

NEW MEXICO EDUCATIONAL RETIREMENT BOARD

Actuarial Valuation Report as of June 30, 2015

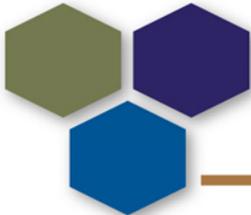
Presented to Board of Trustees on October 21, 2015

R. Ryan Falls, Senior Consultant

Mark Randall, Executive Vice President

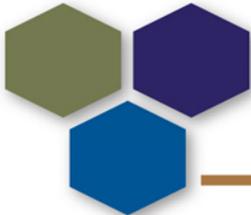


Gabriel Roeder Smith & Company
Consultants & Actuaries
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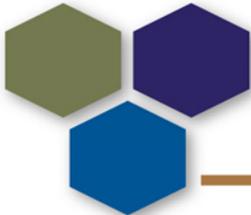
Actuarial Valuation

- ◆ Prepared as of June 30, 2015, using member data, financial data, benefit and contribution provisions, actuarial assumptions and methods
- ◆ Purposes:
 - ▶ Measure the actuarial liabilities
 - ▶ Determine adequacy of current statutory contributions
 - ▶ Provide other information for reporting
 - CAFR (Consolidated Annual Financial Report)
 - ▶ Explain changes in actuarial condition of ERB
 - ▶ Track changes over time
 - ▶ Provide early warning on new trends



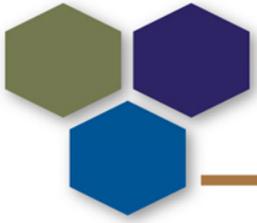
Key Results

- ◆ The actuarial funded ratio improved from 63.1% to 63.7%
- ◆ Unfunded Actuarial Accrued Liability (UAAL) increased from \$6.3 billion to \$6.5 billion
- ◆ The normal cost rate decreased from 13.11% of pay to 12.98% of pay
- ◆ The funding period increased from 42.1 years to 43.2 years
- ◆ *These above valuation results are determined as of a single point in time. The calculated funding period does not reflect:*
 - ▶ *Lower normal cost for future members*
 - ▶ *Future COLAs less than 2%*
 - ▶ *Open group projections as future hires replace retirements and terminations*

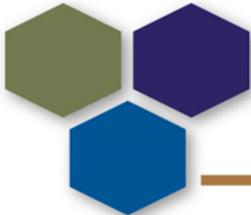


Recent Events

- ◆ The return on the market value of assets was 3.7%
 - ▶ High-level calculation performed by GRS
- ◆ The return on the actuarial (smoothed) value of assets was 9.7%
 - ▶ \$25 million in deferred gains not yet recognized
 - ▶ Created an actuarial gain of \$205 million
- ◆ Experience losses totaled \$7 million
 - ▶ Includes \$47 million gain due to actual COLA less than the 2.0% assumed
- ◆ Valuation reflects the changes adopted following the experience study for the six-year period ending 2014:
 - ▶ Updated mortality assumption, including future mortality improvements
 - ▶ Revisions to retirement rates for members who joined ERB after June 30, 2010
 - ▶ Revisions to disability rates
 - ▶ Decreased wage inflation from 4.25% to 3.75%
 - ▶ Lower the population growth assumption to zero (no impact on valuation results)

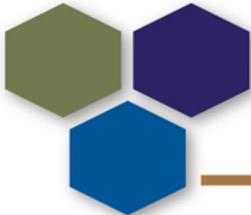


Demographic Summary

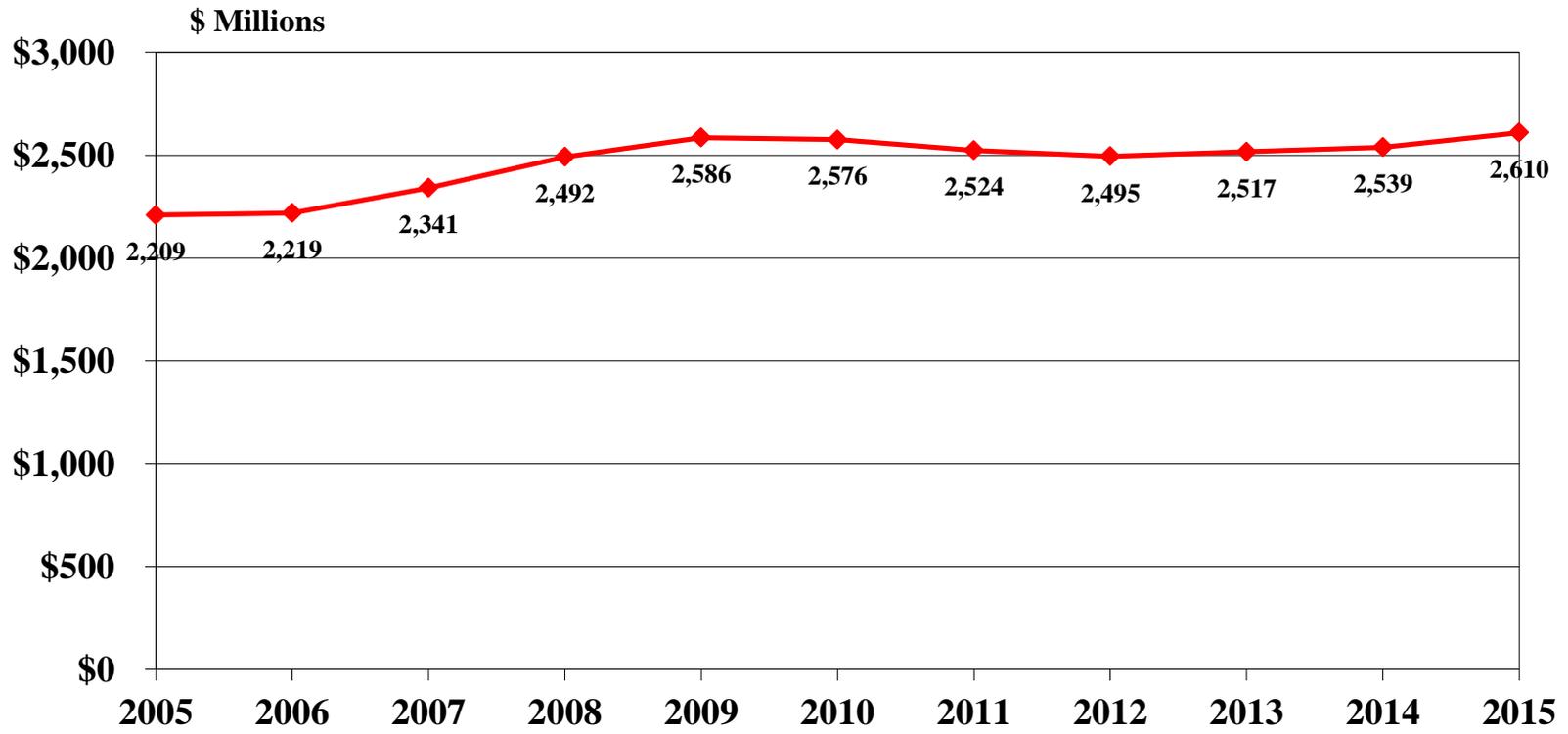


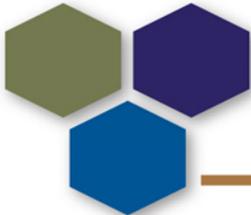
Membership – Actives

- ◆ The number of active members decreased from 61,173 to 60,998, a decrease of 0.3%
 - ▶ Tier 1 members decreased from 43,122 to 38,967
 - ▶ Tier 2 members decreased from 11,103 to 9,551
 - ▶ Tier 3 members increased from 6,948 to 12,480
- ◆ Total payroll of active members increased from \$2,539 million to \$2,610 million
 - ▶ Annual increase of 2.8%
 - ▶ Over the last ten years, total payroll has increased an average of 1.7% per year



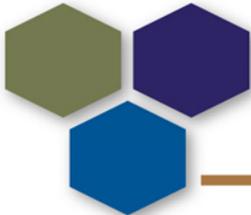
Active Payroll





Membership – Actives

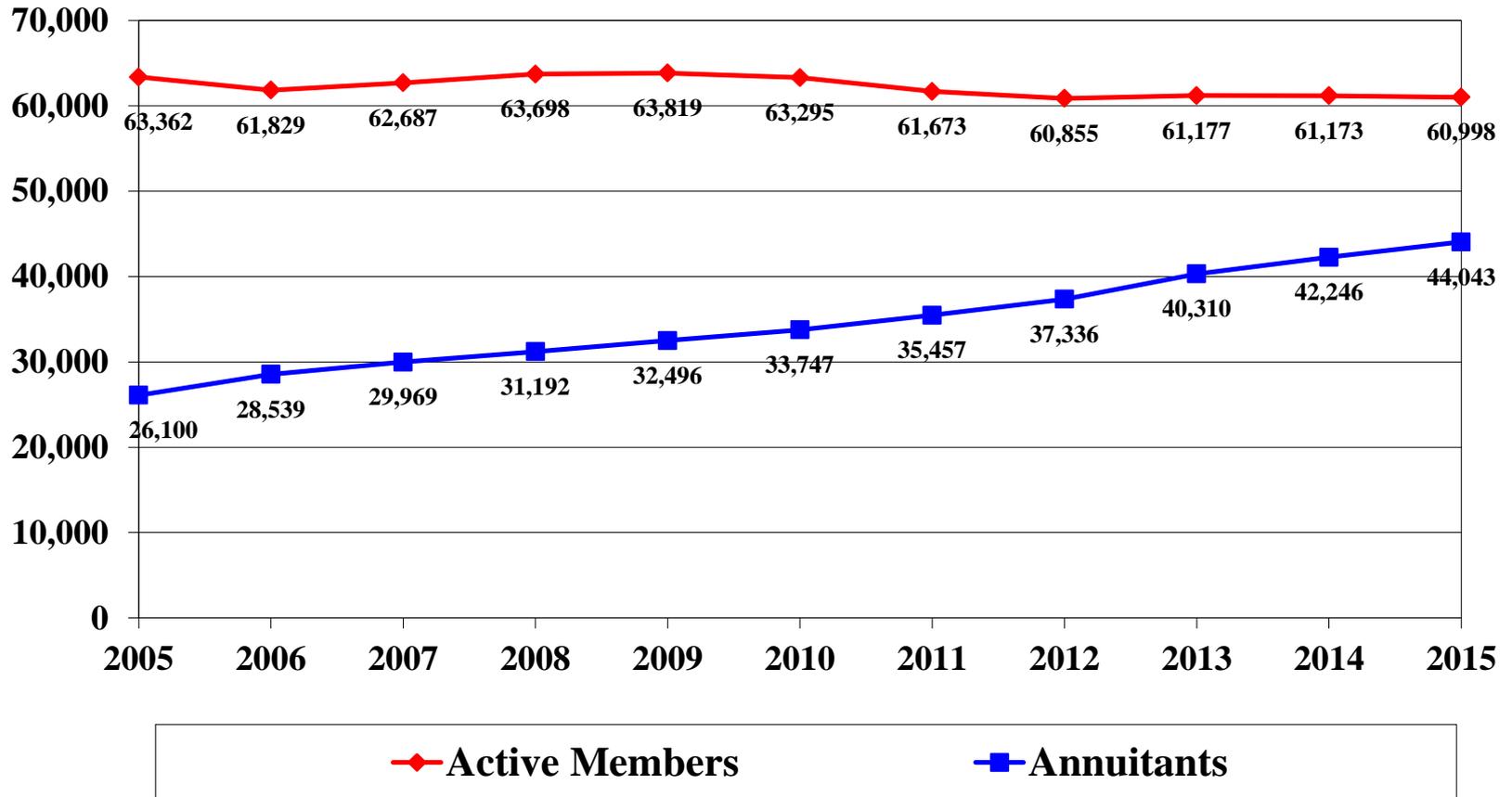
- ◆ Average pay for active members increased from \$41,503 to \$42,793
 - ▶ Annual increase of 3.1%
 - ▶ Over the last ten years, average pay has increased an average of 2.1% per year
- ◆ Average age of active members is 46.5
 - ▶ 46.6 last year
 - ▶ 45.6 ten years ago
- ◆ Average years of service is 9.7
 - ▶ 9.8 last year
 - ▶ 9.3 ten years ago

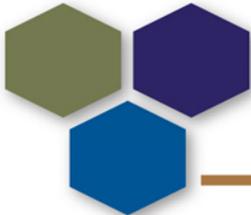


Membership – Annuitants

- ◆ The number of annuitants increased from 42,246 to 44,043, a 4.3% increase
 - ▶ Annuitants include service retirees, disabled retirees, and beneficiaries receiving benefits
 - ▶ Over the last ten years, the number of annuitants has grown an average of 5.4% per year
- ◆ Average annual benefit is \$21,832
 - ▶ Reflects cost-of-living increase for July 1, 2015
 - ▶ Over the last ten years, the average annual benefit has grown an average of 2.2% per year
- ◆ There are 1.4 active members for each annuitant
 - ▶ Ten years ago the ratio was 2.4

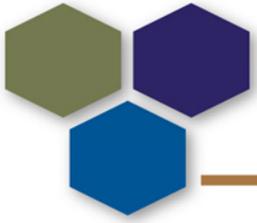
Active Members and Annuitants



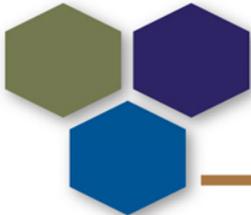


Membership – Inactives

- ◆ 9,513 inactive vested members
 - ▶ Generally waiting to commence annuity
 - ▶ Includes 36 new members under Tier 2
- ◆ 31,535 inactive nonvested members
 - ▶ Generally only due refund of contributions
 - ▶ Includes 2,041 additional unallocated terminated records that were not reported in previous years but with a cumulative member contribution balance of approximately \$4 million

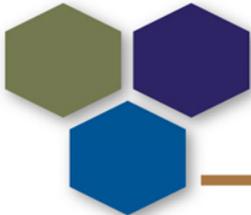


Assets



Assets

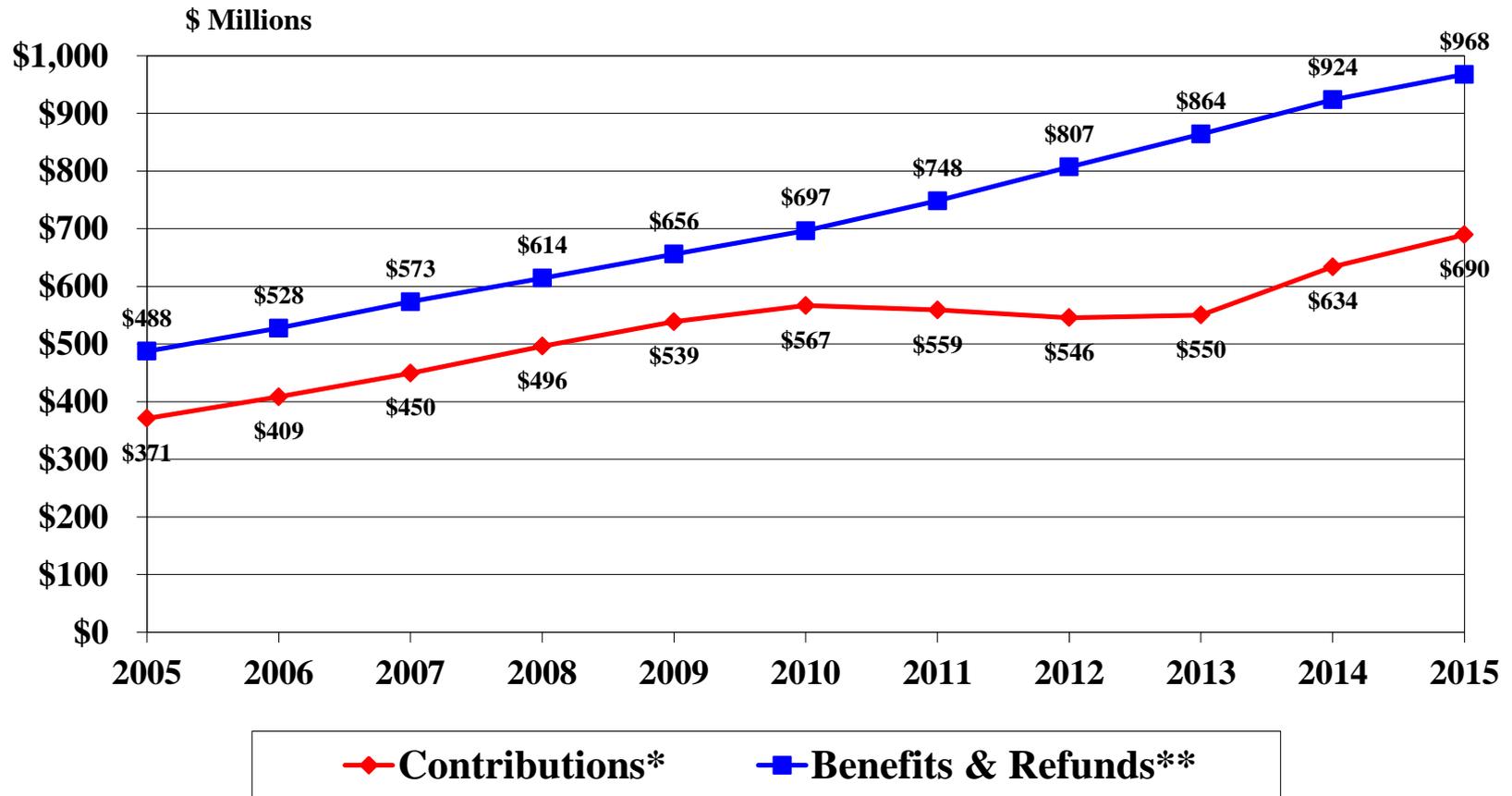
- ◆ Fair market value increased from \$11,346 million to \$11,498 million
- ◆ Contributions
 - ▶ Member contributions = \$295 million, including service purchases
 - 10.70% in FY 2015 and thereafter
 - ▶ Employer contributions = \$390 million
 - 13.90% in FY 2015 and thereafter
 - ▶ ARP contribution = \$5 million (3% of ARP payroll)
- ◆ Total contributions of \$690 million, compared to \$634 million last year



Assets

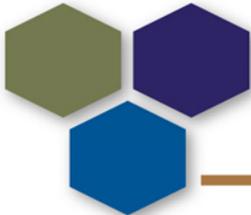
- ◆ Total distributions—benefit payments, refunds and administrative expenses—totaled \$968 million
- ◆ Therefore, net external cash flow was -\$278 million, or -2.4% of market value of assets at end of year
 - ▶ Projected to stay at or below -4%
- ◆ Return of approximately 3.7% in FY 2015 (net of administrative and investment expenses)
 - ▶ 9.7% for last five years
 - ▶ 6.6% for last 10 years
 - ▶ 4.7% for last 15 years
 - ▶ 7.2% for last 20 years

Contributions vs. Benefits and Refunds



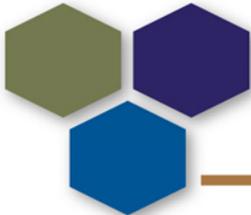
* Includes member contributions, employer contributions, and service purchases

** Includes administrative expenses



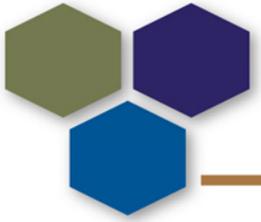
Assets

- ◆ Most actuarial calculations are based on actuarial value of assets, not market value
- ◆ Actuarial value only reflects a portion of the actual market returns over the past five years
 - ▶ 20% of the difference between last year's expected return on market and the actual return
 - ▶ 40% of FY 2014 difference, 60% of FY 2013 difference and 80% of FY 2012 difference
- ◆ Actuarial value is now \$11,472 million, compared to \$10,715 million last year

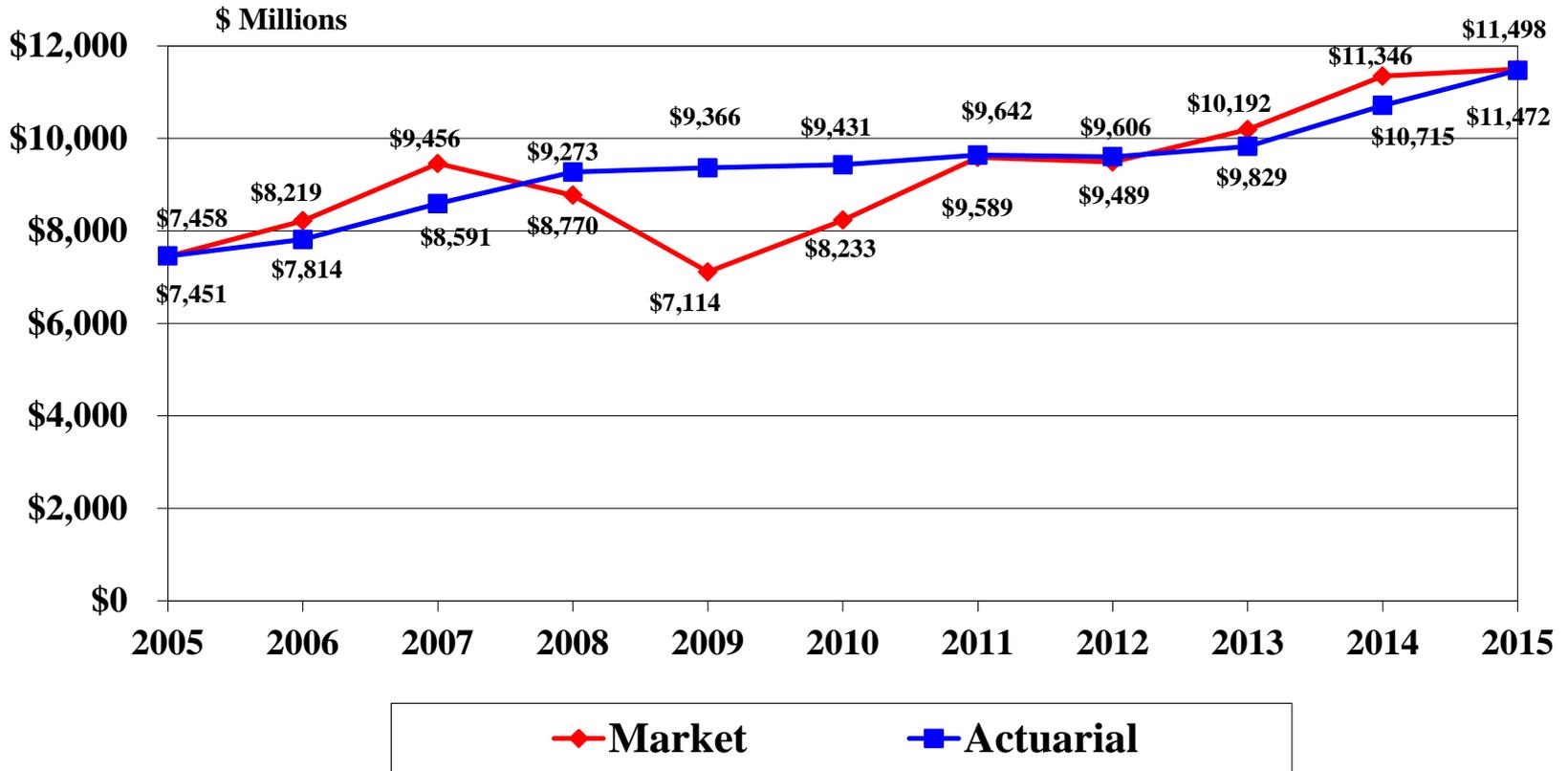


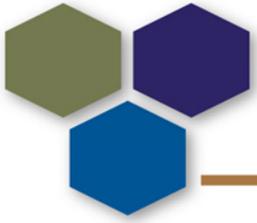
Assets

- ◆ Actuarial return was 9.7% in FY 2015, compared to 12.0% in FY 2014
 - ▶ 20% of the good returns in FY 2014, FY 2013, and FY 2011 offset by the lower returns in FY 2012 and FY 2015
- ◆ Actuarial value is almost 100% (99.8%) of fair market value, versus 94% last year
- ◆ \$25 million in deferred gains, not yet recognized

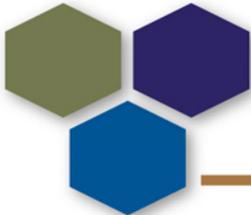


Market and Actuarial Values of Assets



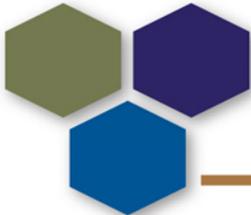


Funding Valuation Results



Funding Valuation Results

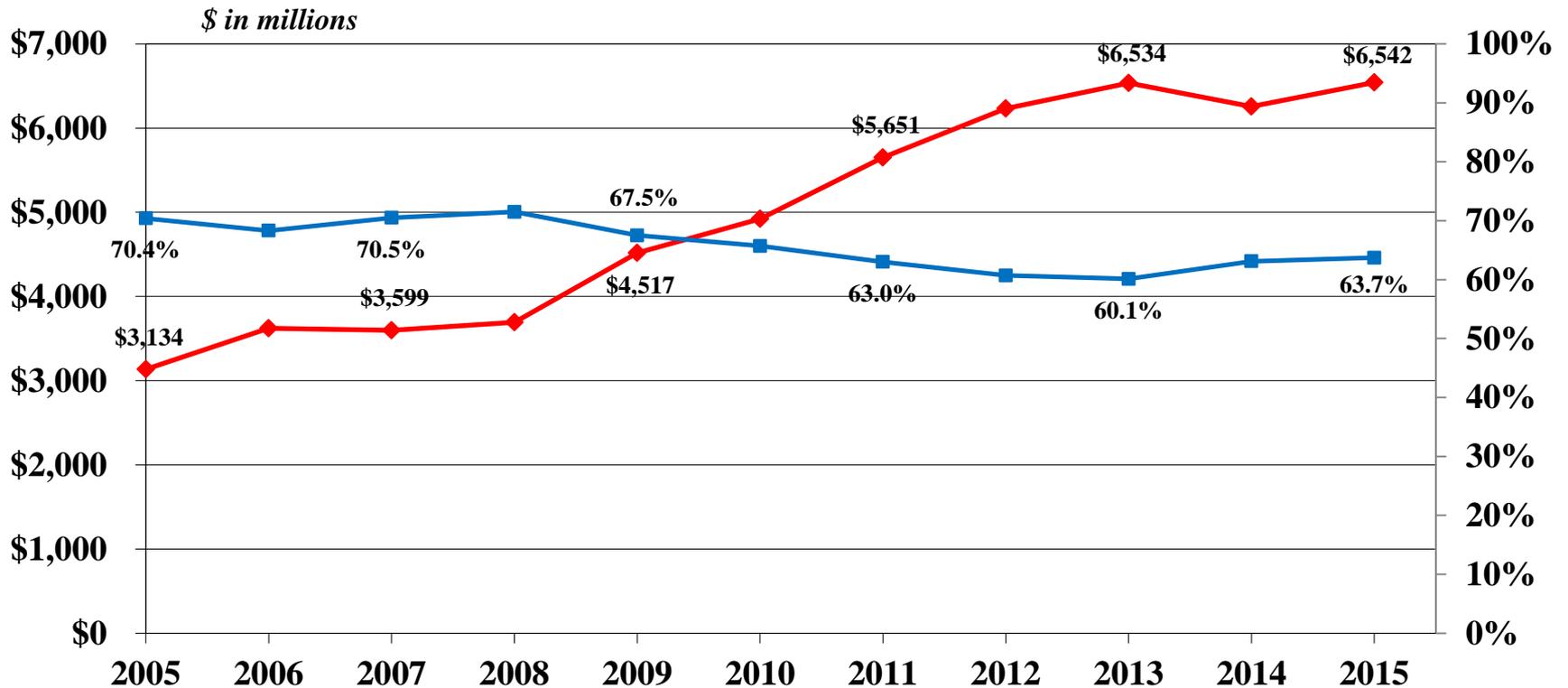
- ◆ Unfunded actuarial accrued liability (UAAL) increased from \$6,256 million to \$6,542 million
- ◆ Funded ratio (actuarial assets divided by actuarial accrued liability) increased from 63.1% to 63.7%
 - ▶ Ratio using market value decreased from 66.9% to 63.8%
- ◆ 13.90% employer contribution for FY 2016 comprised of:
 - ▶ Employer normal cost: 2.28%
 - ▶ Amortization payment: 11.62%



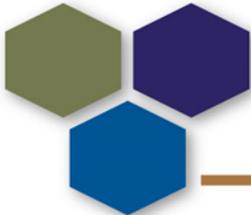
Change in UAAL for the Year (\$ in millions)

	<u>2014/15</u>	<u>2013/14</u>
1. UAAL at beginning of year	\$6,256.3	\$6,533.7
2. Interest on UAAL	484.9	506.4
3. Amortization contributions	(350.7)	(294.8)
4. Liability experience	54.4	(33.2)
5. Investment experience	(204.8)	(408.6)
6. Actual COLA more/(less) than expected	(47.0)	(47.2)
7. Change of actuarial assumptions	348.9	0.0
8. Benefit changes	<u>0.0</u>	<u>0.0</u>
9. UAAL at end of year	\$6,542.0	\$6,256.3

Historical UAAL and Funded Ratio

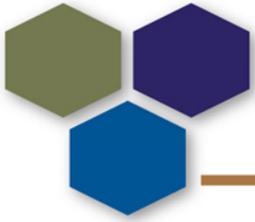


- Based on actuarial value of assets
- Assumption changes in 2005, 2011, 2013 and 2015

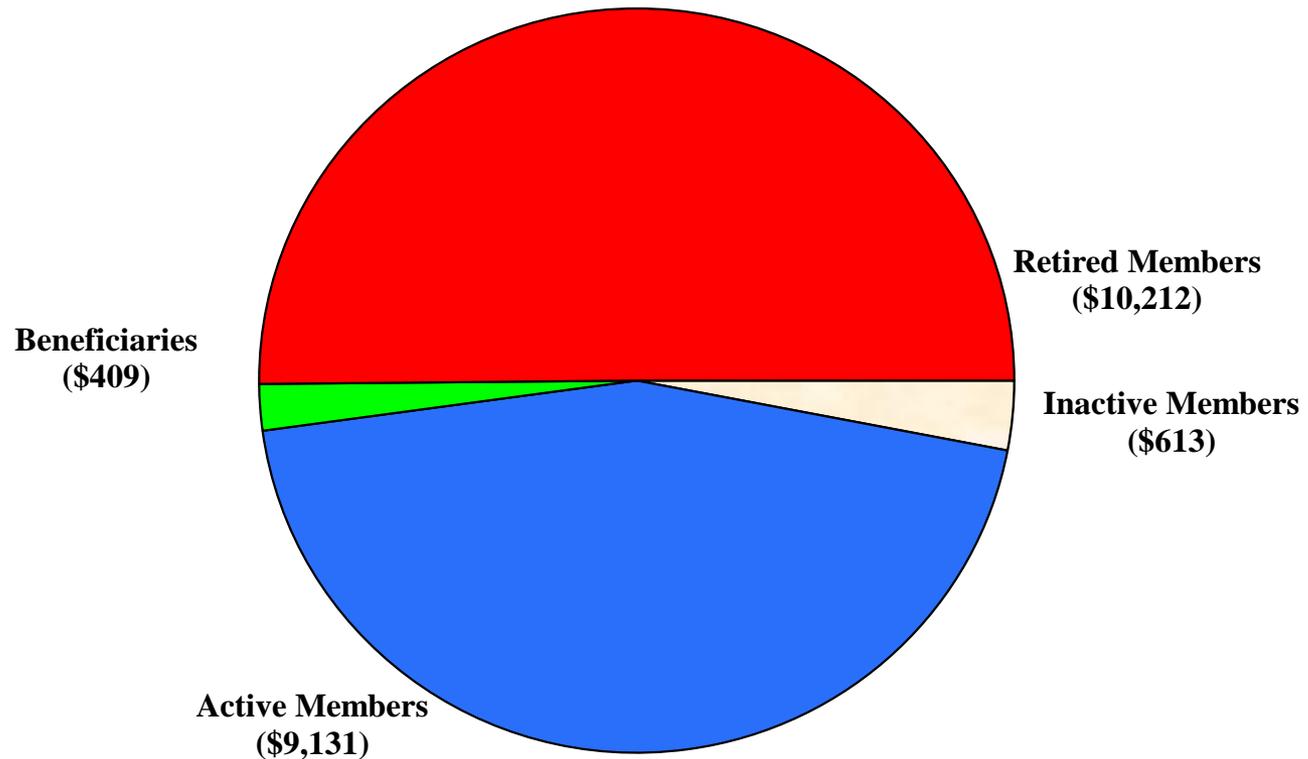


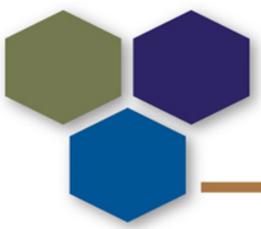
Funding Valuation Results

- ◆ Funding period is 43.2 years
- ◆ Funding Policy Contribution is 16.78%
 - ▶ 27-year amortization (30 years from 06/30/2012), plus employer normal cost
 - ▶ Shortfall (16.78% - 13.90%) of 2.88%
- ◆ These metrics do not incorporate certain improvements going forward
 - ▶ Lower normal cost for future members
 - ▶ Future COLAs less than 2%

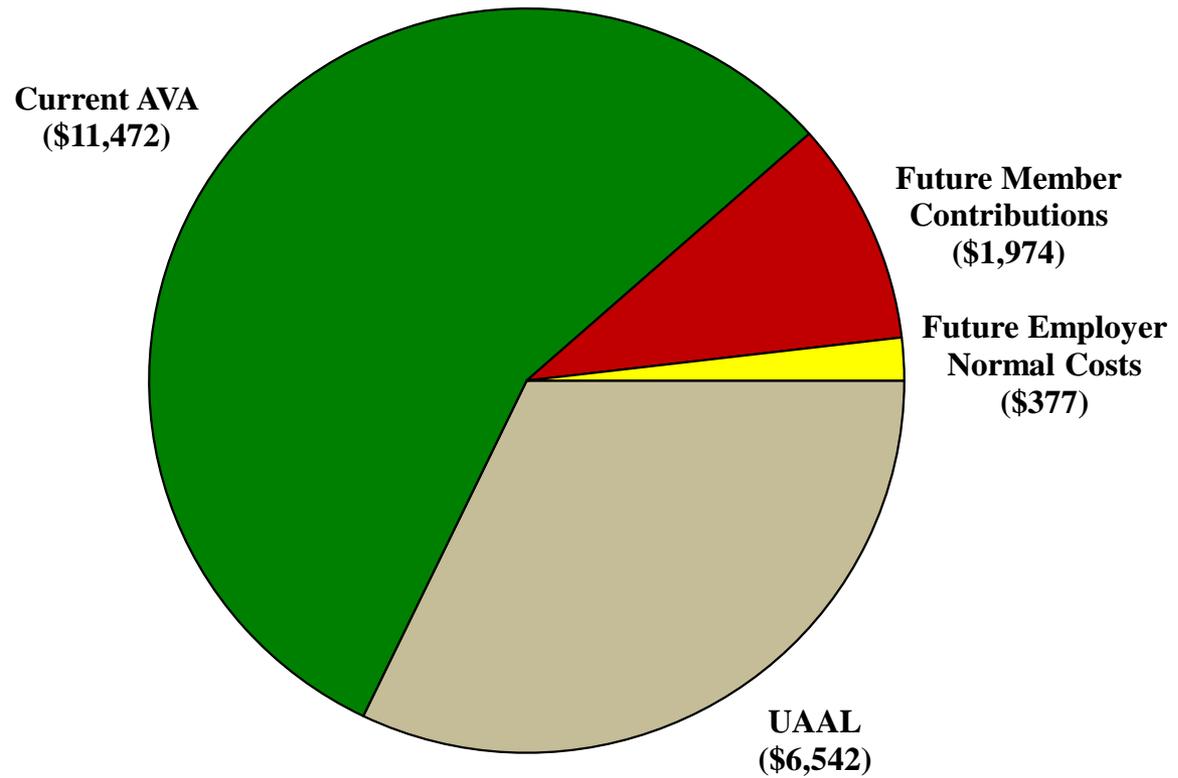


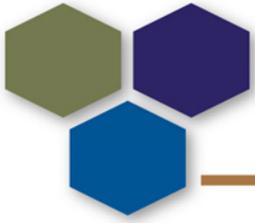
Where the Present Value of Future Benefits (\$20,365 Million) will go



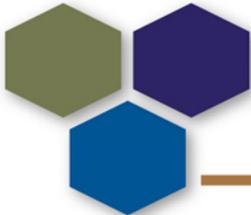


How Present Value of Future Benefits (\$20,365 Million) will be provided



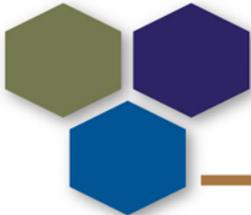


Accounting Valuation Results



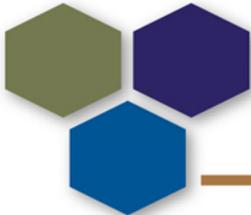
Accounting Valuation Results

- ◆ ERB elected to adopt GASB 67 for plan year ending June 30, 2013
- ◆ New measures reported in ERB's CAFR
 - ▶ Total Pension Liability (equivalent to AAL)
 - ▶ Plan Fiduciary Net Position (equivalent to MVA)
 - ▶ Net Pension Liability (equivalent to UAAL)
- ◆ GASB 68 reporting now required for employer fiscal years ending June 30, 2015



Determining the Discount Rate

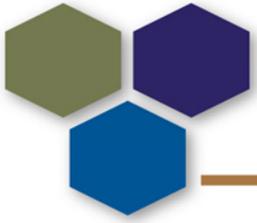
- ◆ Discount rate used in determining the Total Pension Liability (TPL) is a blend of two rates
 - ▶ Long-term expected rate of return on pension plan investments (7.75% for ERB)
 - Can be used to discount plan obligations as long as there are projected assets sufficient to pay projected plan benefits
 - ▶ Yield or index rate for a 20-year, tax-exempt general obligation municipal bond (3.80% as of June 30, 2015)
 - Used to discount plan obligations after the projected assets have been extinguished



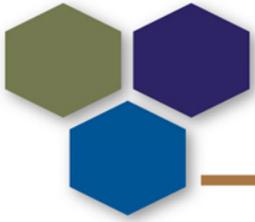
Accounting Valuation Results

- Based on GASB procedures, projected plan assets will not be extinguished
- TPL as of June 30, 2015 will be determined based on the full investment return assumption of 7.75%
- TPL as of June 30, 2015 is based on “roll forward” of prior actuarial valuation, so there will be slight disconnect between TPL and AAL

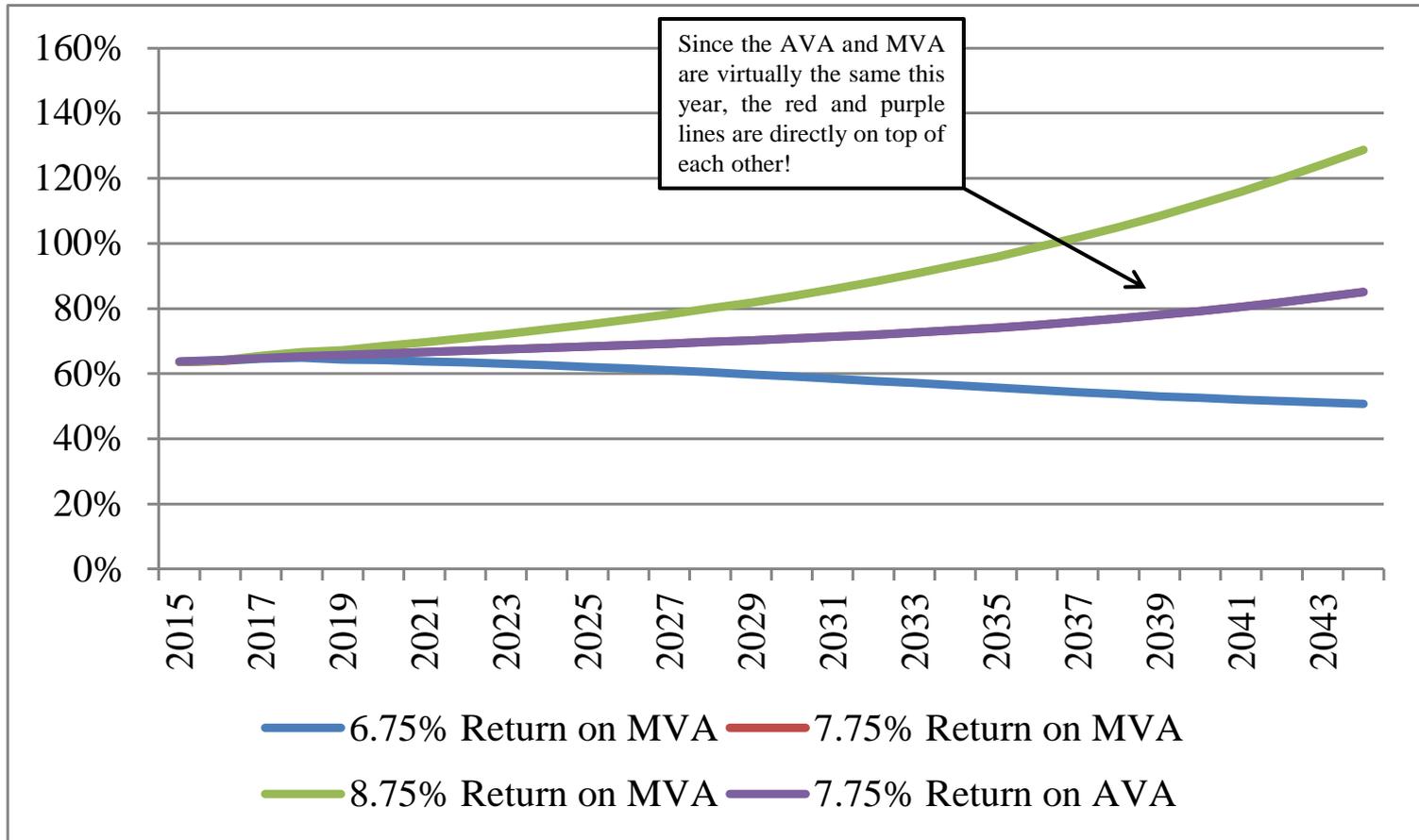
	June 30, 2015 (in millions)	June 30, 2014 (in millions)
Total Pension Liability	\$17,975	\$17,052
Plan Fiduciary Net Position	<u>11,498</u>	<u>11,346</u>
Net Pension Liability	6,477	5,706



Looking Forward



Projection – Funded Ratios



Projection results assuming 7.75% return market value, 0.00% annual membership growth, current assumptions and plan provisions, and variable COLAs based on future funded ratios



Current Topics

- ◆ GASB

- ▶ Employers are preparing to publish first set of financial statements under with new standards

- ◆ Continued industry discussions about mortality tables and assumptions for mortality improvement

- ◆ Potential for new actuarial standards

- ▶ Applicable only to public pension plans