



Wisconsin Retirement System

50-Year Actuarial Projection

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GRS

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Funding Objectives

- ◆ Intergenerational equity with respect to plan costs
- ◆ Stable pattern of contribution rates (and dividends to retirees)
- ◆ Stable or increasing ratio of assets to accrued liabilities

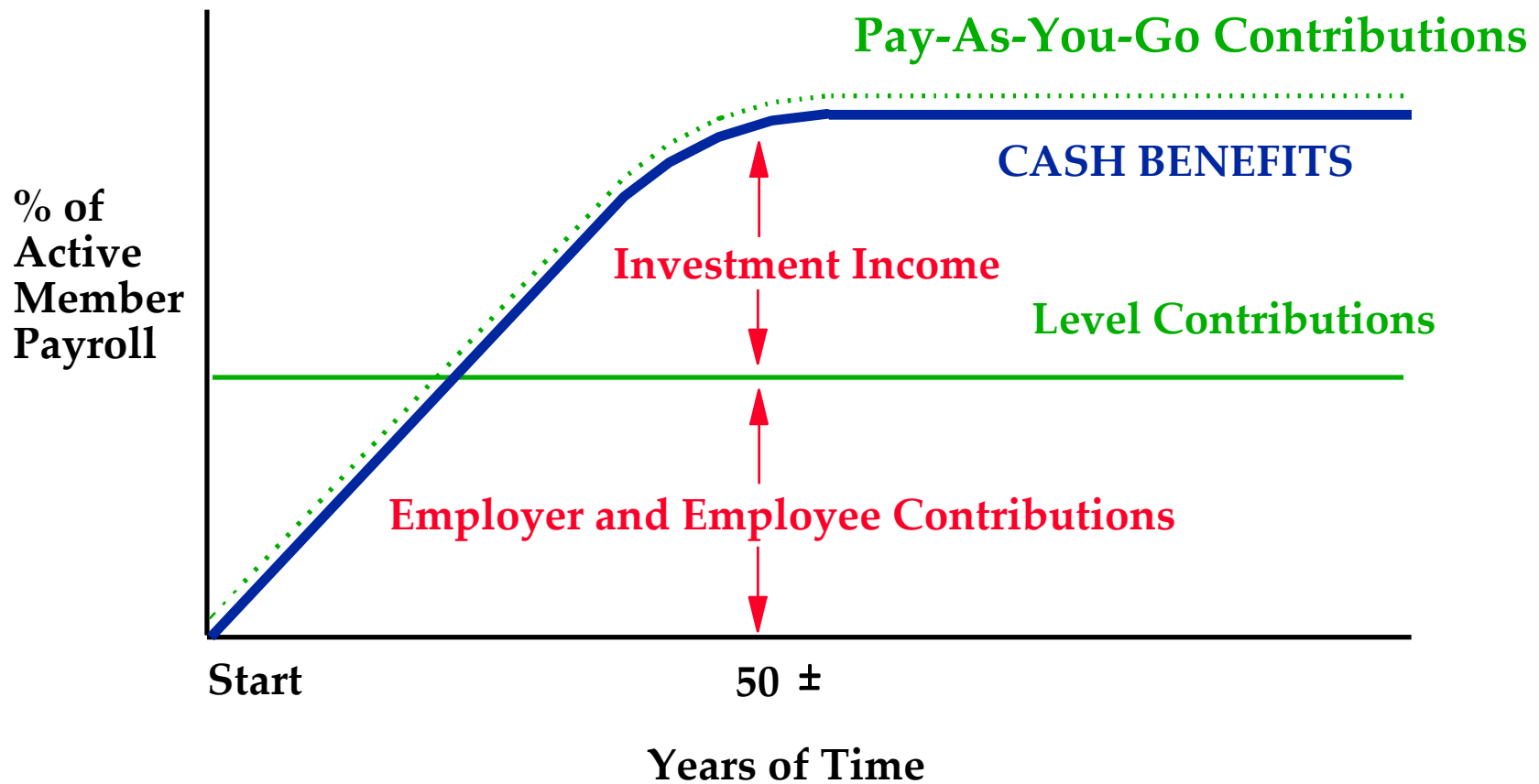


Consequences of a Soundly Financed Program as Maturity Approaches

- ◆ Funding ratio approaches 100%
- ◆ Investment income becomes the largest contributor
- ◆ Economic volatility becomes more important
- ◆ Fundamental objectives are more difficult to achieve (the “Pension Funding Paradox”)



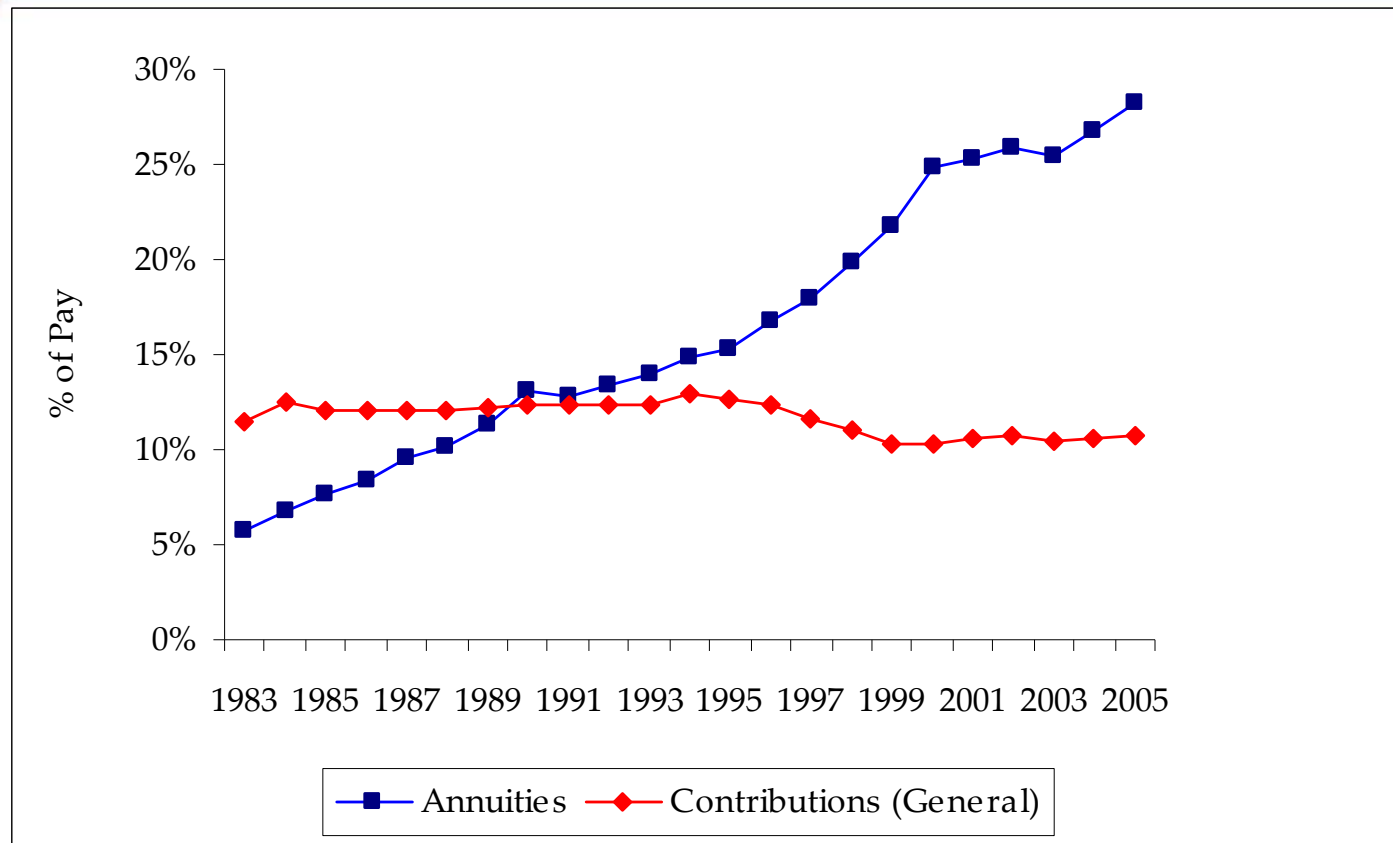
Pattern of Maturity





WRS

Annuities and Contributions



Annuities are expected to continue to increase as a percent of payroll for several more decades. Increases will be paid from income from Retirement System assets.



The Nature of Actuarial Projections



Regular Valuation

- ◆ Quantifies commitments with present value liability calculations
- ◆ Contains an implied plan for meeting cash flows
- ◆ Doesn't disclose specifics of the plan very well



Projection

- ◆ Quantifies commitments by projecting year by year cash flows
- ◆ Demonstrates how the plan for meeting cash flows is expected to work
- ◆ Discloses emerging patterns
- ◆ Not a prediction



Demographic Changes Expected Over the Ensuing 50-Year Period



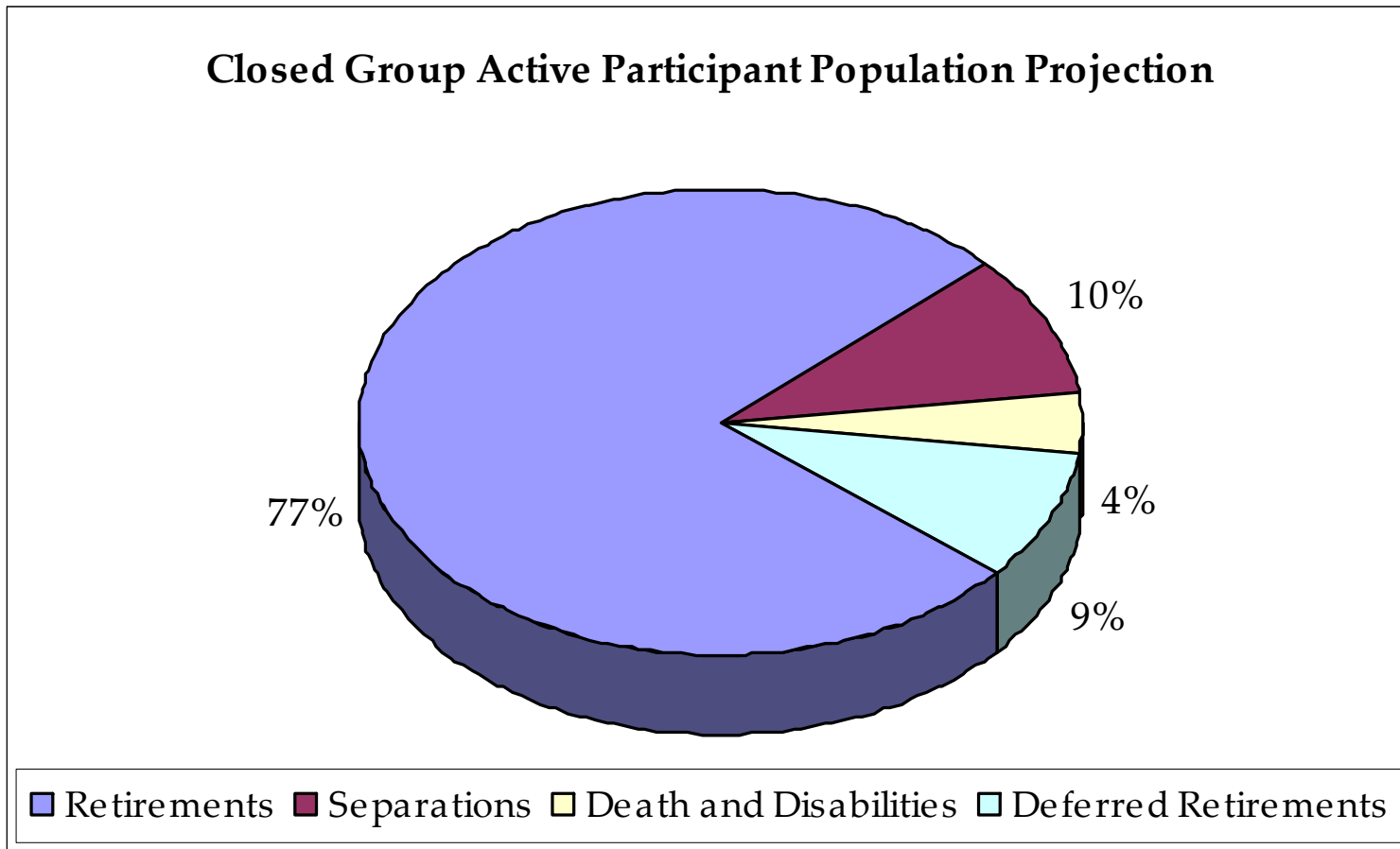
WRS Population at 12/31/2006

Active	260,302*
Retired	137,117
Inactive	133,985
Total	<hr/> 531,404

* *The projection assumes that the number of active members remains constant.*

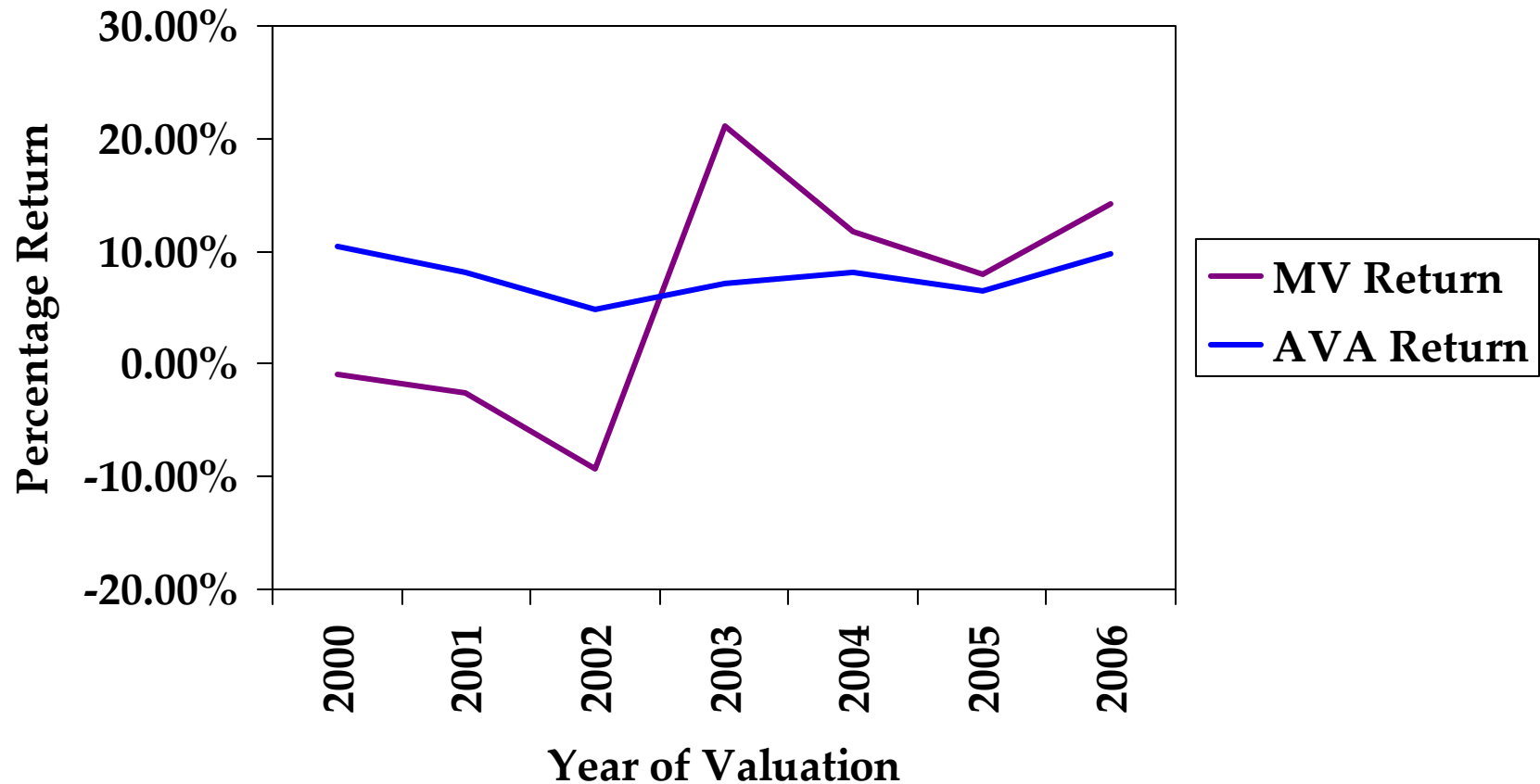


Expected Terminations from Active Employment for Current Active Participants



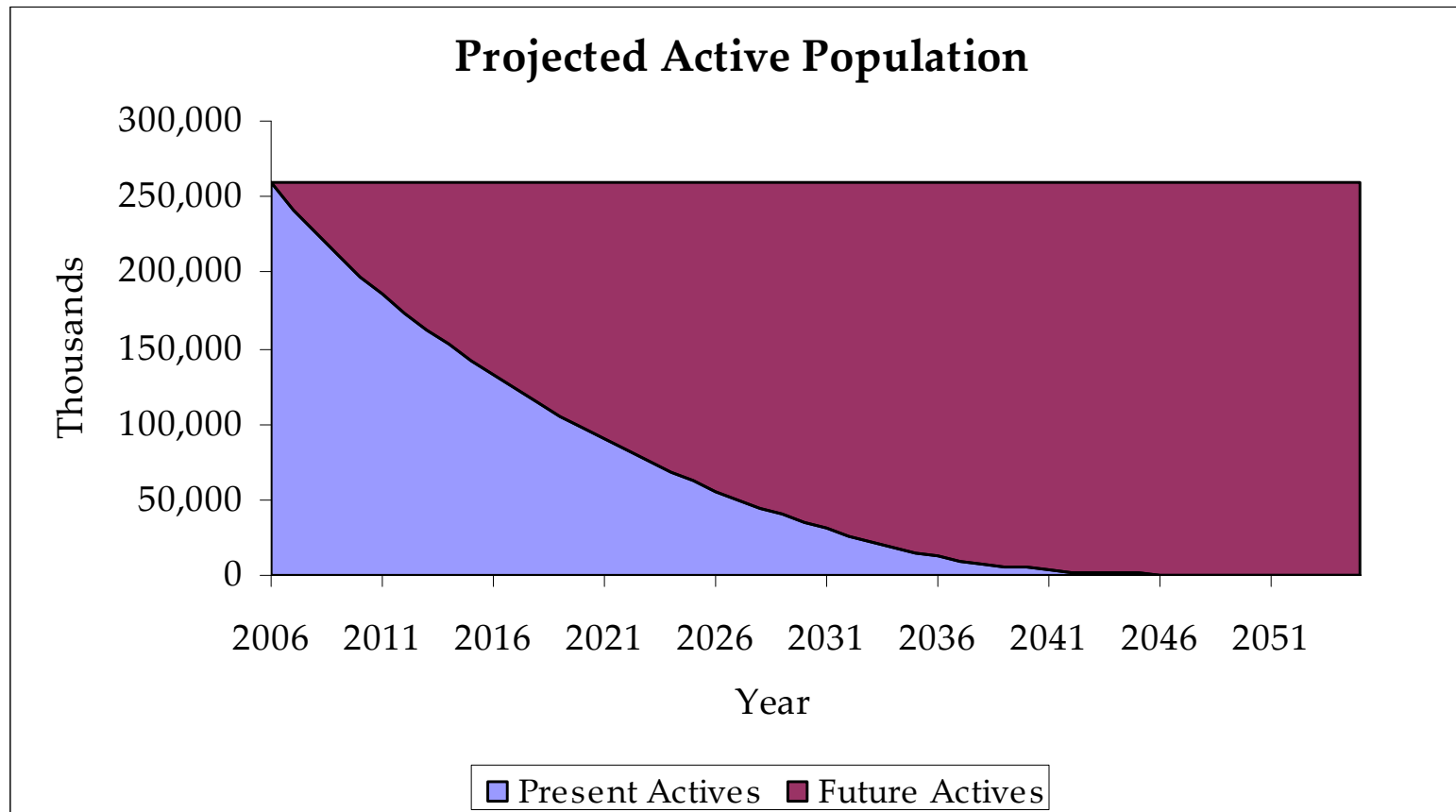


Market Value Return vs. Actuarial Value Return





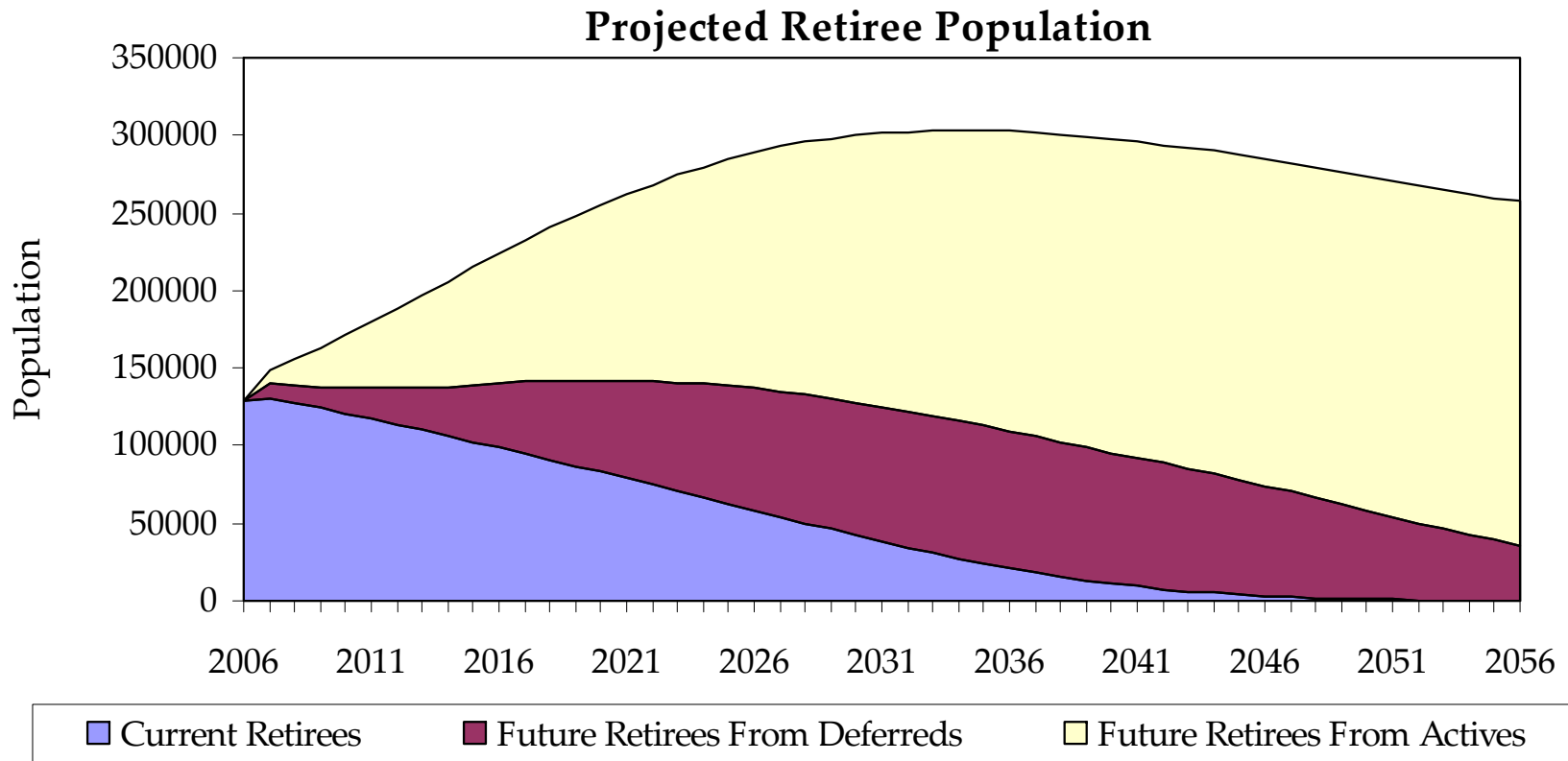
Present & Future Actives



The present population has a “half life” of about 10 years.

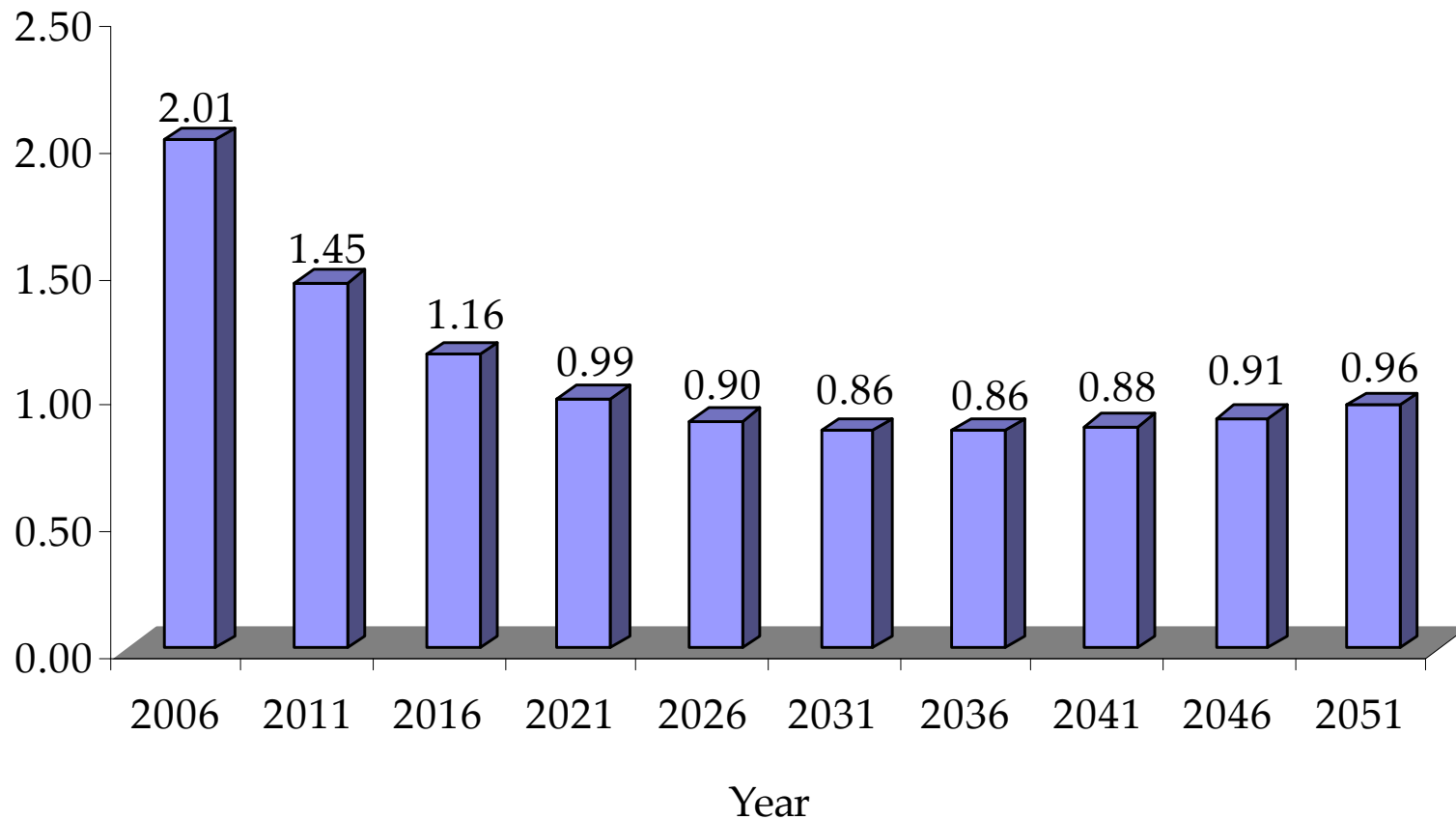


Retiree Population Present and Future





Ratio of Active Members to Retirees





Observations

- ◆ A few present retirees will probably draw benefits for more than 50 years
- ◆ Baby boomers are beginning to retire
- ◆ The number of annual retirements will soon increase by more than 50%
- ◆ The number of retirees will double in less than 20 years

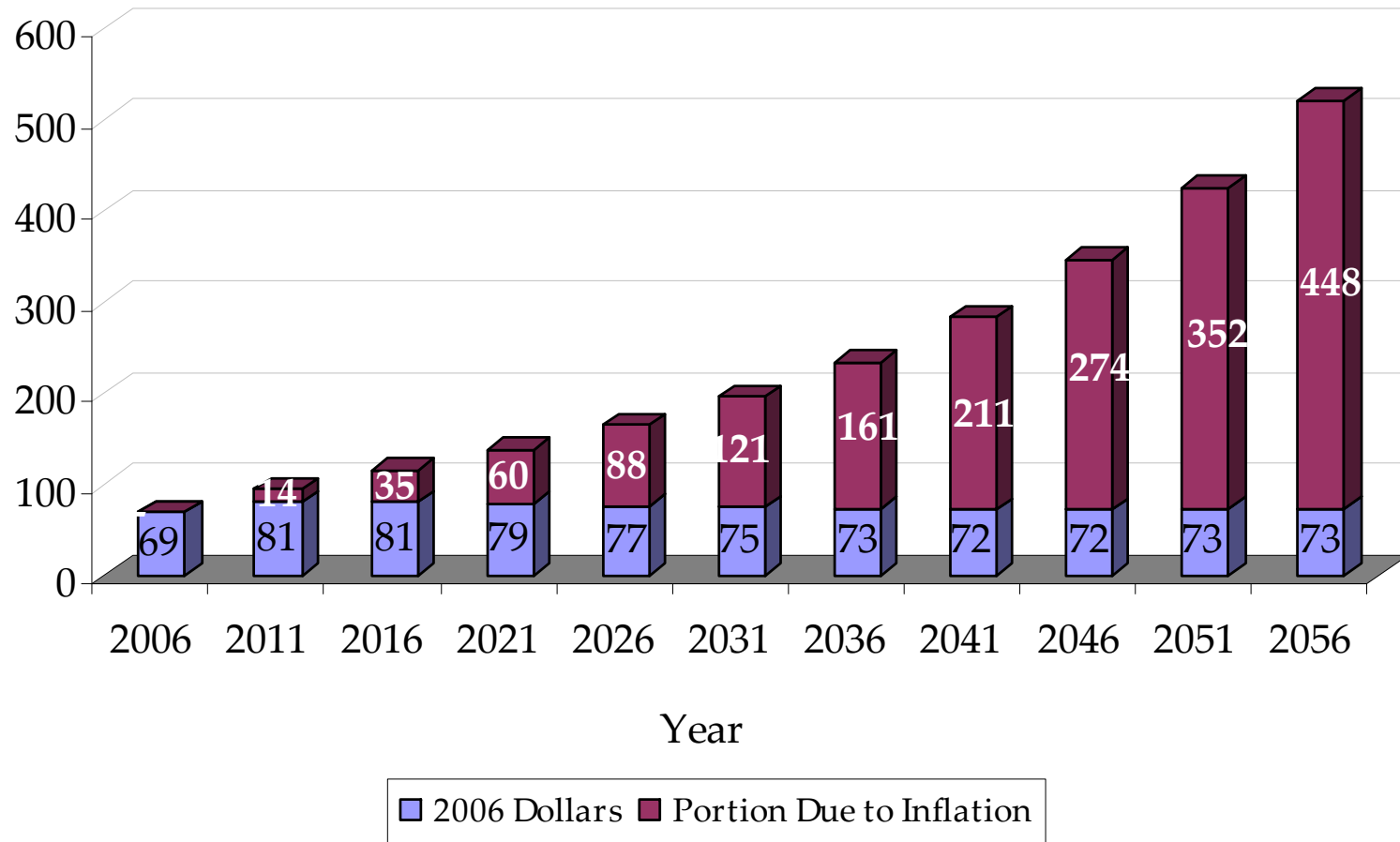


Cash Flow Projection

**Expected Cash Flow Over the
Ensuing 50-Year Period
Based on Regular Actuarial
Assumptions**



Projected Fixed Investment Trust Fund Assets (\$Billions)





Observations

- ◆ In nominal terms, assets will increase by a factor of 7.6 during the projection period
- ◆ In real terms, assets need to grow a little to cover the peak of the baby boom retirements
- ◆ They may decline slightly after that



Projected Net External Cash Flow* Valuation Assumptions

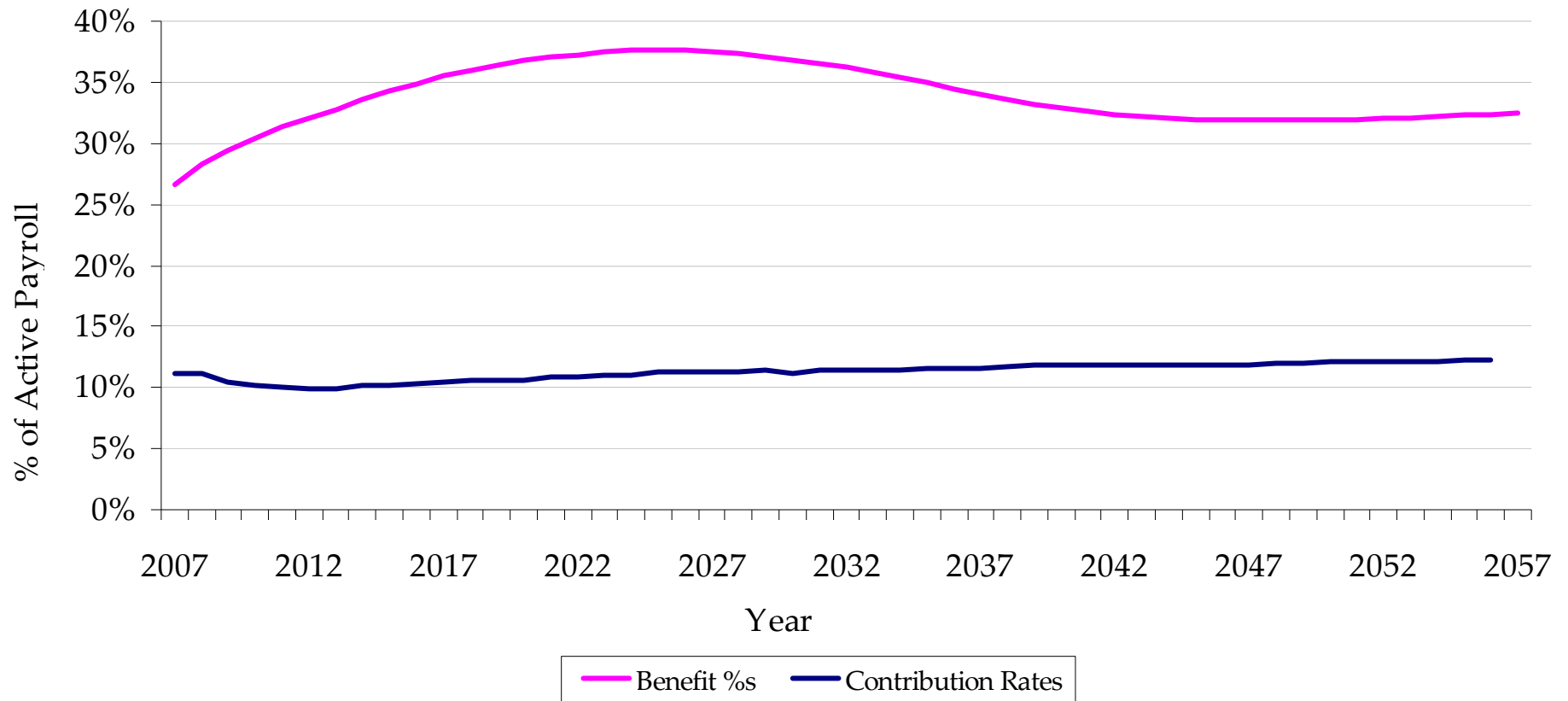
\$Billions

Year	Contributions	Benefit Payments	Cash Flow	% of Assets
2007	\$ 1.3	\$ 3.1	\$ (1.8)	(2.6)%
2017	1.8	6.2	(4.4)	(3.8)%
2027	3.0	9.9	(6.9)	(4.2)%
2037	4.7	13.8	(9.1)	(3.9)%
2047	7.3	19.4	(12.1)	(3.5)%
2057	11.1	29.4	(18.3)	(3.5)%

**Contribution income minus benefit payout.*



Projected Contributions and Benefits as a % of Active Payroll





Comments

- ◆ Liquidity needs (i.e., contributions less benefits) increase to over 4% of fund assets
- ◆ Benefit payout peaks at about 38% of payroll – more than 3 times the level of contribution income
- ◆ More than 2/3^{rds} of benefit payout will come from investment income



Observations and Conclusions



Observations 2007

- ◆ Expected benefit payments have increased due longevity improvements.
- ◆ Although Net Cash Flow (NCF) has increased in dollar amount, expected NCF as a percentage of assets are close to prior projections due to favorable asset returns.
- ◆ If current trends continue, life expectancies at retirement will increase by about 3 years over the projection period, putting upward pressure on contribution rates (roughly 2% of payroll) and downward pressure on dividends. We review mortality rates every 3 years and make adjustments as needed.



Observations 2007

- ◆ Not all forecasters expect such an increase and, even if it occurs, the effect may be offset by other demographic changes, such as an increase in the average age at retirement.
- ◆ WRS continues to be one of the best funded systems in the country.