

Michigan State Police Retirement System

Pension Actuarial Valuation Results
as of September 30, 2009

GRS

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Actuarial Valuation Process

Member Data



Financial Data



Actuarial Valuation

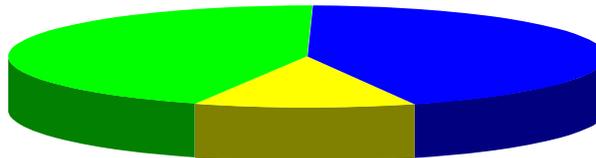
Actuarial Assumptions



Plan Provisions

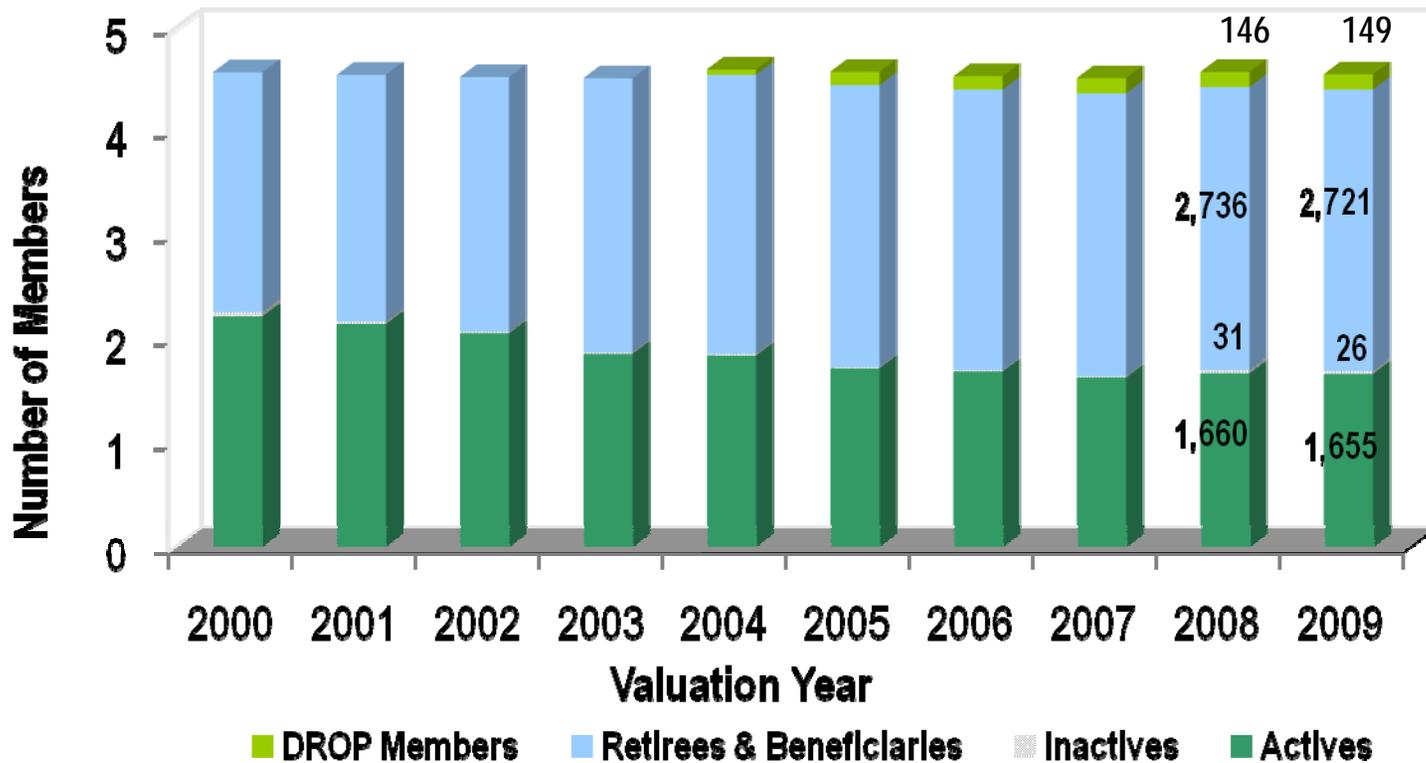


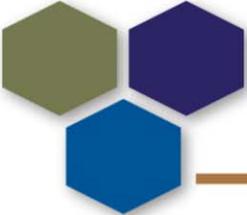
Actuarial Cost Method



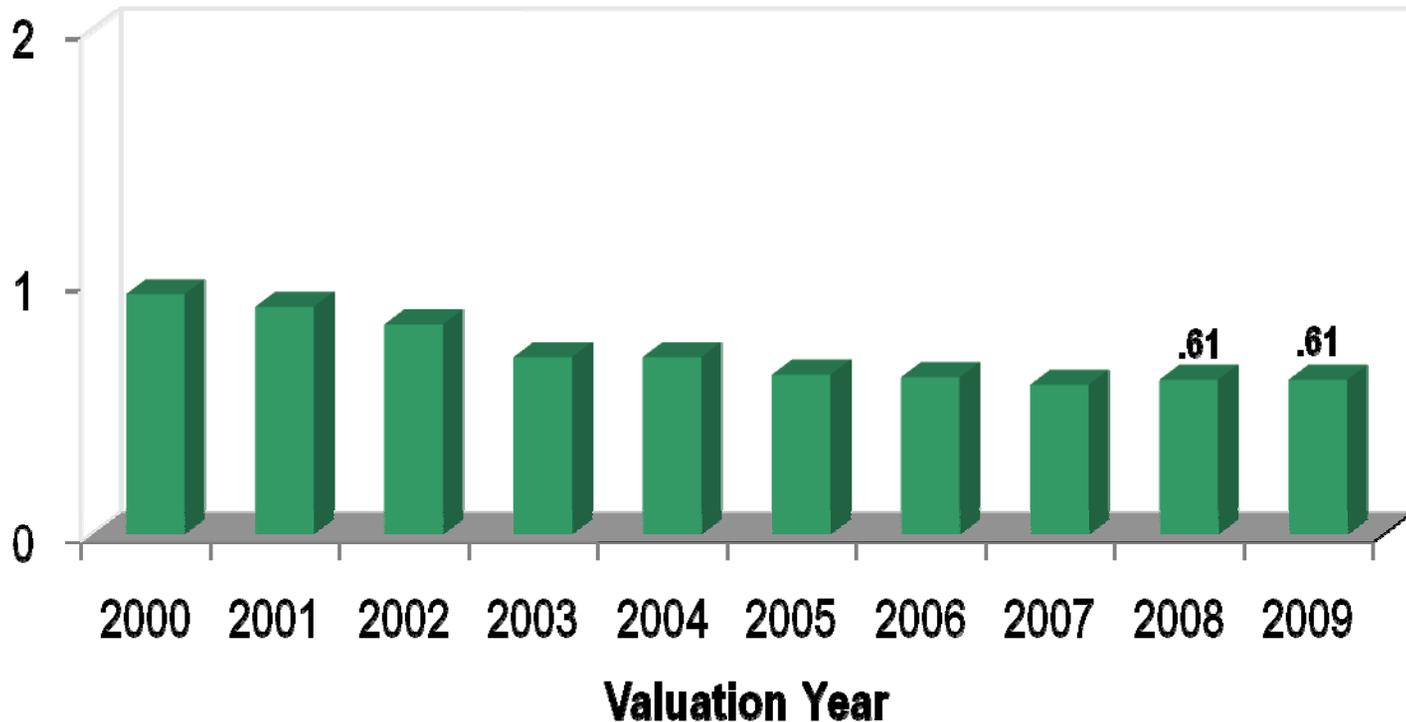
Membership Data

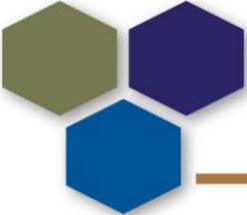
(Counts in Thousands)



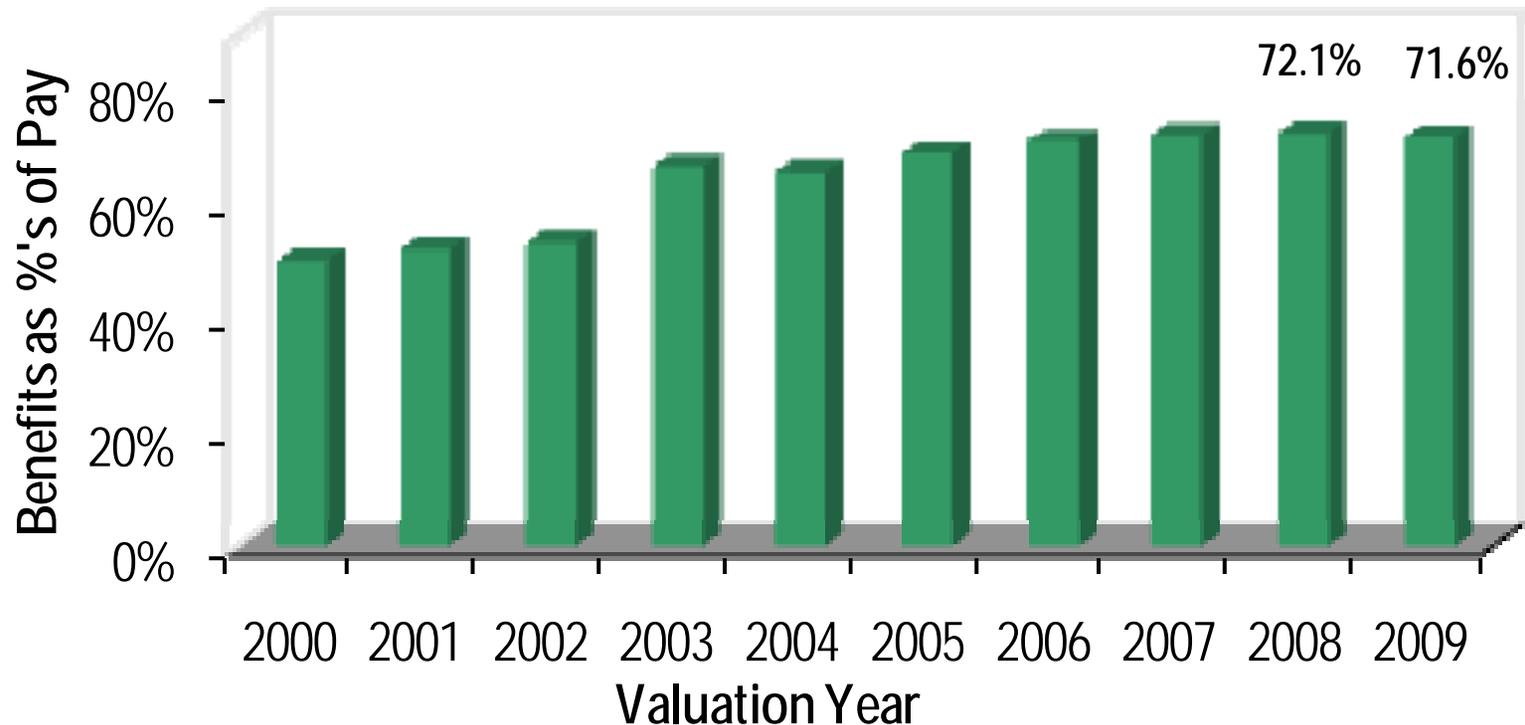


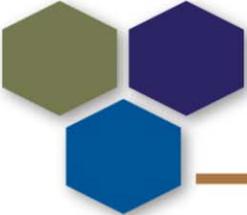
Ratio of Active Members to Pension Benefit Recipients



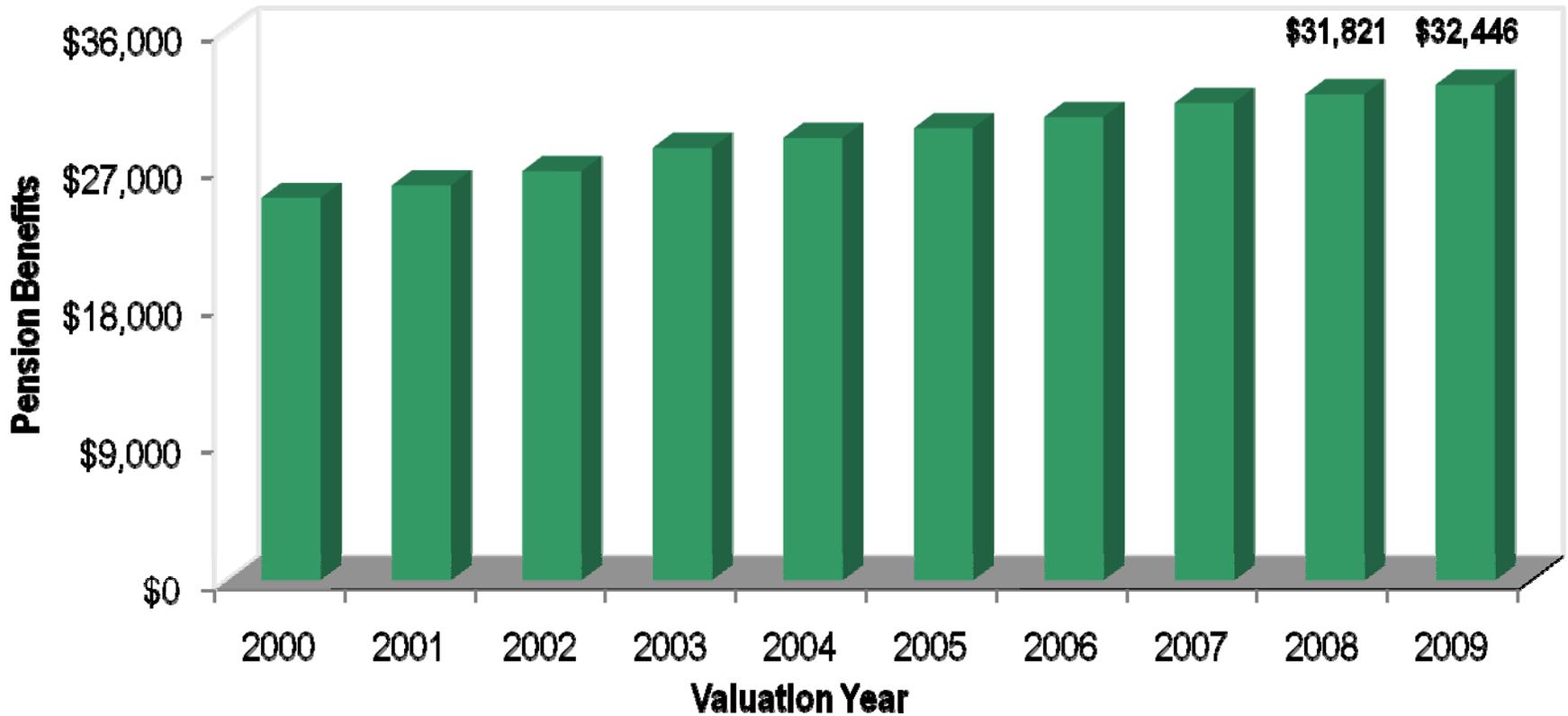


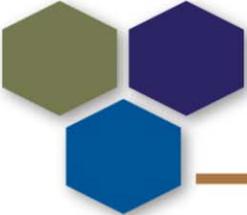
Pension Benefits Expressed as %'s of Active Member Pay



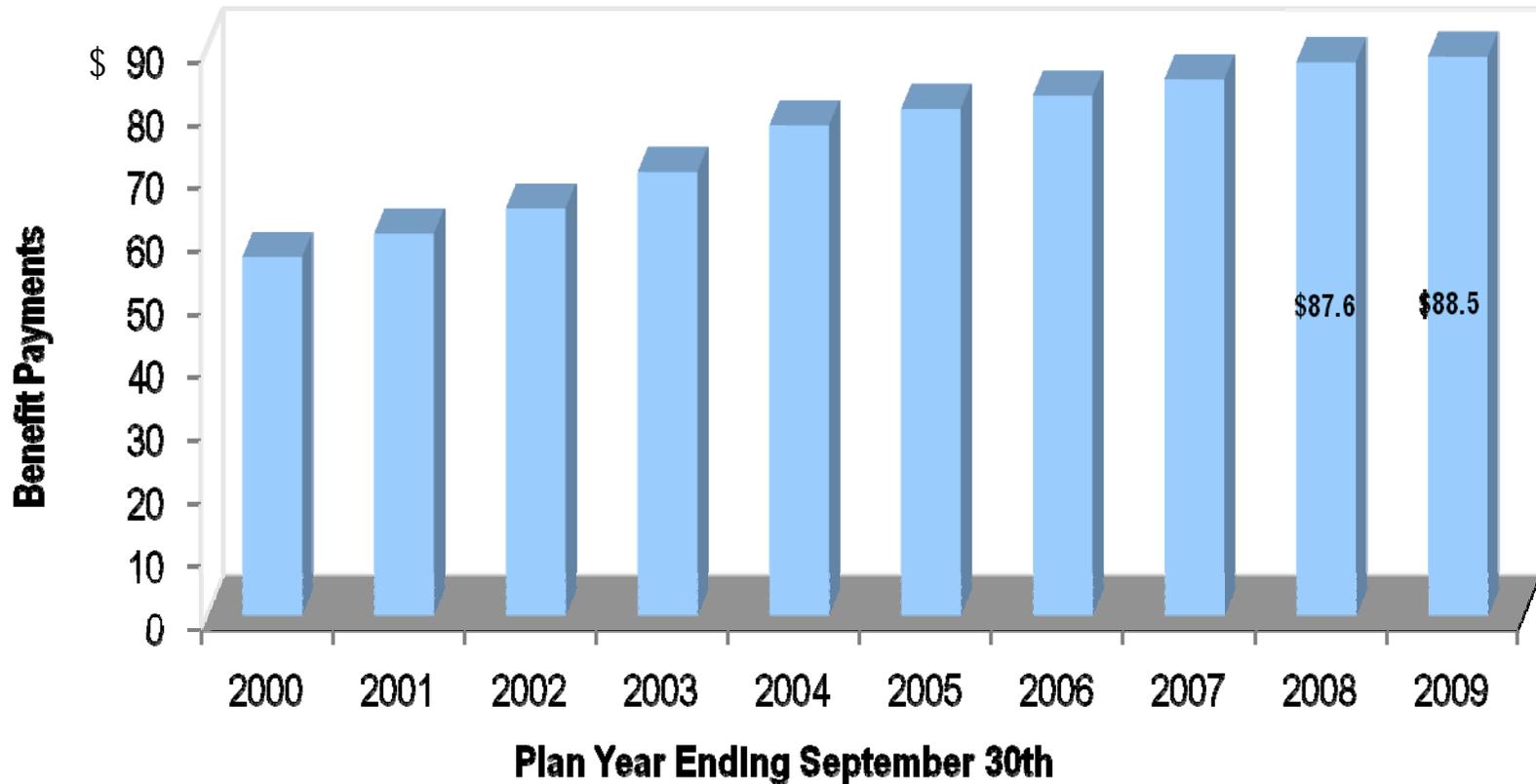


Average Annual Pensions



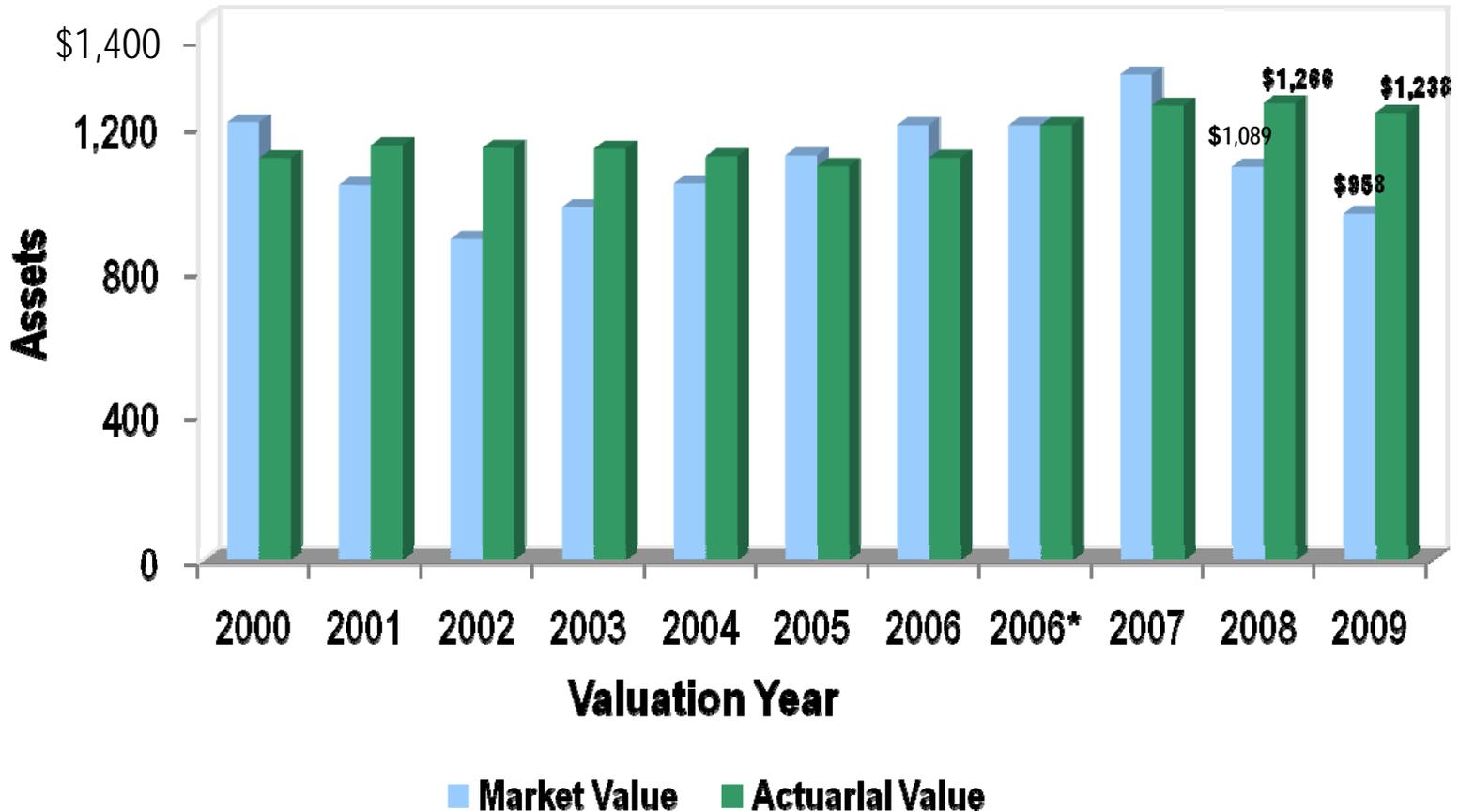


Pension Benefit Payments by Fiscal Year (Amounts in Millions)



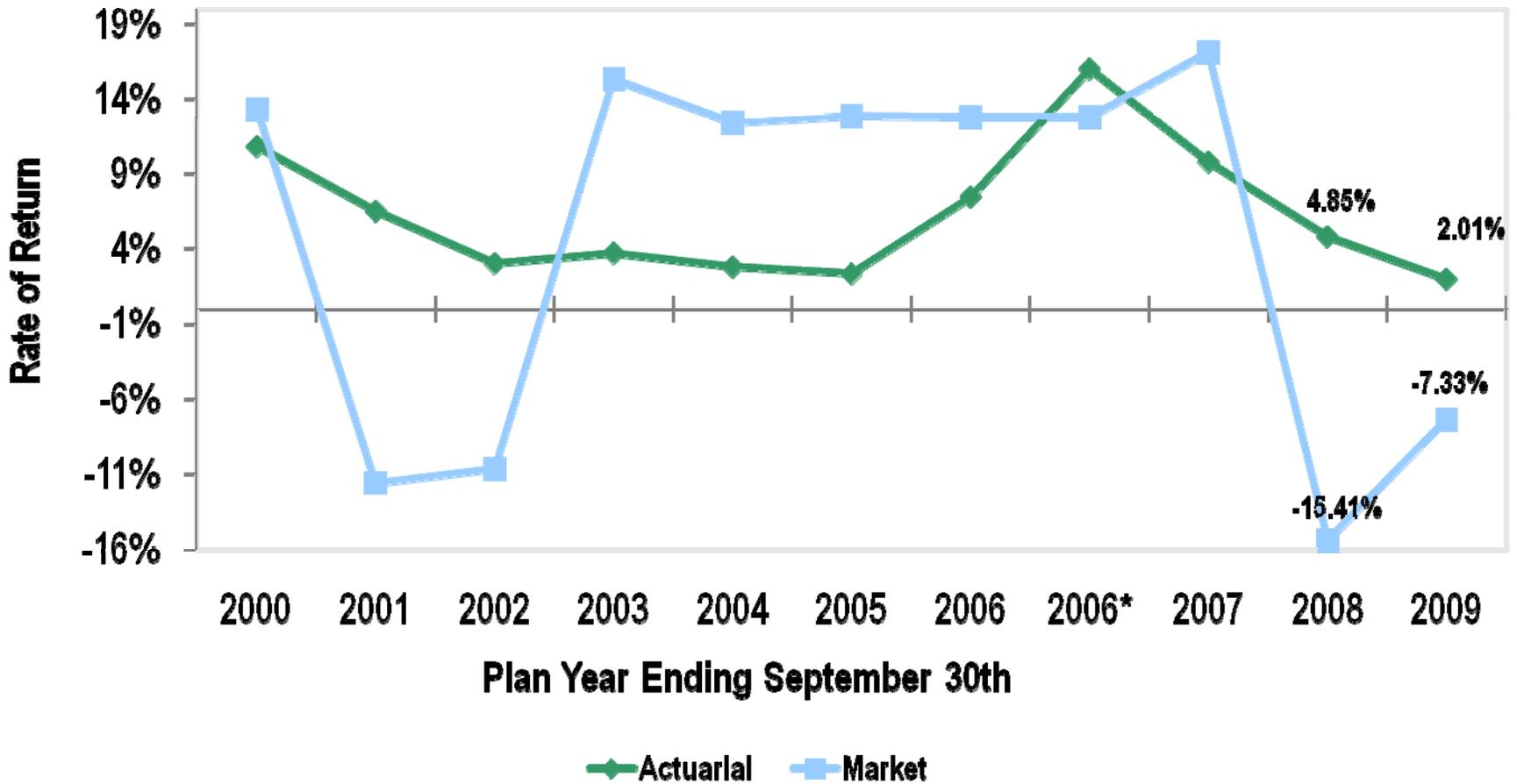
Growth of Pension Assets

(Amounts in Millions)



* After adjusting to market value.

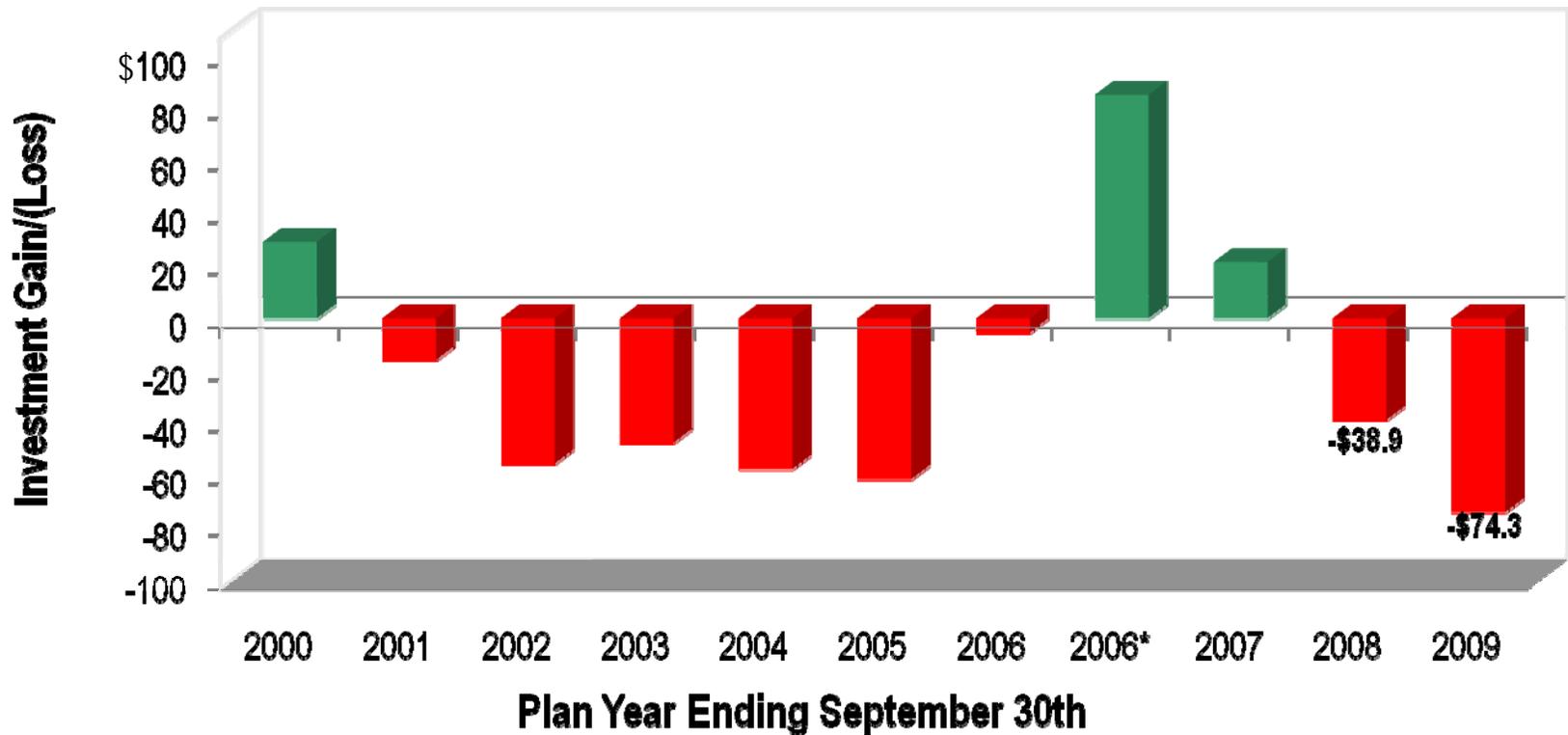
Actuarial & Market Net Rates of Return



* After adjusting to market value.

Investment Gain/(Loss)

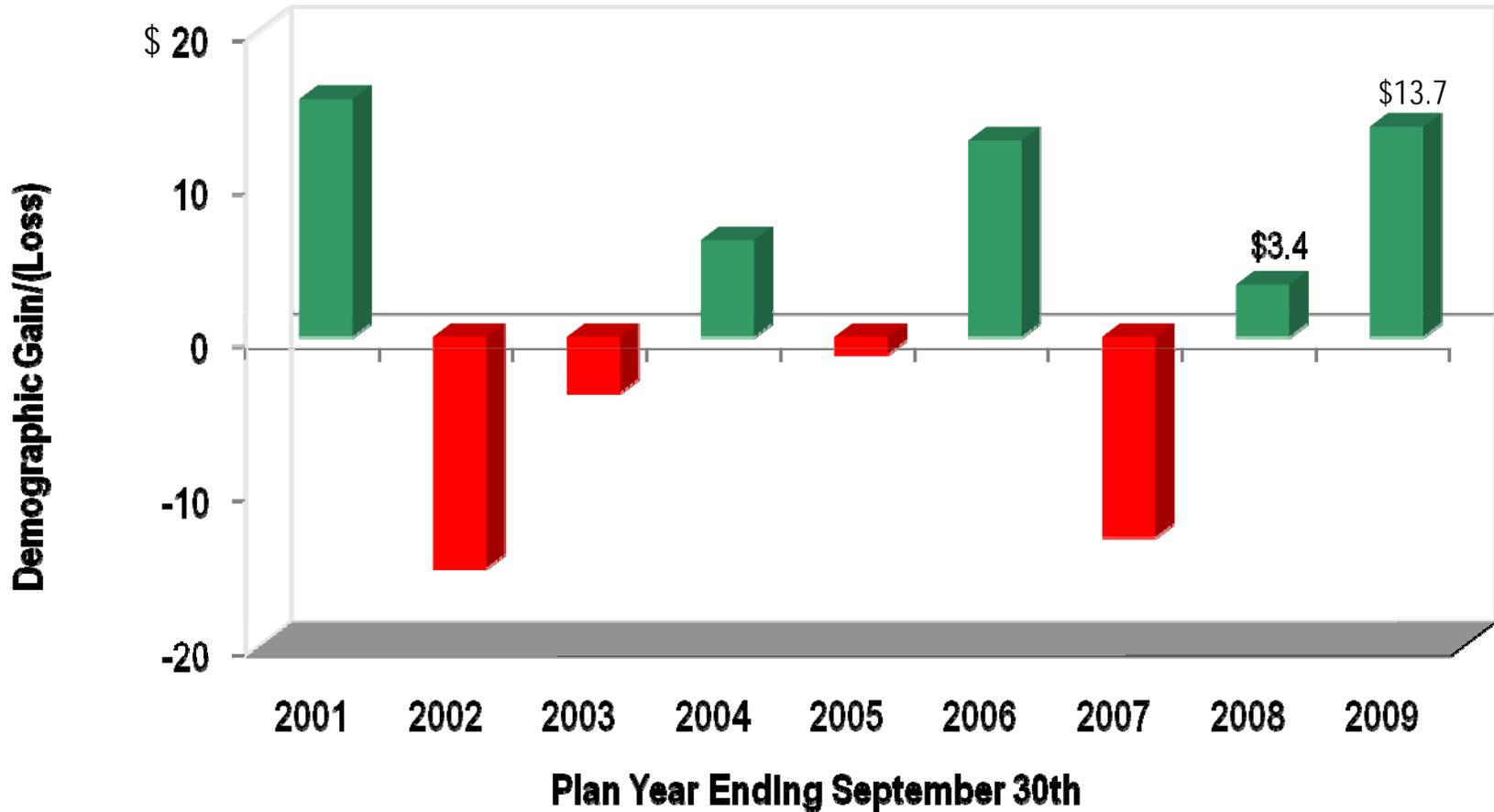
(Amounts in Millions)

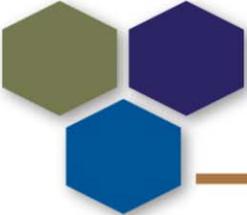


* After adjusting to market value.

Demographic Gain/(Loss)

(Amounts in Millions)



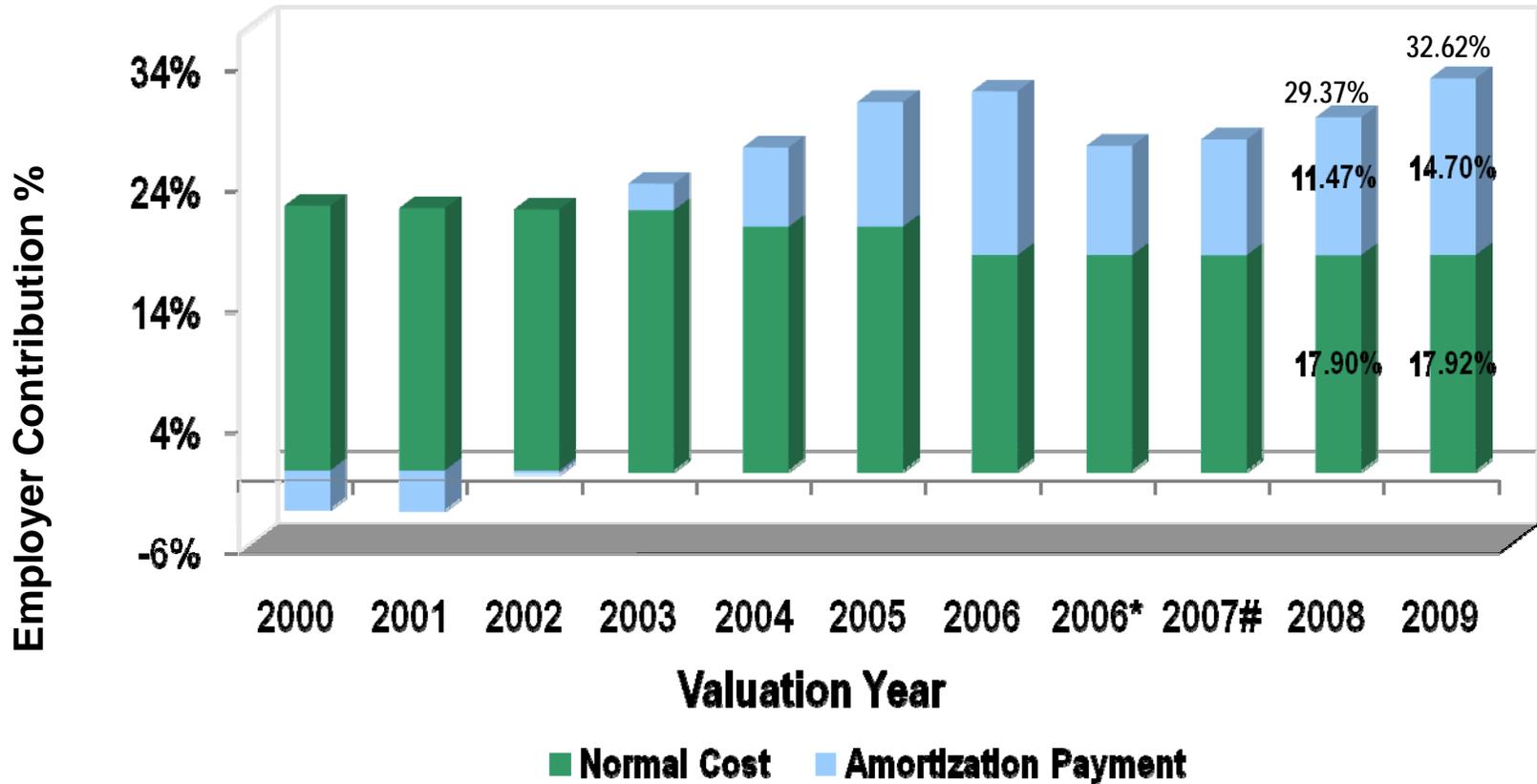


Gain/(Loss) by Type of Activity

(Amounts in Millions)

Plan Year					
Ending 9/30	2009	2008	2007	2006	2005
New Entrants	(0.83)	(0.16)	0.00	(0.31)	(0.04)
Retiree Deaths	(1.68)	(3.98)	(3.98)	4.00	0.00
Investments	(74.30)	(38.88)	21.47	(5.38)	(61.57)
Pay Increases	13.08	3.74	(4.87)	15.19	3.33
Withdrawal	0.43	2.44	0.41	0.18	0.06
Retirements	2.17	1.15	(2.12)	1.68	(7.01)
Other	0.52	0.20	(2.44)	(7.92)	2.54
Total	(60.61)	(35.49)	8.47	7.44	(62.69)

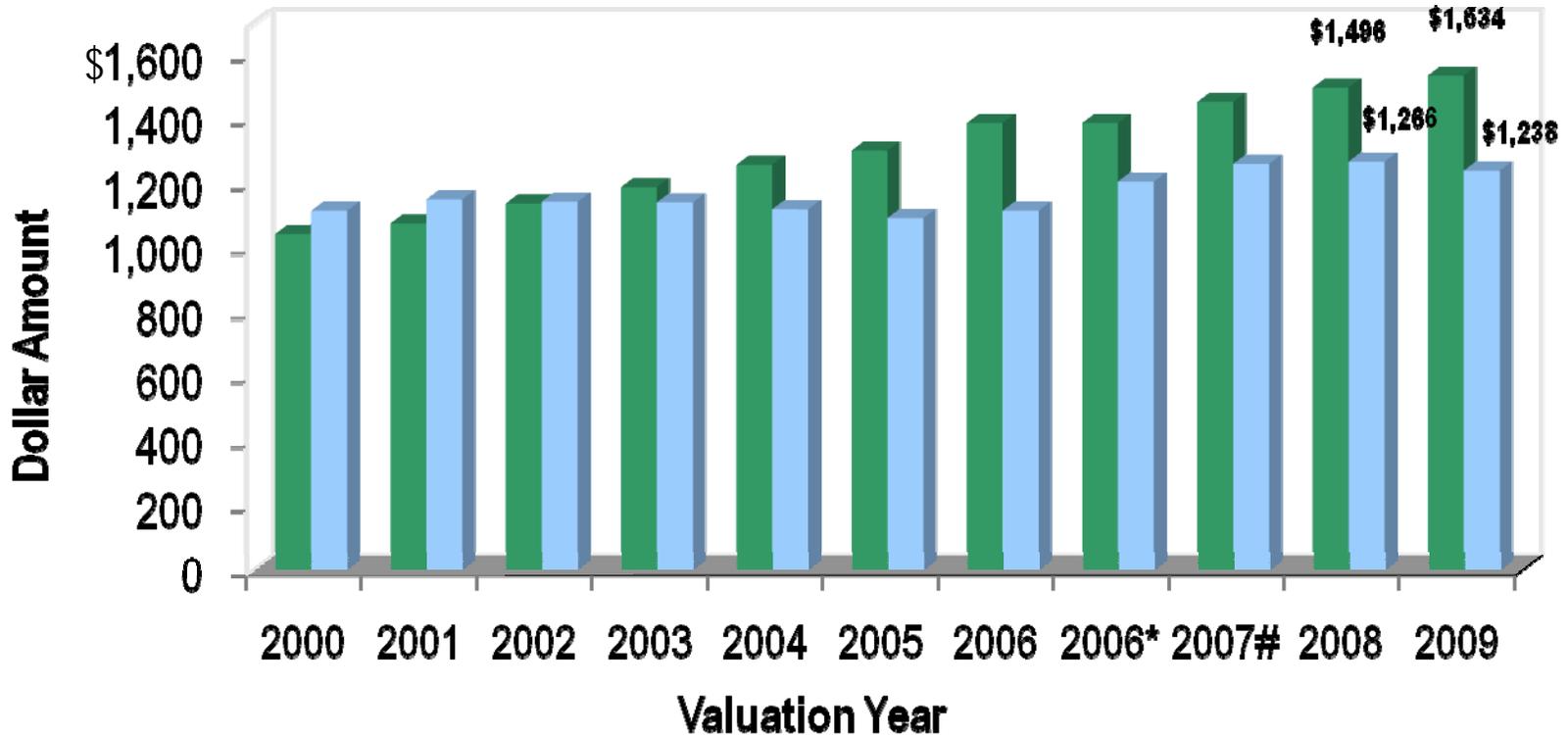
Historical Employer Contribution %'s Valuation as of September 30



* After adjusting to market value.

Revised benefit provisions.

Actuarial Accrued Liability Compared to Actuarial Value of Assets (in millions)



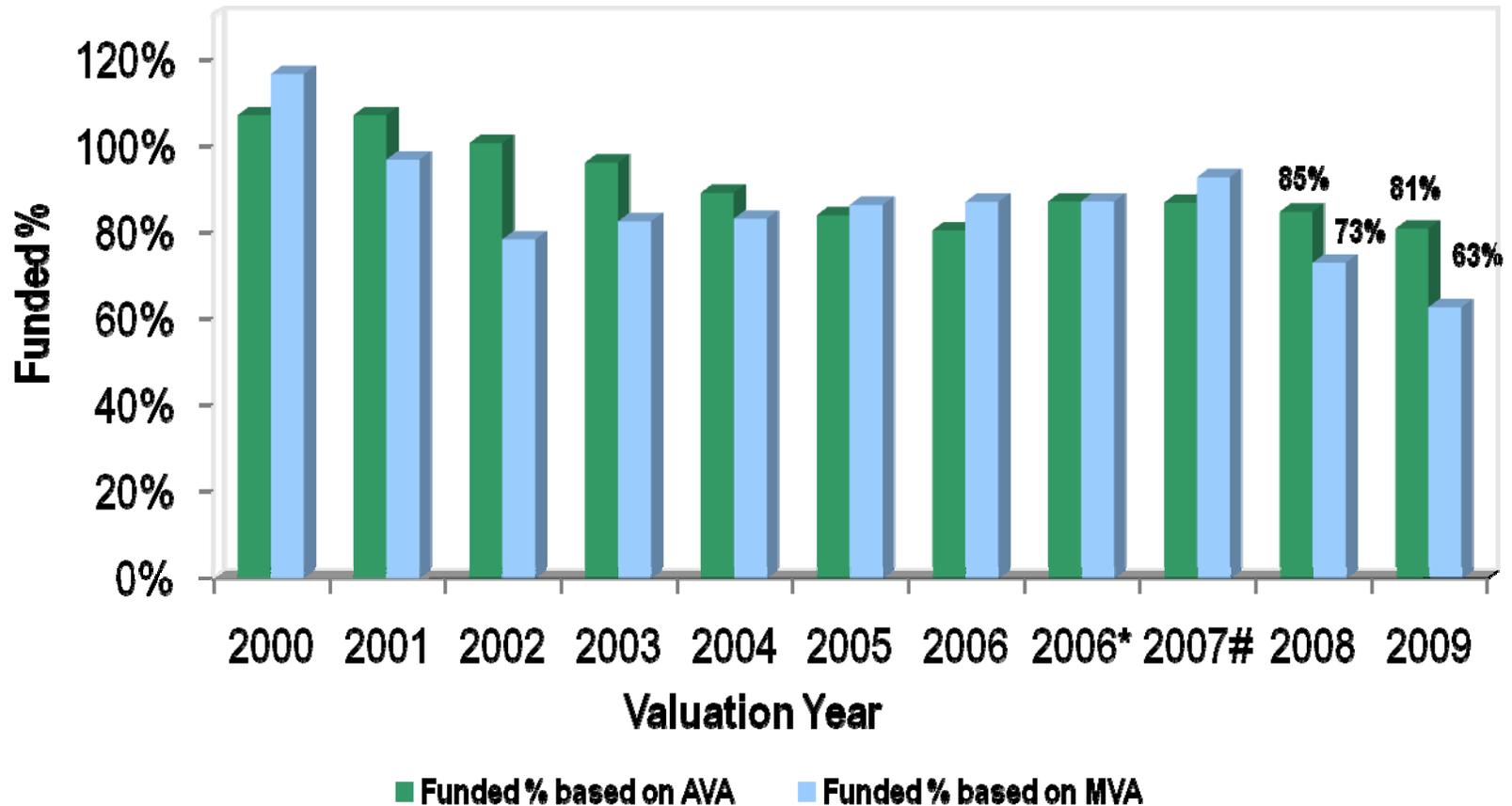
■ Actuarial Accrued Liability (AAL)

■ Actuarial Value of Assets (AVA)

* After adjusting to market value.

Revised benefit provisions.

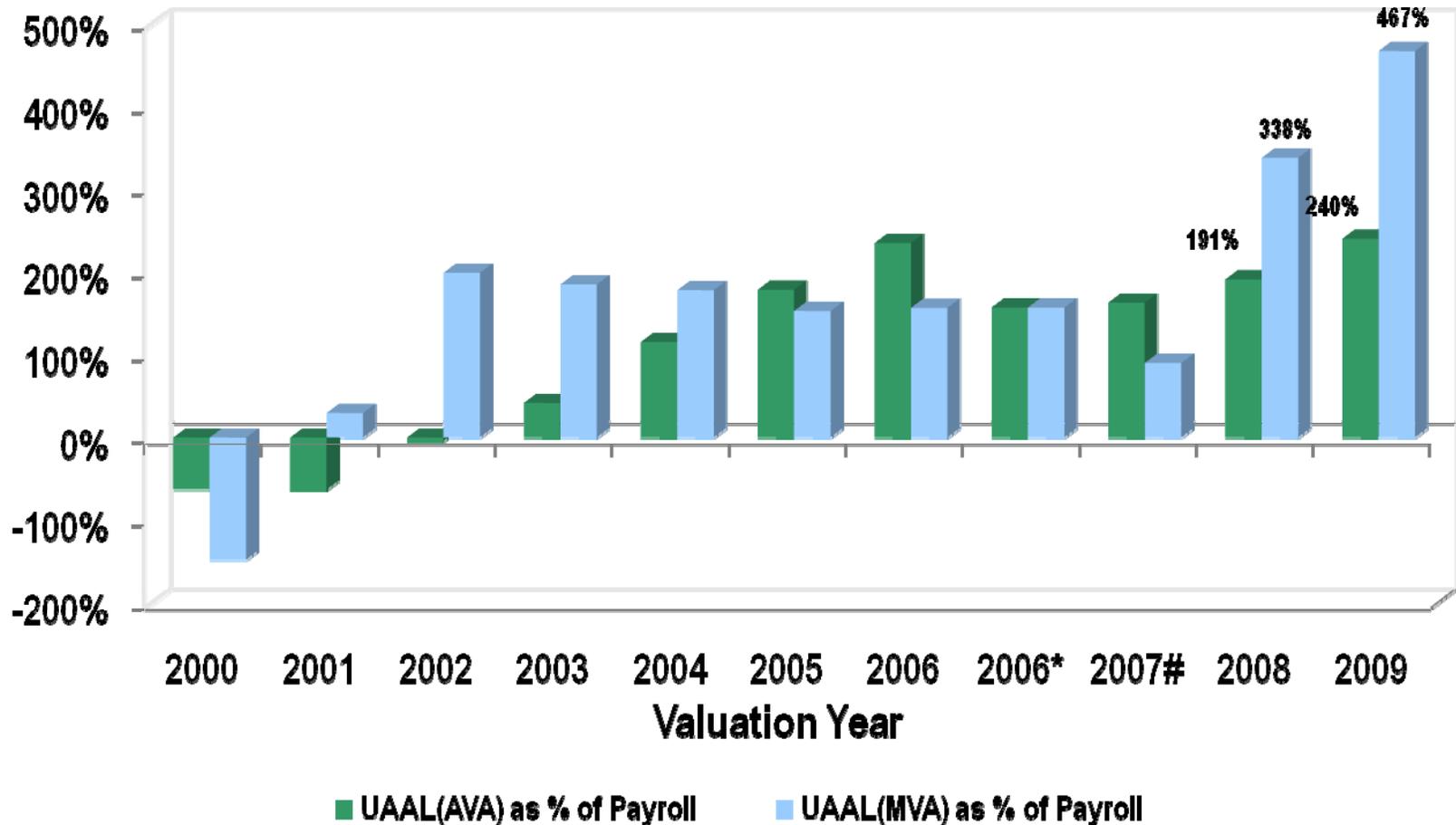
Retirement System Funded % Based on Actuarial Value and Market Value of Assets



* After adjusting to market value.

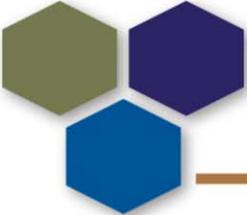
Revised benefit provisions.

Unfunded as Percentage of Payroll



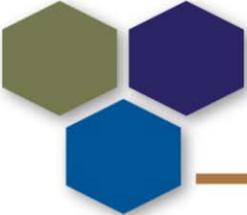
* After adjusting to market value.

Revised benefit provisions.



Comments on the Investment Markets

- ◆ Investment markets have been very volatile.
- ◆ Valuation is based on a 5-year smoothed value of assets.
 - ▶ Reduces the volatility of the valuation results.
- ◆ 9/30/09 smoothed value of assets was higher than market value.
 - ▶ Meeting the actuarial assumption will require average future market returns over 8%.
- ◆ 9/30/09 valuation results based on market value:
 - ▶ Funded percent would be 62.5% (instead of 80.7%).
 - ▶ Employer contribution would be 46.52% (instead of 32.62%).



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