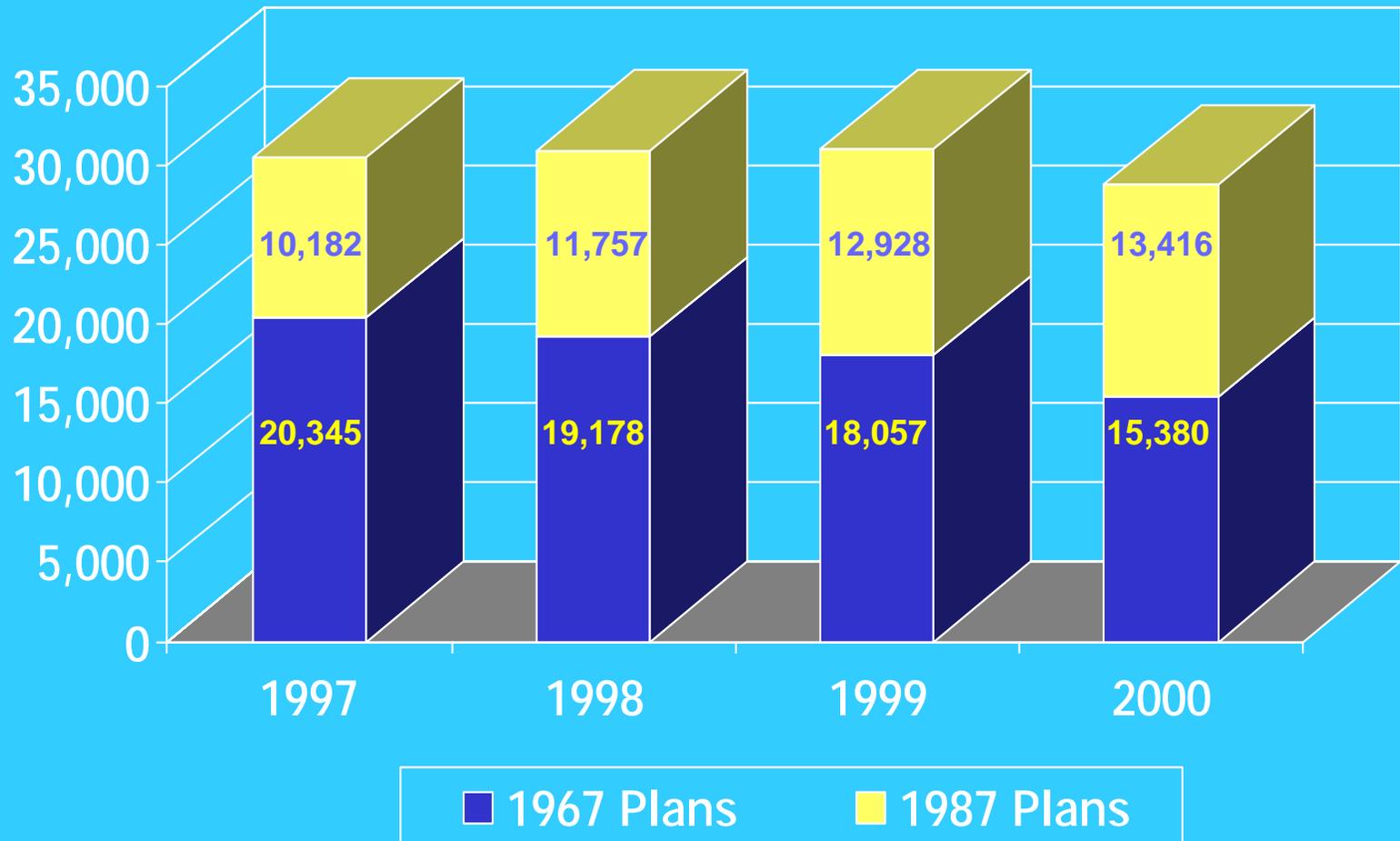


City of Philadelphia Municipal Retirement System

July 1, 2000 Actuarial Valuation
Fiscal Year 2002

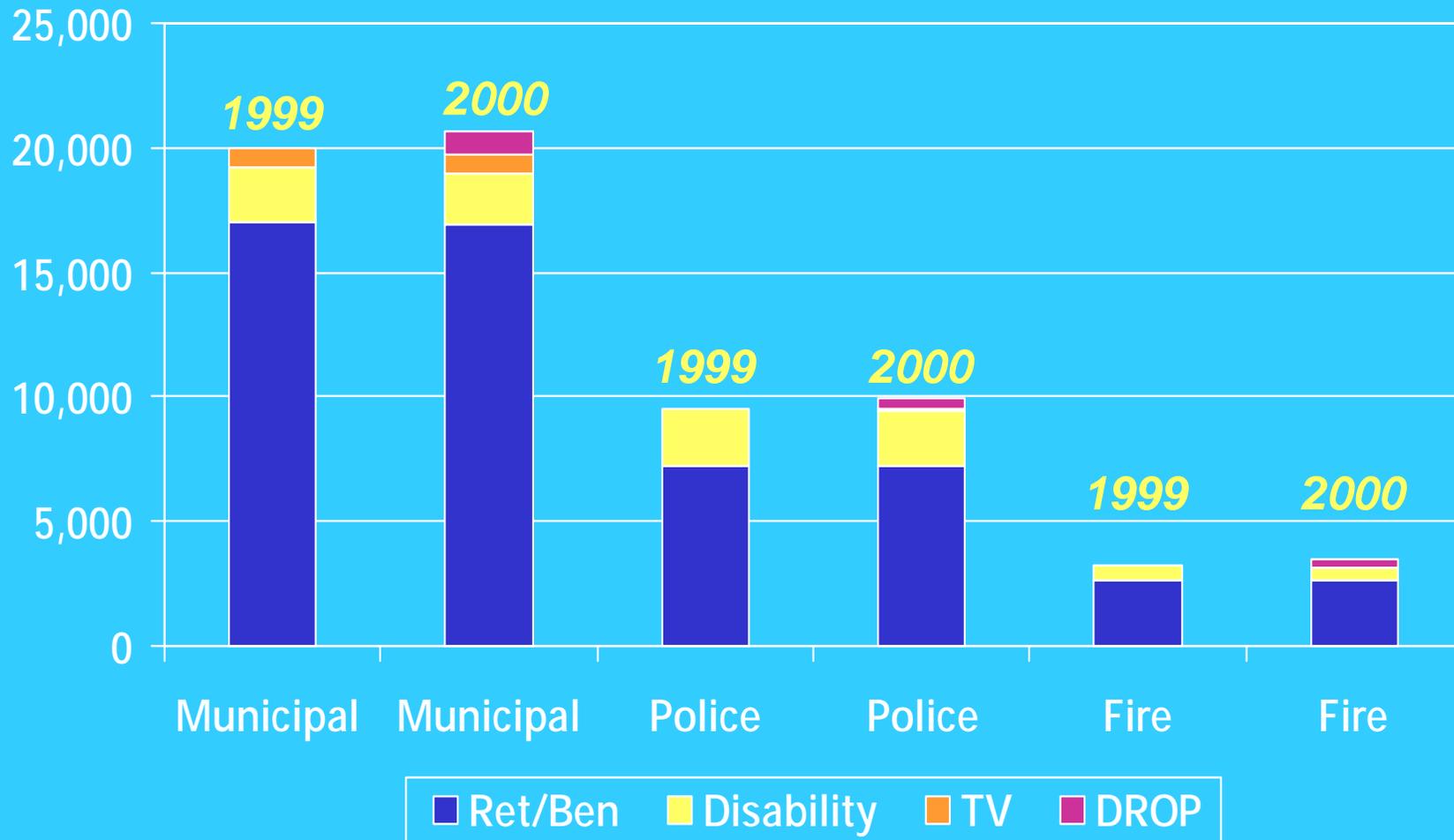
Demographics

Active Participant Counts



Demographics

Nonactive Participant Counts



Demographics

Active Participant Summary Statistics

	Municipal		Police		Fire	
	1999	2000	1999	2000	1999	2000
Average Age	44.8	44.6	38.6	38.0	43.9	42.8
Average Compensation	\$36,537	\$38,148	\$41,388	\$43,365	\$41,917	\$43,591
Average Service	12.72	12.52	12.17	11.51	16.90	15.35

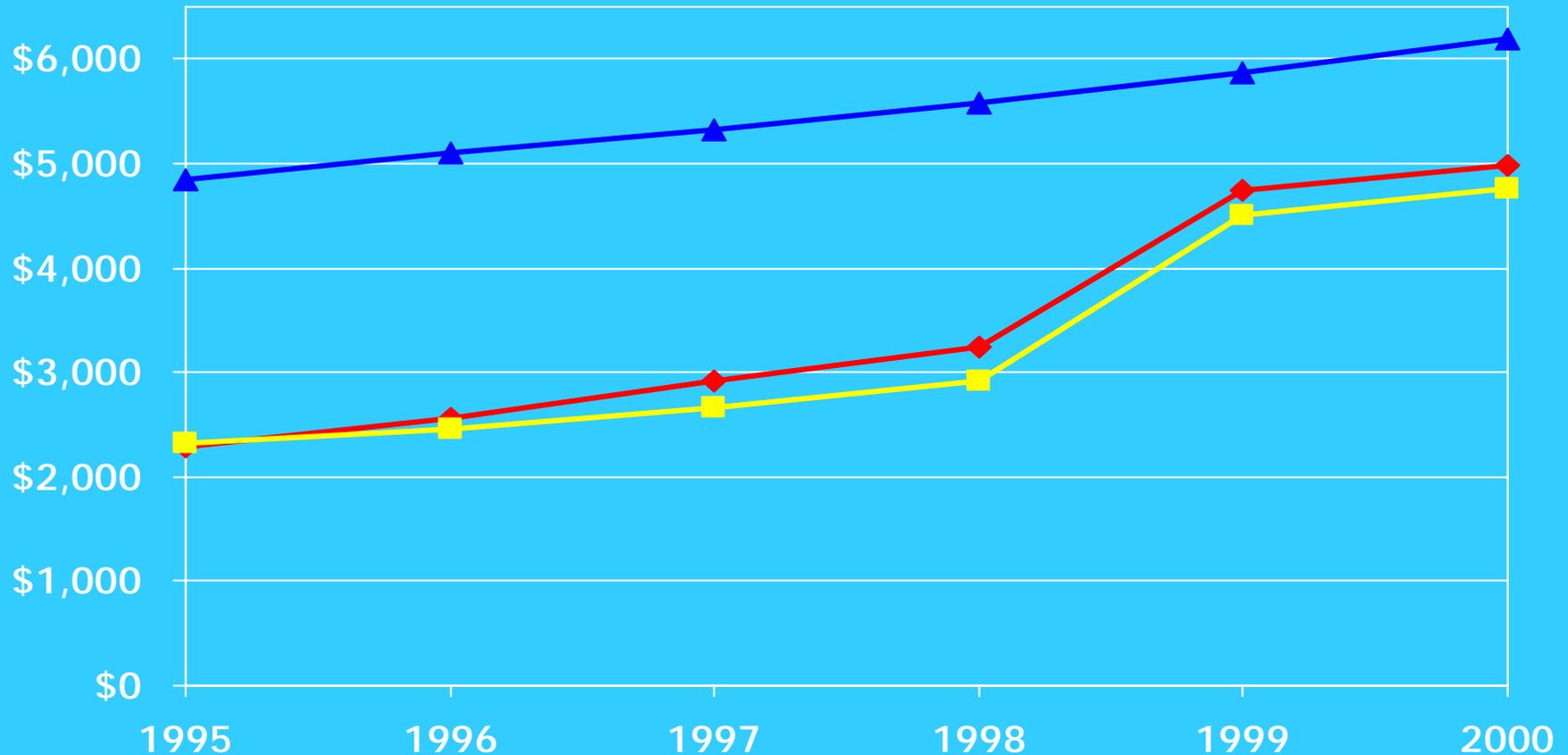
Demographics

Average Age and Benefits of Pensioners

	1999	2000	% Change in Average Benefit
Municipal			
Age	71	69	
Benefit	\$11,000	\$11,300	2.73%
Police			
Age	63	63	
Benefit	\$15,400	\$15,600	1.30%
Fire			
Age	68	68	
Benefit	\$14,600	\$14,900	2.05%

Assets

Market Value vs. Adjusted Value (Millions)



◆ Market value ■ Adjusted value ▲ Accrued liability

2000 Values:
Market value - \$4,976
Adjusted value - \$4,765
Accrued liability - \$6,193

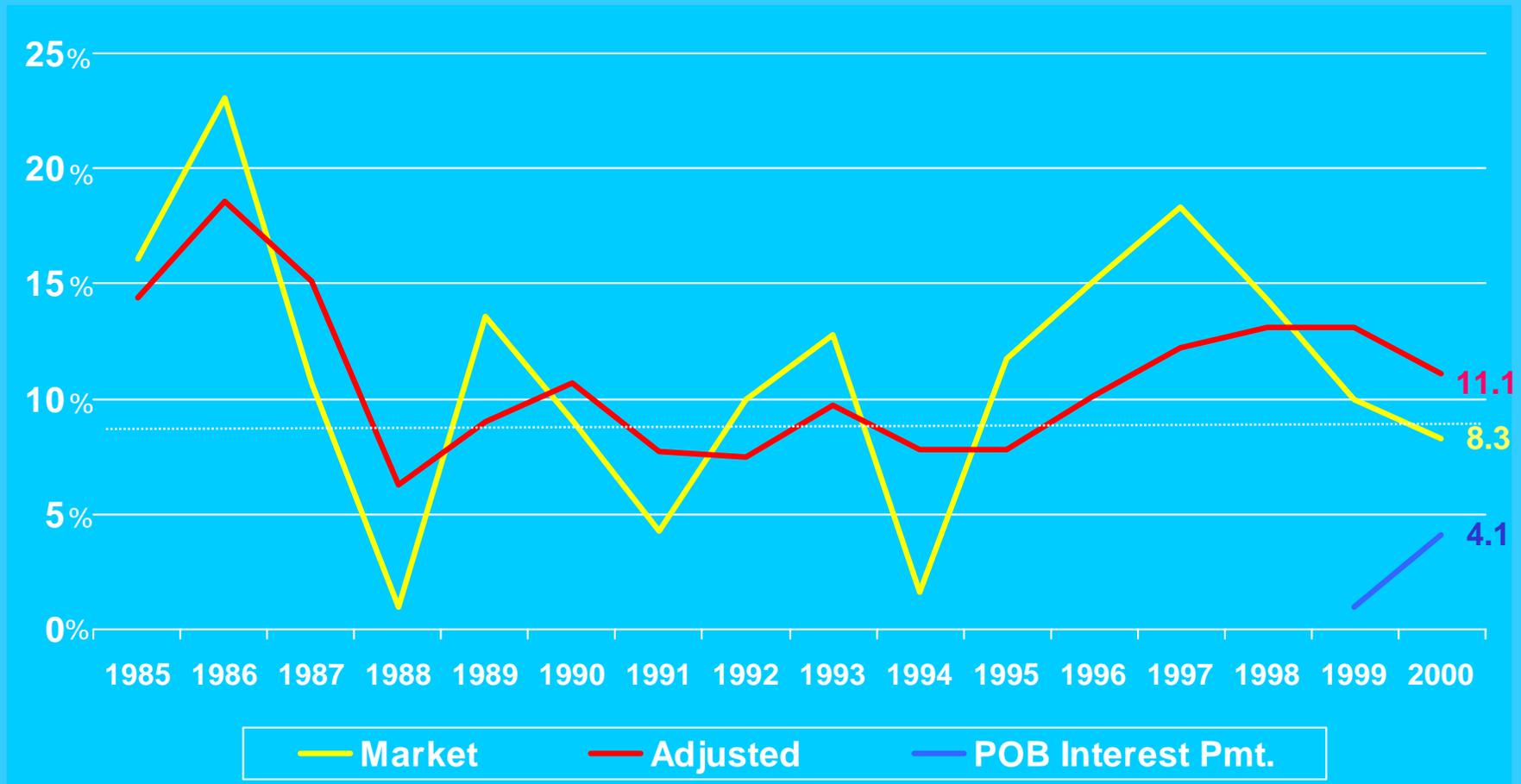
Asset Valuation Method (Millions)

Year of Recognition	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>Total</i>
Unrecognized Amount	\$91.3	\$44.6	\$14.3	\$3.9	\$154.1

1. July 1, 2000 market value	\$ 4,976.5
2. Unrecognized gain/(loss)	154.1
3. PAF transfer amount	<u>57.4</u>
4. July 1, 2000 adjusted value (1)-(2)-(3)	\$ 4,765.0
5. Approximate actuarial value return on investment during year	11.1%

Assets

Return on Assets

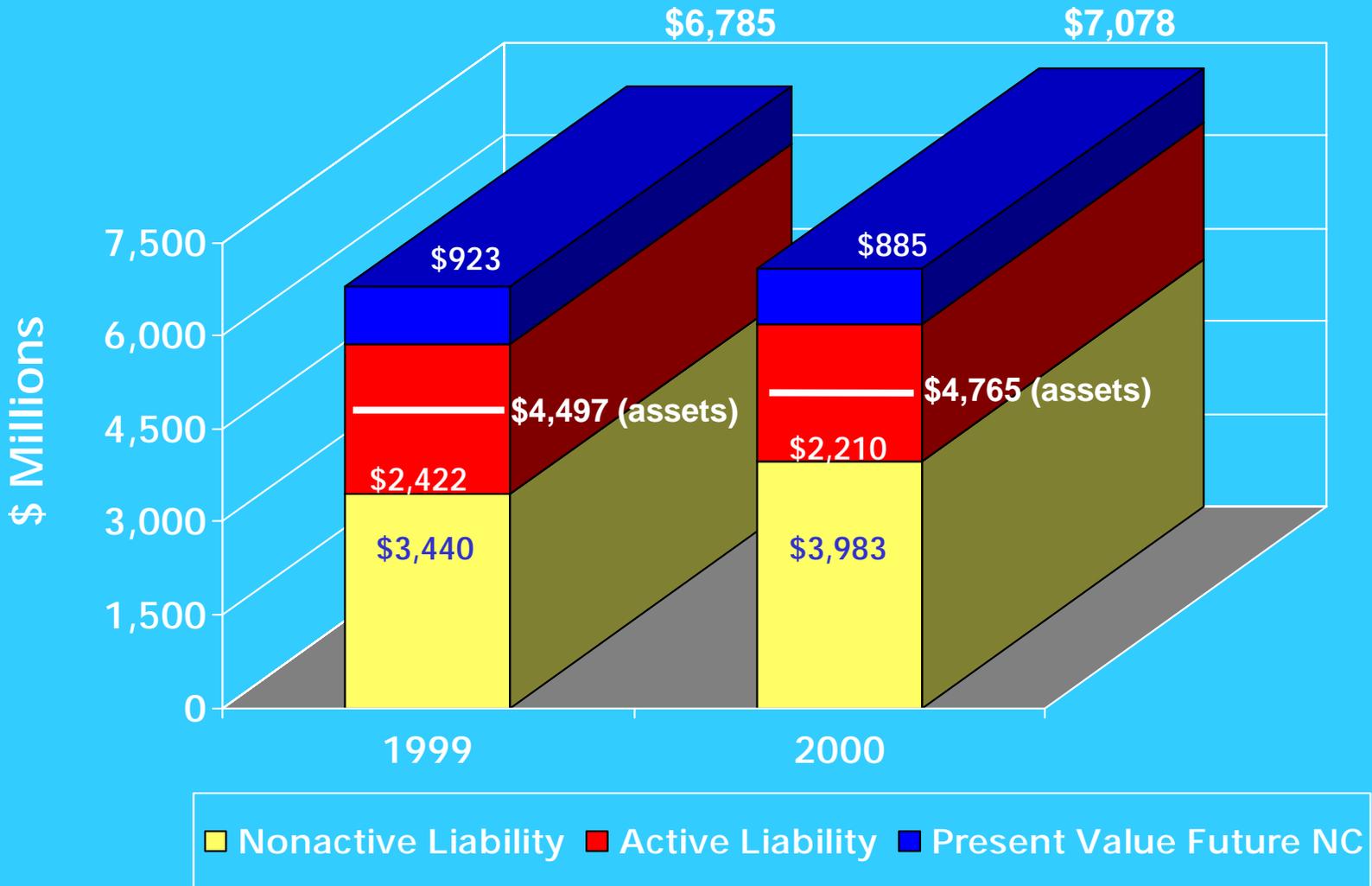


Plan Changes

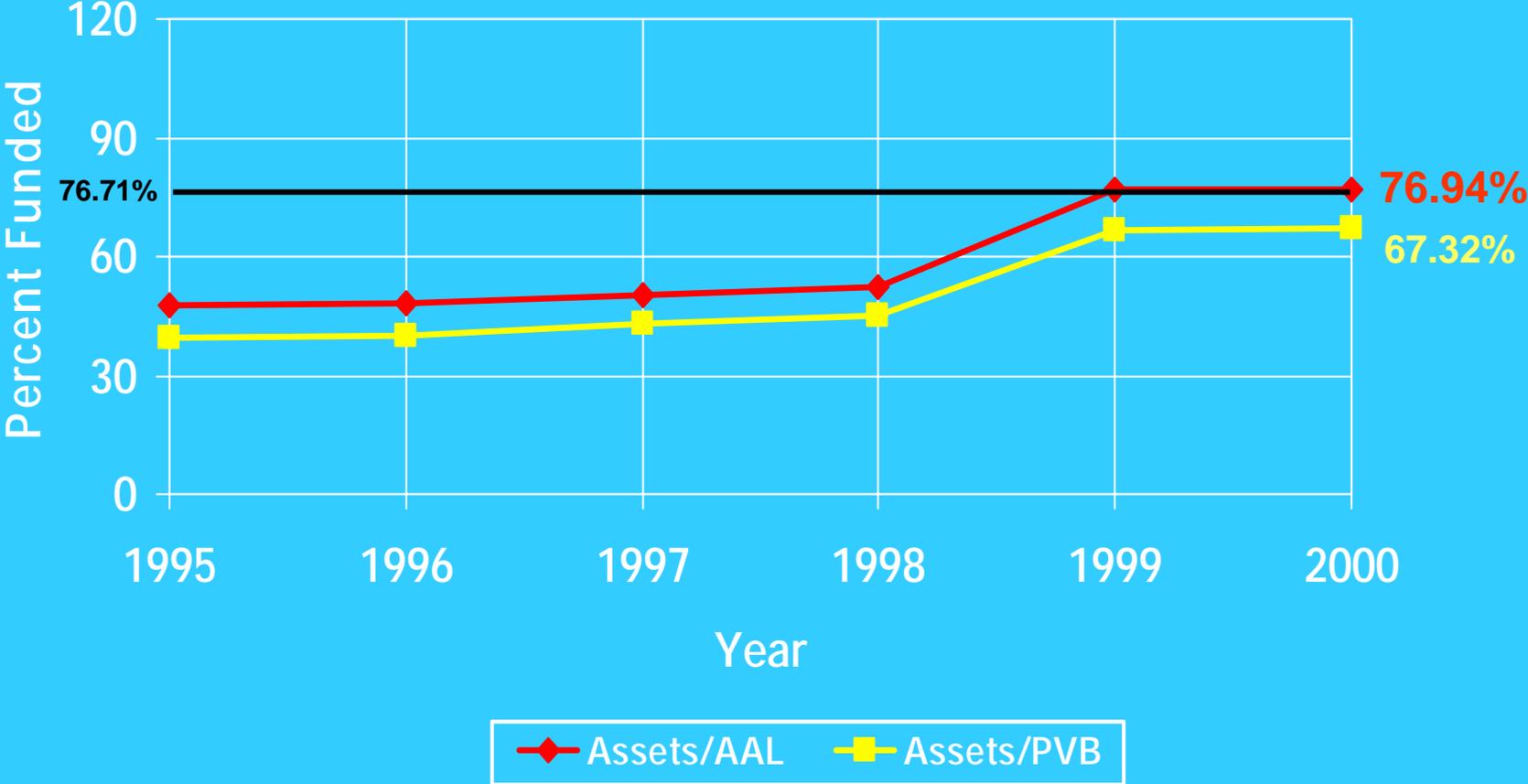
Reflected July 1, 2000

- **Deferred Retirement Option Plan (DROP)**
- **Pension Adjustment Fund**

Present Value of All Benefits



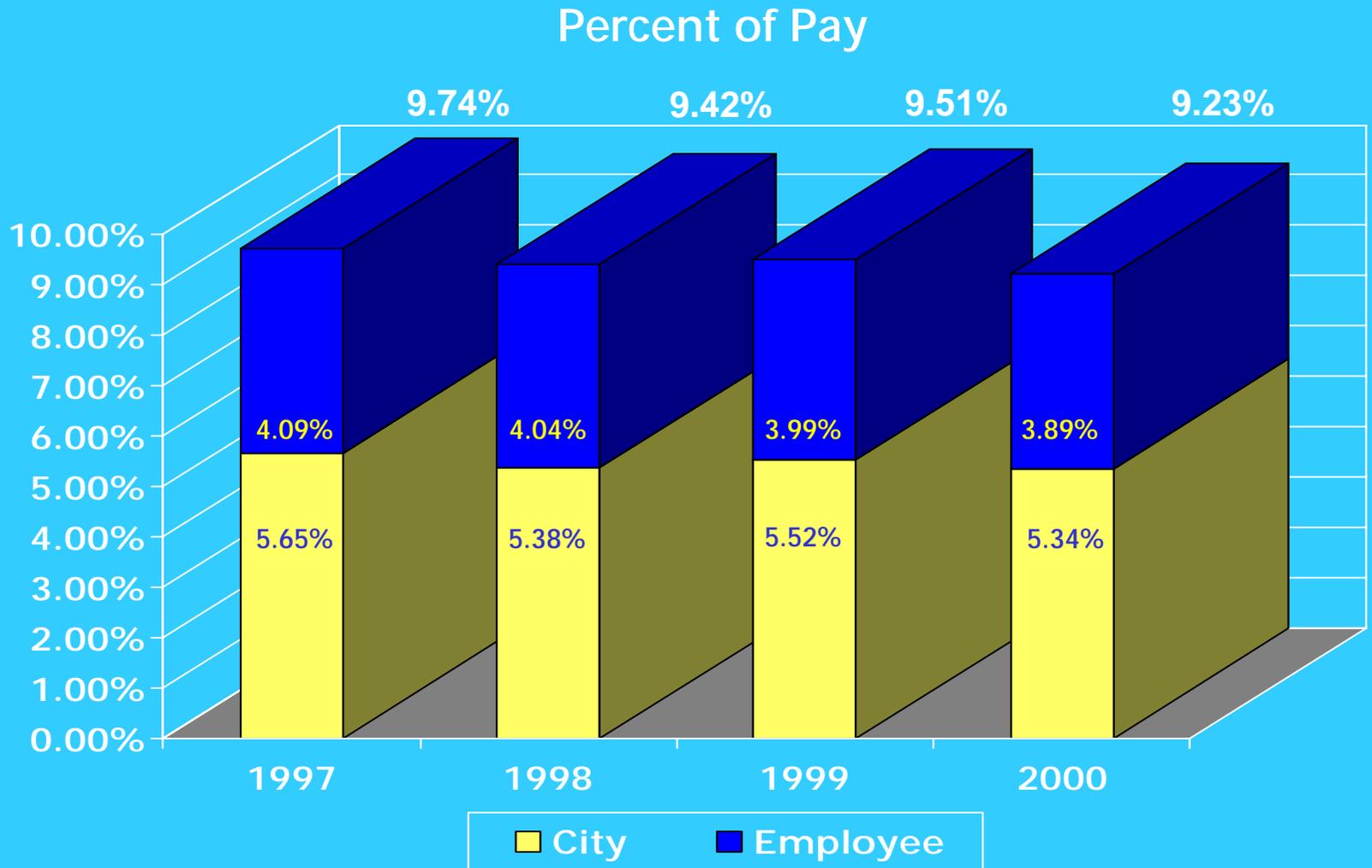
Funded Status



Beginning-of-Year Amortization Payment (Millions)

Last year's amortization	\$	100.6
Increasing payment		5.1
Retired base		<u>0.0</u>
Amortization payment	\$	105.7
Net actuarial loss (\$55.0 over 15 years)		6.8
Active plan change		0.0
Inactive plan change		<u>0.0</u>
Total amortization payment	\$	112.5

Total Normal Cost



Current Experience 1999-2000 (Millions)

	<i>Unfunded Liability</i>	<i>City Contribution for Fiscal Year Ending 2002</i>
July 1, 1999	\$ 1,365.3	\$ 165.7
Changes due to:		
<i>Payment schedule</i>	8.1	5.1
<i>Investment return</i>	(84.4)	(10.5)
<i>Salary increases</i>	19.7	2.4
<i>Plan changes</i>	0.0	0.0
<i>Other actuarial experience</i>	<u>119.7</u>	<u>10.9</u>
June 30, 2000	\$ 1,428.4	\$ 173.6

Total Experience 1985-2000 (Millions)

	<i>July 1, 1999</i>	<i>Change</i>	<i>July 1, 2000</i>
July 1, 1985 unfunded liability	\$ 1,757.6		\$ 1,757.6
Increase due to:			
<i>Payment schedule</i>	832.1	8.1	840.2
<i>Benefit improvements/changes</i>	206.1	0.0	206.1
<i>Other (gains) and losses</i>	164.3	139.4	303.7
Decrease due to:			
<i>POB</i>	(1,263.5)	0.0	(1,263.5)
<i>Investment return</i>	(318.9)	(84.4)	(403.3)
<i>Asset valuation method and assumption changes</i>	<u>(12.4)</u>	<u>0.0</u>	<u>(12.4)</u>
Unfunded liability	\$ 1,365.3	63.1	\$1,428.4

Fiscal 2000 Contribution

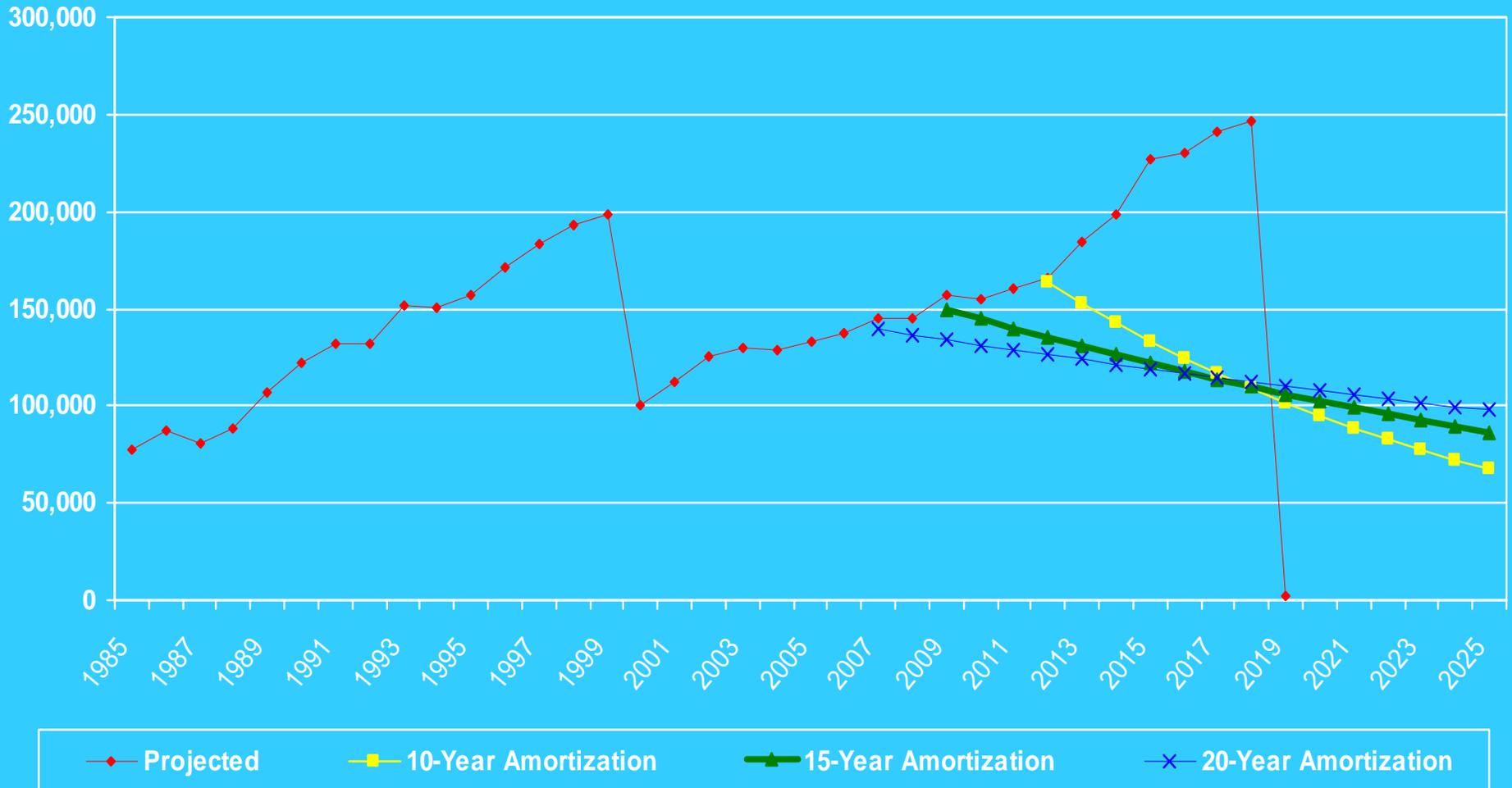
Compared to MMO (Thousands)

	<i>City Contribution</i>		<i>MMO</i>	
Payroll	\$ 1,176.9	(Actual FY 00)	\$ 1,149.7	(Estimated FY 99)
Normal cost percent	9.417% ^a		9.009%	
Normal cost	\$ 110.8		\$ 103.8	
Amortization payment	105.3		70.3	
Expense	<u>0</u>		<u>4.6</u>	
Subtotal	\$ 216.1		\$ 178.7	
Member contributions	<u>(50.2)</u>	(Actual)	<u>(46.7)</u>	(Estimated)
City cost	\$ 165.9		\$ 132.0	
Additional contribution	15.0			
Interest	<u>3.0</u>	(Actual)	<u>0</u>	(Estimated)
Actual City contribution	\$ 183.9		\$ 132.0	

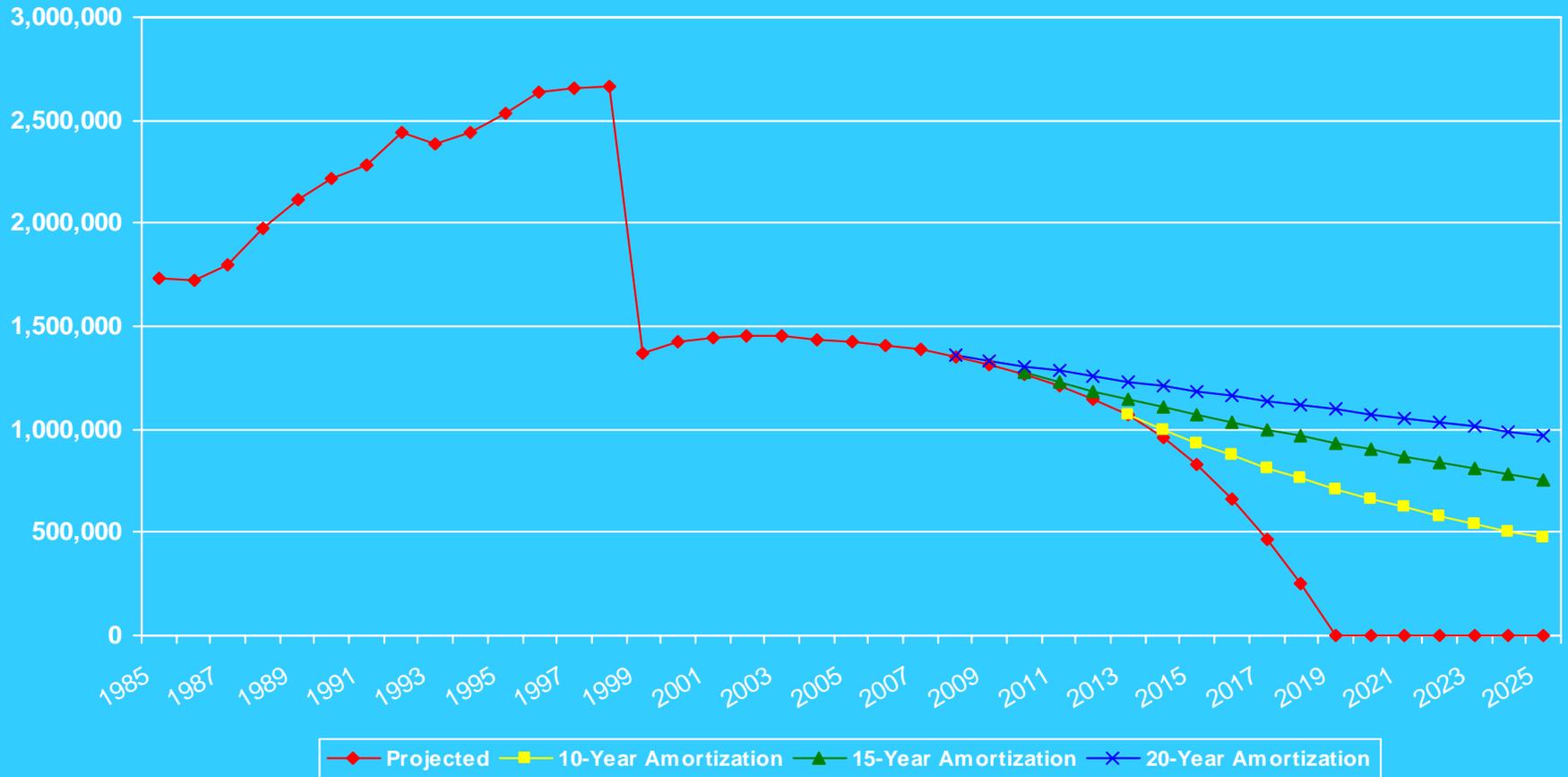
a. Includes administrative expenses.

Amortization Schedule (BOY)

(Thousands)



Unfunded Actuarial Accrued Liability (Thousands)



DROP Accounts

(Thousands)

Balance July 1, 1999	\$	0
<i>New participants</i>		32,224
<i>Interest credited</i>		1,232
<i>Benefits paid</i>		<u>0</u>
Balance July 1, 2000	\$	33,456

DROP Participants

	1967			1987			<i>Totals</i>
	<i>Municipal</i>	<i>Fire</i>	<i>Police</i>	<i>Municipal</i>	<i>Fire</i>	<i>Police</i>	
Count	958	342	503	22	0	0	1,825
Liability (thousands)	\$223,853	\$108,662	\$189,651	\$1,586	0	0	\$523,752
Average Age	60	56	55	65	-	-	
Benefits (thousands)	\$25,681	\$12,123	\$20,553	\$195	-	-	\$58,552

Pension Adjustment Fund

1. Pre-transfer actuarial asset value	\$	4,822,377,000
2. Average return on actuarial asset value		12.38%
3. Earnings in excess of 10%		2.38%
4. Maximum excess earnings for PAF		5.00%
5. Lesser of (3) and (4)		2.38%
6. 50% of excess earnings (5) = PAF percent		1.19%
7. Initial PAF transfer amount (6) x (1)	\$	57,386,000
8. Adjustment to meet funded basis		<u>0</u>
9. Fiscal year 2000 PAF transfer amount	\$	57,386,000

Summary

- **\$55 million experience loss**
 - **Investment gain**
 - **Salary loss**
 - **Mortality loss**
- **Expected City contribution decreased about \$3.0 million**
- **Funding ratio increased from 76.7% to 76.9%**

Appendix

- **Historical investment performance**
- **Summary of contributions**
- **Present value of benefits**
- **Employee contributions**

Historical Investment Performance

Yield Basis

<i>Fiscal Year</i> <i>Ending June 30</i>	<i>Market Value</i>	<i>Adjusted Value</i>
1985	16.1%	14.4%
1986	23.1%	18.6%
1987	10.7%	15.1%
1988	1.0%	6.3%
1989	13.6%	9.0%
1990	9.1%	10.7%
1991	4.3%	7.7%
1992	10.0%	7.5%
1993	12.8%	9.7%
1994	1.6%	7.8%
1995	11.7%	7.8%
1996	15.1%	10.1%
1997	18.3%	12.2%
1998	14.3%	13.1%
1999	10.0%	13.1%
2000	8.3%	11.1%

Summary of Contributions

(\$ Millions)

	1999	2000
1. Total City	\$ 261.6	\$ 183.9
2. General State reimbursement	(31.2)	(33.3)
3. Police and Fire state COLA	<u>(3.2)</u>	<u>(3.0)</u>
4. Net City	\$ 227.2	\$ 147.6
5. Employee	\$ 49.3	\$ 50.2
6. Total contributions (1) +(5)	\$ 310.9	\$ 234.1

Present Value of Benefits

	1999	2000
Present value of all benefits (PVB)	\$ 6,785.1	\$ 7,078.1
Accrued liability (AAL)		
<i>Active</i>	\$ 2,421.7	\$ 2,210.4
<i>Nonactive</i>	<u>3,440.4</u>	<u>3,983.0</u>
<i>Total</i>	\$ <u>5,862.1</u>	\$ <u>6,193.4</u>
Adjusted asset value	<u>4,496.8</u>	<u>4,765.0</u>
Unfunded	\$ 1,365.3	\$ 1,428.4

Employee Contributions

<i>Valuation Year</i>	<i>Municipal '87</i>	<i>Uniform '67</i>	<i>Uniform '87</i>	<i>Municipal '87</i>	<i>Elected</i>
1996	3.75%	6.00%	5.00%	2.36%	8.10%
1997	3.75%	6.00%	5.00%	2.21%	7.78%
1998	3.75%	6.00%	5.00%	2.17%	8.23%
1999	3.75%	6.00%	5.00%	2.21%	7.94%
2000	3.75%	6.00%	5.00%	2.17%	7.89%