



Employer Contribution Rates: Summary of 2011 Actuarial Valuation Results

Missouri LAGERS Annual Meeting
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GRS

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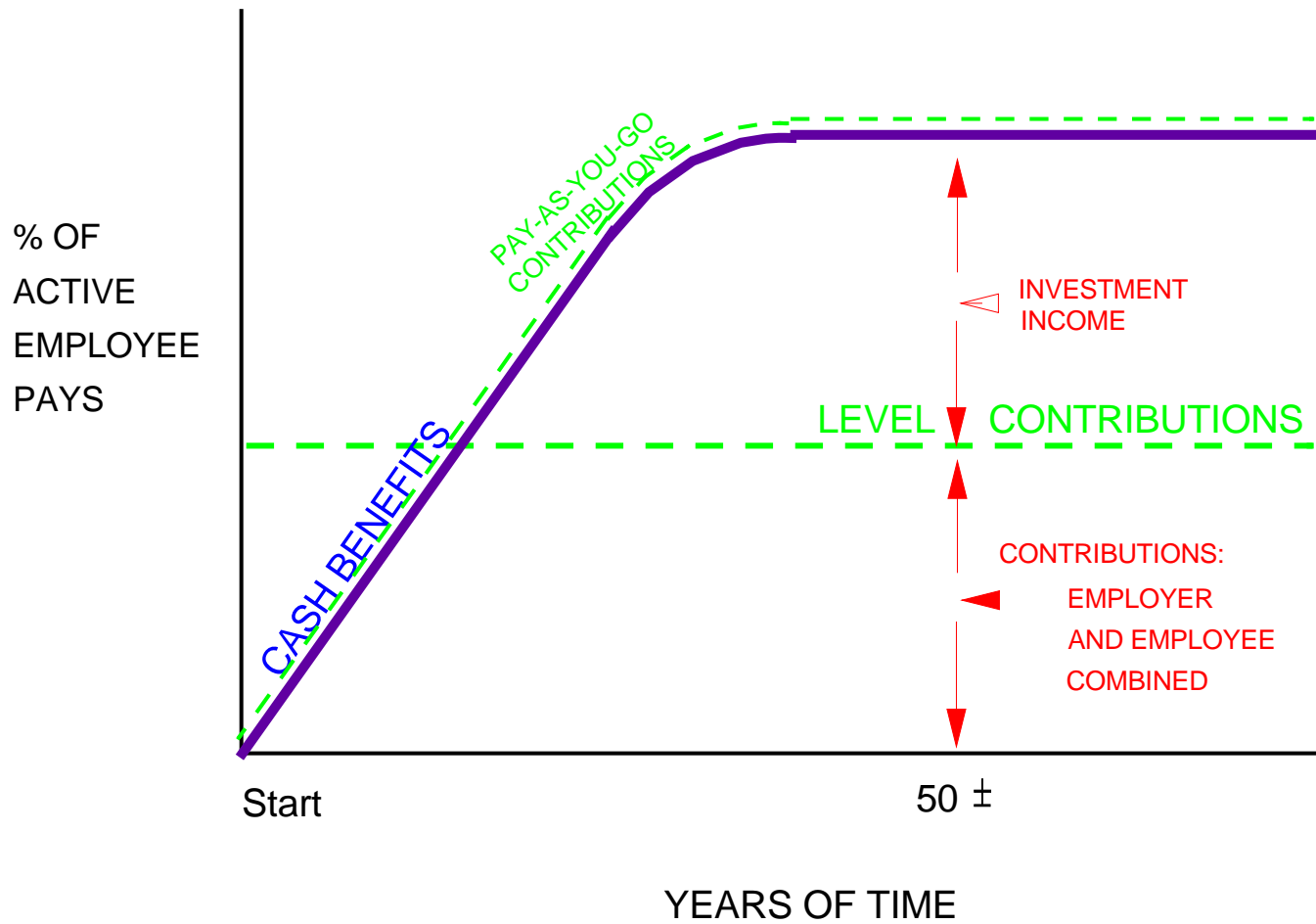


43rd Annual Actuarial Valuations

- ◆ Actuarial valuations of individual participating employers are made for the purposes of:
 - ▶ Revising employer contribution rates for fiscal years beginning in 2012
 - ▶ Examining the reserve strength of each separately experience-rated group
- ◆ Actuarial valuations are also made of retired life benefits being paid from the Benefit Reserve Fund to determine the financial condition of this pooled fund

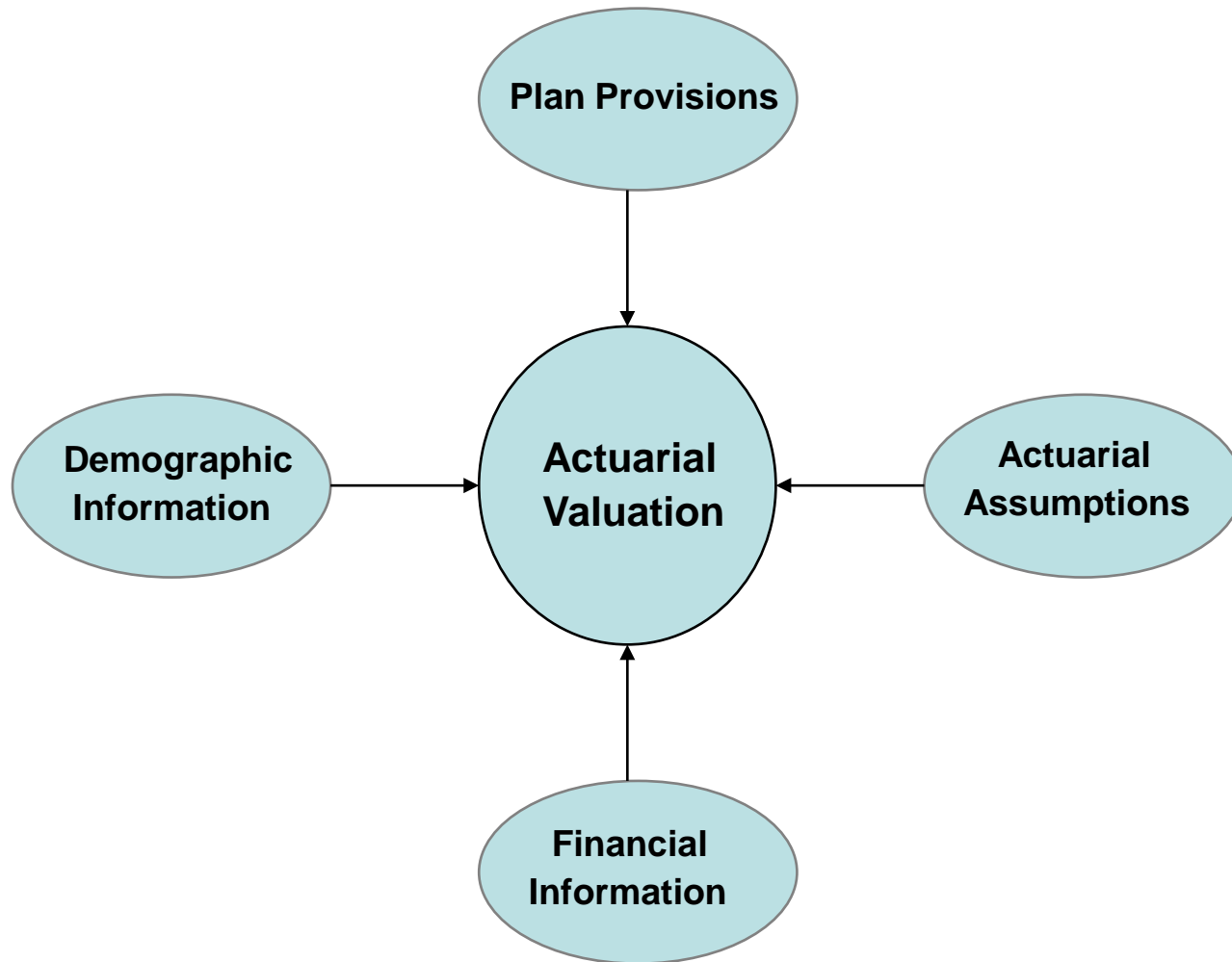


Funding Philosophies





Items Required for Valuations

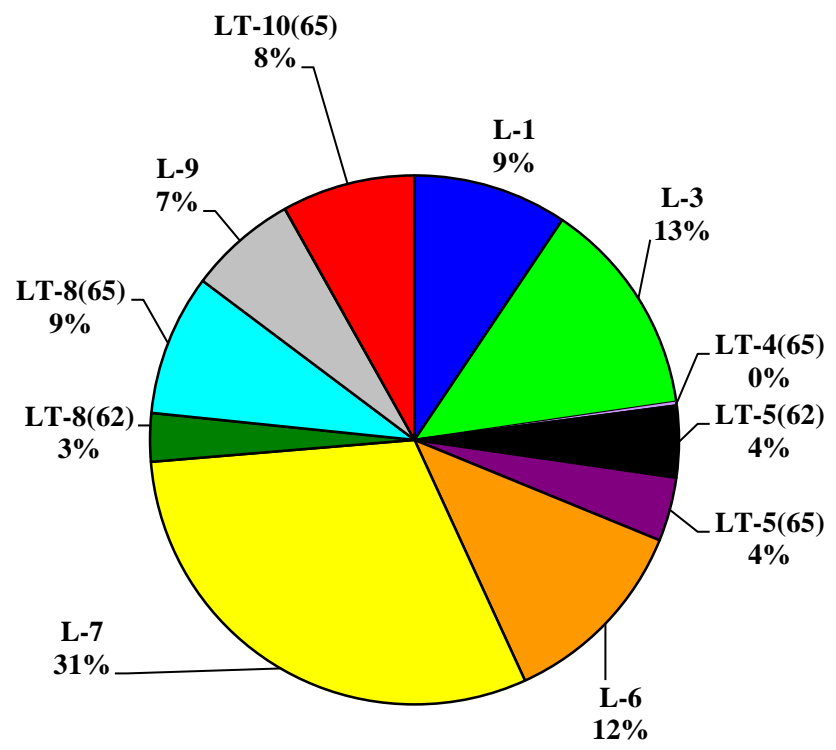




Benefit Programs – 2001 vs. 2011

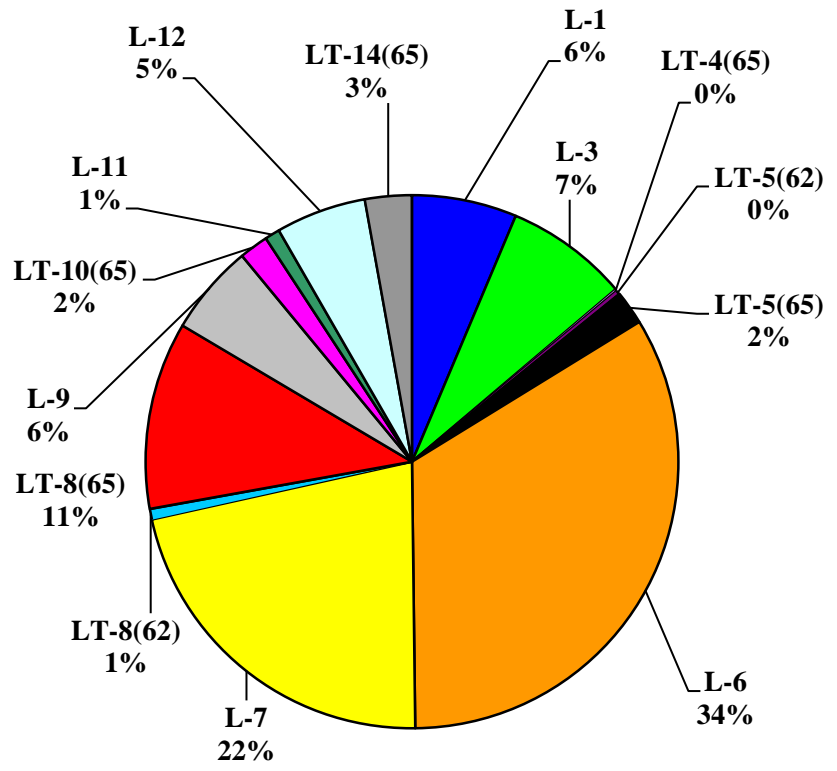
By Active Membership

2001



Avg. Benefit Multipliers: Life: 1.47%, Temporary: 0.15%

2011



Avg. Benefit Multipliers: Life: 1.65%, Temporary: 0.09%



Introduction - Risk Areas

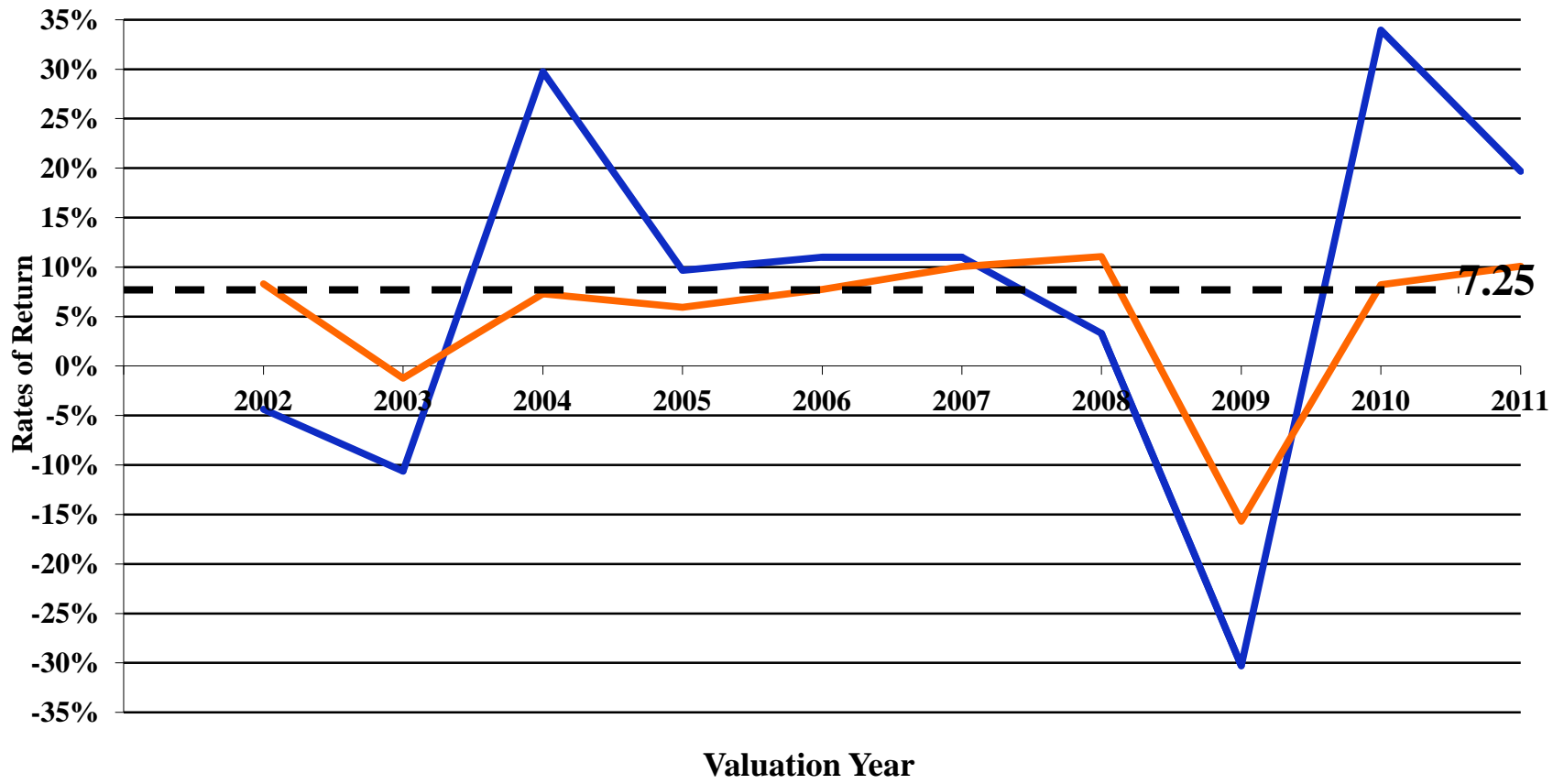
◆ Decrement Risk Areas

- ▶ Rates of withdrawal
- ▶ Rates of disability
- ▶ Rates of retirement
- ▶ Rates of mortality

◆ Economic Risk Areas

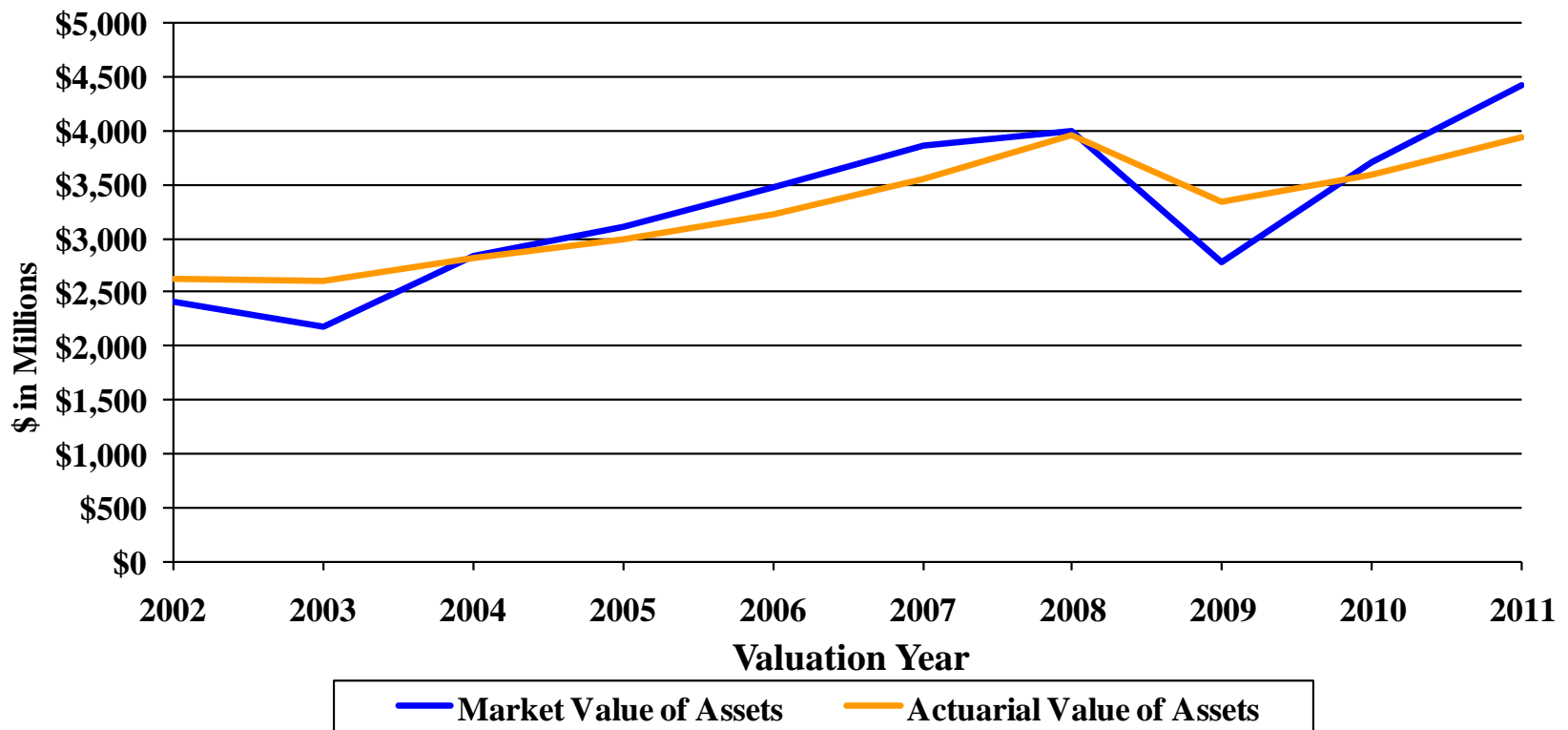
- ▶ Investment return
- ▶ Inflation
- ▶ Patterns of salary increases

Asset Rates of Returns



— Market Value Rate of Return — Actuarial Value Rate of Return

Market Value vs. Actuarial Value





Components of Employer Contribution Rates

◆ Current Service Cost

- ▶ Cost associated with an active member accruing an additional year of service credit

◆ Disability Cost

- ▶ “Pooled” cost associated with disability benefits

◆ Prior Service Cost

- ▶ Cost associated with the amortization of the difference between actuarial accrued liabilities and the actuarial value of assets



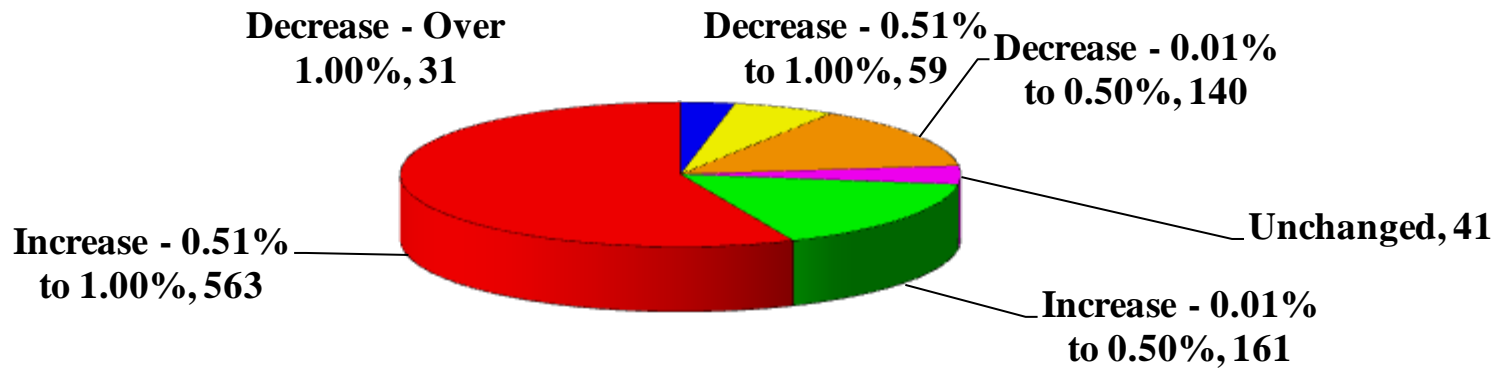
Change in Employer Contributions

Valuation Date	Decreases	Unchanged	Increases	Total
2-28-2002	326	157	308	791
2-28-2003	202	139	462	803
2-29-2004	314	136	378	828
2-28-2005	300	128	418	846
2-28-2006*	640	27	198	865
2-28-2007	536	118	239	893
2-29-2008	577	110	233	920
2-28-2009	71	54	820	945
2-28-2010	201	63	707	971
2-28-2011*	230	41	724	995

* Revised actuarial assumptions.



Change in Employer Contributions





Recent Valuation Results

	As of February 28,				
	2007	2008	2009	2010	2011
Market Value Rate of Return	11.0%	3.3%	-30.3%	34.0%	19.7%
Funding Value Rate of Return	10.0%	11.1%	-15.7%	8.2%	10.1%
Funded Ratio	96.1%	97.5%	80.0%	81.0%	81.6%
Average Total Contribution Rates					
Capped (as a % of payroll)	10.70%	10.48%	11.48%	12.57%	13.40%
Uncapped (as a % of payroll)	10.59%	10.35%	13.84%	14.00%	14.51%



Uncapped Contribution Rate

- ◆ Uncapped employer contribution rate as a % of payroll
 - ▶ Determined annually for each employer
 - ▶ Reflects actuarial experience during the year
 - Such as investment gains/losses
 - ▶ Increases are not limited

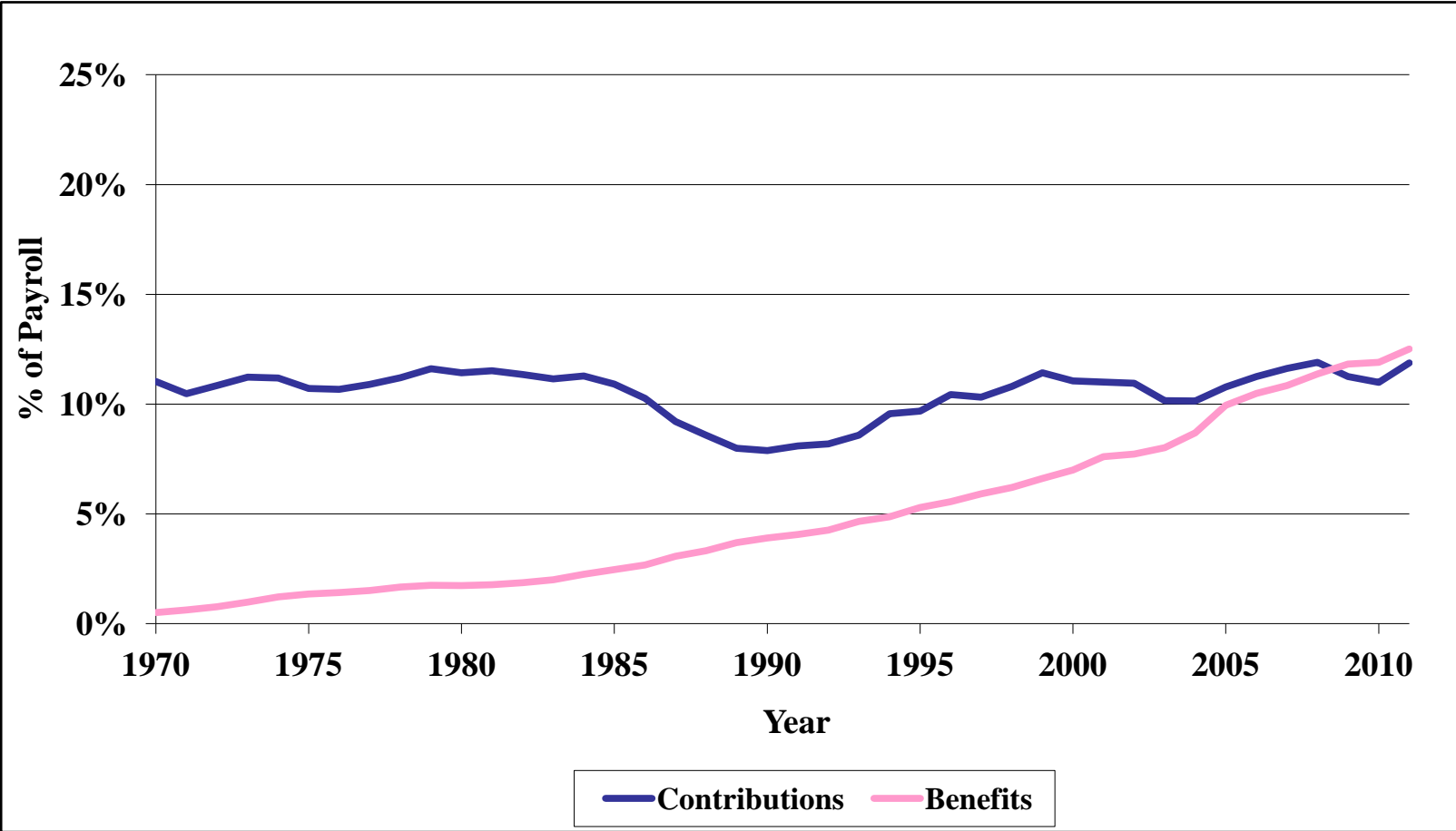


Capped Contribution Rate

- ◆ Capped employer contribution rate as a % of payroll
 - ▶ Often will equal the uncapped rate
 - ▶ However, Section 70.730 of the Revised Statutes of Missouri, limits the increase to one percent of payroll each year
 - Not including the effects of any benefit changes
 - ▶ In the absence of future actuarial gains, the capped rate is expected to increase by 1% of payroll each year until it equals the uncapped rate

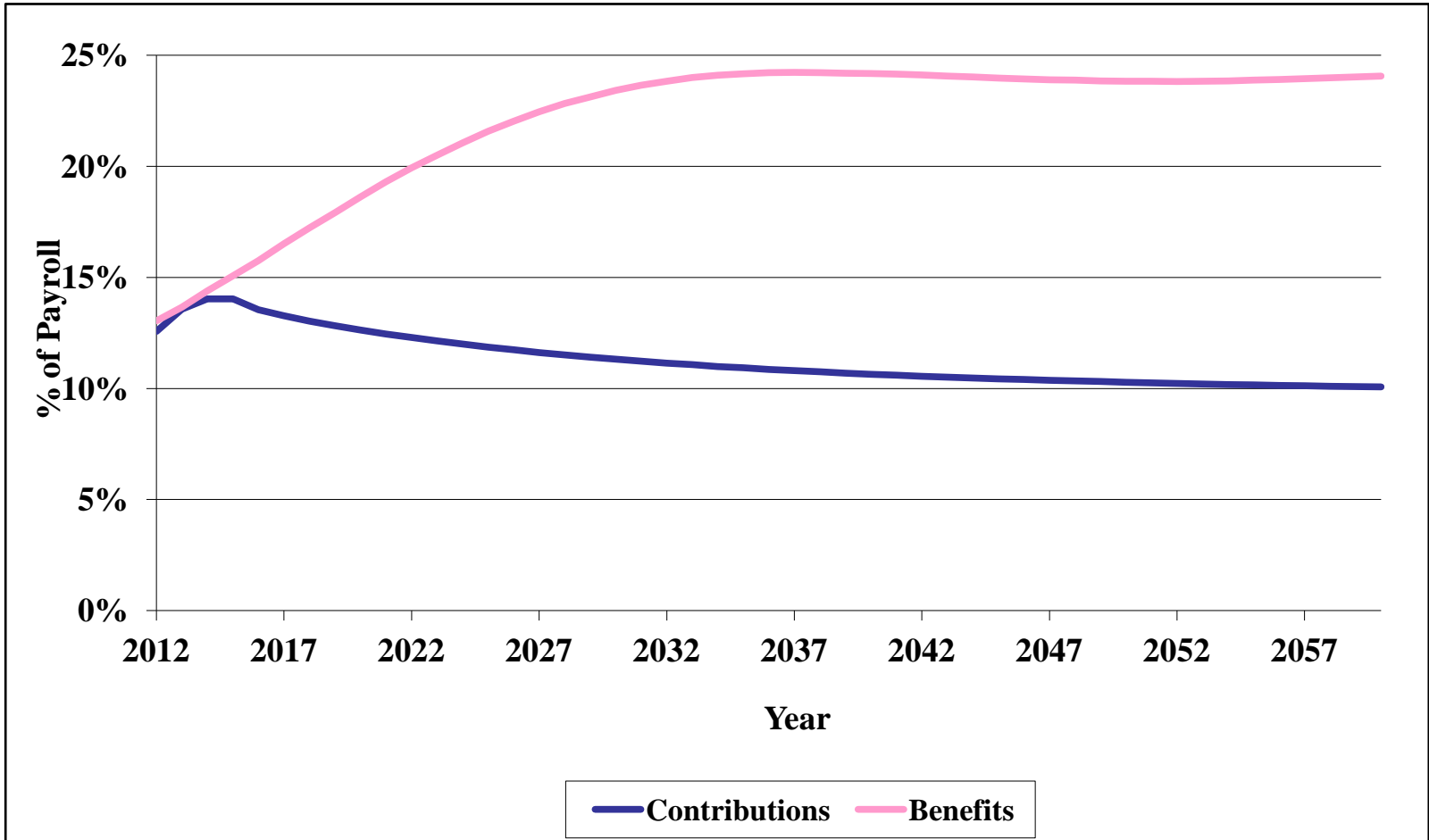


Contribution Income and Benefit Payout (Historical)





Contribution Income and Benefit Payout (Projected)





Summary

- ◆ Actuarial valuations were performed for 995 valuation groups
 - ▶ The actuarial assumptions used for valuation purposes were updated as a result of the recent 5-year Experience Study. This resulted in an upward pressure on employer contribution rates.
 - ▶ Approximately 425 groups are at the 1% “employer cap” and are expected to be for the next few years.
- ◆ Funded ratio of the System increased to 81.6% as of February 28, 2011 from 81.0% as of February 28, 2010



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- ◆ This is one of multiple documents comprising the actuarial report. Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the report titled "Compiled – 43rd Annual Actuarial Valuations as of February 28, 2011".
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