Florida Retirement System

The Actuarial Assumption Estimating Conference Including <u>Preliminary</u> July 1, 2007 Actuarial Valuation Results

September 24, 2007

A MILLIMAN GLOBAL FIRM





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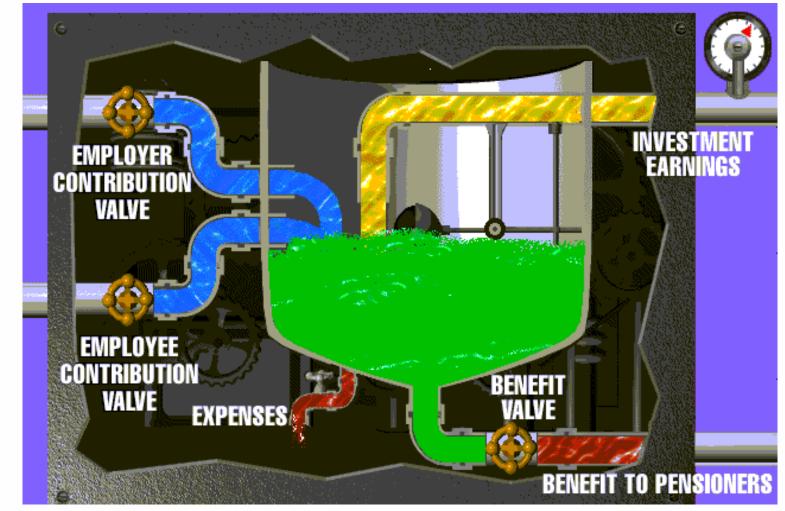
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Overview

- Historical Analysis
- 2007 Valuation
- Discussion Points
- Projections
- Appendix

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Actuarial Primer

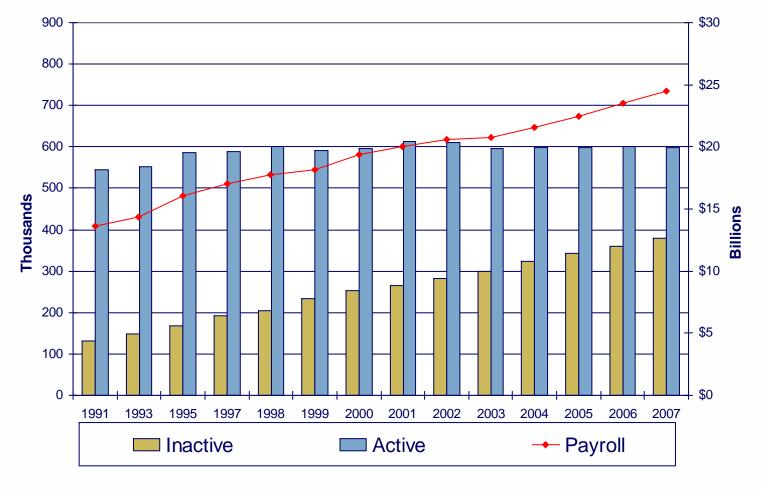


The Harvard Business Review 1965

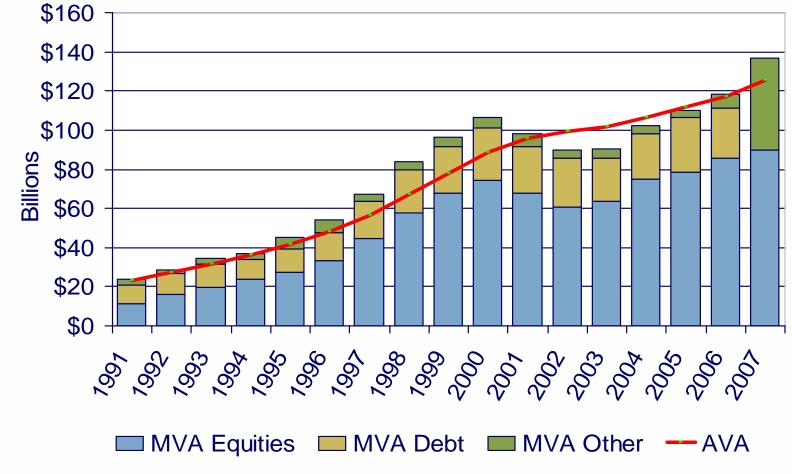
Historical Analysis

- Membership & Employer Payroll
- Market & Actuarial Value of Assets
- Liabilities
- Funding Target
- Contributions
- Plan Cash Flows
- Historic Asset Returns

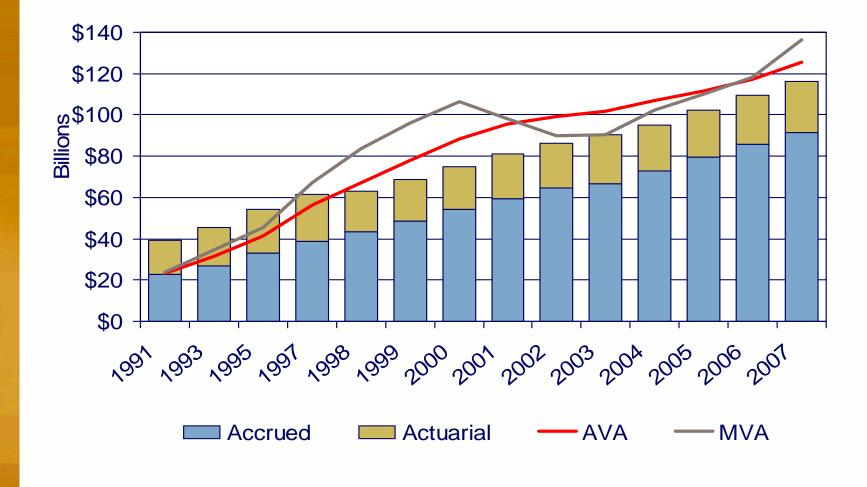
Membership & Employer Payroll



Market & Actuarial Value of Assets

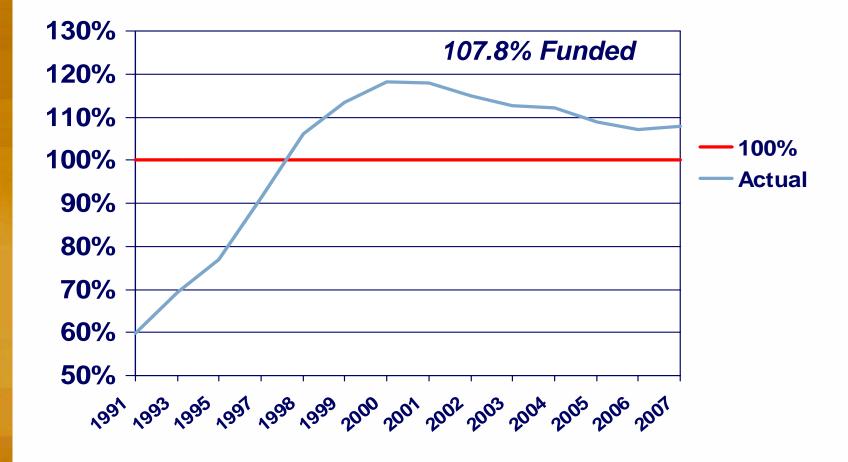


Liabilities



Funding Target

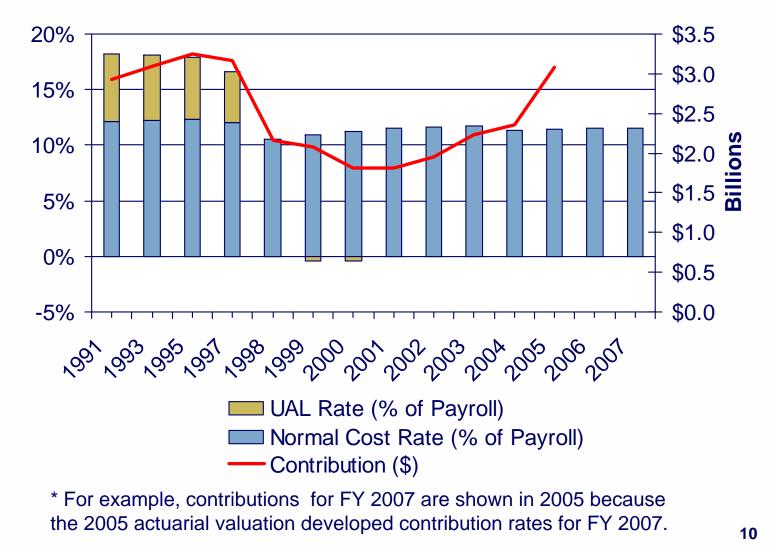
Actuarial Value of Assets / Actuarial Liabilities



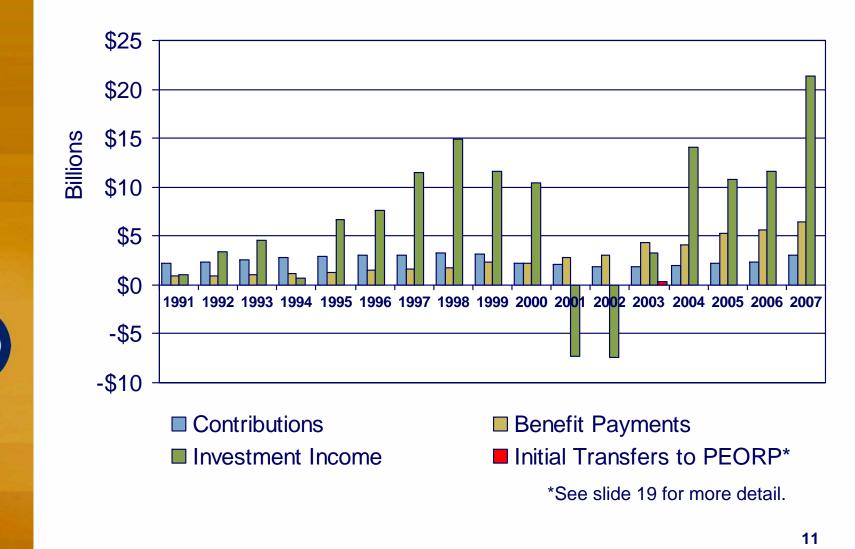
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Contributions

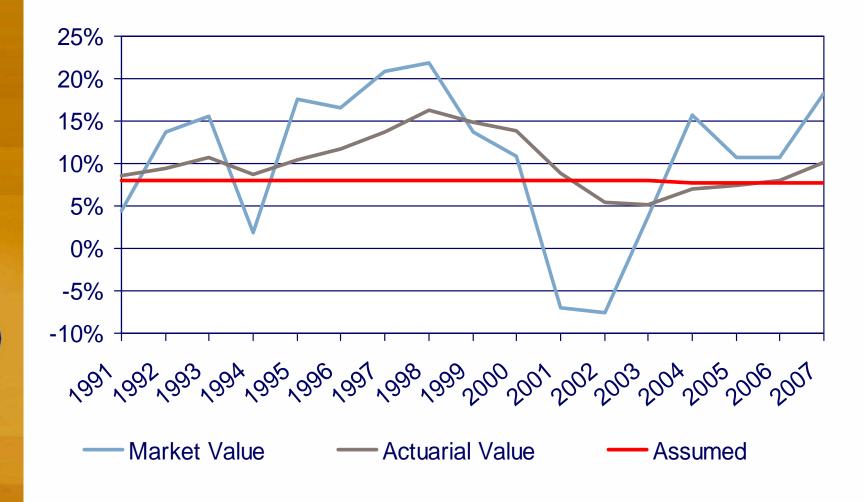
(Contribution rate shown in year developed; contribution amount adjusted for budget lag*)



Plan Cash Flows



Historic Asset Returns



2007 Valuation

- Valuation Highlights
- Composite Funding Levels
- Normal Cost Rates
- Summary of PEORP Elections
- Effect of Salary Distribution on Normal Cost Rates

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2007 Valuation Highlights

- Results are based on the 2007 actuarial assumptions and methods as established by the July 1, 1998 – June 30, 2003 experience study
- FRS remains in a surplus position (i.e. "Fully Funded")
- Favorable Asset Performance
- MVA exceeds AVA by 8.0% or \$11.0 billion
- IFAS is now a subclass of FRS (like TRS, SCOERS)

14



Asset Smoothing

Five-Year smoothing method helps alleviate heavy losses (on an actuarial basis) at times of unfavorable asset performance. However, large gains are also not "felt" at once.



Assets: MVA vs. AVA

(¢ Rillione)

| | | (3 BIIIOUS | 5) | |
|-------------|------------|------------|------------|------------|
| <u>Year</u> | <u>MVA</u> | MVA Return | <u>AVA</u> | AVA Return |
| 1999 | \$ 96.1 | 13.76% | \$ 77.8 | 14.80% |
| 2000 | 106.5 | 10.82 | 88.5 | 13.79 |
| 2001 | 98.4 | -6.93 | 95.5 | 8.82 |
| 2002 | 89.7 | -7.62 | 99.4 | 5.44 |
| 2003 | 90.5 | 3.76 | 101.9 | 5.10 |
| 2004 | 102.4 | 15.73 | 106.7 | 6.93 |
| 2005 | 110.2 | 10.71 | 111.5 | 7.43 |
| 2006 | 118.5 | 10.65 | 117.2 | 8.06 |
| 2007 | 136.5 | 18.24 | 125.5 | 10.13 |
| | | | | |

From 2002 to 2005 the AVA exceeded the MVA, representing the smoothed impact of the three years of unfavorable MVA returns experienced in 2001-2003. In 2006 & 2007 the MVA once again exceeded the AVA, as a result of four years MVA returns greater than the 7.75% assumed return. The MVA Return in 2006-07 was 18.24%. 16

Composite Funding Levels (\$ Billions)

| | <u>2006</u> | <u>2007</u> | <u>Change</u> |
|---------------------------------|-------------|-------------|---------------|
| Actuarial Liability | \$109.5 | \$116.5 | 6.4% |
| Actuarial Value of Assets | \$117.2 | \$125.5 | 7.1% |
| Unfunded Actuarial Liability | (\$7.7) | (\$9.0) | 16.9% |
| % Funded | 107.0% | 107.8% | |

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Normal Cost Rates

| <u>Employer</u> | <u>07/01/2006</u> | <u>07/01/2007</u> | <u>Change</u> |
|---------------------------|-------------------|-------------------|---------------|
| FRS Regular | 9.59% | 9.60%* | 0.01% |
| Special Risk | | | |
| Regular | 22.01% | 22.03% | 0.02% |
| Administration | 11.90% | 11.98% | 0.08% |
| Elected Officer's Class | | | |
| Judicial | 20.46% | 20.37% | -0.09% |
| Leg-Atty-Cab | 14.99% | 14.52% | -0.47% |
| County | 17.15% | 17.06% | -0.09% |
| Senior Management | 13.35% | 13.36% | 0.01% |
| Composite Rate (w/o DROP) | 11.52% | 11.52% | 0.00% |
| Composite Rate | | | |
| with DROP equal 9.80% | 11.40% | 11.40% | 0.00% |

*Includes IFAS

PEORP – July 1, 2007

| <u>Employer</u> | <u>Remaining "Original"</u> <u>Participants</u> | <u>Contingent Liability</u> (000 omitted) |
|--------------------------------|--|--|
| FRS Regular | 10,956 | \$211,015 |
| Special Risk | | |
| Regular | 417 | 12,089 |
| Administration | 2 | (33) |
| Elected Officer's Class | | |
| Judicial | 7 | (630) |
| Leg-Atty-Cab | 6 | 166 |
| County | 17 | 119 |
| Senior Management | <u>259</u> | <u>9,261</u> |
| 2007 TOTAL | 11,664 | \$231,987 |
| 2006 TOTAL | 12,921 | \$238,465 |
| 2005 TOTAL | 14,567 | \$249,949 |
| 2004 TOTAL | 16,523 | \$263,399 |
| 2003 TOTAL | 21,043 | \$312,915 |
| Net Assets transferred to PEO | \$353,193 19 | |

Discussion Points

The Pension Protection Act of 2006 limits the asset smoothing period to 24 months (effective in 2008). Florida may need to amend applicable statutes by identifying specific Treasury Regulations that would maintain the current five-year smoothing method.



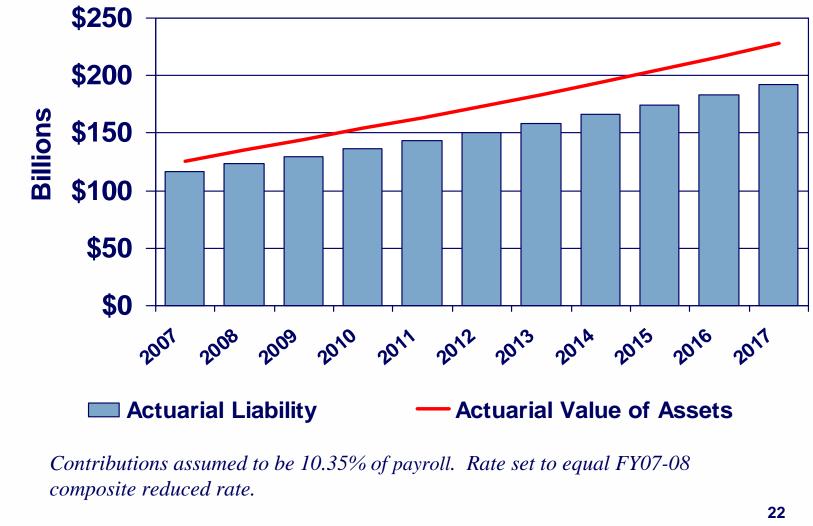
We continue to recommend changes to the method of funding DROP.

Actuarial Liability and Asset Projections

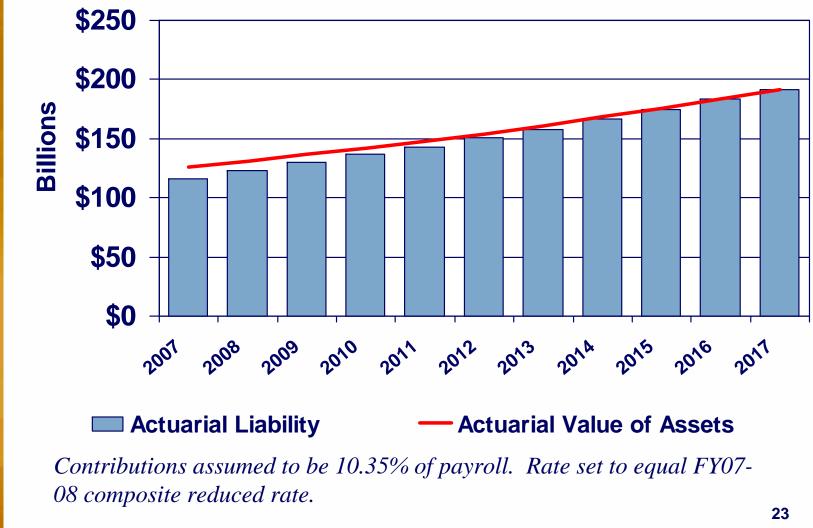
- Assuming 7.75% constant investment returns
- Assuming -7.75% investment returns for one year followed by constant 7.75% returns
- Assuming -7.75% investment returns for two years followed by constant 7.75% returns

*** All returns are on a Market Value Basis

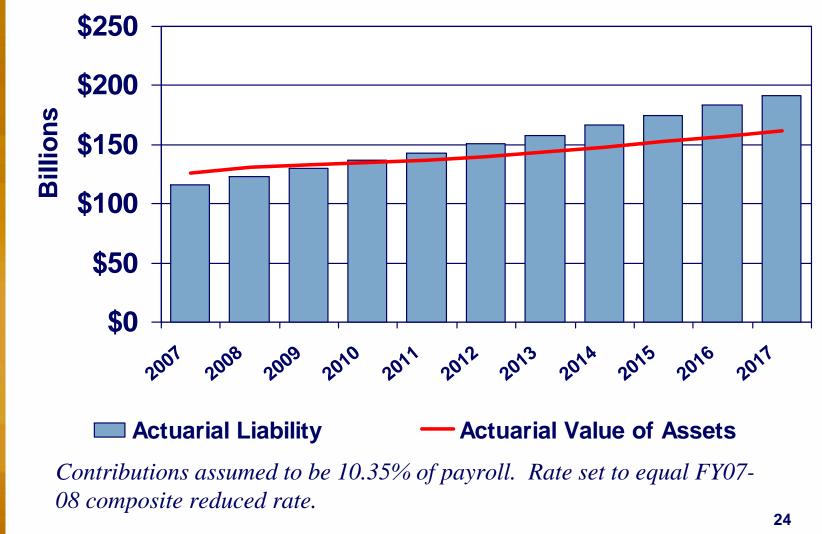
Comparison of Actuarial Liabilities & Assets Assuming Constant 7.75% Investment Returns



Comparison of Actuarial Liabilities & Assets Assuming -7.75% Return Followed by Constant 7.75% Investment Returns



Comparison of Actuarial Liabilities & Assets Assuming two years with a -7.75% Return Followed by Constant 7.75% Investment Returns



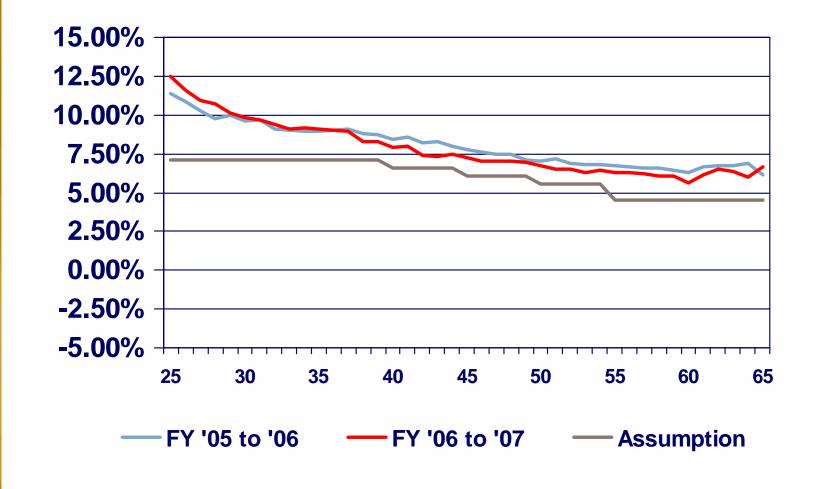
Appendix

Salary Experience

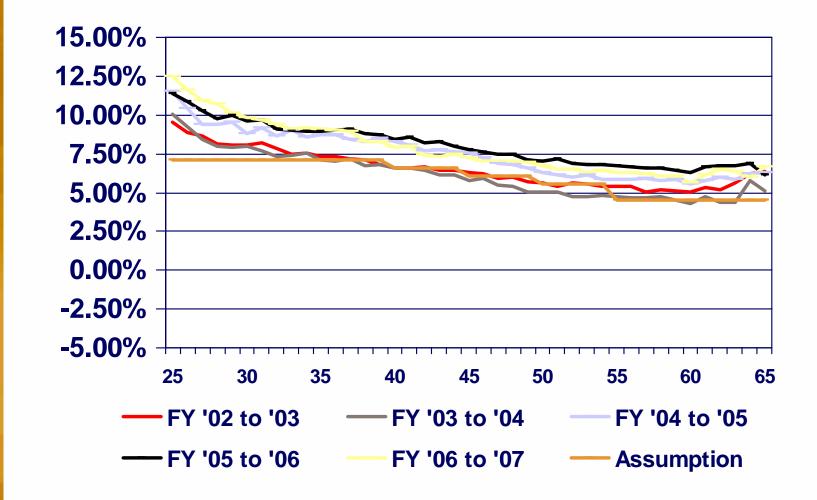
- Compare last two years
- Compare last five years



Salary Experience All Actives – Last Two Fiscal Years



Salary Experience All Actives – By Fiscal Years



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Conclusion

The purpose of this presentation is to provide preliminary results of the July 1, 2007 actuarial valuation of the Florida Retirement System Pension Plan and compare them to results from prior valuations. The results are not yet final and are subject to review and possible revision.

We relied, without audit, on information (some oral and some written) supplied by the Division of Retirement. This information includes, but is not limited to, plan provisions, employee data, and financial information. Census data provided to us by the Division has been reviewed for reasonableness and for consistency with data used in prior valuations. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

The actuarial assumptions used in performing this valuation have been recommended by the actuary and adopted by the Actuarial Assumption Conference based on Milliman's most recent review of the System's experience completed during Fiscal Year 2004. We believe the assumptions used reflect our best estimate of anticipated future experience of the plan. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from these assumptions, the true cost of the plan could vary from our results.

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