



September 25, 2009

## **December 31, 2008 Actuarial Valuation** Oregon Public Employees Retirement System

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## Key Findings

### Objectives

- Transparent
- Predictable and stable rates
- Protect funded status
- Equitable across generations
- Actuarially sound
- GASB compliant

# Key Findings

## Overview

- **The 12/31/2008 valuation is advisory**

- Rates for the 2011-2013 biennium will be based on the 12/31/2009 valuation

| Valuation Date | Employer Contribution Rates |
|----------------|-----------------------------|
| 12/31/2007     | 7/1/2009 – 6/30/2011        |
| 12/31/2009     | 7/1/2011 – 6/30/2013        |

- The effect of the market downturn will first be reflected in employer rates for the 7/1/2011 – 6/30/2013 biennium

- **Including side accounts, funded status has decreased from 112% on 12/31/2007 to 80% on 12/31/2008**

- Excluding side accounts, funded status declined from 98% to 71% on 12/31/2008

# Key Findings

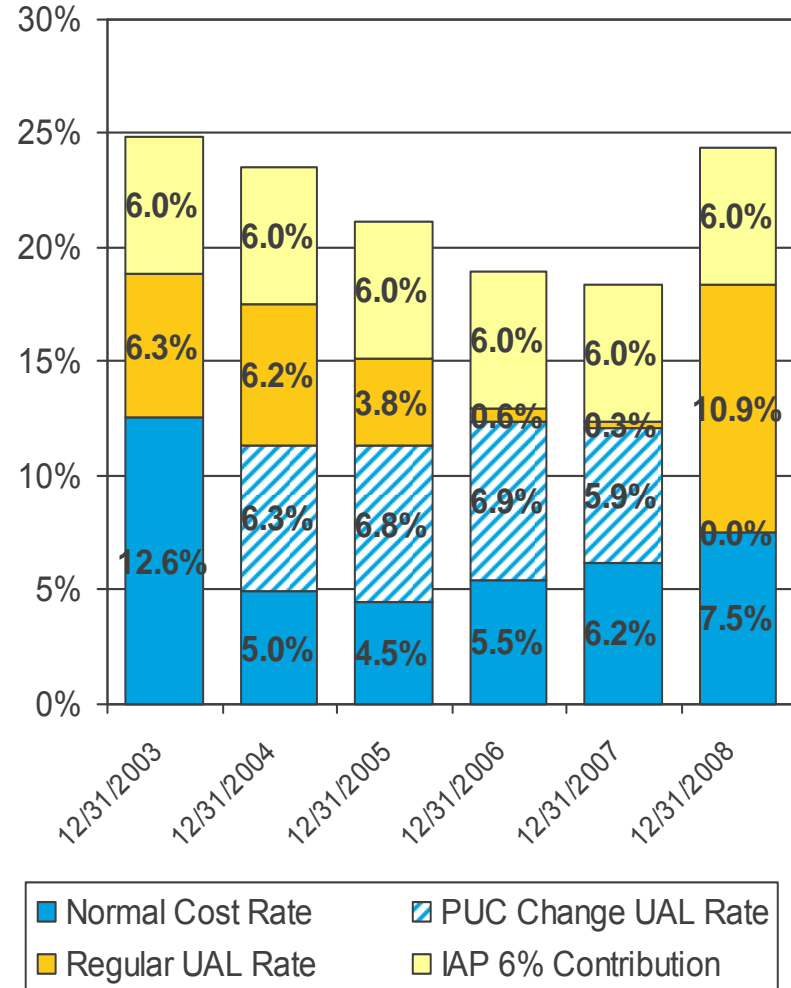
## Overview

- **Future employer contribution rates are likely to increase significantly**
  - With funded status below 80% (excluding side accounts), the contribution “rate collar” doubles
  - This means system-wide contribution rates are expected to increase 600 basis points (or 6.00% of payroll) effective July 1, 2011
  - Employers with side accounts can expect even larger increases
  - Changes in payroll can also have a significant impact on individual employer rates
  
- **Impact of 2009 investment returns**
  - The 2009 investment return on the regular account through August 31<sup>st</sup> is 8.88%.
  - An investment return of approximately 26% in 2009 would be required to reach 80% funded and limit the system-wide contribution rate increase to 300 basis points
  
- **Arken and Robinson litigation**
  - We have made no adjustment to these valuation results to reflect any interpretation of Judge Kantor’s rulings in the *Arken* and *Robinson* cases.

# Key Findings

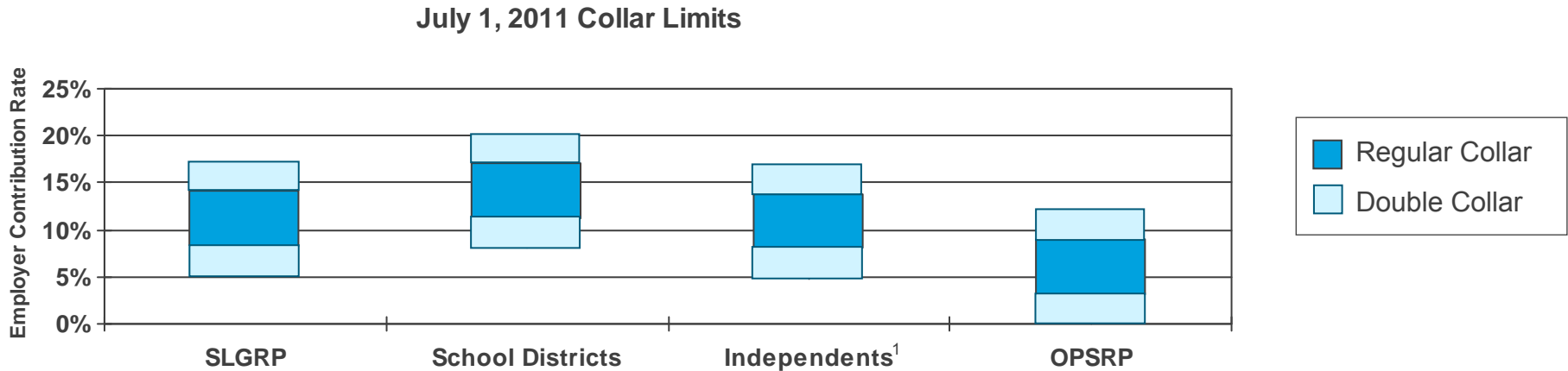
## Average Contribution Rates Including Retiree Healthcare and IAP

- 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. This change was accelerated for Tier 2 Members by the market downturn.
- The UAL rate for the change to the PUC method was eliminated.
- The regular UAL rate increased significantly reflecting the extreme downturn in investment earnings in 2008 as limited by the doubled rate collar.
  - Absent the rate collar, the regular UAL rate would be 15.0%.
- These rates do not reflect the impact of side accounts or pre-SLGRP liabilities or surpluses.



# Key Findings

## Collar Limits for Rates Effective 7/1/2011



- The contribution “rate collar” limits the change in employer rates from one period to the next. The 12/31/2007 valuation determined the actual rates for the period from 7/1/2009 through 6/30/2011 and the collar limits for rates that will become effective 7/1/2011.
- The dark blue box above shows the collar limits for 7/1/2011 employer rates assuming the funded status is between 80% and 120% as of 12/31/2009. The light blue boxes above and below represent the potential range if the funded status is not between 80% and 120%.
- All advisory rates except OPSRP are at the top of the “double” collar.

<sup>1</sup> Independent employers, including Judiciary, are treated as a single pool for purposes of this exhibit.

## Key Findings

### Average Contribution Rates Including RHIA/RHIPA (Excluding IAP)

| Average Employer Rates                     | SLGRP        | School Districts | Independents <sup>1</sup> | OPSRP General | OPSRP P&F    | System-Wide  |
|--|--------------|------------------|---------------------------|---------------|--------------|--------------|
| 7/1/2009 Actual Rates                      | 11.4%        | 14.3%            | 10.7%                     | 12.0%         | 14.7%        | 12.4%        |
| <b>7/1/2011 Advisory Rates</b>             | <b>17.9%</b> | <b>20.7%</b>     | <b>17.5%</b>              | <b>16.8%</b>  | <b>19.5%</b> | <b>18.4%</b> |
| Net Change in Rates                        | 6.5%         | 6.4%             | 6.8%                      | 4.8%          | 4.8%         | 5.9%         |
| 7/1/2011 Advisory Adjustments <sup>2</sup> | (4.9%)       | (7.1%)           | (0.8%)                    | (5.2%)        | (5.2%)       | (5.2%)       |
| <b>7/1/2011 Advisory Net Rates</b>         | <b>13.0%</b> | <b>13.6%</b>     | <b>16.7%</b>              | <b>11.5%</b>  | <b>14.2%</b> | <b>13.1%</b> |

- On a system-wide basis, net advisory rates increased by 840 basis points from the prior valuation
- The net change in rate exceeds 6.0% for some groups due to inclusion of retiree healthcare and OPSRP
- Changes in rates can vary significantly by individual employer and to a lesser extent by pool.
  - Actual 7/1/2011 pension advisory contribution rates range from 0% to 66% of payroll. Actual 7/1/2009 rates ranged from 0% to 55% of payroll.
  - Advisory net rates above are not adjusted to reflect the portion of an adjustment that may not be used because the employer is already making a 0% Tier 1/Tier 2/OPSRP contribution.

<sup>1</sup> Independent employers, including Judiciary, are treated as a single pool for purposes of this exhibit.

<sup>2</sup> Adjustments are for side accounts and pre-SLGRP liabilities/(surpluses) and are assumed not to be limited when an individual employer reaches a 0.00% contribution rate.



## Key Findings

### Impact of Collar on Tier 1/Tier 2 Average Employer Contribution Rates



- Without the collar in place, the system-wide advisory Tier 1/Tier 2 pension rate excluding the IAP contribution would be 22% of payroll
  - Such a rate would reflect the contribution needed to amortize recent investment losses over twenty years
- The double collar limits the 2011-2013 rate to 18% of payroll
  - The collar has the effect of smoothing rate increases for significant losses over two (or more) biennia
- Independent employers are treated as a pool for purposes of this exhibit; rates for individual independent employers can vary from the rates shown here

## Key Findings

### Impact of Collar/Side Account on Sample Employer

- The collar limits gross contribution rates
  - Gross rates are rates without consideration of side accounts
  - The collar is applied separately for Tier 1/Tier 2 and OPSRP
- For employers with side accounts, net contribution rates can increase more than the increase permitted by the collar
  - The decrease in side account rate relief is not subject to a collar
  - The net contribution rate increase is the combined effect of the collared gross rate increase and the uncollared change in side account rate relief
    - This effect will be most pronounced for employers with large side accounts compared to the size of the employer's liability

## Key Findings

### Impact of Collar/Side Account on Sample Employer

- Sample employer contribution rates based on the 2007 valuation:
  - Gross contribution rate: 14.01% of payroll
  - Side account rate relief: 13.81% of payroll
  - Net pension contribution rate: **0.20% of payroll**
  
- 2008 valuation results:
  - Funded status drops below 80%
  - Rates are limited by the doubled rate collar
  - Side account relief drops over 400 basis points due to asset losses
    - Gross contribution rate: 20.01% of payroll
    - Side account rate relief: 9.40% of payroll
    - Net pension contribution rate: **10.61% of payroll**
  - Retiree healthcare rates and OPSRP UAL rates are paid in addition to the net pension contribution rate

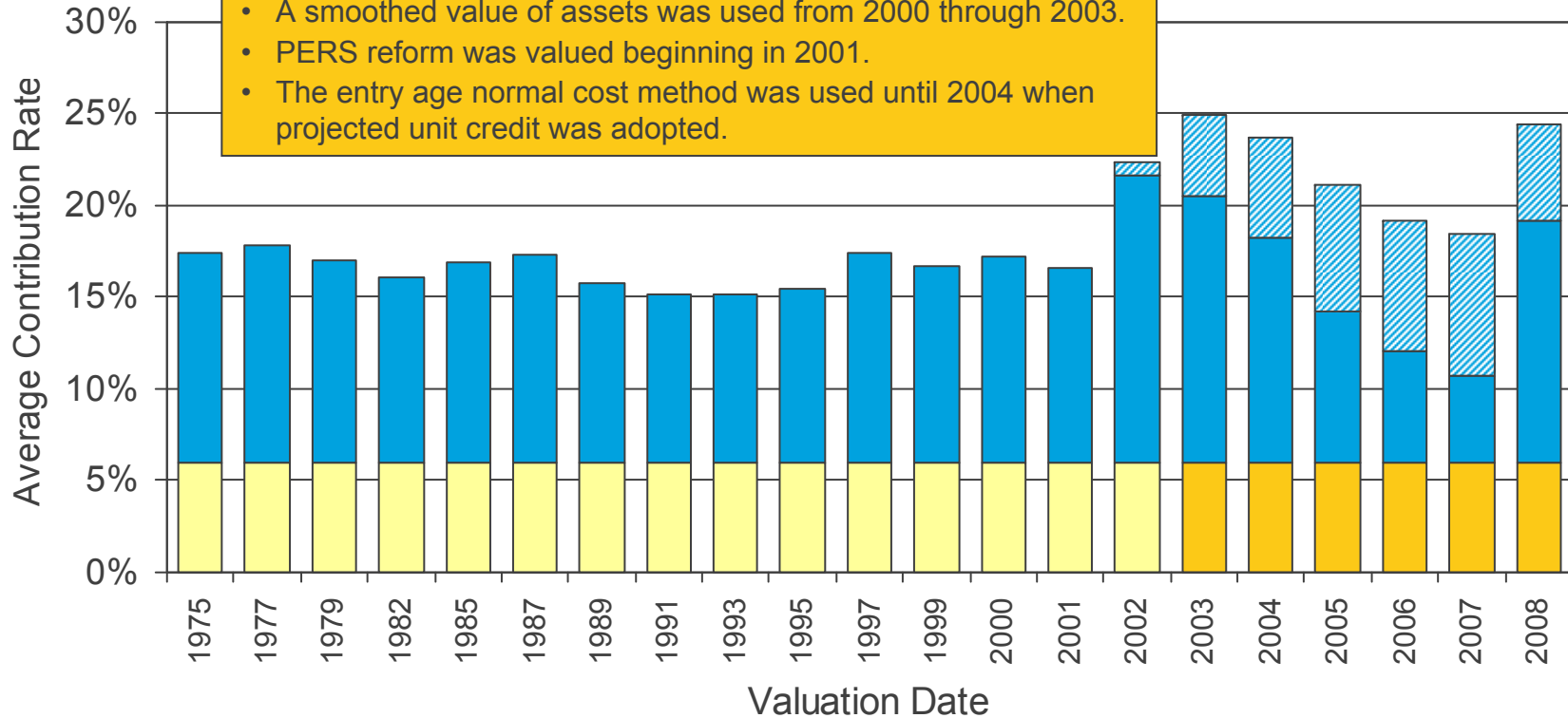
***The increase in the net contribution rate for a side account employer can be greater than the width of the double rate collar***

# Key Findings

## Historical Perspective on Valuation Rates (Including IAP)

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

- Money Match benefits were not valued until 1997.
- 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.

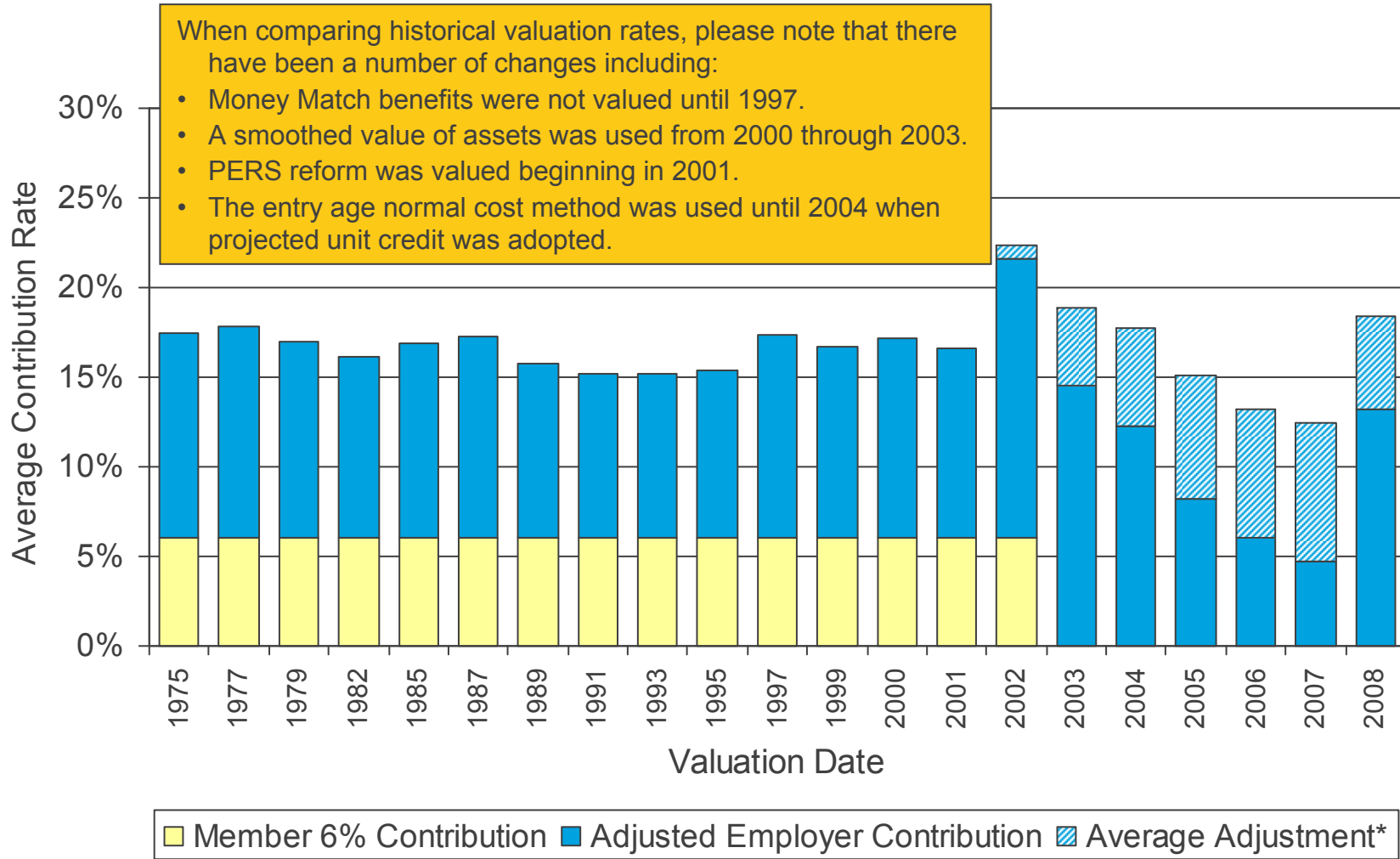


Member 6% Contribution
  IAP 6% Contribution  
 Adjusted Employer Contribution
  Average Adjustment\*

\* Adjustments to individual employer contribution rates are made for side accounts and pre-SLGRP liabilities or surpluses

# Key Findings

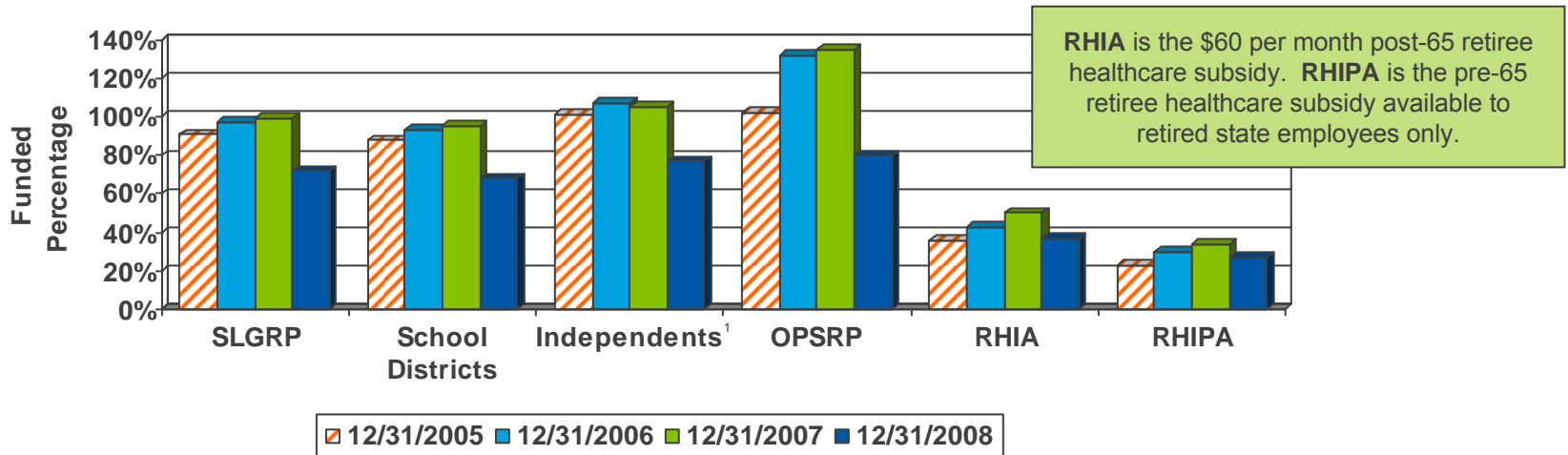
## Historical Perspective on Valuation Rates (Excluding IAP)



\* Adjustments to individual employer contribution rates are made for side accounts and pre-SLGRP liabilities or surpluses

# Key Findings

## Recent Funded Status By Rate Pool



- Funded status for rate pools improved with the good investment returns from 2003 through 2007, but dropped sharply due to 2008 investment returns.
- Side accounts still account for a significant portion of assets which are not included in the graph above.
- RHIPA assets represent only 36 months of benefit payments. Participation in the RHIPA program is fairly low. An increase in the participation rate, an increase in the retiree population and/or an additional market downturn has the potential to drop the “months of available benefit payments” level even further.

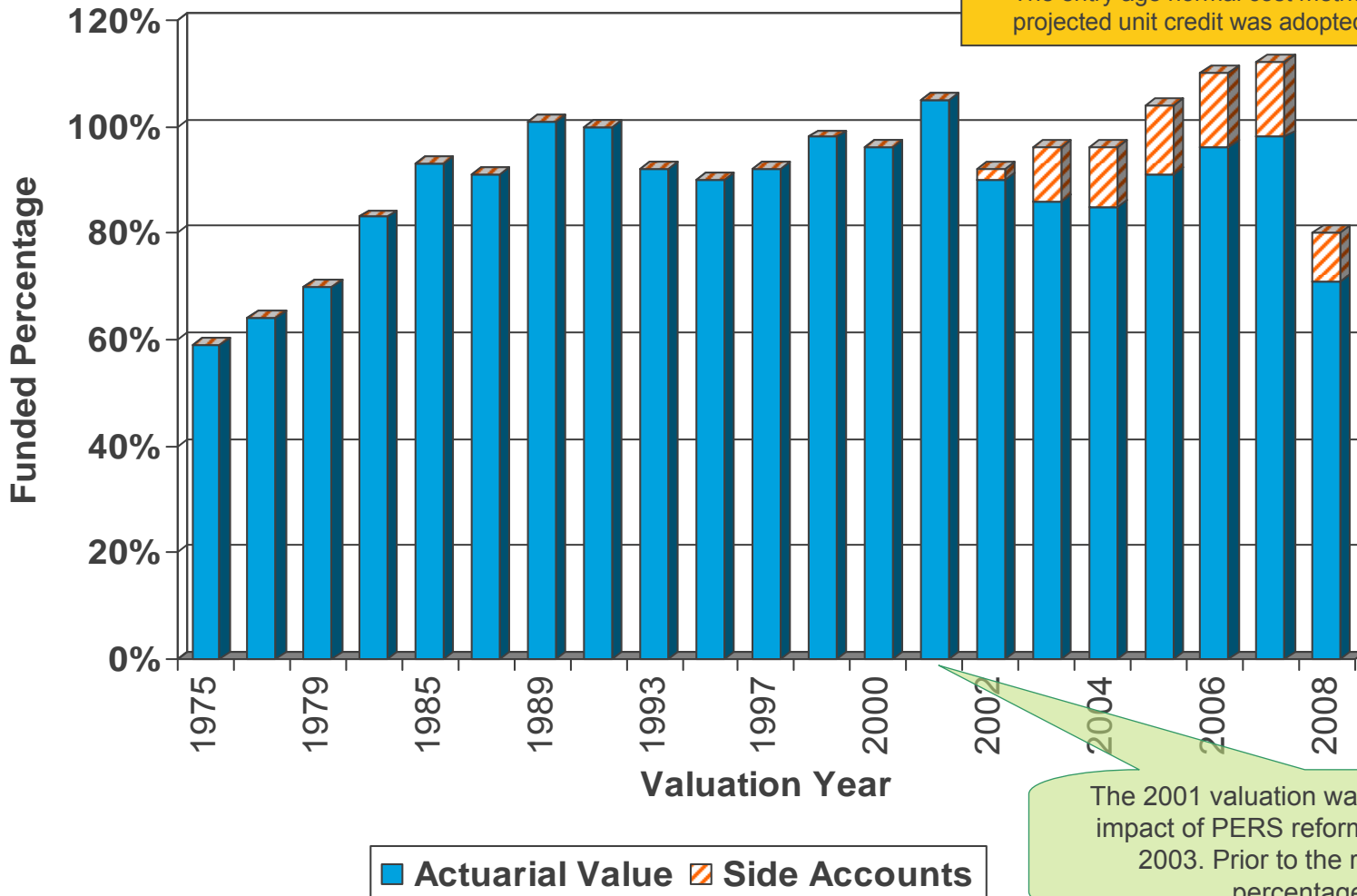
<sup>1</sup> Independent employers, including Judiciary, are treated as a single pool for purposes of this exhibit.

# Key Findings

## Historical Reported 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 1997.
- 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.



The 2001 valuation was revised to include the impact of PERS reform legislation enacted in 2003. Prior to the revision, the funded percentage was 88%.

# Key Findings

## Value at Risk

The 2009 investment return through August 31st is 8.88%.  
The percentiles shown reflect this return and variability in investment return for the last 4 months of 2009.

| Percentile             | One-Year Return | One-Year Projection |                |   |   |
|------------------------|-----------------|---------------------|----------------|---|---|
|                        |                 | Funded %            | UAL (billions) | System-wide Rate Change (Without Collar or Side Accounts) | System-wide Rate Change (With Collar and Side Accounts) |
| 5 <sup>th</sup>        | 7.4%            | 70%                 | \$16.9         | 8.9%  | 9.4%  |
| 10 <sup>th</sup>       | 8.3%            | 70%                 | \$16.6         | 8.7%  | 9.4%  |
| 25 <sup>th</sup>       | 9.9%            | 71%                 | \$16.1         | 8.3%  | 9.3%  |
| <b>50<sup>th</sup></b> | <b>11.6%</b>    | <b>72%</b>          | <b>\$15.6</b>  | <b>7.9%</b>   | <b>9.2%</b>   |
| 75 <sup>th</sup>       | 13.3%           | 73%                 | \$15.1         | 7.5%  | 9.2%  |
| 90 <sup>th</sup>       | 14.7%           | 74%                 | \$14.7         | 7.1%  | 9.1%  |
| 95 <sup>th</sup>       | 15.6%           | 74%                 | \$14.5         | 6.9%  | 9.0%  |

- Investment returns from 2008 have significantly reduced the funded status and caused contribution rates to increase substantially.
- On a system-wide basis, the double collar applies, limiting the increase in contribution rate before side accounts to 6% of payroll.
- However, side accounts are not subject to the collar, so employers with side accounts are likely to experience even larger increases to their contribution rates.
- The system would need a return of approximately 26% for 2009 to reach 80% funded and have the single rate collar (3% of payroll) apply.



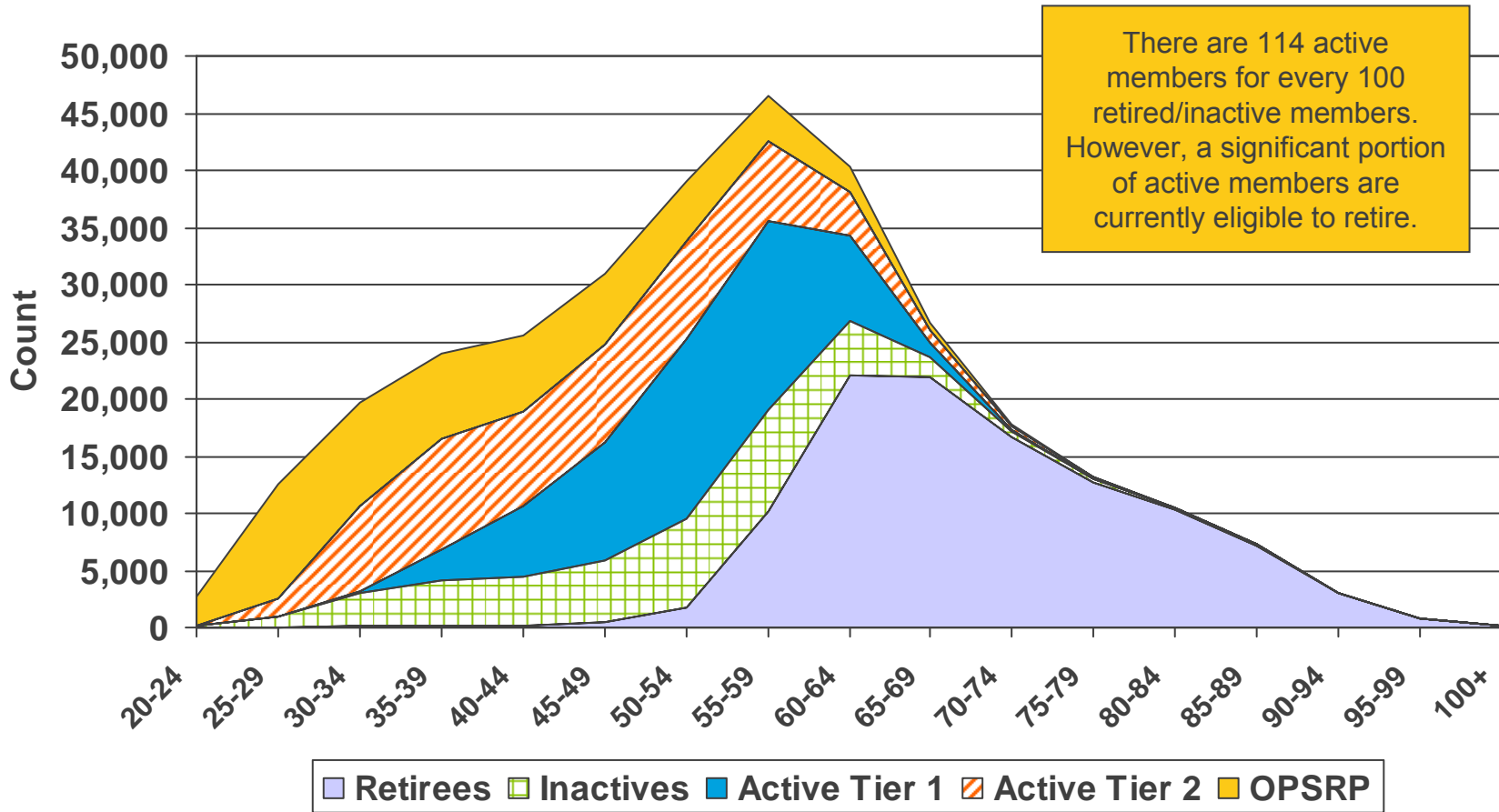
# **12/31/2008 Tier 1/Tier 2 & OPSRP Valuation**

Oregon Public Employees Retirement System

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Demographics

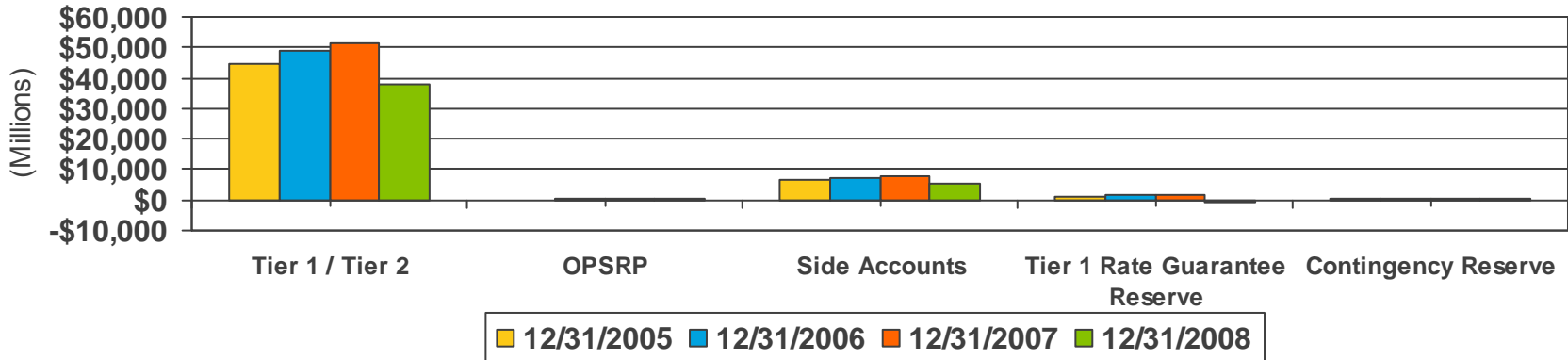
### Age Distribution



# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Assets

Assets (Excluding IAP and Retiree Healthcare)

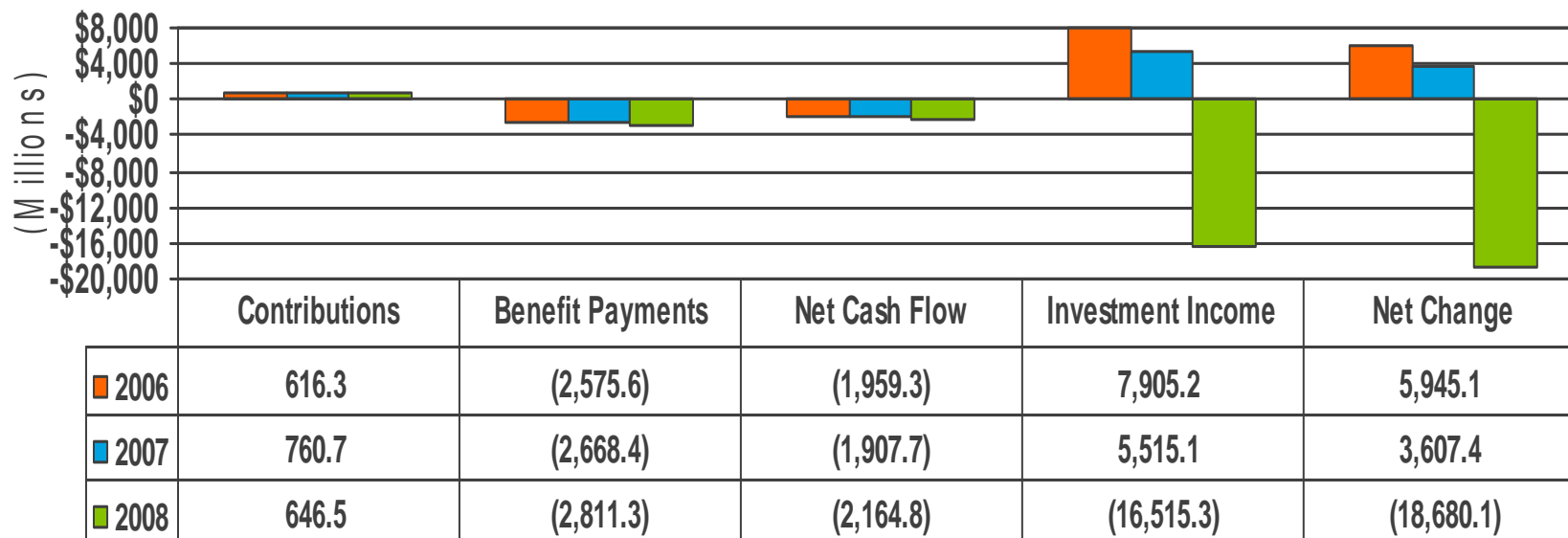


- Valuation assets used to set pooled employer Tier 1/Tier 2 & OPSRP contribution rates exclude:
  - The Contingency, Capital Preservation, and Rate Guarantee Reserves,
  - Side accounts,
  - Pre-SLGRP liabilities and surpluses, and
  - IAP and Retiree Healthcare assets
- Combined Tier 1/Tier 2, OPSRP and Side Account assets as reported by PERS decreased from \$59.8 billion to \$44.0 billion during the year.
  - Tier 1/Tier 2 assets decreased from \$51.8 billion to \$38.6 billion
  - Side Accounts decreased from \$7.7 billion to \$5.1 billion.
  - OPSRP valuation assets decreased from \$275 million to \$270 million in the last year
- The Rate Guarantee Reserve went from a positive \$1.9 billion position to a negative \$1 billion position. The Contingency Reserve was held constant at \$653 million.

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Assets

### Changes in Tier 1/Tier 2 & OPSRP Assets (Including Side Accounts & Reserves)



- Benefit payments are 4.4 times larger than contributions, including side account deposits, resulting in net negative cash flow before earnings.
- Investment earnings and losses are the primary determinant of changes in Tier 1/Tier 2 & OPSRP assets. For 2008, investment losses were 10.3 times greater than contributions.
- Valuation assets, which exclude side accounts and reserves, decreased by \$13.3 billion.

## 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

### Normal Cost

- The average normal cost rate increased 137 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.
- Tier 1 / Tier 2 normal cost rates are expected to continue to increase as benefits continue to shift to Full Formula and as active members age. For Tier 2 Members, this trend was accelerated by the market downturn.
- The administrative expense assumption for the OPSRP normal cost rate was decreased from \$8.5 million to \$6.6 million.

|                       | Valuation     |              |              |
|-----------------------|---------------|--------------|--------------|
|                       | 12/31/2008    | 12/31/2007   | 12/31/2006   |
| T-1, General          | 5.02%         | 3.57%        | 2.88%        |
| T-1, P&F              | 14.61%        | 13.14%       | 11.56%       |
| <b>T-1, Average</b>   | <b>6.12%</b>  | <b>4.67%</b> | <b>3.86%</b> |
| T-2, General          | 9.52%         | 7.28%        | 6.33%        |
| T-2, P&F              | 14.03%        | 12.81%       | 12.10%       |
| <b>T-2, Average</b>   | <b>10.13%</b> | <b>8.03%</b> | <b>7.04%</b> |
| OPSRP, General        | 5.90%         | 5.81%        | 6.00%        |
| OPSRP, P&F            | 8.61%         | 8.52%        | 8.87%        |
| <b>OPSRP, Average</b> | <b>6.16%</b>  | <b>6.05%</b> | <b>6.23%</b> |
| <b>System Average</b> | <b>7.44%</b>  | <b>6.07%</b> | <b>5.33%</b> |

## 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

### Actuarial Accrued Liabilities

|                           | Valuation       |                 |                 |
|---------------------------|-----------------|-----------------|-----------------|
|                           | 12/31/2008      | 12/31/2007      | 12/31/2006      |
| T-1, General              | \$14,666        | \$15,246        | \$15,464        |
| T-1, P&F                  | \$1,808         | \$1,810         | \$1,796         |
| <b>T-1, Active Total</b>  | <b>\$16,474</b> | <b>\$17,056</b> | <b>\$17,260</b> |
| T-2, General              | \$2,177         | \$2,010         | \$1,785         |
| T-2, P&F                  | \$475           | \$415           | \$341           |
| <b>T-2, Active Total</b>  | <b>\$2,652</b>  | <b>\$2,425</b>  | <b>\$2,126</b>  |
| OPSRP, General            | \$290           | \$177           | \$102           |
| OPSRP, P&F                | \$43            | \$25            | \$13            |
| <b>OPSRP Active Total</b> | <b>\$333</b>    | <b>\$202</b>    | <b>\$115</b>    |
| Inactive                  | \$4,659         | \$4,421         | \$4,450         |
| Retiree                   | \$30,142        | \$28,767        | \$27,303        |
| <b>Non-Active Total</b>   | <b>\$34,801</b> | <b>\$33,188</b> | <b>\$31,753</b> |
| <b>System Total</b>       | <b>\$54,260</b> | <b>\$52,871</b> | <b>\$51,254</b> |

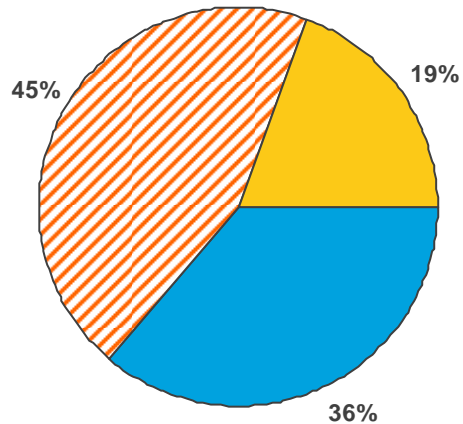
*Amounts in millions*

- Total system liabilities grew about 3% in the last year
  - ◇ 1 % growth in active liabilities
    - 3% decrease in Tier 1
    - 9% growth in Tier 2
    - 65% growth in OPSRP
  - ◇ 5% growth in inactive liabilities
  - ◇ 5% growth in retiree liabilities
  
- We expect Tier 1 active liabilities to continue to decline while Tier 2, OPSRP and inactive and retiree liabilities continue to grow

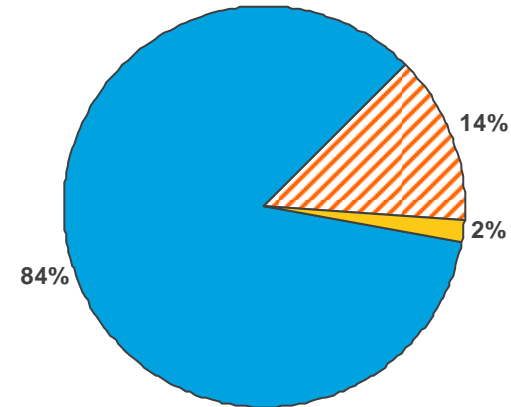
# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Active Liabilities

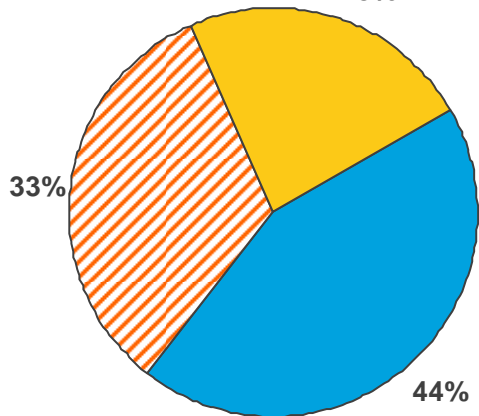
Normal Cost



Actuarial Accrued Liability



Valuation Payroll  
23%



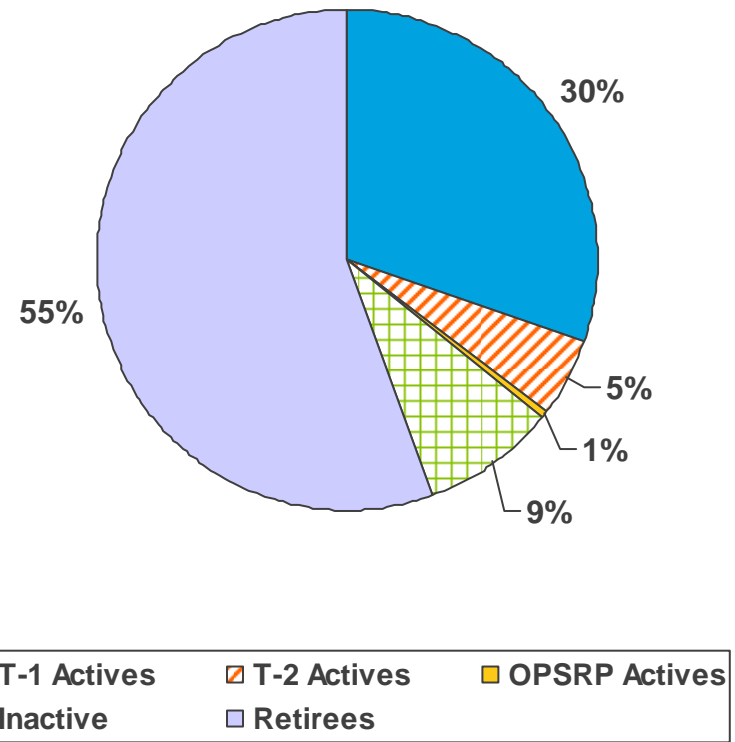
- While Tier 1 represents 84% of the accrued liability, it is only 44% of the payroll and 36% of the normal cost
- Tier 2 represents 14% of the accrued liability, 33% of the payroll and 45% of the normal cost.
- OPSRP represents 23% of the payroll and 19% of the normal cost, but only 2% of the accrued liability.

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

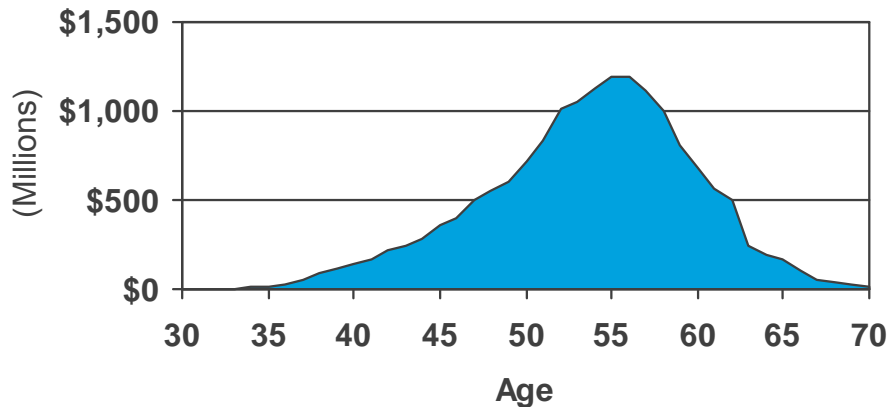
## Actuarial Accrued Liabilities

- While Tier 1 members represent the predominant portion of the active liability, 64% of the System's total accrued liability is for members who are no longer actively working in covered employment.
- Over 48% of the Tier 1 active liability is for members over age 55, and approximately 77% of the Tier 1 active liability is for members over age 50.

Actuarial Accrued Liability by Member Category



Distribution of Tier 1 Active Liability





# 12/31/2008 Tier 1/Tier 2 & OPSRP 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 and for Independent employers.
- 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.

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Unfunded Accrued Liability

|                                   | 12/31/2008 Valuation |                  |                |              |                          | 12/31/2007               |
|-----------------------------------|----------------------|------------------|----------------|--------------|--------------------------|--------------------------|
|                                   | SLGRP                | School Districts | Independents   | OPSRP        | System-Wide <sup>1</sup> | System-Wide <sup>1</sup> |
| Accrued Liability                 | \$27,552             | \$21,743         | \$4,566        | \$337        | \$54,260                 | \$52,871                 |
| Assets                            | \$19,859             | \$14,847         | \$3,496        | \$271        | \$38,386                 | \$51,670                 |
| <b>Unfunded Accrued Liability</b> | <b>\$7,693</b>       | <b>\$6,896</b>   | <b>\$1,070</b> | <b>\$ 66</b> | <b>\$15,873</b>          | <b>\$1,201</b>           |
| Side Accounts                     | \$2,442              | \$2,611          | \$ 81          | N/A          | \$5,135                  | \$7,658                  |
| <b>UAL – Side Accounts</b>        | <b>\$5,251</b>       | <b>\$4,284</b>   | <b>\$ 989</b>  | <b>\$ 66</b> | <b>\$10,739</b>          | <b>\$(6,457)</b>         |
| POBs                              | \$3,300              | \$2,673          | \$ 215         | N/A          | \$6,187                  | \$6,249                  |
| <b>Employer Net Obligations</b>   | <b>\$8,550</b>       | <b>\$6,957</b>   | <b>\$1,204</b> | <b>\$ 66</b> | <b>\$16,926</b>          | <b>\$(208)</b>           |

***The ratio of Side Accounts to outstanding Pension Obligation Bonds went from 1.23 to 0.83 from 12/31/2007 to 12/31/2008***

Amounts In Millions

<sup>1</sup> System-wide results include Multnomah Fire District #10

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Unfunded Accrued Liability

|  | 12/31/2008 Valuation |                  |              |           |                          | 12/31/2007               |
|--|----------------------|------------------|--------------|-----------|--------------------------|--------------------------|
|  | SLGRP                | School Districts | Independents | OPSRP     | System-Wide <sup>1</sup> | System-Wide <sup>1</sup> |
| Payroll<br>(T1/T2 + OPSRP)                     | \$4,521              | \$2,815          | \$ 793       | \$8,130   | \$8,130                  | \$7,722                  |
| UAL  | \$7,693              | \$6,896          | \$1,070      | \$ 66     | \$15,873                 | \$1,201                  |
| <b>UAL as % of Payroll</b>                     | <b>170%</b>          | <b>245%</b>      | <b>135%</b>  | <b>1%</b> | <b>195%</b>              | <b>16%</b>               |
| UAL – Side Accounts                            | \$5,251              | \$4,284          | \$ 989       | \$ 66     | \$10,739                 | \$(6,457)                |
| <b>Net UAL as % of Payroll</b>                 | <b>116%</b>          | <b>152%</b>      | <b>125%</b>  | <b>1%</b> | <b>132%</b>              | <b>(84%)</b>             |
| UAL – Side Accounts + POBs                     | \$8,550              | \$6,957          | \$1,204      | \$ 66     | \$16,926                 | \$(208)                  |
| <b>Employer Net Obligation as % of Payroll</b> | <b>189%</b>          | <b>247%</b>      | <b>152%</b>  | <b>1%</b> | <b>208%</b>              | <b>(3%)</b>              |

<sup>1</sup> System-wide results include Multnomah Fire District #10

Amounts In Millions

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

7/1/2011 Advisory Employer Contribution Rates  
(Excludes IAP and Retiree Healthcare)

|                                | SLGRP          | School Districts | Indepen -dents <sup>1</sup> | OPSRP General  | OPSRP P&F      | System-Wide    |
|--------------------------------|----------------|------------------|-----------------------------|----------------|----------------|----------------|
| <b>Non-IAP Pension</b>         |                |                  |                             |                |                |                |
| Normal Cost                    | 8.10%          | 6.90%            | 9.62%                       | 5.90%          | 8.61%          | 7.44%          |
| T1/T2 UAL                      | 9.05%          | 13.11%           | 7.24%                       | 10.27%         | 10.27%         | 10.27%         |
| OPSRP UAL                      | 0.07%          | 0.07%            | 0.07%                       | 0.07%          | 0.07%          | 0.07%          |
| <b>Gross Rate</b>              | <b>17.22%</b>  | <b>20.08%</b>    | <b>16.93%</b>               | <b>16.24%</b>  | <b>18.95%</b>  | <b>17.78%</b>  |
| <b>Adjustments<sup>2</sup></b> |                |                  |                             |                |                |                |
| Side Accounts                  | (4.13%)        | (7.09%)          | (0.78%)                     | (4.82%)        | (4.82%)        | (4.82%)        |
| Pre-SLGRP Liabs                | (0.74%)        | N/A              | N/A                         | (0.41%)        | (0.41%)        | (0.41%)        |
| <b>Average Adjustment</b>      | <b>(4.87%)</b> | <b>(7.09%)</b>   | <b>(0.78%)</b>              | <b>(5.23%)</b> | <b>(5.23%)</b> | <b>(5.23%)</b> |
| <b>Net Rate<sup>2</sup></b>    | <b>12.35%</b>  | <b>12.99%</b>    | <b>16.15%</b>               | <b>11.01%</b>  | <b>13.72%</b>  | <b>12.55%</b>  |

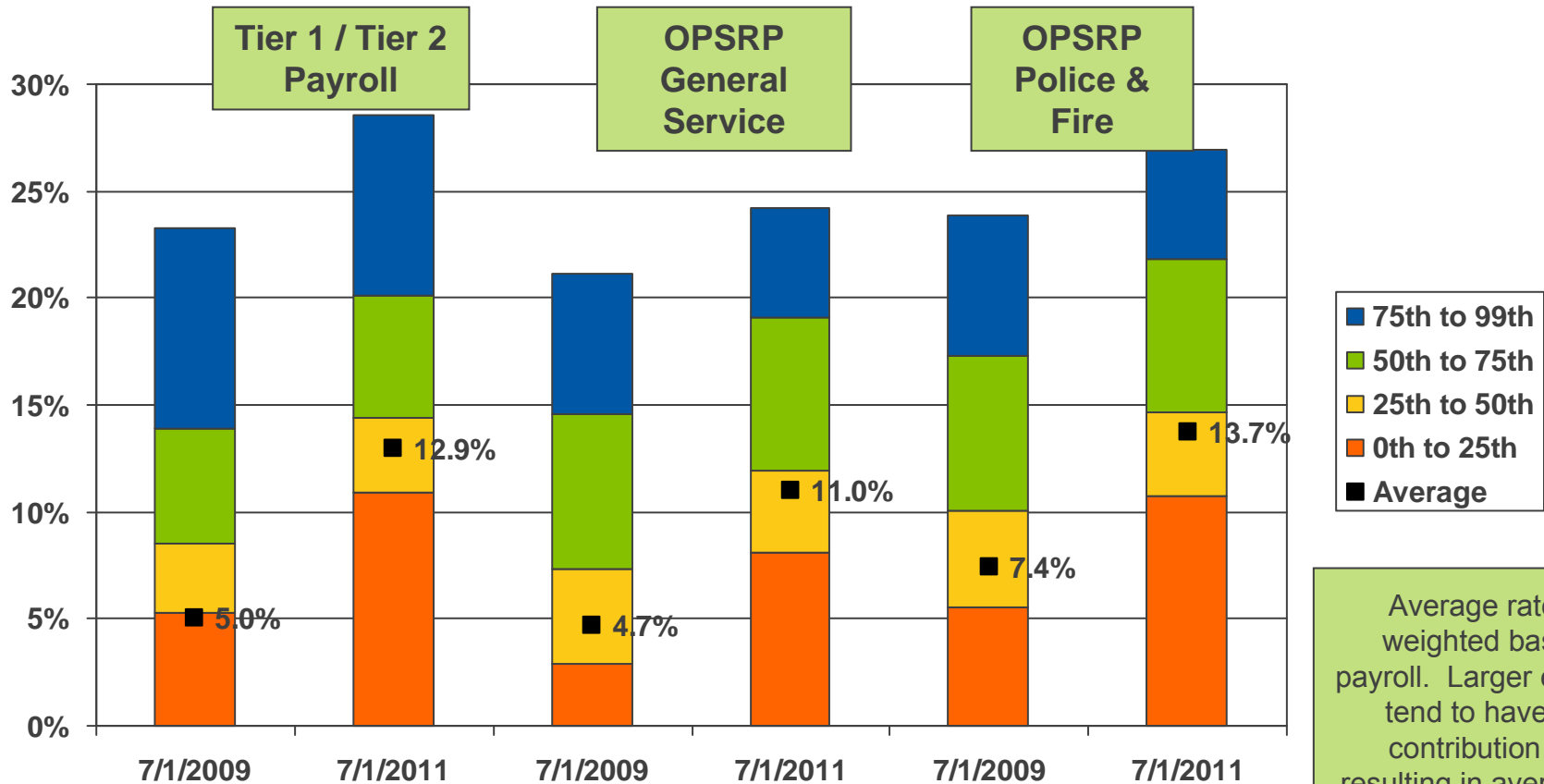
<sup>1</sup> Independent employers, including Judiciary, are treated as a single pool for purposes of this exhibit.

<sup>2</sup> For this exhibit, adjustments are assumed not to be limited due to an individual employer reaching a 0.00% contribution rate.

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

Distribution of Advisory Employer Contribution Rates  
(Excludes IAP and Retiree Healthcare)

System-Wide Contribution Rates

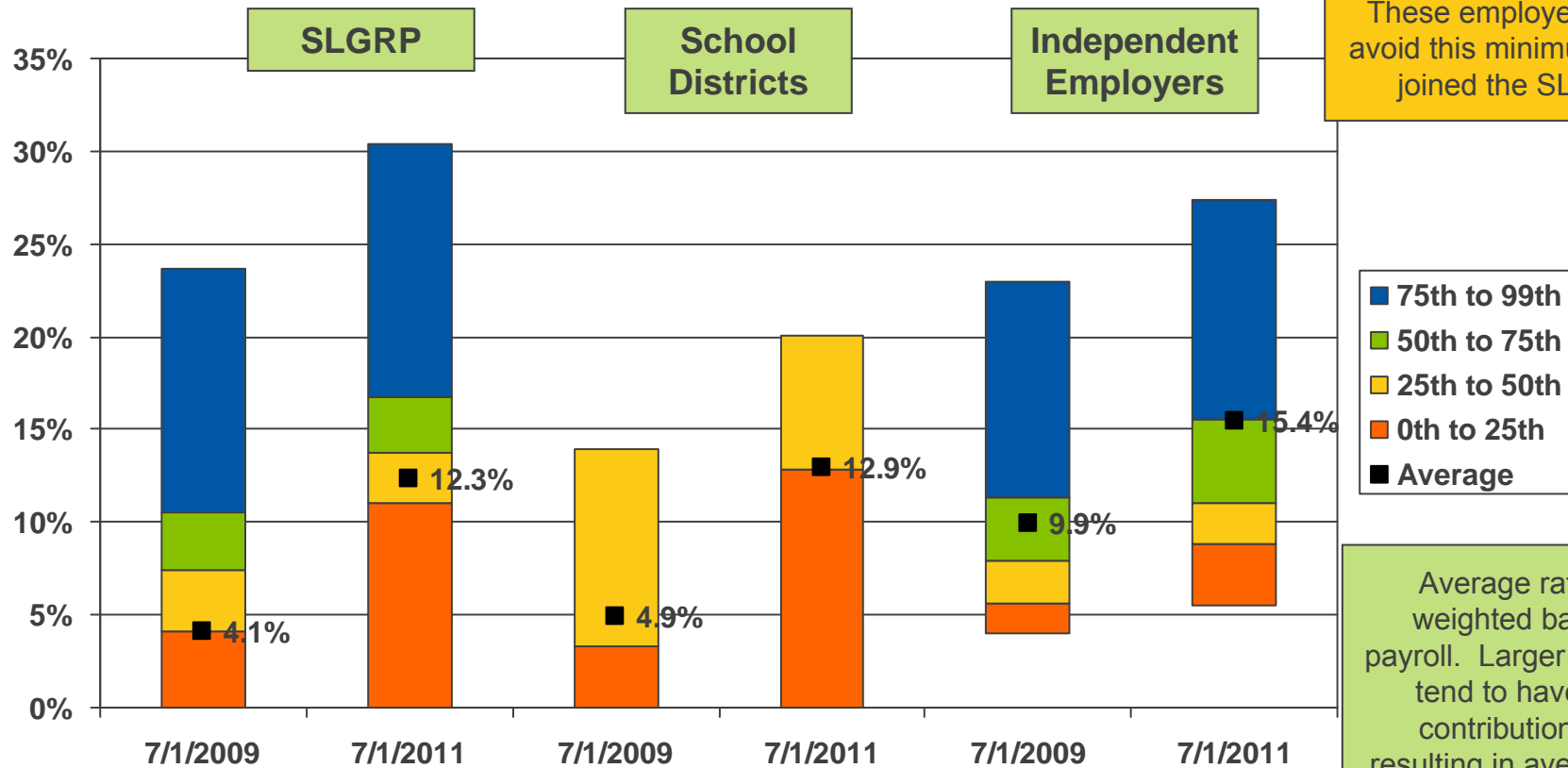


Average rates are weighted based on payroll. Larger employers tend to have lower contribution rates, resulting in average rates significantly below the median rate.

# 12/31/2008 Tier 1/Tier 2 & OPSRP Valuation

## Distribution of Advisory Employer Contribution Rates (Excludes IAP and Retiree Healthcare)

Tier 1/Tier 2 Employer Contribution Rates



The Board's policy to require Independent Employers to contribute a minimum (excluding IAP) of 6% of payroll before side account adjustments, affects 11 of the 138 independent employers. These employers could avoid this minimum if they joined the SLGRP.

- 75th to 99th
- 50th to 75th
- 25th to 50th
- 0th to 25th
- Average

Average rates are weighted based on payroll. Larger employers tend to have lower contribution rates, resulting in average rates significantly below the median rate.

The number of employers with a 0% rate decreased from 66 to 8. All but one of these employers are SLGRP members with large transition surpluses. These employers still require contributions for retiree healthcare, any pick-up of IAP contributions, and any pension obligation bond payments.

**12/31/2008 Retiree Healthcare Valuation**  
Oregon Public Employees Retirement System

## 12/31/2008 Retiree Healthcare Valuation

### Overview

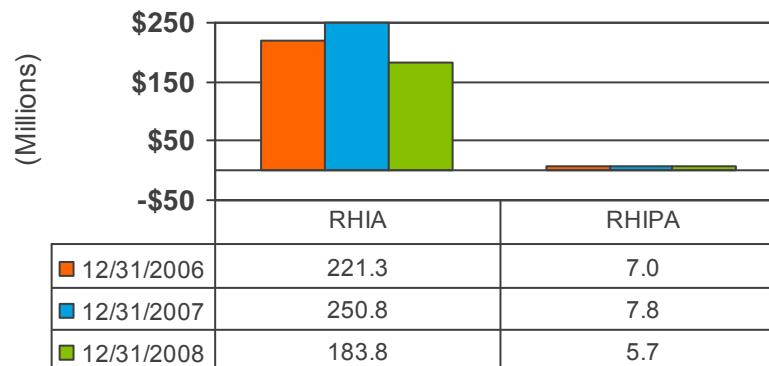
- RHIA provides \$60 per month subsidy toward healthcare premium for Tier 1/Tier 2 retirees who are eligible for Medicare. OPSRP retirees are not eligible.
- RHIPA provides Tier 1/Tier 2 State employees who retire prior to age 65 with an alternative to PEBB coverage until they reach Medicare eligibility. OPSRP retirees are not eligible.
- These benefits are funded through 401(h) accounts within the PERS trust, but the funds are, by law, kept separate from the pension funds. Consequently, side accounts cannot be used to make RHIA or RHIPA contributions.
- RHIA and RHIPA are not as well-funded as the pension plan. The UAL will now be amortized over a 10-year period to more rapidly improve funded status of those programs.
- Contribution rates for RHIA and RHIPA have increased due to investment losses and the change from a 20-year amortization period to a 10-year period.



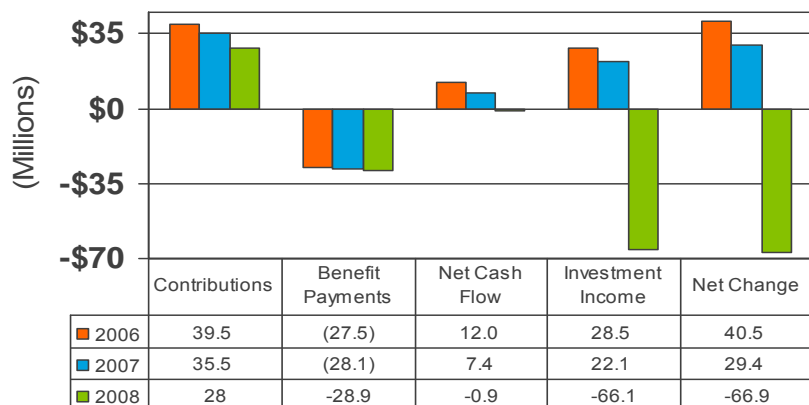
# 12/31/2008 Retiree Healthcare Valuation Assets

- RHIA assets decreased approximately 27% and RHIPA assets decreased approximately 27%
- For RHIA and RHIPA, contributions are about equal to benefit payments, so the net decrease in assets is primarily driven by investment losses.

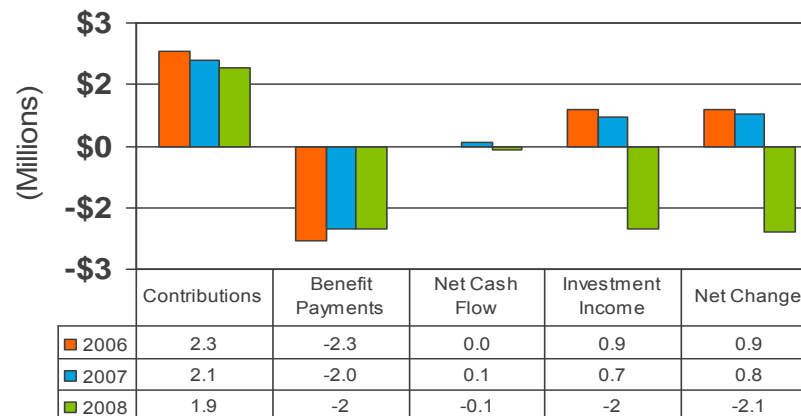
Retiree Healthcare Assets



Changes in RHIA Plan Assets



Changes in RHIPA Plan Assets



# 12/31/2008 Retiree Healthcare Valuation

## Normal Cost

|                         | RHIA         |              | RHIPA        |              | System       |              |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         | 12/31/2008   | 12/31/2007   | 12/31/2008   | 12/31/2007   | 12/31/2008   | 12/31/2007   |
| Normal Cost             | \$5.6        | \$6.6        | \$0.8        | \$0.9        | \$6.4        | \$7.5        |
| Normal Cost Payroll     | \$6,226      | \$6,262      | \$1,709      | \$1,692      | \$6,226      | \$6,262      |
| <b>Normal Cost Rate</b> | <b>0.09%</b> | <b>0.10%</b> | <b>0.05%</b> | <b>0.06%</b> | <b>0.10%</b> | <b>0.12%</b> |

*Amounts In Millions*

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

# 12/31/2008 Retiree Healthcare Valuation

## Unfunded Accrued Liability

Funded status is decreasing, and lags significantly behind the funded status of the pension plan.

|                            | RHIA         |              | RHIPA        |              | System       |              |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                            | 12/31/2008   | 12/31/2007   | 12/31/2008   | 12/31/2007   | 12/31/2008   | 12/31/2007   |
| Accrued Liability          | \$494        | \$500        | \$21         | \$23         | \$515        | \$523        |
| Assets                     | \$184        | \$251        | \$ 6         | \$ 8         | \$190        | \$259        |
| UAL                        | \$310        | \$249        | \$16         | \$15         | \$325        | \$264        |
| <b>Funded Percentage</b>   | <b>37%</b>   | <b>50%</b>   | <b>27%</b>   | <b>34%</b>   | <b>37%</b>   | <b>49%</b>   |
| Combined Valuation Payroll | \$8,130      | \$7,722      | \$2,218      | \$2,080      | \$8,130      | \$7,722      |
| <b>UAL Rate</b>            | <b>0.50%</b> | <b>0.19%</b> | <b>0.10%</b> | <b>0.02%</b> | <b>0.53%</b> | <b>0.20%</b> |

*Amounts In Millions*

- The combination of asset losses and shortening the amortization period has led to an increase in the UAL contribution rates for RHIA and RHIPA

# 12/31/2008 Retiree Healthcare Valuation

## Contribution Rates

- Contribution rates are higher than the rates in effect 7/1/2009.
- 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  | 0.10%           | N/A           | N/A          |
| UAL Rate          | 0.53%           | 0.53%         | 0.53%        |
| <b>Total Rate</b> | <b>0.63%</b>    | <b>0.53%</b>  | <b>0.53%</b> |

# **Ten-Year Financial Projections**

Oregon Public Employees Retirement System

# Ten-Year Financial Projections

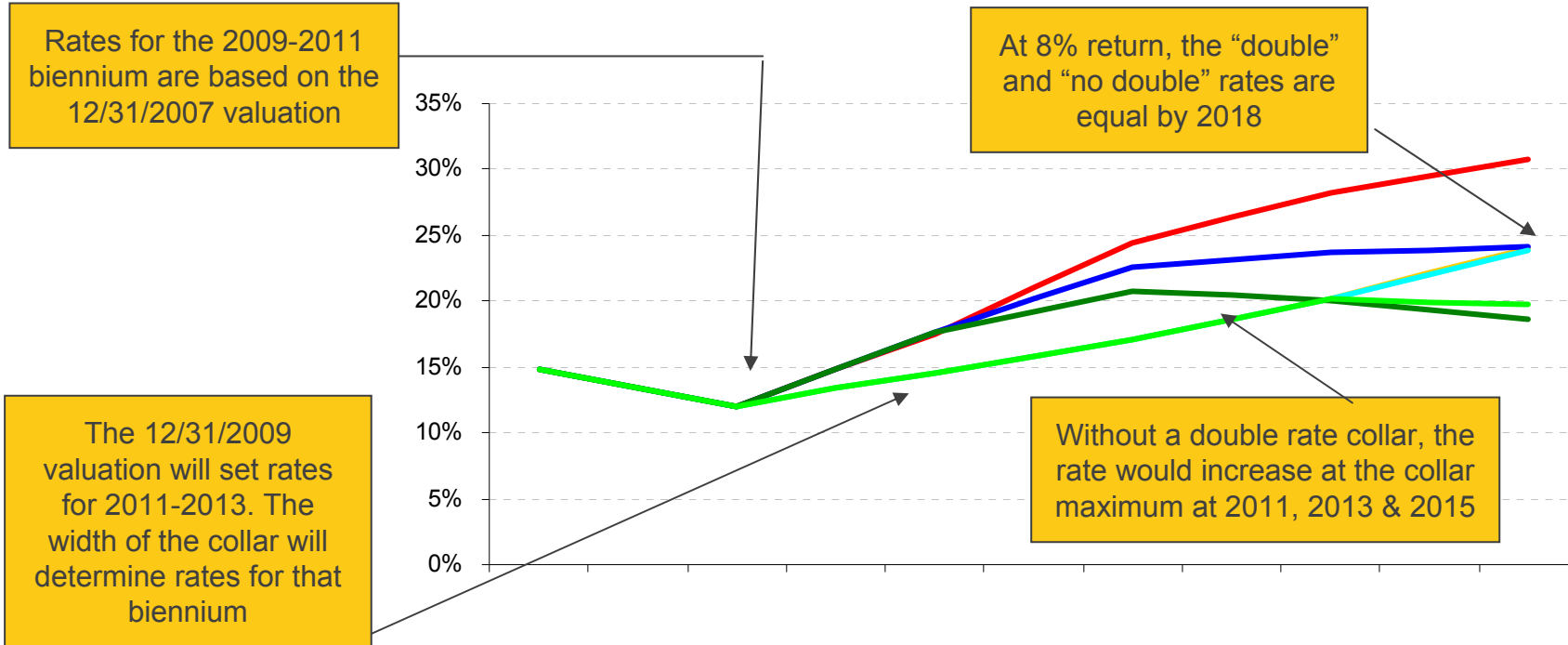
## Overview

- Basis for modeling
  - 12/31/2007 Tier 1/Tier 2 and OPSRP actuarial valuations
  - Contribution rates and funded status are modeled on a system-wide basis
  - Does not include retiree healthcare or IAP contributions
  - **Based on published investment returns through July 31, 2009**
    - Our financial modeling earlier this year used March 31 asset levels
- Projected effects of 4.5%, 8.0% and 10.5% annual investment returns
  - Represents 10-year earnings average, valuation interest rate and 25-year earnings average, respectively
- Results model the impact of two rate-setting policies
  - Current board policy
    - Rate collared to greater of 3% of payroll or 20% of current rate
    - Width of collar doubles if plan is less than 80% funded
  - Alternative policy
    - Same as above, except that the collar is not allowed to double

**Rates and funded percentages shown are before consideration of side accounts**

# Ten-Year Financial Projections

Combined Payroll Weighted (Tier 1/Tier 2, OPSRP) Contribution Rate  
(Excludes Side Accounts, Excludes IAP and Retiree Healthcare Rates)



|                         | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| 4.5% w/ Double Collar   | 15%  | 13%  | 12%  | 15%  | 18%  | 21%  | 24%  | 26%  | 28%  | 30%  | 31%  |
| 4.5% w/o Double Collar  | 15%  | 13%  | 12%  | 13%  | 15%  | 16%  | 17%  | 19%  | 20%  | 22%  | 24%  |
| 8% w/ Double Collar     | 15%  | 13%  | 12%  | 15%  | 18%  | 20%  | 23%  | 23%  | 24%  | 24%  | 24%  |
| 8% w/o Double Collar    | 15%  | 13%  | 12%  | 13%  | 15%  | 16%  | 17%  | 19%  | 20%  | 22%  | 24%  |
| 10.5% w/ Double Collar  | 15%  | 13%  | 12%  | 15%  | 18%  | 19%  | 21%  | 20%  | 20%  | 19%  | 19%  |
| 10.5% w/o Double Collar | 15%  | 13%  | 12%  | 13%  | 15%  | 16%  | 17%  | 19%  | 20%  | 20%  | 20%  |

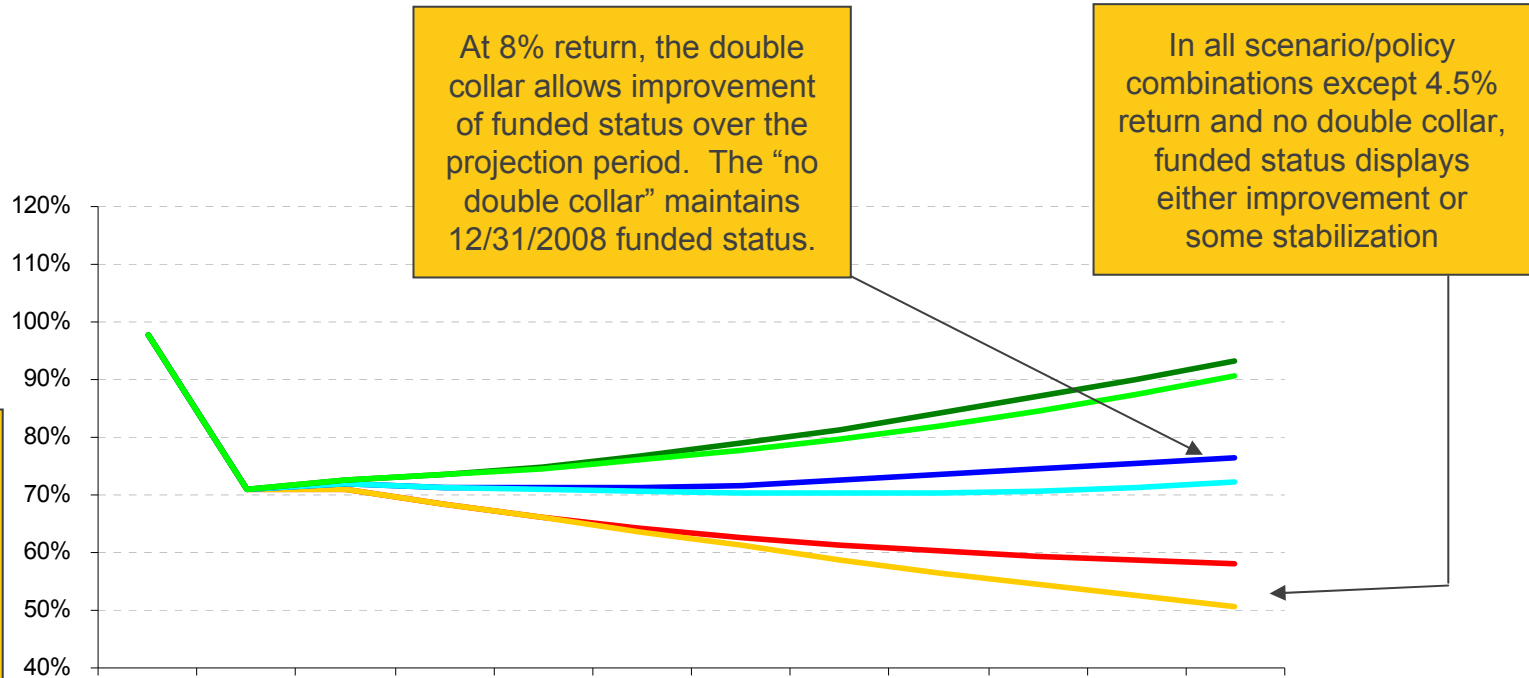
*Rates do not include contribution rates for the IAP or Retiree Healthcare Programs, and do not take into account any contributions that might be needed to address a 5-year Rate Guarantee Reserve deficit*

# Ten-Year Financial Projections

## Combined (Tier 1/Tier 2, OPSRP) Valuation Funded Status

Eliminating the double collar lowers the projected 2018 funded status. The decrease is most pronounced in the 4.5% return scenario

Except for the most optimistic scenario, the plan remains below the 80% "double collar" threshold during the entire projection period.



| As of 12/31             |  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|
| 4.5% w/ Double Collar   |  | 98%  | 71%  | 71%  | 69%  | 66%  | 64%  | 63%  | 61%  | 60%  | 59%  | 59%  | 58%  |
| 4.5% w/o Double Collar  |  | 98%  | 71%  | 71%  | 69%  | 66%  | 64%  | 61%  | 59%  | 57%  | 54%  | 52%  | 51%  |
| 8% w/ Double Collar     |  | 98%  | 71%  | 72%  | 71%  | 71%  | 71%  | 72%  | 73%  | 73%  | 74%  | 75%  | 77%  |
| 8% w/o Double Collar    |  | 98%  | 71%  | 72%  | 71%  | 71%  | 71%  | 70%  | 70%  | 70%  | 71%  | 71%  | 72%  |
| 10.5% w/ Double Collar  |  | 98%  | 71%  | 72%  | 73%  | 75%  | 77%  | 79%  | 81%  | 84%  | 87%  | 90%  | 93%  |
| 10.5% w/o Double Collar |  | 98%  | 71%  | 72%  | 73%  | 75%  | 76%  | 78%  | 80%  | 82%  | 85%  | 87%  | 91%  |

**Funded status projections exclude Side Accounts from valuation assets**



# Ten-Year Financial Projections

## Observations

- By the end of the ten-year projection period, rates are at least 19%
- In all scenario/policy combinations except 4.5% return and no double rate collar, the funded status exhibits either improvement or some stabilization over the projection period
- With the current rate collar policy in place, employer contribution rates will increase by 6% of payroll for the 2011-2013 biennium in all 3 scenarios
  - The increase will be to the top of the double rate collar
  - Rates for subsequent periods will depend on investment results
- Under a “no double rate collar” policy, rates for 2011-2017 would increase by the maximum permitted by the collar in all 3 scenarios

## Next Steps

- System-wide valuation report delivered in October
- Individual employer reports including advisory rates are sent via e-mail to employers in October
  - December 31, 2009 valuation (to be issued summer 2010) will determine actual employer contribution rates effective July 1, 2011
- Actuarial equivalency factors effective in 2010 to be adopted at November Board meeting

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