MERCER
Human Resource Consulting

February 24, 2006

Oregon PERS
December 31, 2004 Actuarial Valuation Results

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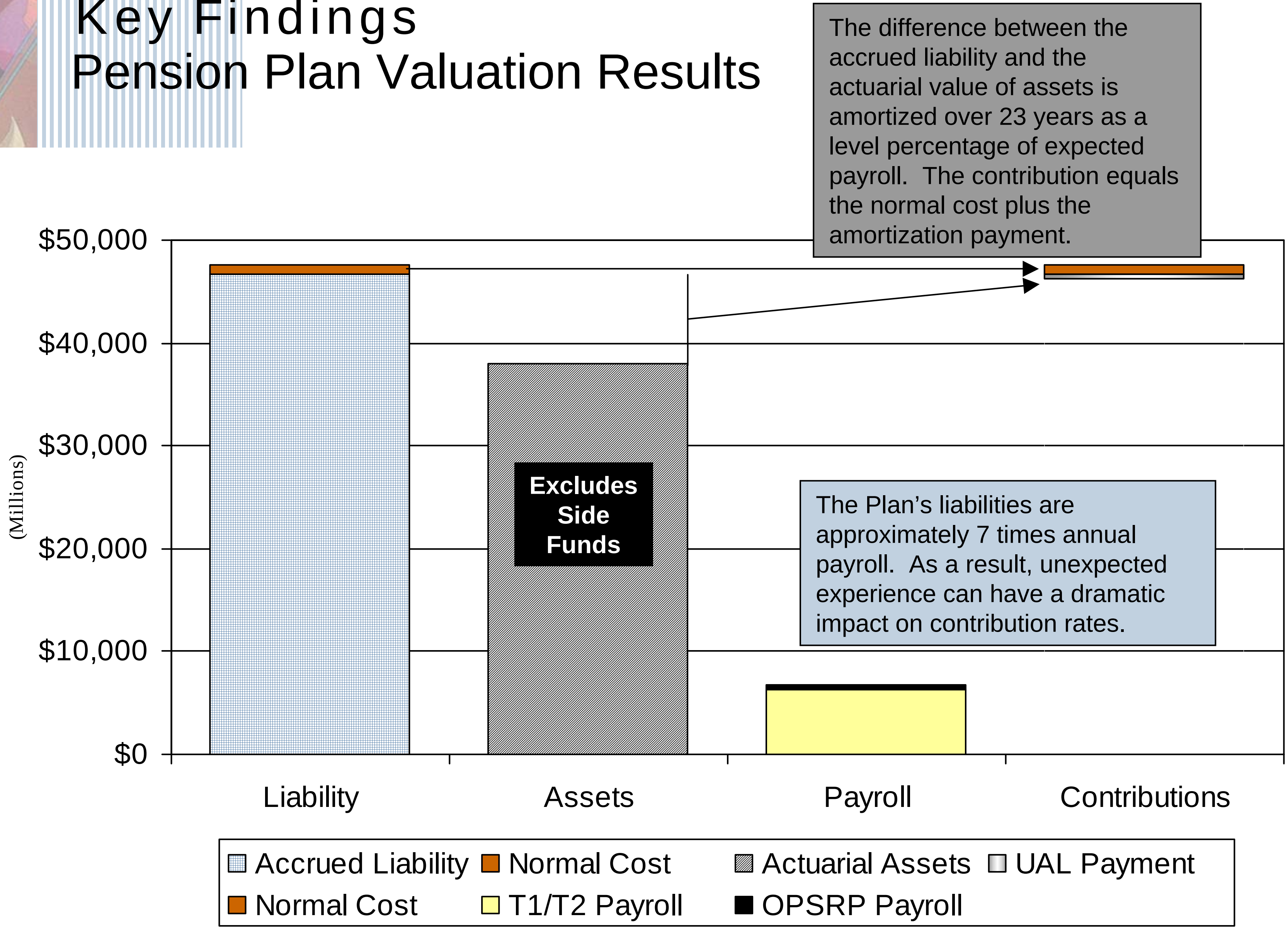
Contents

Key Findings
Overview

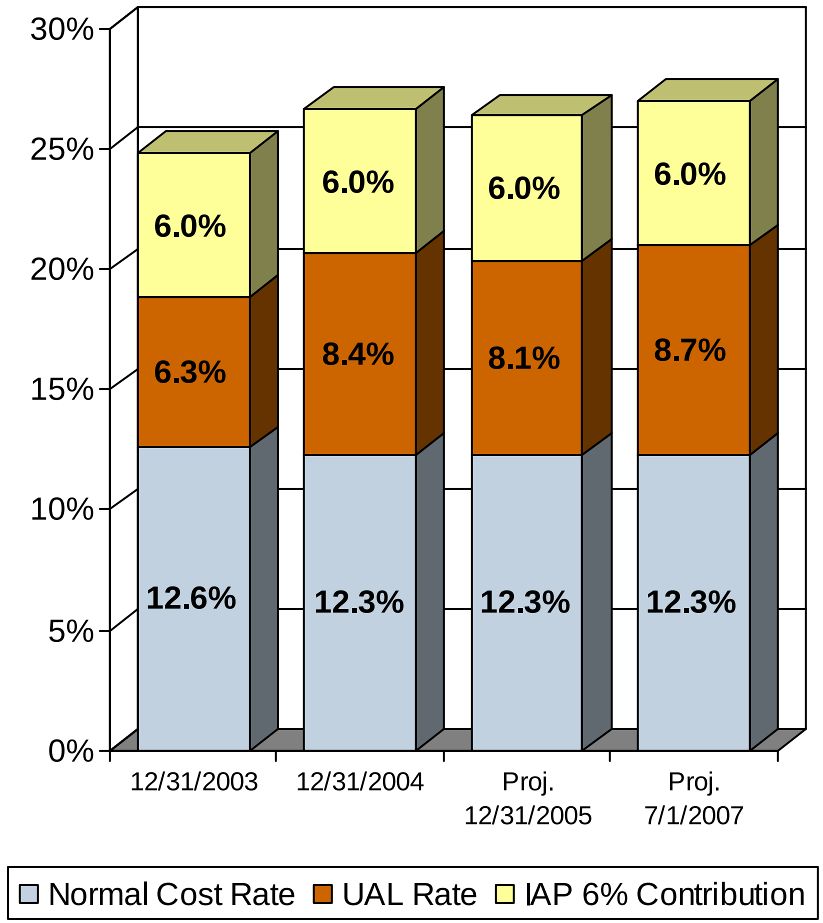
- December 31, 2004 actuarial valuation results
  - Are advisory -- no effect on contribution rates
  - Reflect estimated effect of Strunk/Eugene decisions
  - Use same methods and assumptions as prior valuation
    - Some exceptions due to transition, Strunk/Eugene, and a change to the SLGRP pooling method (Details in appendix)
  - Excludes OPSRP and IAP (assets, benefits, earnings, etc.)
- Projected 7/1/2007 employer contribution rates (21.0%) are about the same as projected in our baseline financial model
  - These projections do not include the 6% IAP contribution
  - Rates can vary significantly by pool or employer
  - Side accounts will reduce these rates for many employers
- The actuarial smoothing methods make the System's funded status appear to deteriorate further, when in fact the situation is getting better

Key Findings
Pension Plan Valuation Results



Key Findings
Employer and Member Contribution Rates

- The average normal cost rate declined slightly since the prior valuation.
- The average UAL rate increased since the last valuation reflecting:
  - Strunk and Eugene decisions
  - Recognition of more of the prior investment losses, and
  - the 18-month delay in contribution rate changes
- The average UAL rate is expected to decrease slightly by 12/31/2005 reflecting 2004 and 2005 investment performance offset by the phase-in of contribution rates



Key Findings
Change in Employer Contribution Rate

7/1/05 Employer Rate	**15.4%**
Planned Phase-in	5.0%
Asset Smoothing	1.8%
Strunk/Eugene	0.9%
2004/05 Earnings/ Reserves	(1.4%)
Other Gains/Losses	(0.7%)
7/1/07 Expected Employer Rate	**21.0%**
IAP 6% Contribution	**6.0%**
Deploy CR/CPR Reserves	(0.7%) – (2.3%)*

- In April, 2005, we projected employer rates to increase to 25.8% by 7/1/2007.
- With the Eugene decision and favorable investment experience, we now project 7/1/2007 employer contribution rates to average 21.0%.
- Deploying the Contingency and/or Capital Preservation reserves will further reduce expected employer contribution rates. However, the size of the impact depends on how the deployment of reserves is treated with respect to the asset smoothing method.

* Impact of deploying reserves depends on treatment under asset smoothing method

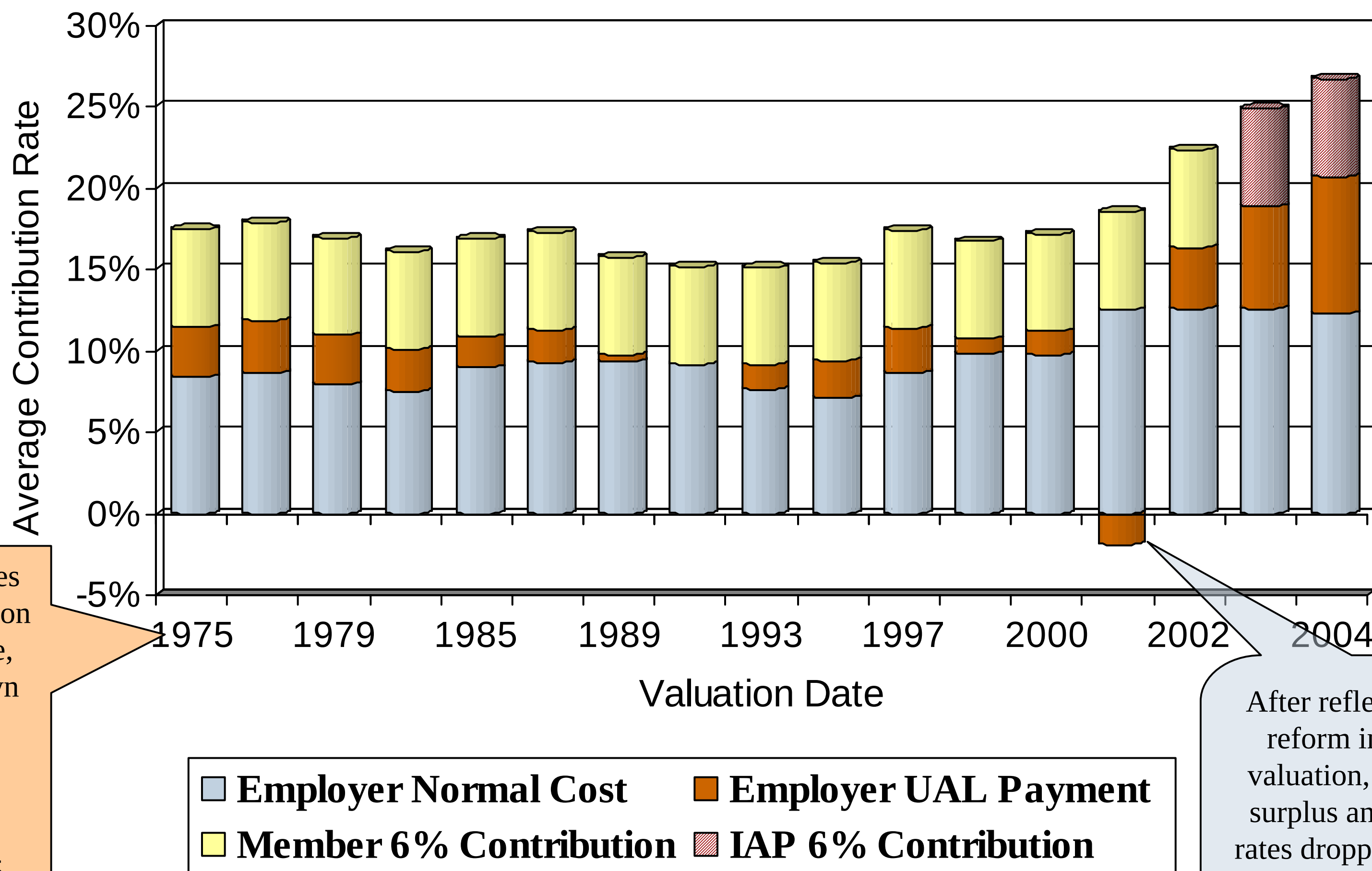
Key Findings
Employer and Member Contribution Rates

	SLGRP	Independ-ents	School Districts	Judiciary (Includes Member Contribution)	System-Wide
7/1/2005 Employer Contribution Rate	14.9%	11.5%*	17.0%	29.4%	15.4%
Projected 7/1/2007 Employer Contribution Rate	20.9%	13.7%	24.0%	27.7%	21.0%
IAP 6% Contribution	6.0%	6.0%	6.0%	N/A	6.0%

- While system-wide rates are projected to average 21.0%, rates vary significantly by pool and employer.
- Side accounts may further reduce the rates paid by employers.

* Assumes election of phase-in rate

Key Findings
Historical Perspective



Note that these rates are as of the valuation date. For example, the 2003 rate shown is the 18.9% calculated at 12/31/2003 that becomes 19.7% effective 7/1/2005.

After reflecting PERS reform in the 2001 valuation, there was a surplus and employer rates dropped below the normal cost.

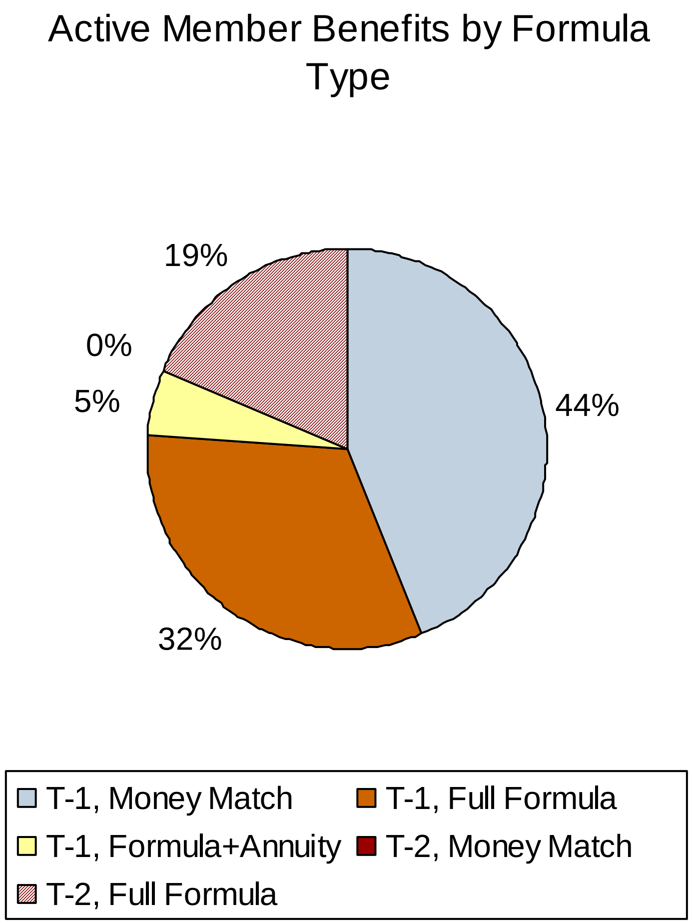
Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. Under the entry age normal method, the normal cost is designed to be a level percentage of pay over a member's career.

	SLGRP	Independents	School Districts	Judiciary (includes Member Contributions)	System-Wide
T-1, General	10.70%	10.42%	12.09%	27.21%	11.32%
T-1, P&F	17.13%	17.39%	0.00%	0.00%	17.21%
T-1, Average	**11.76%**	**12.08%**	**12.09%**	**27.21%**	**11.99%**
T-2, General	11.28%	10.81%	12.12%	0.00%	11.50%
T-2, P&F	17.54%	17.05%	0.00%	0.00%	17.42%
T-2, Average	**12.38%**	**11.99%**	**12.12%**	**0.00%**	**12.23%**
Retiree Healthcare	0.21%	0.18%	0.18%	0.25%	0.19%
System Average	**12.22%**	**12.22%**	**12.28%**	**27.46%**	**12.28%**

- The average normal cost rate declined from 12.60% in the last valuation to 12.28% in this valuation.
- On a payroll of $6.3 billion, the normal cost is $774 million (less than 2% of the System's accrued liability).
- Tier 2 normal cost rates are slightly higher than Tier 1 reflecting that Tier 2 members tend to have been hired at a later age than Tier 1 members.

Liabilities
Present Value of Projected Benefits



- Less than half of the present value of future benefits for current active members is expected to be paid under Money Match
- Virtually all Tier 2 benefits and about 40% of Tier 1 benefits are expected to be paid under the Full Formula
- As System benefits move from being primarily Money Match to primarily Full Formula, the member’s account balance will become less important in determining the member’s benefit

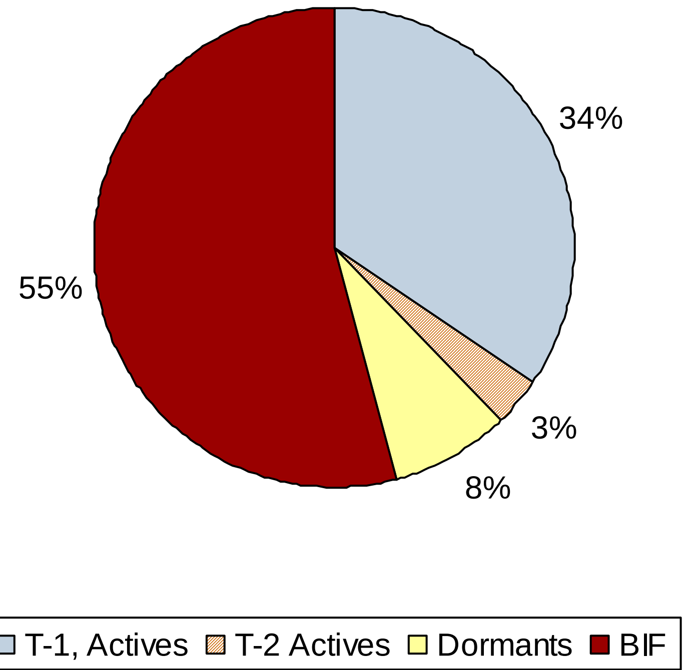
Actuarial Accrued Liabilities
Actives

	SLGRP	Independents	School Districts	Judiciary	System-Wide
T-1, General	$6,835	$1,147	$6,096	$68	$14,146
T-1, P&F	$1,166	$524	$3	$0	$1,693
T-1, Total	**$8,001**	**$1,671**	**$6,099**	**$68**	**$15,839**
T-2, General	$668	$195	$469	$0	$1,332
T-2, P&F	$183	$55	$1	$0	$239
T-2, Total	**$851**	**$250**	**$470**	**$0**	**$1,571**
Retiree Healthcare					$177
System Total	**$8,852**	**$1,921**	**$6,569**	**$68**	**$17,587**

Actuarial Accrued Liabilities

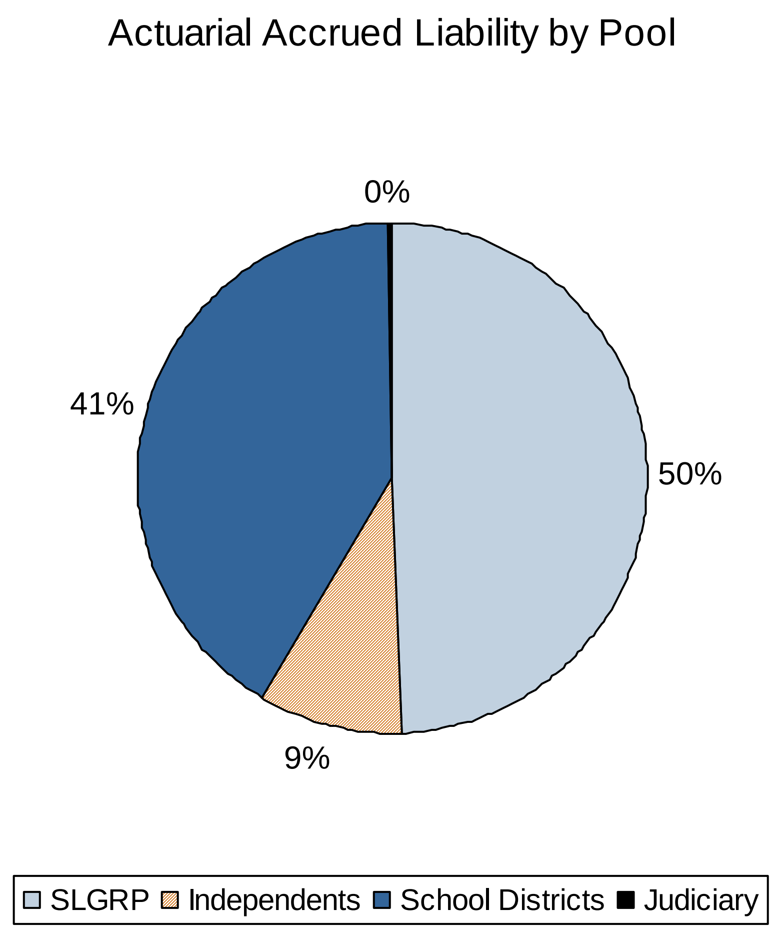
- Approximately 63% of the System's accrued liability is for members who are no longer actively working in PERS covered employment.
- Most of the rest of the accrued liability is for Tier 1 members, many of whom are likely to retire within the next 10 years.

Actuarial Accrued Liability by Member Category

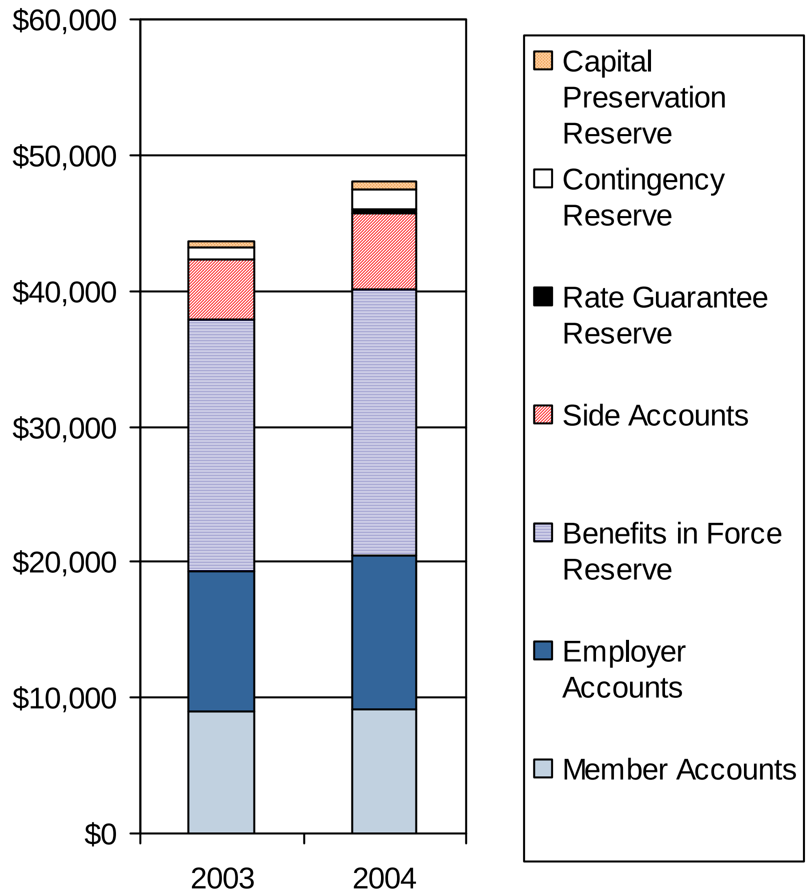


Actuarial Accrued Liabilities

- Half of the System's actuarial accrued liability is within the SLGRP, and over 40% is in the School District pool.
- With more independent local employers joining the SLGRP, the portion of the liability that is not pooled will continue to decline.
- Small employers who do not join the SLGRP are likely to have the most volatile contribution rates as demographic experience (e.g., a disability) can have a dramatic impact on their rate.



Assets
Total Pension Assets



- Since the 2003 valuation, assets have grown. However, with the expansion of certain reserves (Contingency, Capital Preservation and Rate Guarantee), the valuation assets have grown at a slower pace than total assets because those reserves are excluded from valuation assets.
- Also, beginning January 1, 2004, member 6% contributions have been diverted to the IAP which are not counted as System assets.
- The benefits in force reserve represents about half of the System's assets
- Side accounts represent a growing portion of total assets

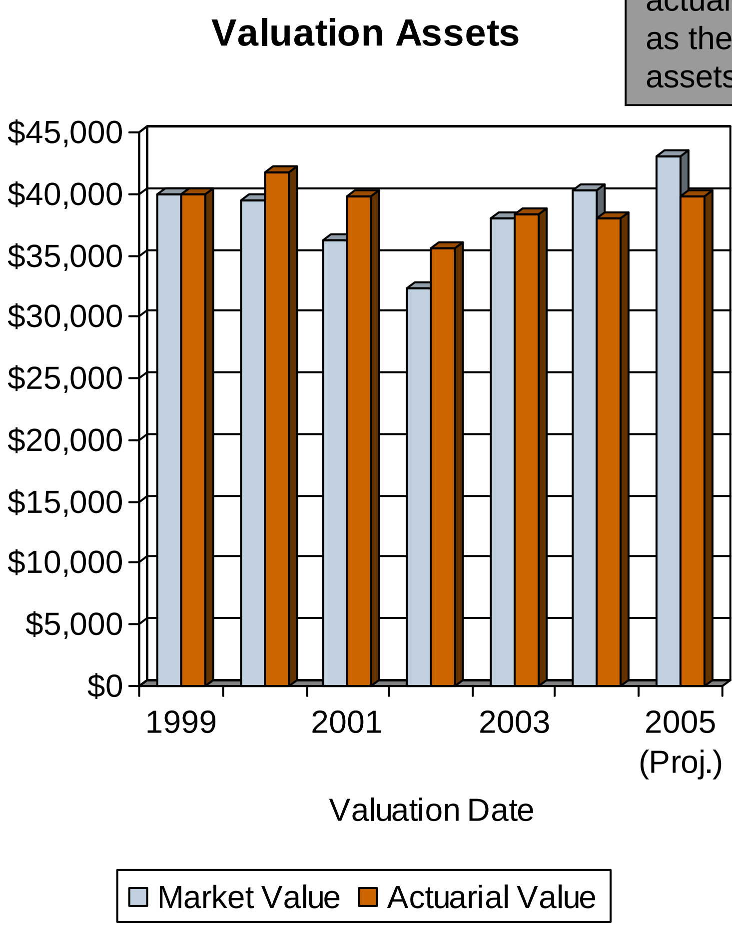
Assets
Actuarial Value of Assets

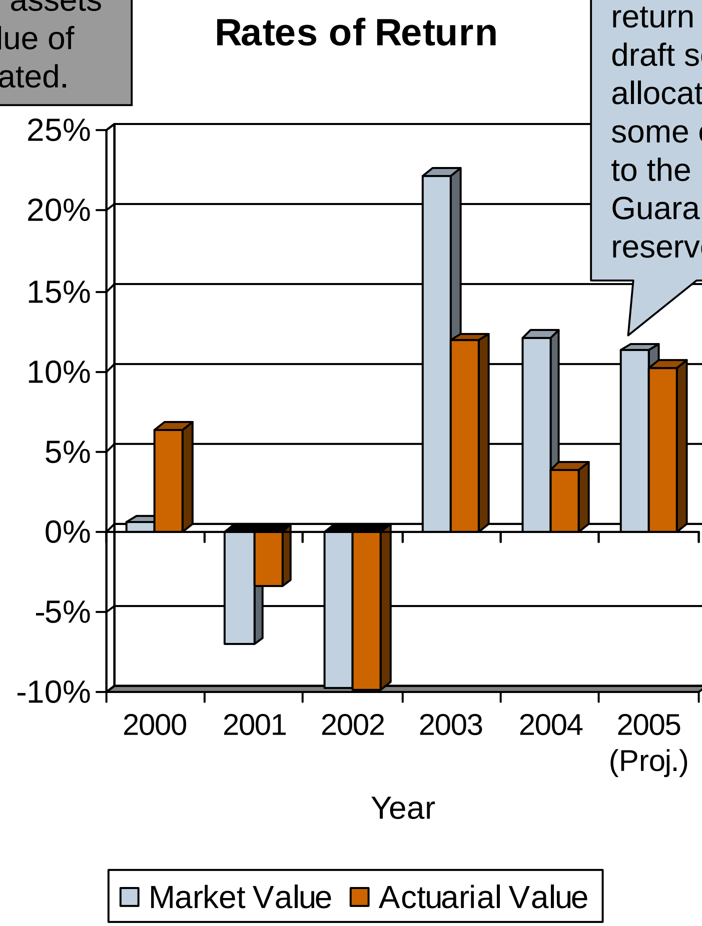
	12/31/2003	12/31/2004
Actuarial Value	**38,399**	**38,003**
2001 Smoothing	(1,468)	0
2002 Smoothing	(3,181)	(1,591)
2003 Smoothing	4,280	2,854
2004 Smoothing	0	1,040
Market Value	**38,030**	**40,306**
Side Funds	4,475	5,556
Contingency Reserve	788	1,473
Capital Pres. Reserve	433	456
Rate Guarantee Reserve	0	355
Total Assets	**43,726**	**48,146**

- The actuarial value of assets declined since the last valuation even as the market value grew by 6% and total assets including reserves grew by 10%.
- Side funds grew by 24% during 2004 both due to investment earnings and additional deposits.
- Reserves grew by 87% during 2004 due to Board reserving decisions and statutory requirements for the rate guarantee reserve.

Assets
Historical Comparison of Actuarial to Market Value

Asset smoothing has resulted in a more level actuarial value of assets as the market value of assets has fluctuated.





Projected return reflects draft scenario allocating some earnings to the Rate Guarantee reserve

Unfunded Accrued Liabilities
Pension Only

Liability for pension obligation bonds is about equal to side accounts, implying that the total obligation for PERS on a smoothed asset basis is about $8.3 billion. On a market value basis, the obligation is about $6 billion.

	SLGRP	Independents	School Districts	Judiciary	System -Wide
Accrued Liability	22,829	4,166	18,972	137	46,168
Actuarial Value of Assets	18,725	3,962	15,095	137	37,859
Unfunded Accrued Liability	4,105	204	3,878	0	8,309
Side Funds	2,869	35	2,652	0	5,556
UAL – Side Funds	1,235	169	1,225	0	2,753
POBs	3,175	176	2,165	0	5,516
Total Unfunded Obligations	4,410	345	3,390	0	8,269

System-wide results include Multnomah Fire District #10

Unfunded Accrued Liabilities

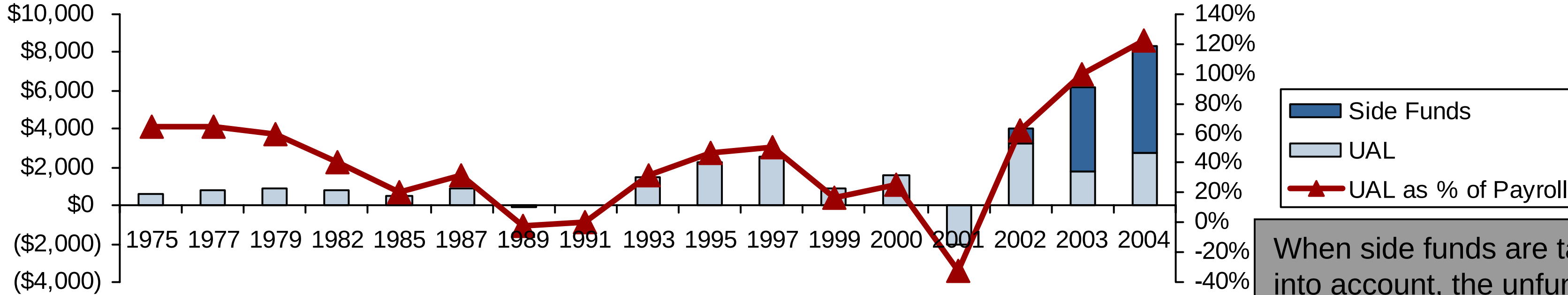
The unfunded represents a significant portion of payroll, causing contribution rates to be relatively high.

	SLGRP	Independents	School Districts	Judiciary	System-Wide
Payroll (T1/T2 + OPSRP)	3,389	1,034	2,333	16	6,772
UAL	4,105	204	3,878	0	8,309
UAL as % of Payroll	121%	20%	166%	1%	123%
UAL – Side Funds	1,235	169	1,225	0	2,753
Net UAL as % of Payroll	36%	16%	53%	1%	41%
UAL – Side Funds + POBs	4,410	345	3,390	0	8,269
Net Obligation as % of Payroll	130%	33%	145%	1%	122%

Unfunded Accrued Liability
Historical Perspective

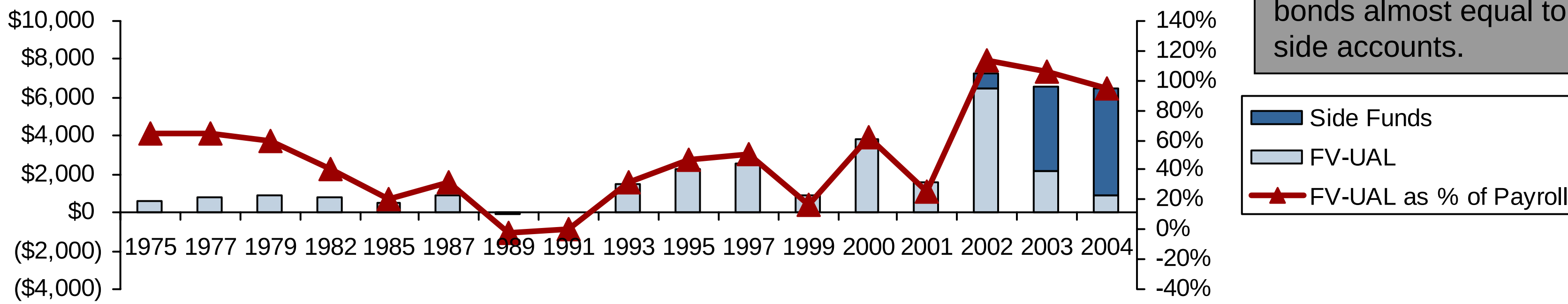
The smoothing in the actuarial value of assets makes it appear that the System is in a worse position than it has ever been in, when in fact the situation is getting better as shown in the fair value chart on the bottom.

Actuarial Value Unfunded Accrued Liability



When side funds are taken into account, the unfunded liability is very reasonable. However, employers also have outstanding debt on their pension obligation bonds almost equal to the side accounts.

Fair Value Unfunded Accrued Liability

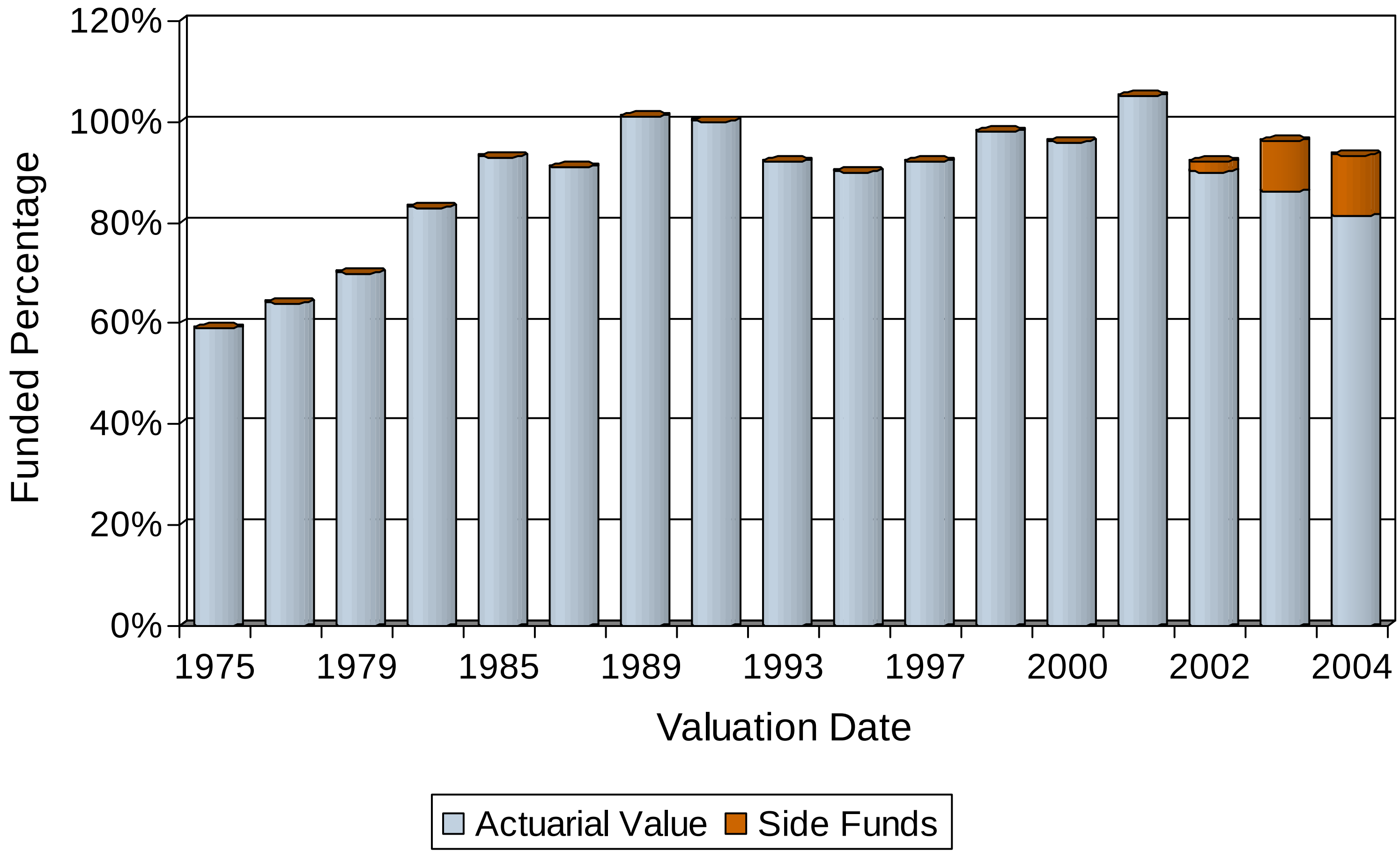


Funded Status
System-Wide Funded Status

Valuation	Actuarial Value		Market Value	
	Excluding Side Funds	**Including Side Funds**	**Excluding Side Funds**	**Including Side Funds**
12/31/2003	86%	96%	85%	95%
12/31/2004	81%	93%	86%	98%

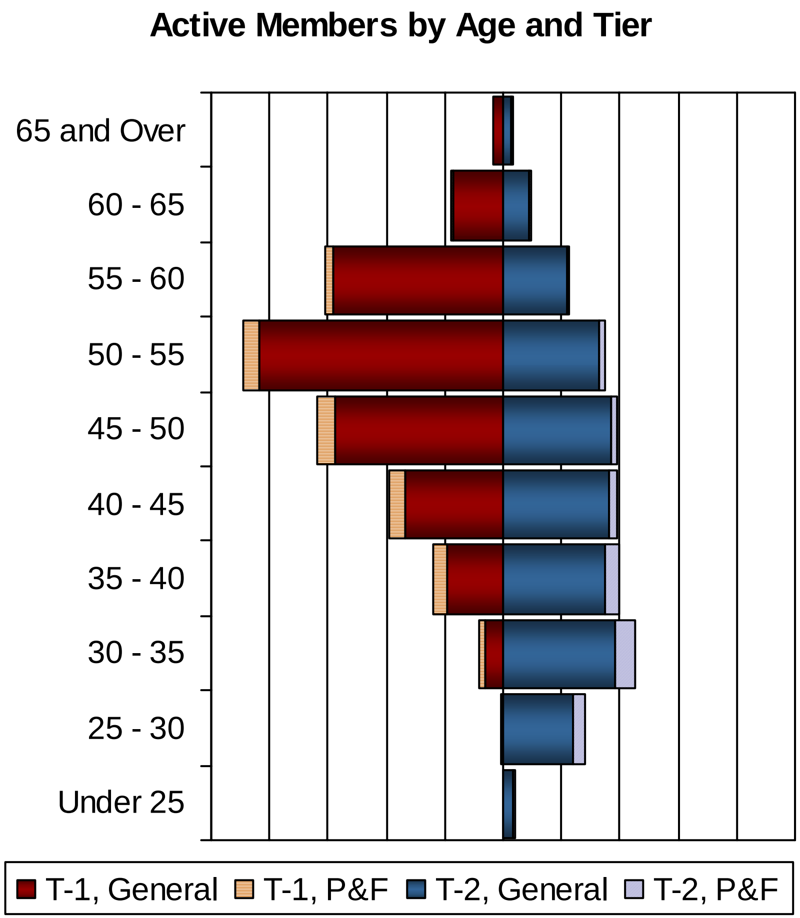
- Funded status on an actuarial value basis declined in the last year due to the additional recognition of losses from 2001 and 2002.
- On a market value basis, funded status improved during 2004 reflecting the better than expected investment return during 2004.

Funded Status
Historical Perspective



Demographics
Active Member Distribution by Age and Tier

- The vast majority of Tier 1 members are over age 45, and many are currently eligible for retirement.
- The youngest Tier 1 members aren't expected to retire for 25 to 30 years.
- Tier 2 members represent a smaller and younger group with the youngest members not expected to retire for 35 or 40 years

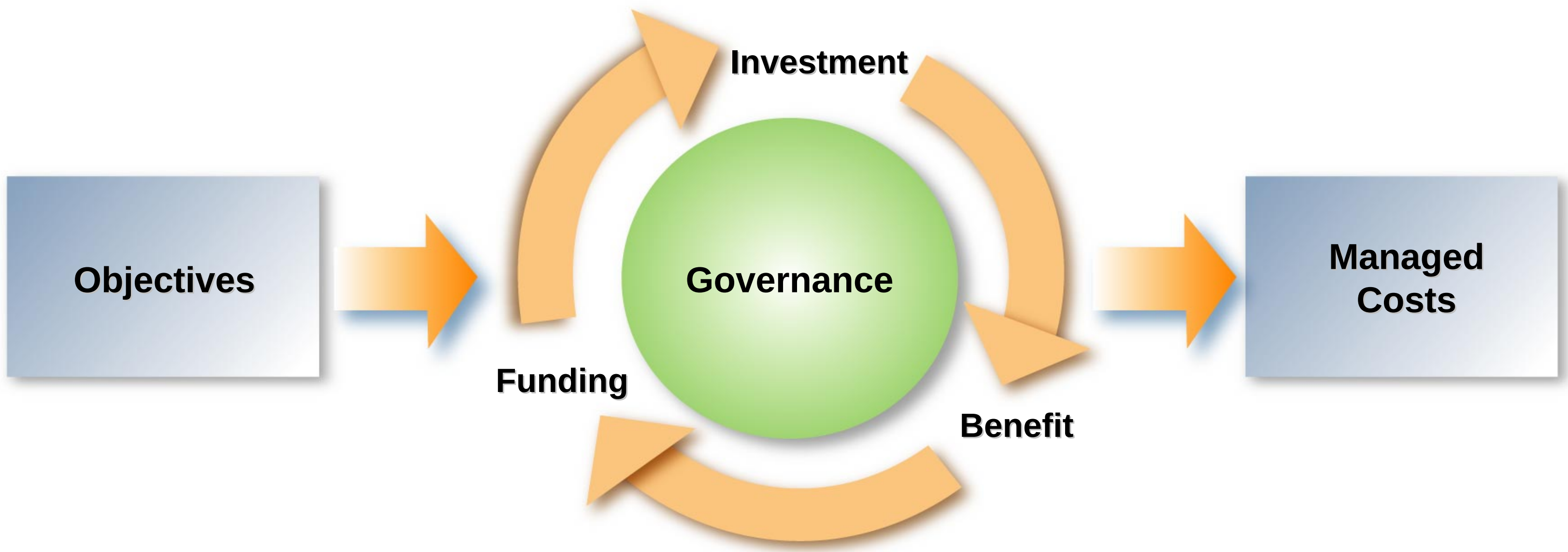


Next Steps

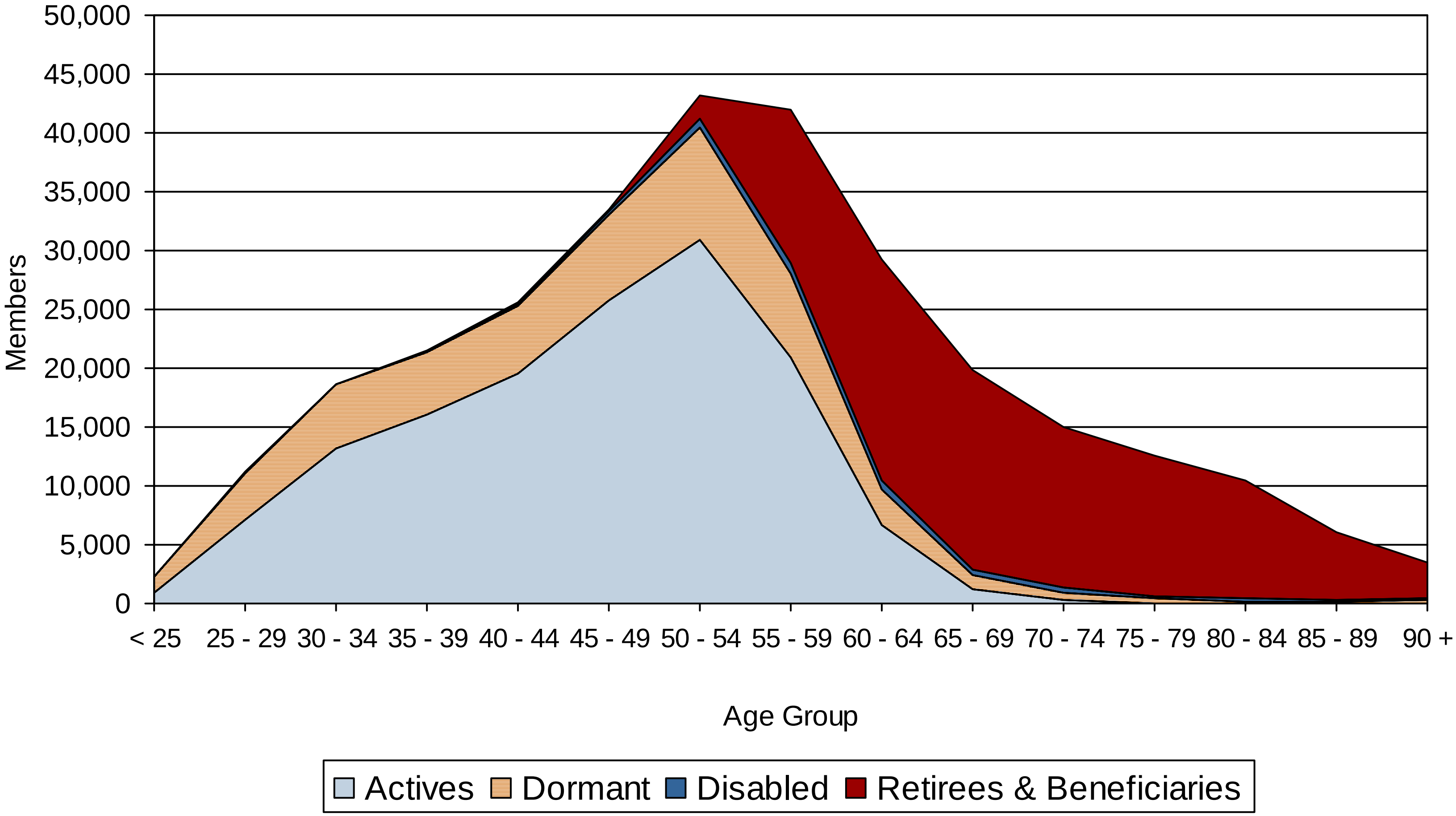
- March Board Meeting -- 12/31/2004 system-wide valuation results
  - Projected unit credit method
  - Market value of assets
  - Contribution rate collar
- April Board Meeting – Decision on actuarial method
- June Board Meeting – Experience study
- September Board Meeting – 12/31/2005 system-wide valuation results
  - OPSRP
  - PERS T1/T2

Appendix

Appendix
Retirement Plan Financial Management Framework



Appendix
Member Distribution by Age



Appendix
Method and Assumption Changes

- Strunk/Eugene
  - Tier 1 member accounts earn 8.0% for all years
  - COLA applied for all retirees (i.e., no freeze)
  - Assets and benefits adjusted to reflect:
    - 1999 earnings of 11.33% instead of 20.00%
    - 2003 Tier 1 member account earnings of 8.0% instead of 0.0%
    - 2004 Tier 1 member account earnings of 8.0%
    - Retiree benefits adjusted for missed COLAs

Appendix
Method and Assumption Changes

- Transition Changes
  - Assume beginning of year decrements instead of mid-year decrements
  - Entry age defined as valuation date minus credited service
  - Valuation pay is defined as prior year pay increased for a year of salary scale instead of half a year increase
  - Amortization factor based on monthly interest instead of continuous interest
  - UAL is amortized over combined OPSRP and PERS payroll for members who are under the maximum assumed retirement age instead of all payroll
  - BIF assets are allocated to pools/employers in proportion to their BIF liability instead of in proportion to Member Accounts + Employer Accounts + BIF liability
  - Assets in the Rate Guarantee Reserve are excluded from valuation assets
  - In applying the smoothing method, actual earnings are reduced by any transfers to the Contingency, Capital Preservation, or Rate Guarantee reserves
  - The 10% corridor for the smoothing method is applied based on the valuation assets instead of total assets (including reserves)
  - Transfers from side accounts are calculated equal to actual payroll times the rate relief increased for interest at the rate credited to employer accounts

Appendix
Method and Assumption Changes

- SLGRP Pooling Methodology
  - One UAL rate is charged to all employers in the pool instead of a different UAL rate for each year of the pool
  - Employer contributions are allocated to normal cost, UAL and transition liability based on actual payroll and the contribution rates in effect instead of based on a proportion of the absolute value of the amount outstanding
  - Transition liability or surplus is calculated such that employers joining the pool pay the same pooled UAL rate and a transition rate to make up for the difference between the employer's and pool's market value funded status
  - The transition to the new pooling methodology was accomplished through a fresh start calculation of the pool as of 1/1/2004 reflecting the assets and liabilities allocated to each employer under the prior pooling methodology as of 12/31/2003
  - The new pooling methodology and fresh start transition approach were presented to and discussed with the LAC on 11/4/2005 and 1/5/2006