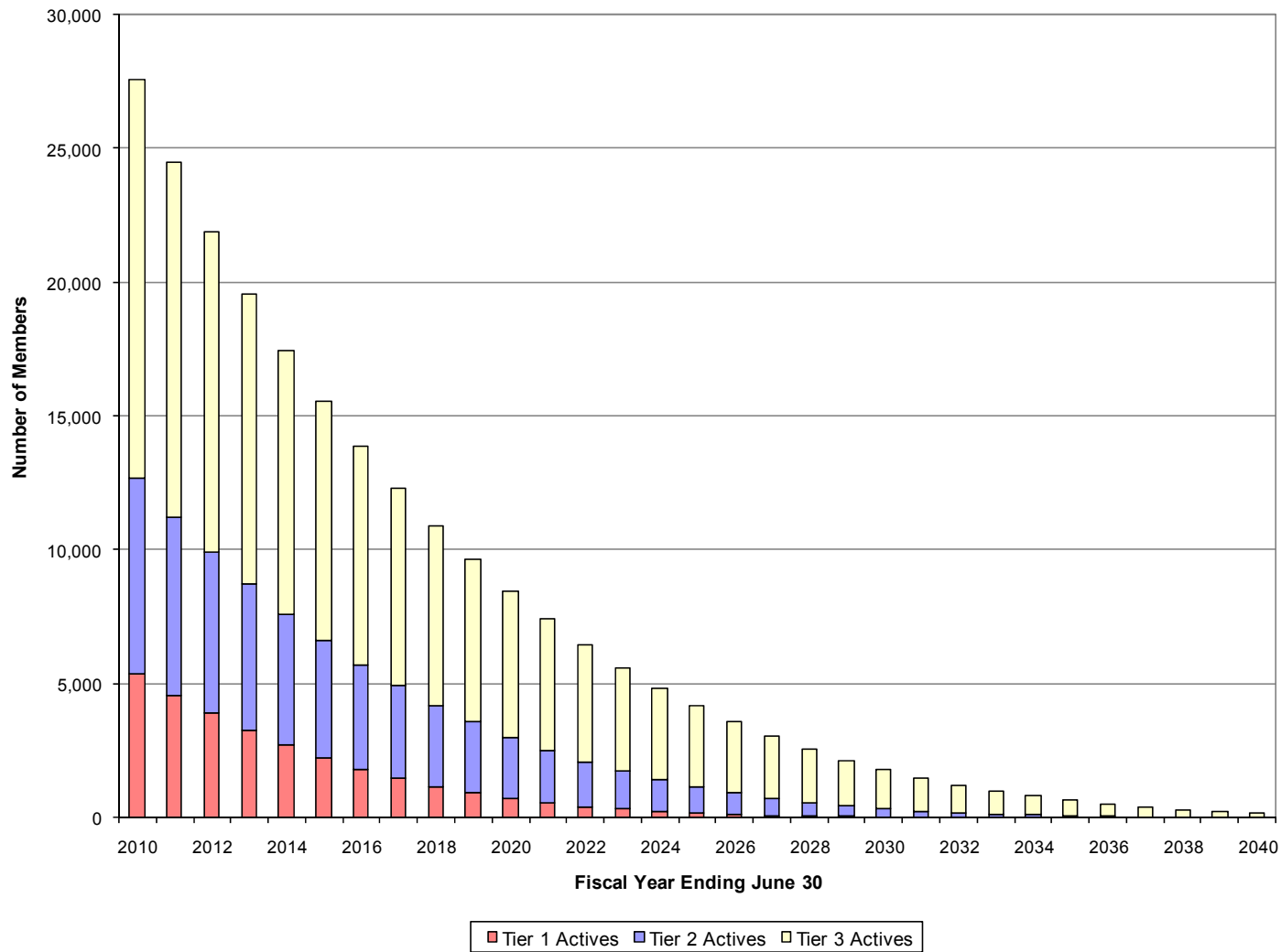


National Guard and Naval Militia Retirement System – Roll-Forward Valuation

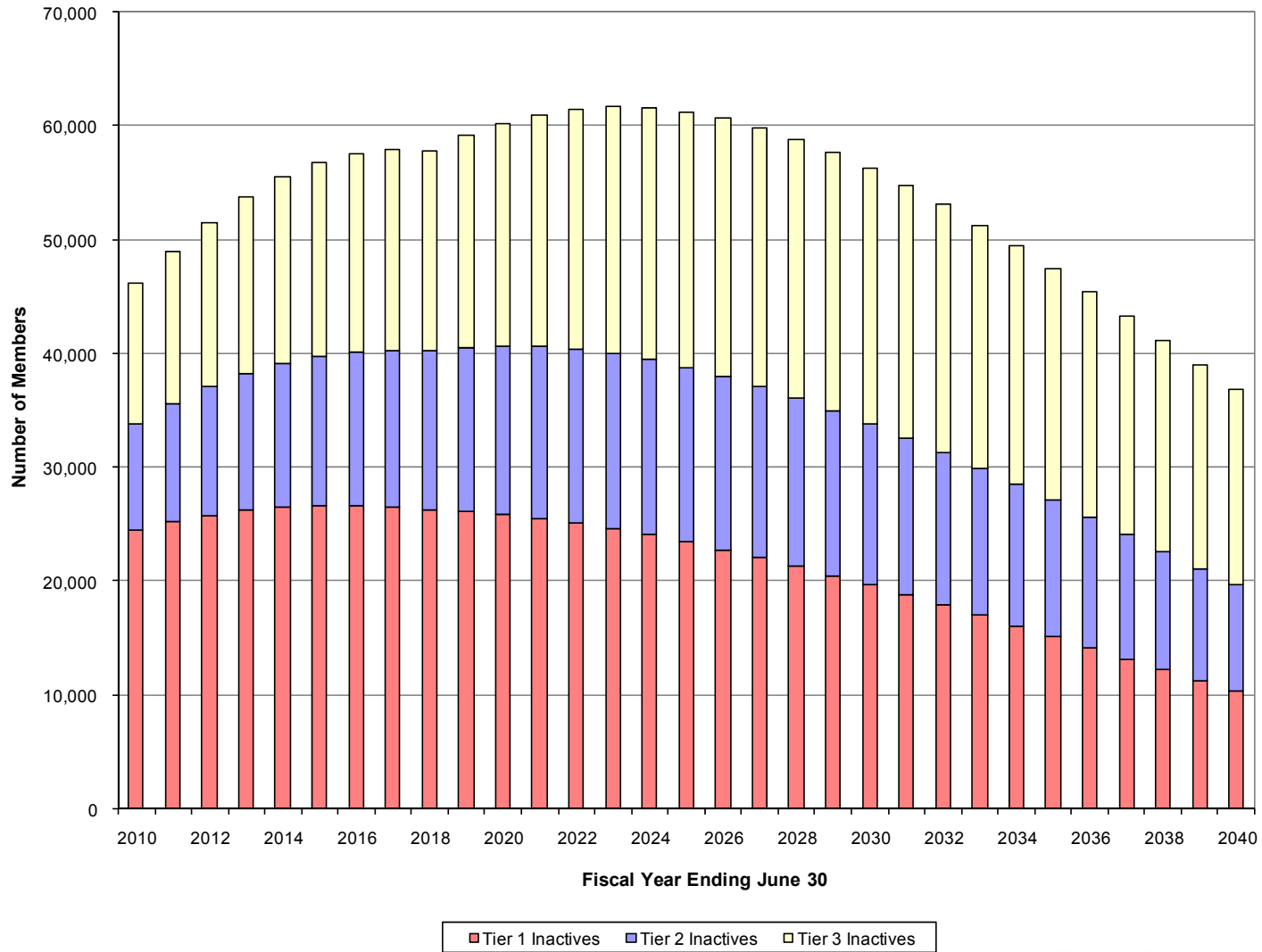
Total System Assets (\$ in thousands)

	Year Ending June 30, 2009
1. Actuarial Value (BOY)	\$ 28,371
Contributions	2,473
Disbursements	(1,535)
Expected Return on Market Value	2,004
2. Expected Actuarial Value (EOY)	\$ 31,313
3. 5-year Smoothing	(1,190)
4. Preliminary Actuarial Value (EOY)	\$ 30,123
5. Future Smoothing Amount	(4,693)
6. Market Value (EOY)	\$ 25,430
7. 120% of Market Value	\$ 30,516
8. 80% of Market Value	\$ 20,344
9. Final Actuarial Value (EOY)	\$ 30,123
10. Ratio Market Value to Actuarial Value	84.4%

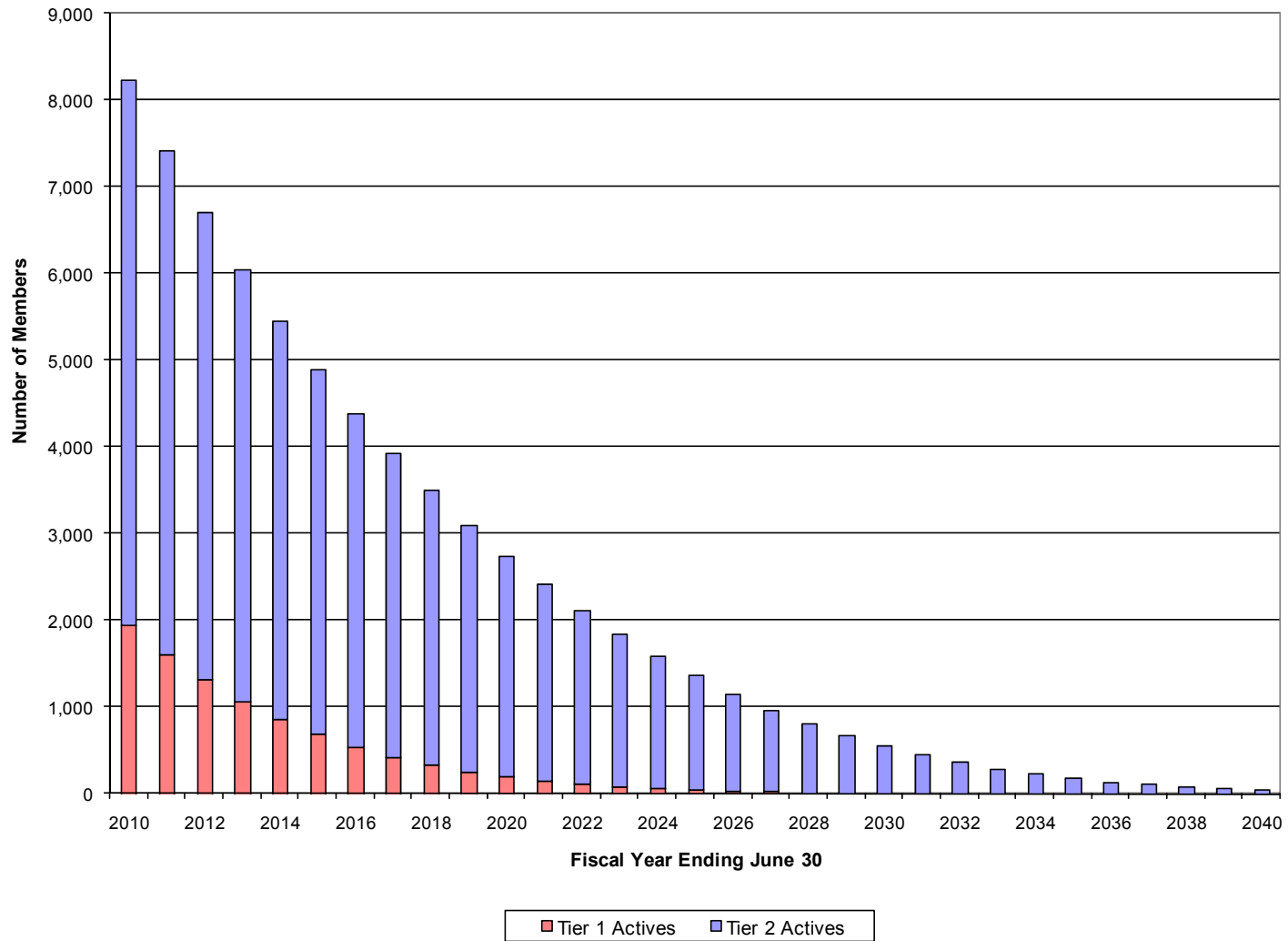
PERS Projected Active Member Count



PERS Projected Inactive Member Count



TRS Projected Active Member Count



TRS Projected Inactive Member Count

