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December 31, 2006 Actuarial Valuation Oregon Public Employees Retirement System

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Key Findings

Overview

- **Employer contribution rates are getting smaller**
 - Normal cost rates are increasing as Money Match members retire
 - PUC UAL rates increased slightly as no contributions have yet been credited toward this portion of the UAL
 - Regular UAL rates have decreased significantly reflecting 2006 investment returns
- **Including side accounts, funded status has improved from 104% to 110%**
 - Excluding side accounts, funded status improved from 90% to 96%
- **Break-in-Service legislation**
 - Approximately 4,300 members have been moved from OPSRP back to Tier 1/Tier 2.
 - The net effect was a decrease in normal cost of \$1 million and an increase in accrued liability of \$24 million. There was no net impact on rates.
- **Arken and Robinson litigation**
 - We have made no adjustment to these valuation results to reflect any interpretation of Judge Kantor's June 20, 2007 ruling in the Arken and Robinson cases.

Key Findings

Overview

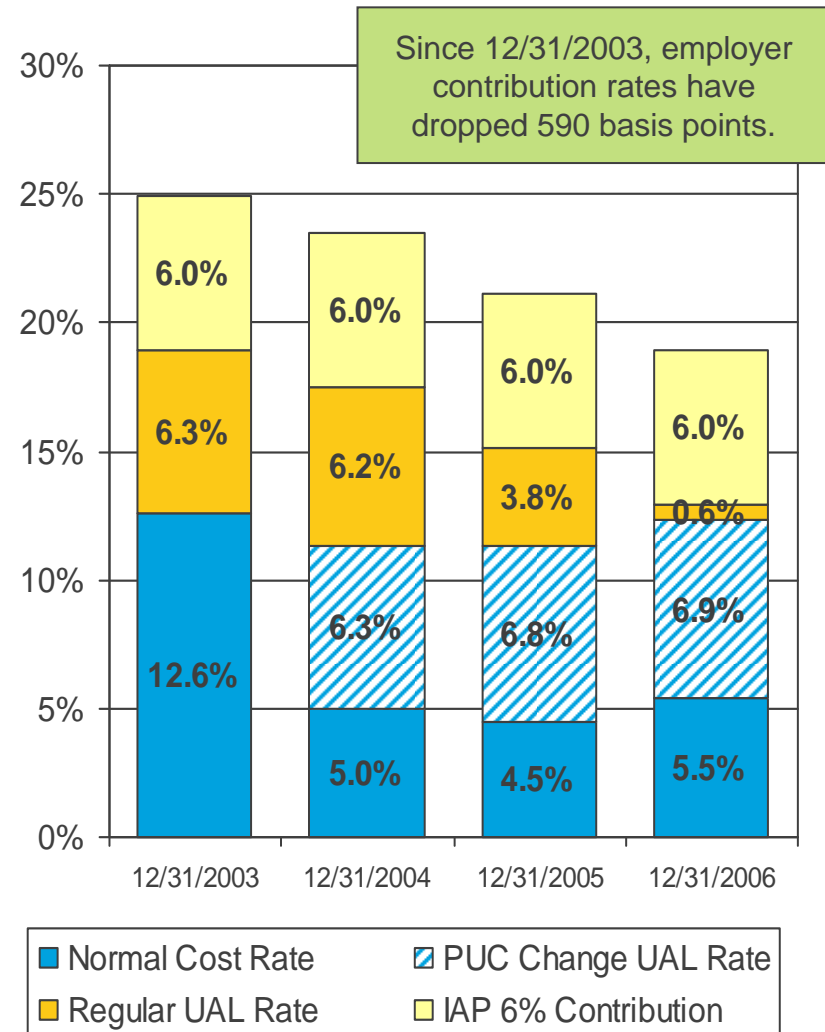
▪ Tier 2 member census

- Approximately 5,000 members were added to Tier 2 who had not been previously included in a system-wide valuation
- It is not clear at this time if all of them are eligible for Tier 2 benefits, and the individual data available when the valuation was conducted was very limited
- To be conservative, we included all 5,000 in the valuation with assumed dates of birth and salary
- The net effect was an increase in payroll of \$211 million, an increase in normal cost of \$11 million, an increase in accrued liability of \$40 million, a net increase in contributions of \$14 million, and a net decrease in contribution rates of 0.18%

Key Findings

Average Contribution Rates Including Retiree Healthcare and IAP

- The average normal cost rate increased since the prior valuation primarily due to expected increases as the system gradually shifts from Money Match dominance to Full Formula dominance.
- The UAL rate for the change to the PUC method increased slightly because no contributions are being credited toward this portion of the UAL until 7/1/2007.
- The regular UAL rate decreased reflecting actual 2006 earnings greatly in excess of expectations.
- These rates do not reflect the impact of side accounts or pre-SLGRP liabilities or surpluses.



Key Findings

Average Employer Contribution Rates (Includes Retiree Healthcare)

Average Employer Rates	SLGRP	School Districts	Independents*	OPSRP General	OPSRP P&F	System-Wide
7/1/2007 Actual Rates	14.3%	17.6%	9.2%	16.3%	19.6%	14.8%
7/1/2009 Advisory Rates	12.5%	15.3%	8.6%	13.7%	16.6%	13.1%
Net Change in Rates	(1.8%)	(2.3%)	(0.6%)	(2.6%)	(3.0%)	(1.7%)
7/1/2009 Advisory Adjustments**	(7.0%)	(9.9%)	(0.8%)	(7.1%)	(7.1%)	(7.1%)
7/1/2009 Net Advisory Rates	5.5%	5.4%	7.8%	6.6%	9.5%	6.0%

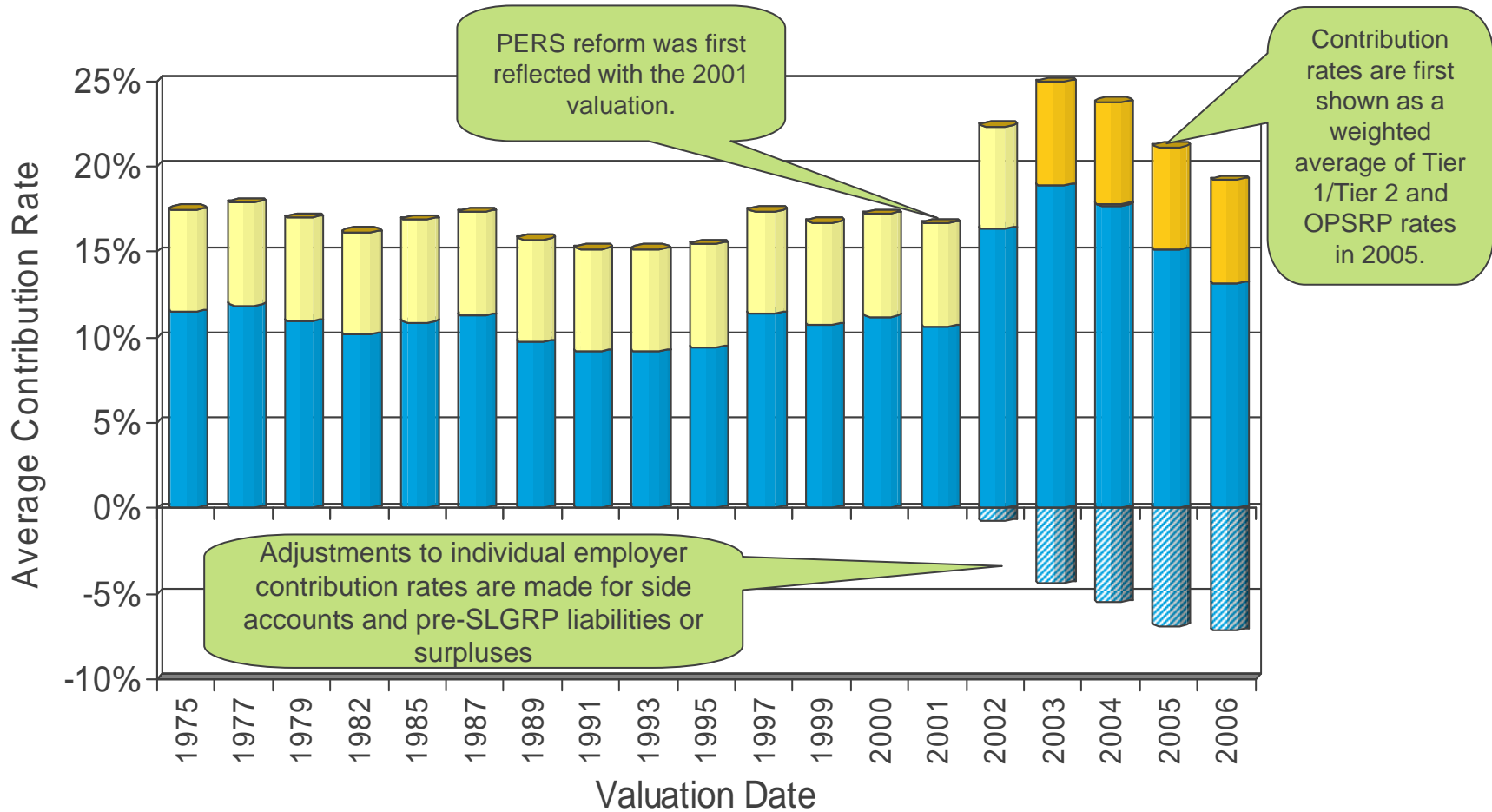
- The 7/1/2009 advisory rates shown above are based on the 12/31/2006 valuation. The actual rates that become effective 7/1/2009 will be based on the 12/31/2007 valuation.
- System-wide rates have dropped 170 basis points since the last valuation. Assuming an 8% return is achieved in 2007, this is a reasonable approximation of where rates are expected to be when we complete the 12/31/2007 actuarial valuation.
- Changes in rates can vary significantly by individual employer and to a lesser extent by pool.

* *Independents includes Judiciary, and average rates do not reflect the rate collar or 6% individual employer minimum.*

** *Adjustments are for side accounts and pre-SLGRP liabilities/(surpluses)*

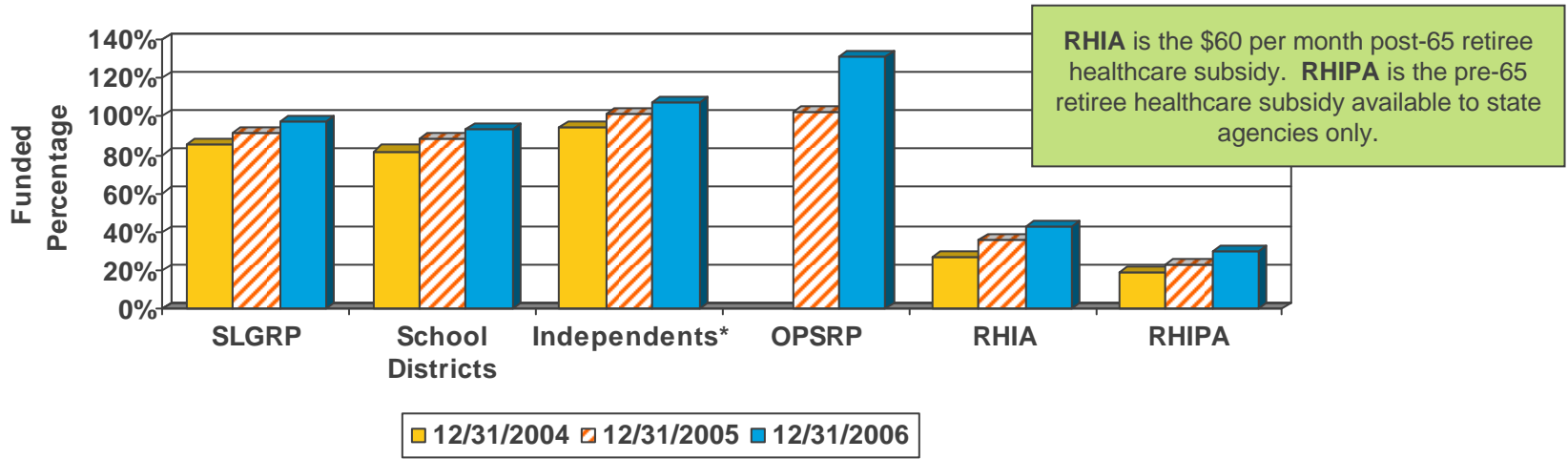
Key Findings

Historical Perspective on Employer and Member Contribution Rates



Key Findings

Recent Funded Status By Rate Pool



- Funded status for rate pools has continued to improve with the good investment returns over the last four years.
- Side accounts now account for a significant portion of assets which are not included in the graph above. Including side accounts, the system is in a surplus position.
- While its funded status continues to improve, RHIPA assets represent only 38 months of expected benefit payments. Changes in State Agency participation rates could dramatically hasten the use of current assets.

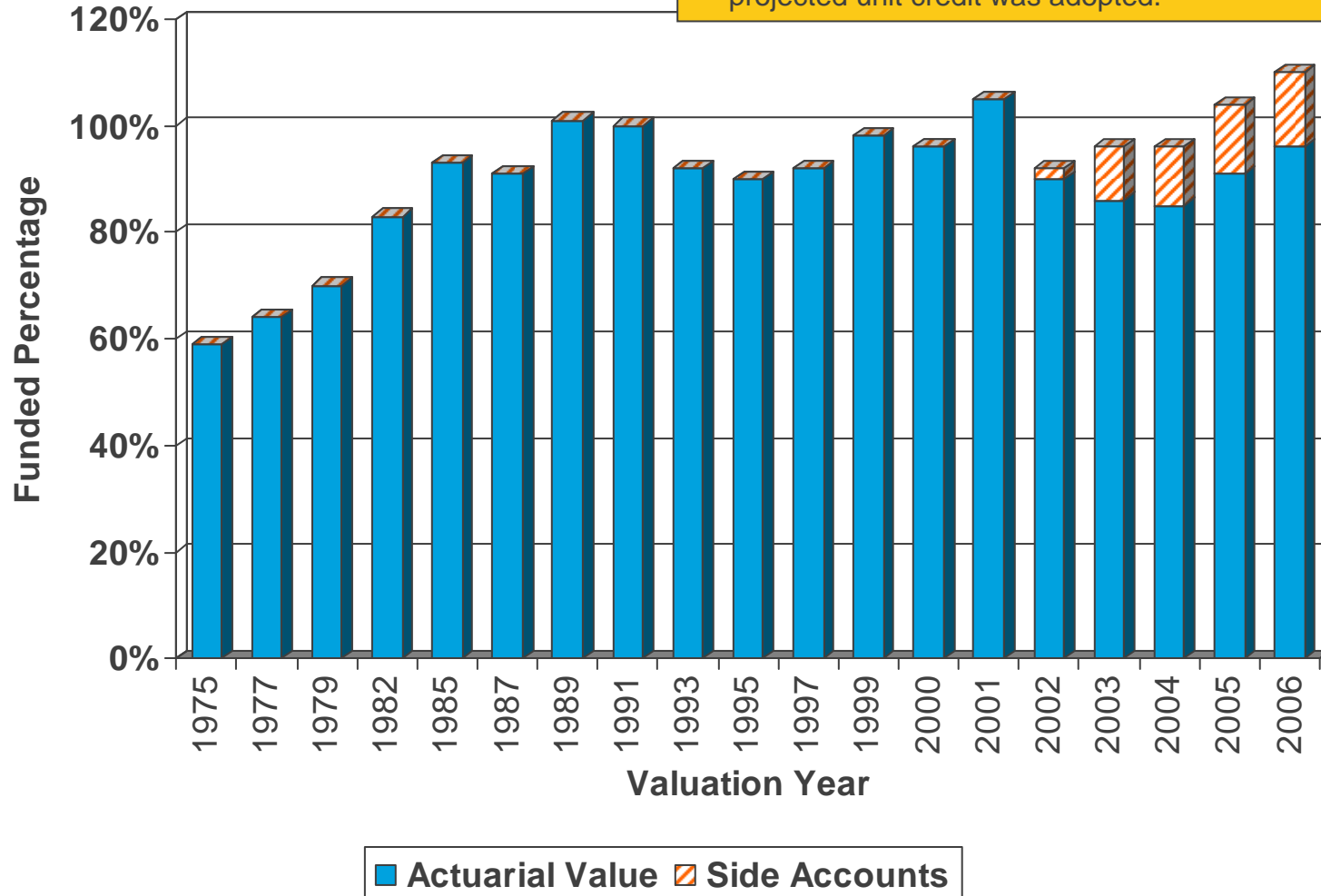
* Independent employers, including Judiciary, are treated as a single pool for purposes of this exhibit.

Key Findings

Historical Pension Funded Status

When comparing historical funded status, please note that there have been a number of changes including:

- Money Match benefits were not valued until the mid 1990s.
- A smoothed value of assets was used from 2000 through 2003.
- PERS reform was valued beginning in 2001.
- The entry age normal cost method was used until 2004 when projected unit credit was adopted.



Key Findings

Value at Risk

Percentile	One-Year Return	Funded %	Projected	
			UAL (billions)	Rate Change (Without Collar)
5 th	-12.2%	81%	\$9.8	8.3%
10 th	-7.8%	85%	\$7.9	6.4%
25 th	-0.3%	91%	\$4.8	3.3%
50th	8.0%	98%	\$1.2	-0.1%
75 th	16.3%	104%	\$(2.3)	-3.6%
90 th	23.8%	110%	\$(5.5)	-6.7%
95 th	28.2%	114%	\$(7.4)	-8.5%

- Investment returns have significantly improved the funded status of the system over the last 4 years.
- However, investment returns, particularly in the short-term are extremely volatile.
- The table shows the probability of investment returns over a one-year time horizon and the impact they would have on the system (ignoring side accounts and the rate collar).
- The rate collar would limit the immediate impact on contribution rates, but employers with side accounts would receive the full impact of the investment return on their side account rate.
- It is interesting to note that in the last 10 years, the actual return for PERS has not been within 500 basis points of the median.

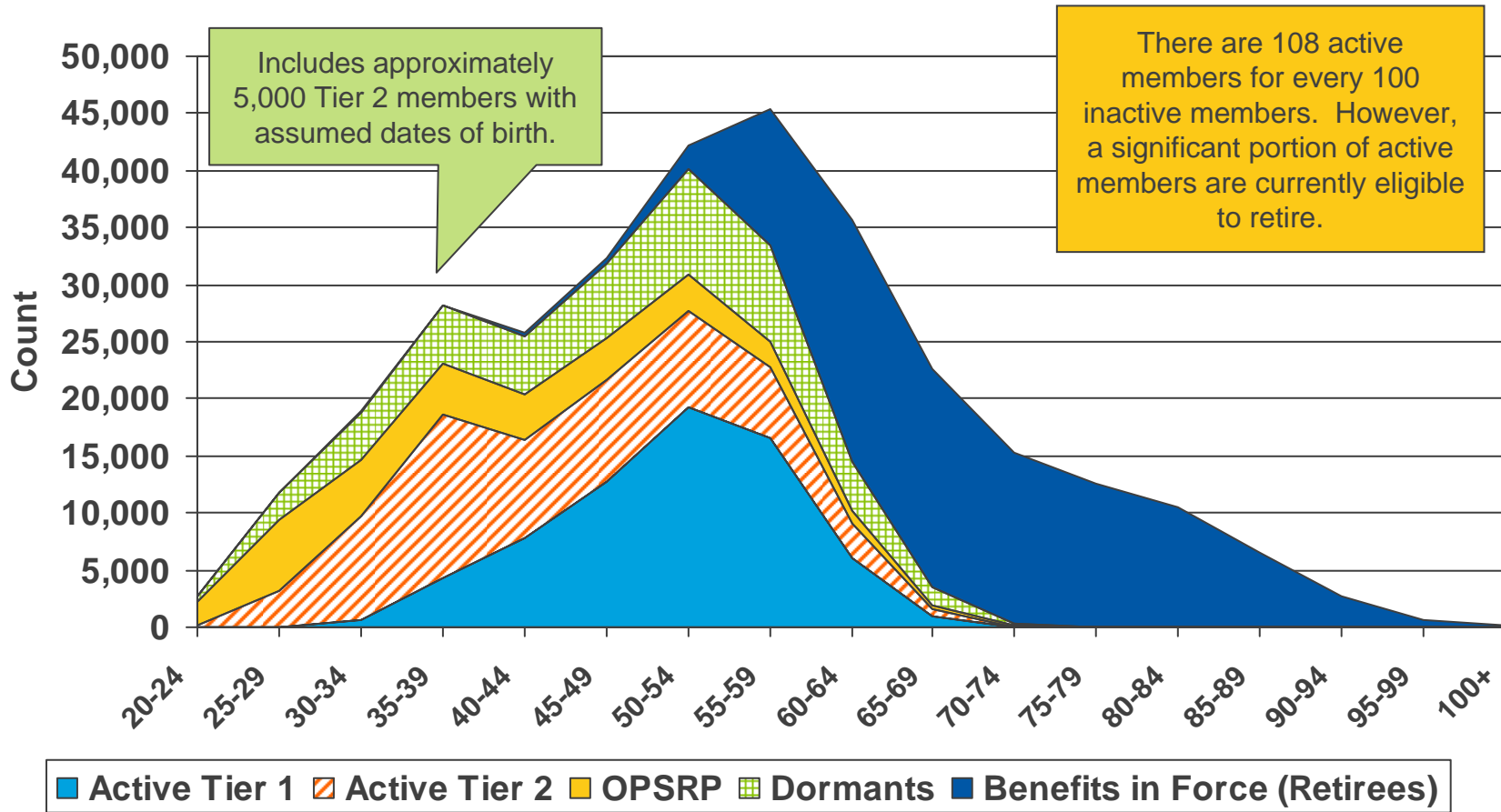
12/31/2006 Pension Valuation

Oregon Public Employees Retirement System

12/31/2006 Pension Valuation

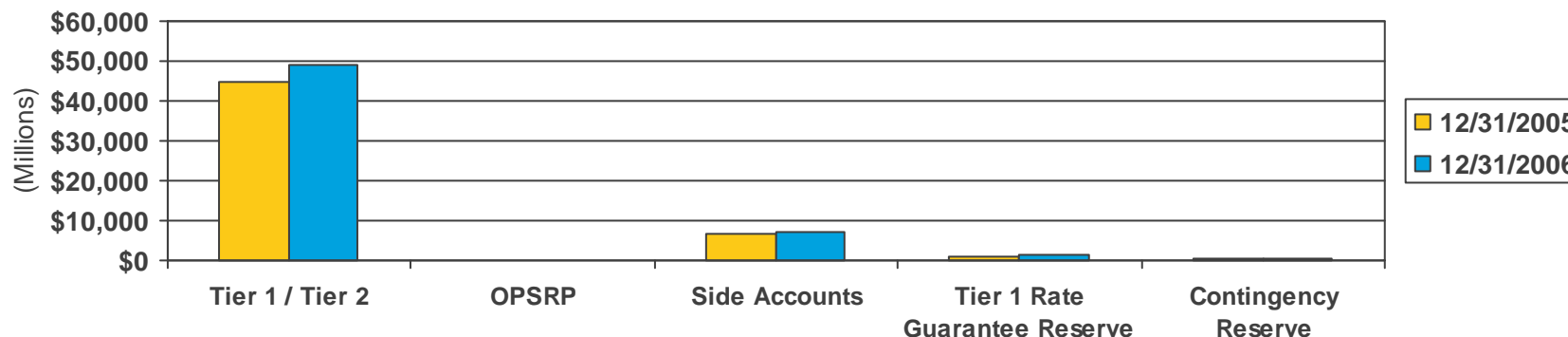
Demographics

Age Distribution



12/31/2006 Pension Valuation Assets

Pension Plan Assets



- Tier 1/Tier 2 valuation assets grew from approximately \$45 billion to approximately \$49 billion in the last year. In addition, side accounts grew from \$6.7 billion to \$7.2 billion.
- OPSRP valuation assets grew significantly from \$55 million to \$151 million in the last year, but are still less than 0.4% of Tier 1/Tier 2 assets.
- The Rate Guarantee Reserve also grew significantly from \$1.0 billion to \$1.6 billion.
- Valuation assets used to set pooled employer contribution rates exclude:
 - The Contingency and Capital Preservation Reserves,
 - The Rate Guarantee Reserve,
 - Side accounts, and
 - Pre-SLGRP liabilities and surpluses

12/31/2006 Pension Valuation

Assets

Changes in Pension Plan Assets



- Investment earnings are the primary determinant of changes in assets for all accounts except OPSRP.
- For Tier 1/Tier 2,
 - 56% of contributions came directly from employers and 44% came from side accounts
 - Investment earnings were 6.6 times greater than contributions
 - Benefit payments were 2.75 times greater than contributions
- For OPSRP, contributions were 5.6 times greater than investment earnings

12/31/2006 Pension Valuation

Normal Cost

- The average normal cost rate increased 94 basis points since the last valuation.
- Since reform, anyone expected to retire under Money Match has a 0% normal cost. As a result, Tier 1 General Members have the lowest normal cost rate.
- Expected increases due primarily to Money Match members retiring and being replaced with OPSRP members increased the normal cost approximately 73 basis points.
- Assumption changes were responsible for most of the remaining increase.

Valuation		
	12/31/2006	12/31/2005
T-1, General	2.88%	2.18%
T-1, P&F	11.56%	9.99%
T-1, Average	3.86%	3.08%
T-2, General	6.33%	5.12%
T-2, P&F	12.10%	10.88%
T-2, Average	7.04%	5.86%
OPSRP, General	6.00%	6.09%
OPSRP, P&F	8.87%	9.41%
OPSRP, Average	6.23%	6.33%
System Average	5.33%	4.39%

12/31/2006 Pension Valuation

Actuarial Accrued Liabilities

	Valuation	
	12/31/2006	12/31/2005
T-1, General	\$15,464	\$15,269
T-1, P&F	\$1,796	\$1,801
T-1, Total	\$17,260	\$17,070
T-2, General	\$1,785	\$1,472
T-2, P&F	\$341	\$309
T-2, Total	\$2,126	\$1,781
OPSRP, General	\$102	\$47
OPSRP, P&F	\$13	\$6
OPSRP Total	\$115	\$53
Dormant	\$4,450	\$4,187
Benefits in Force	\$27,303	\$26,202
Inactive Total	\$31,753	\$30,389
System Total	\$51,254	\$49,293

Amounts in millions

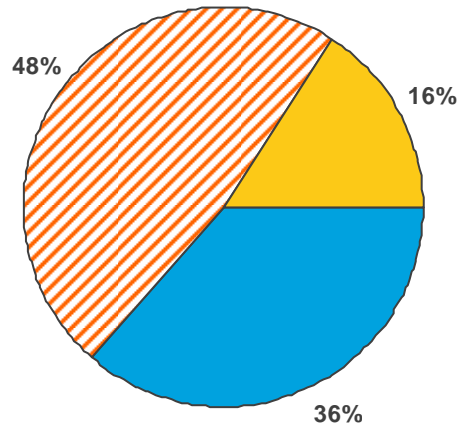
- Total system liabilities grew about 4% in the last year
 - 1% growth in Tier 1
 - 19% growth in Tier 2
 - 117% growth in OPSRP
 - 6% growth in dormant liabilities
 - 4% growth in benefits in force

- We expect Tier 1 liabilities to begin to decline while Tier 2, OPSRP and inactive liabilities continue to grow

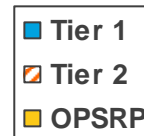
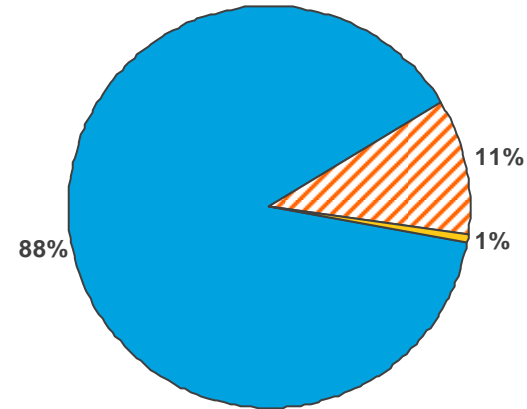
12/31/2006 Pension Valuation

Active Liabilities

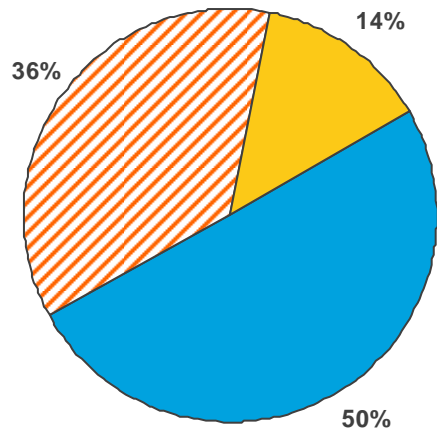
Normal Cost



Actuarial Accrued Liability



Valuation Payroll



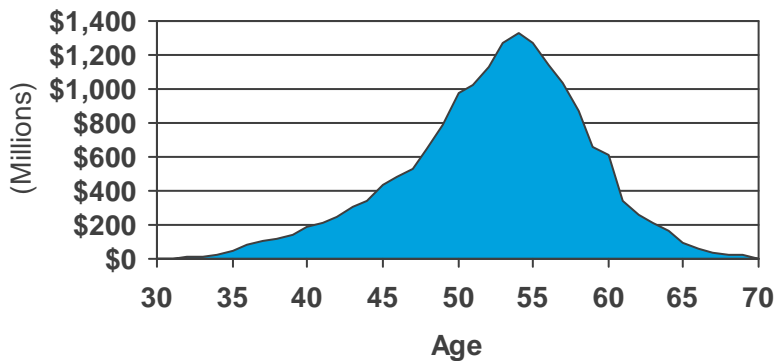
- While Tier 1 represents 88% of the accrued liability, it is only 50% of the payroll and 36% of the normal cost
- Tier 2 represents 11% of the accrued liability, 36% of the payroll and 48% of the normal cost.
- OPSRP represents 13% of the payroll and 16% of the normal cost, but less than 1% of the liability.

12/31/2006 Pension Valuation

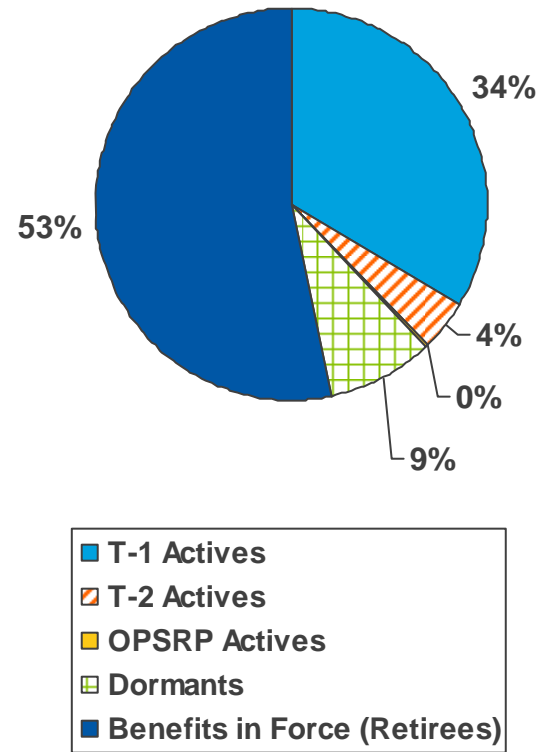
Actuarial Accrued Liabilities

- While Tier 1 members represent the predominant portion of the active liability, 62% of the System's total accrued liability is for members who are no longer actively working in covered employment.
- Approximately 40% of the Tier 1 active liability is for members over age 55, and almost 75% of the Tier 1 active liability is for members over age 50.

Distribution of Tier 1 Active Liability



Actuarial Accrued Liability by Member Category



12/31/2006 Pension Valuation

Funded Status Measures

- **Unfunded Accrued Liability Before Side Accounts**
 - The UAL before side accounts is used to calculate the employer contribution rates for the SLGRP and School District pools.
 - The side accounts are treated as prepaid contributions for the individual employers who have made supplemental contributions.

- **Unfunded Accrued Liability After Side Accounts**
 - The UAL after side accounts is used to report the funded status of the system as a whole.
 - Side accounts are held within the PERS Trust and are available to pay PERS benefits.

- **Employer Net Obligation**
 - The employer net obligation is the UAL after side accounts adjusted for the outstanding principal on pension obligation bonds
 - This measure is not used by PERS, but can be used in a broader financial context to understand the outstanding obligations related to PERS

12/31/2006 Pension Valuation

Unfunded Accrued Liability

	12/31/2006 Valuation					12/31/2005
	SLGRP	School Districts	Independents	OPSRP	System-Wide*	System-Wide*
Accrued Liability	\$25,390	\$20,825	\$4,860	\$115	\$51,254	\$49,293
Assets	\$24,669	\$19,412	\$5,212	\$151	\$49,368	\$44,715
Unfunded Accrued Liability	\$721	\$1,413	\$(352)	\$(36)	\$1,886	\$4,578
Side Accounts	\$3,508	\$3,622	\$118	N/A	\$7,248	\$6,667
UAL – Side Accounts	\$(2,787)	\$(2,209)	\$(470)	\$(36)	\$(5,362)	\$(2,089)
POBs	\$3,341	\$2,587	\$235	N/A	\$6,164	\$6,202
Employer Net Obligations	\$554	\$378	\$(235)	\$(36)	\$802	\$4,113

* System-wide results include Multnomah Fire District #10

Amounts In Millions

12/31/2006 Pension Valuation

Unfunded Accrued Liability

	12/31/2006 Valuation					12/31/2005
	SLGRP	School Districts	Independents	OPSRP	System-Wide*	System-Wide*
Payroll (T1/T2 + OPSRP)	\$3,702	\$2,563	\$1,062	\$7,327	\$7,327	\$6,792
UAL	\$721	\$1,413	\$(352)	\$(36)	\$1,886	\$4,578
UAL as % of Payroll	19%	55%	(33%)	(0%)	26%	67%
UAL – Side Accounts	\$(2,787)	\$(2,209)	\$(470)	\$(36)	\$(5,362)	\$(2,089)
Net UAL as % of Payroll	(75%)	(86%)	(44%)	(0%)	(73%)	(31%)
UAL – Side Accounts + POBs	\$554	\$378	\$(235)	\$(36)	\$802	\$4,113
Employer Net Obligation as % of Payroll	15%	15%	(22%)	(0%)	11%	61%

Amounts In Millions

* System-wide results include Multnomah Fire District #10

12/31/2006 Pension Valuation

7/1/2009 Advisory Employer Pension Contribution Rates

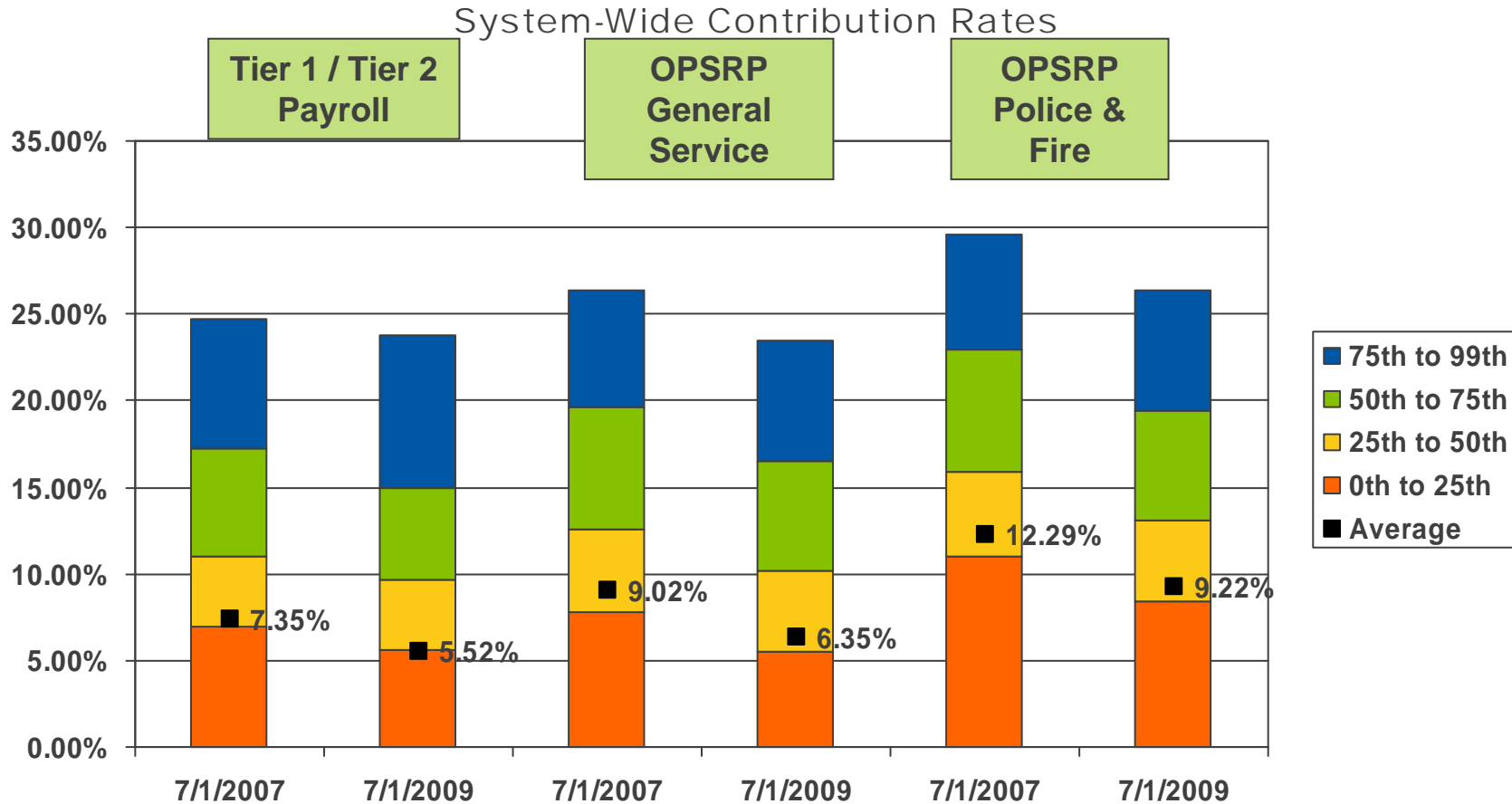
	SLGRP	School Districts	Indepen -dents*	OPSRP General	OPSRP P&F	System-Wide
Pension						
Normal Cost	5.40%	4.48%	6.22%	6.00%	8.87%	5.33%
T1/T2 UAL	6.72%	10.56%	2.07%	7.52%	7.52%	7.52%
OPSRP UAL	(0.04%)	(0.04%)	(0.04%)	(0.04%)	(0.04%)	(0.04%)
Gross Pension Rate	12.08%	15.00%	8.25%	13.48%	16.35%	12.81%
Adjustments						
Side Accounts	(6.67%)	(9.94%)	(0.78%)	(6.96%)	(6.96%)	(6.96%)
Pre-SLGRP Liabs	(0.33%)	N/A	N/A	(0.17%)	(0.17%)	(0.17%)
Average Adjustment	(7.00%)	(9.94%)	(0.78%)	(7.13%)	(7.13%)	(7.13%)
Net Pension Rate	5.08%	5.06%	7.47%	6.35%	9.22%	5.68%

The 7/1/2009 advisory rates shown above are based on the 12/31/2006 valuation. The actual rates that become effective 7/1/2009 will be based on the 12/31/2007 valuation.

**Independent employers, including Judiciary, are treated as a single pool for purposes of this exhibit.*

12/31/2006 Pension Valuation

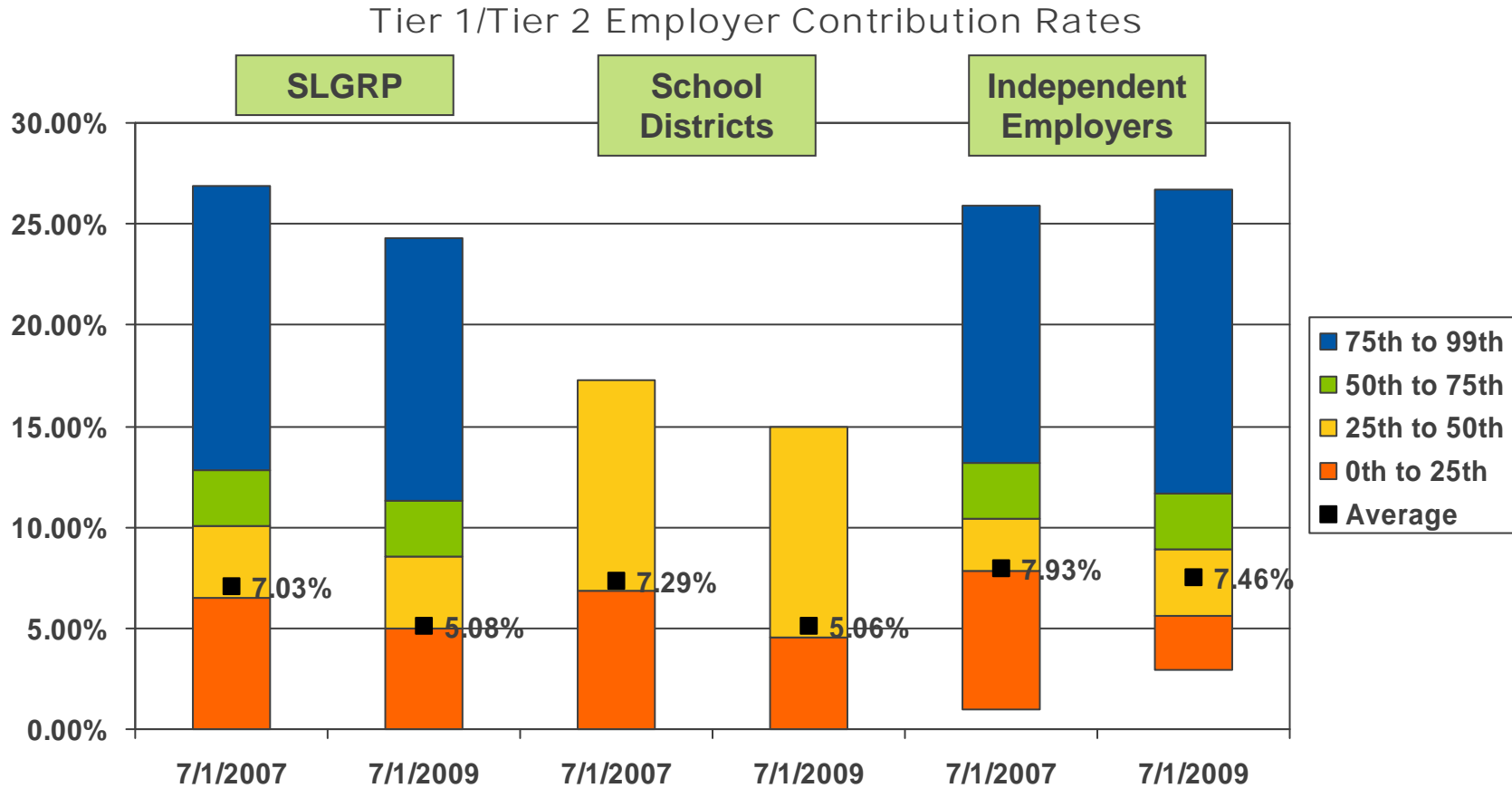
Distribution of Advisory Employer Pension Contribution Rates



The 7/1/2009 advisory rates shown above are based on the 12/31/2006 valuation. The actual rates that become effective 7/1/2009 will be based on the 12/31/2007 valuation.

12/31/2006 Pension Valuation

Distribution of Advisory Employer Pension Contribution Rates



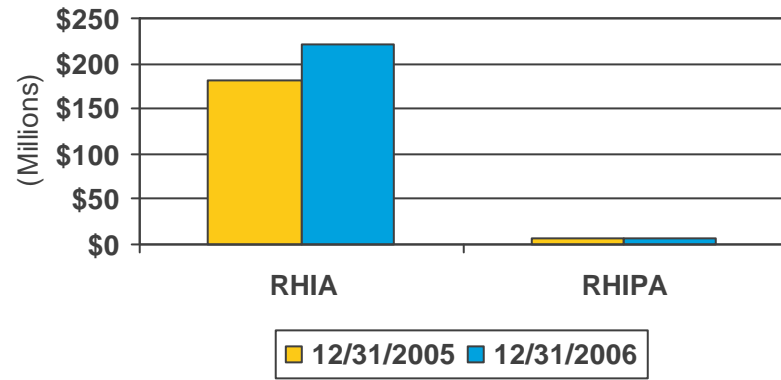
The 7/1/2009 advisory rates shown above are based on the 12/31/2006 valuation. The actual rates that become effective 7/1/2009 will be based on the 12/31/2007 valuation.

12/31/2006 Retiree Medical Valuation
Oregon Public Employees Retirement System

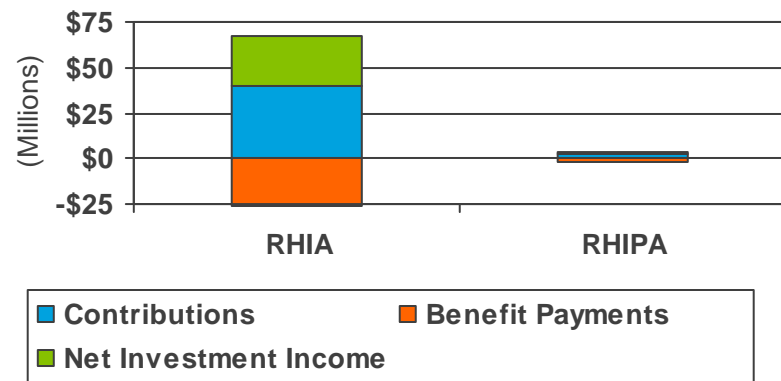
12/31/2006 Retiree Healthcare Valuation Assets

- RHIA assets increased approximately 22% and RHIPA assets increased approximately 15%
- For RHIA, contributions are about 50% larger than benefit payments, so the net increase is a combination of contributions and investment earnings.
- For RHIPA, contributions are about equal to benefit payments, so the net increase in assets is primarily driven by investment earnings.

Retiree Healthcare Assets



Changes in Retiree Healthcare Assets



12/31/2006 Retiree Healthcare Valuation

Normal Cost

	RHIA		RHIPA		System	
	12/31/2006	12/31/2005	12/31/2006	12/31/2005	12/31/2006	12/31/2005
Normal Cost	\$6.6	\$6.5	\$0.9	\$1.1	\$7.5	\$7.6
Normal Cost Payroll	\$6,336.4	\$6,111.2	\$1,665.7	\$1,701.0	\$6,336.4	\$6,111.2
Normal Cost Rate	0.10%	0.11%	0.06%	0.06%	0.12%	0.13%

- Normal cost rates for RHIA and RHIPA have remained relatively stable.
- These rates, however, are very sensitive to the participation assumption.

12/31/2006 Retiree Healthcare Valuation

Unfunded Accrued Liability

Funded status is improving, but lags significantly behind the funded status of the pension plan.

	RHIA		RHIPA		System	
	12/31/2006	12/31/2005	12/31/2006	12/31/2005	12/31/2006	12/31/2005
Accrued Liability	\$511.8	\$495.9	\$23.4	\$27.0	\$535.2	\$522.9
Assets	\$221.5	\$181.0	\$7.0	\$6.1	\$228.5	\$187.1
UAL	\$290.4	\$314.9	\$16.4	\$20.9	\$306.8	\$335.8
Funded Percentage	43%	36%	30%	23%	43%	36%
Combined Valuation Payroll	\$7,326.8	\$6,791.9	\$1,946.8	\$1,827.0	\$7,326.8	\$6,791.9
UAL Rate	0.22%	0.26%	0.01%	0.03%	0.22%	0.26%

12/31/2006 Retiree Healthcare Valuation

Advisory Contribution Rates

- Advisory contribution rates are slightly lower than the rates in effect 7/1/2007.
- For retiree healthcare, the PUC change rate reduces the overall UAL rate significantly.
- As the PUC change UAL is paid off, overall UAL rates are expected to increase 6 to 7 basis points each for RHIA and RHIPA.
- Changes in actual participation rates can have a significant effect on the UAL.

Payroll	Tier 1 / Tier 2	OPSRP General	OPSRP P&F
Normal Cost Rate	0.12%	N/A	N/A
UAL Rate	0.22%	0.22%	0.22%
Total Rate	0.34%	0.22%	0.22%

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