



Montana Teachers' Retirement System Valuation Results July 1, 2016

- Shawn Graham
- Executive Director
- www.trs.mt.gov



Benefit Financing

- Basic Retirement Funding Equation

$$C + I = B + E$$

C = Contributions

I = Investment Income

B = Benefits Paid

E = Expenses (administration)



Participation in TRS

- Teachers, administrators, specialists and others employed in a teaching or educational services capacity by a public school district, state agency, county, community college, Montana University System or educational cooperative are covered by TRS.

– Active members	19,048
– Inactive members	14,592
– Retirees and Beneficiaries	15,164
– Employers	372



Actuarial Assumptions

- **Experience Study:** conducted every four years to compare the system's actual experience from the previous five years to what was expected to happen. Most recent experience study was adopted July 1, 2014.

Economic Assumptions:

- General Wage Increases 4.00%
- Investment Return 7.75%
- Price Inflation 3.25%
- Growth in Membership 0.00%
- Interest on Member Accounts 5.00%
- Administrative Expenses 0.31%

Demographic Assumptions:

- Individual Salary Increases
- Retirement Rates
- Disablement Rates
- Mortality Rates for Healthy and Disabled
- Other Terminations of Employment
- Probability of Retaining Membership in System

Next Experience Study is scheduled for the period 7/1/2012 – 7/1/2017

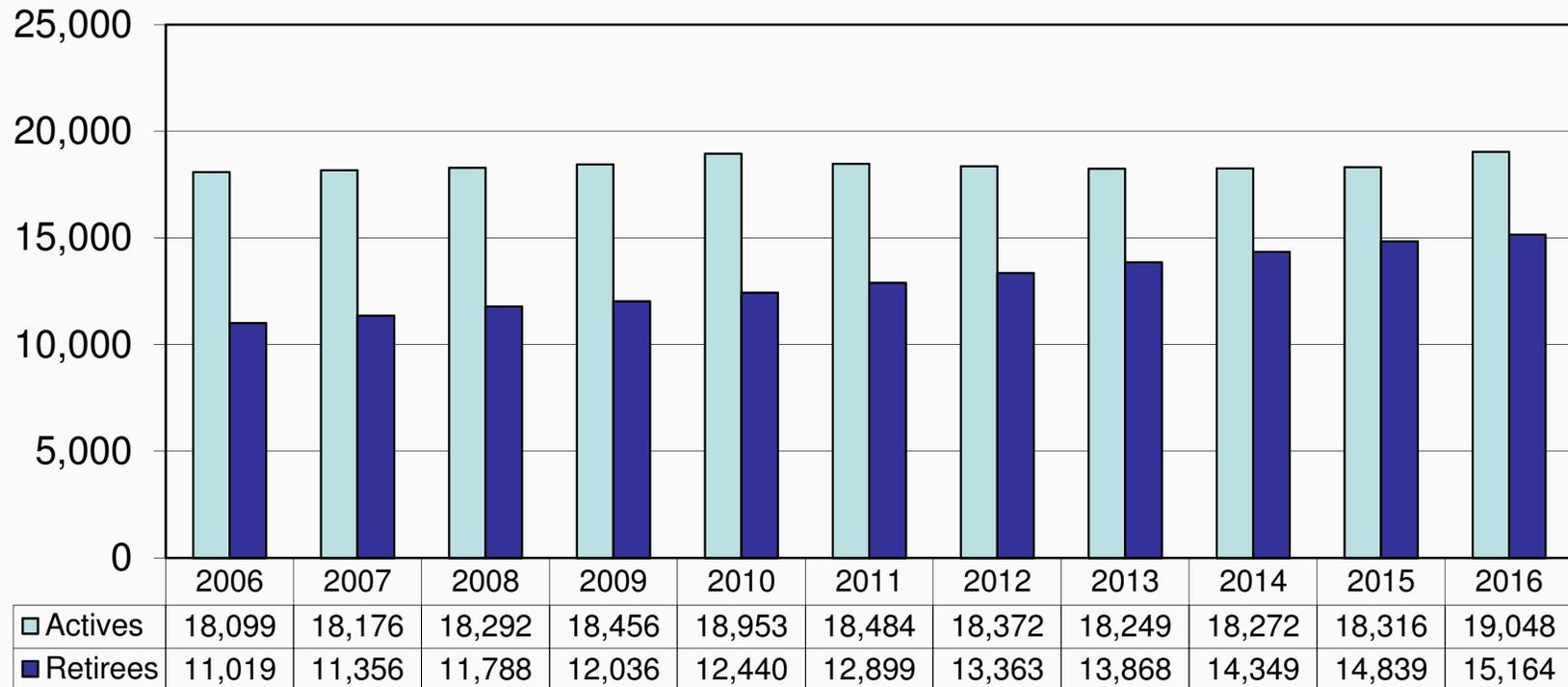


Comments on Valuation

- Asset returns
 - Market asset return 2.08% vs. 7.75% expected (5.67% less than expected).
 - Actuarial asset return 8.79% vs. 7.75% expected (1.04% greater than expected).
- Funded Ratio
 - Funding increased from 67.46% to 69.28%
- Amortization Period
 - Amortization period decreased from 26 to 24 years



Active and Retired Membership



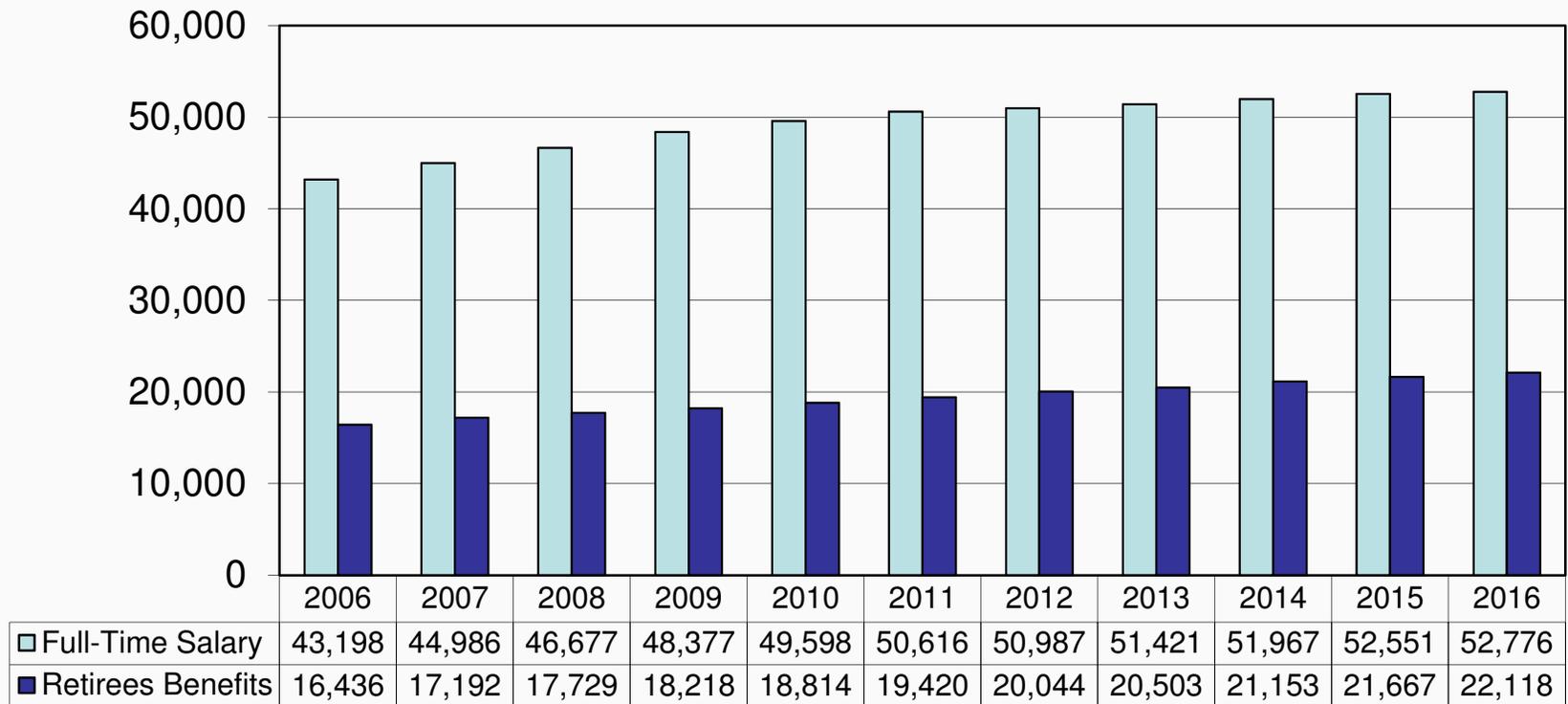
0.5% annual increase for active members since 2006; 4.0% increase for 2016.

3.3% annual increase for retired members since 2006; 2.2% increase for 2016.

0.6 retirees per active 10 years ago; 0.8 retirees per active now.



Average Salary and Benefits

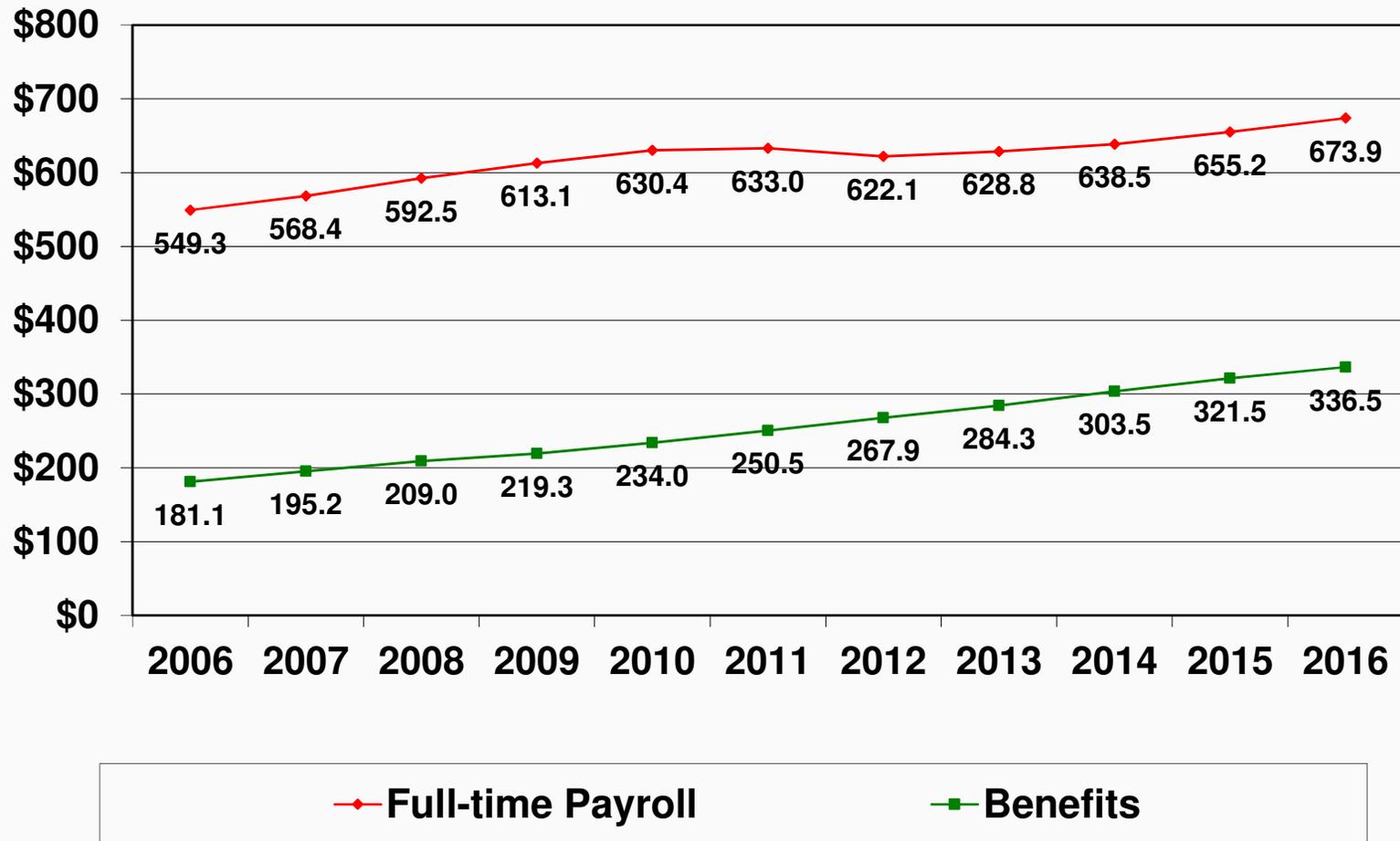


2.0% annual increase for average salary since 2006; 0.4% increase for 2016.

3.0% annual increase for average benefits since 2006; 2.1% increase for 2016.

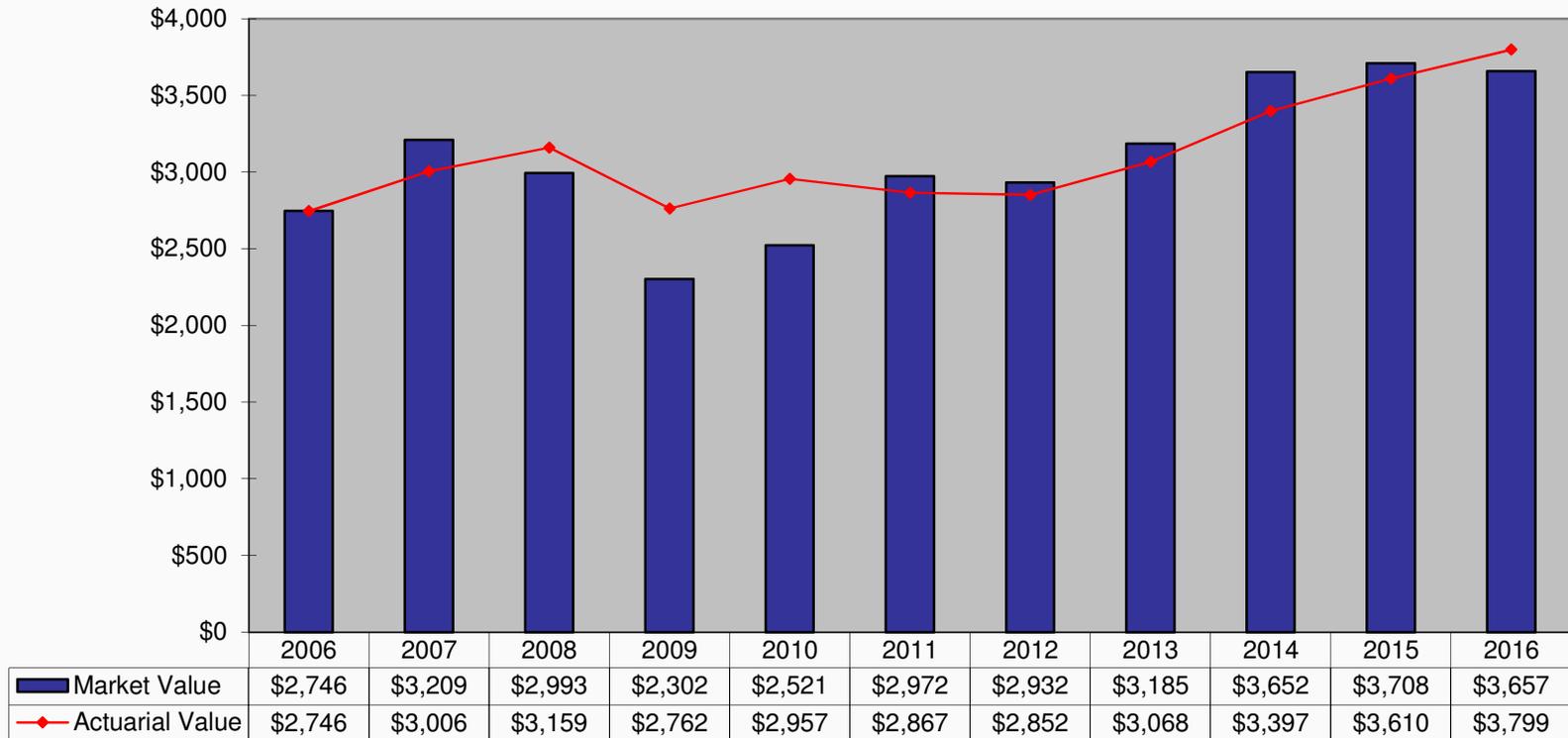


Payroll & Benefits (in Millions)





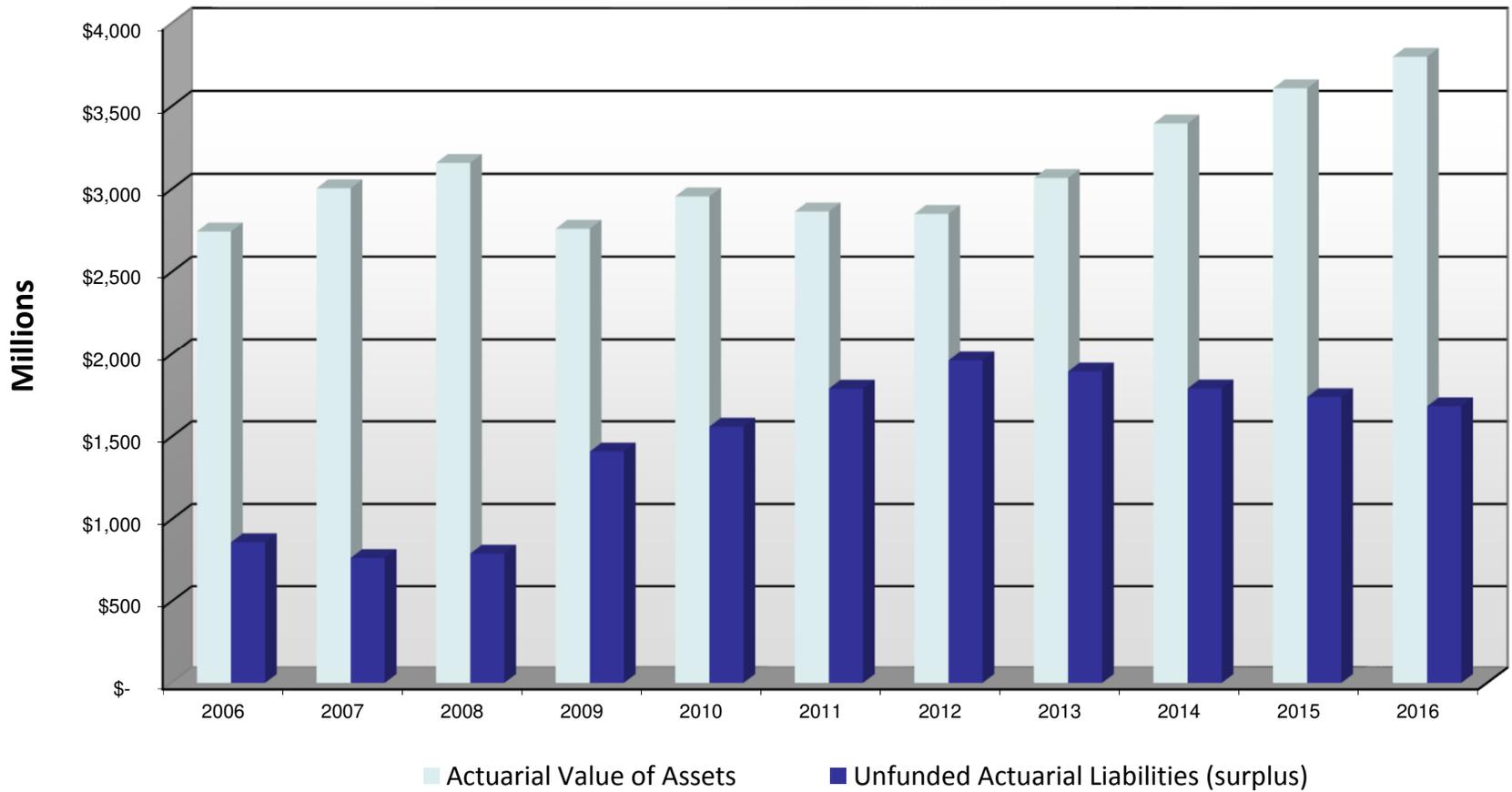
Assets (\$ Millions)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Market Return	8.9%	17.6%	(4.9)%	(20.8)%	12.9%	21.7%	2.2%	12.9%	17.1%	4.6%	2.1%
Actuarial Return	8.5%	10.2%	7.2%	(10.3)%	9.8%	(0.1)%	3.2%	12.0%	13.2%	9.6%	8.8%

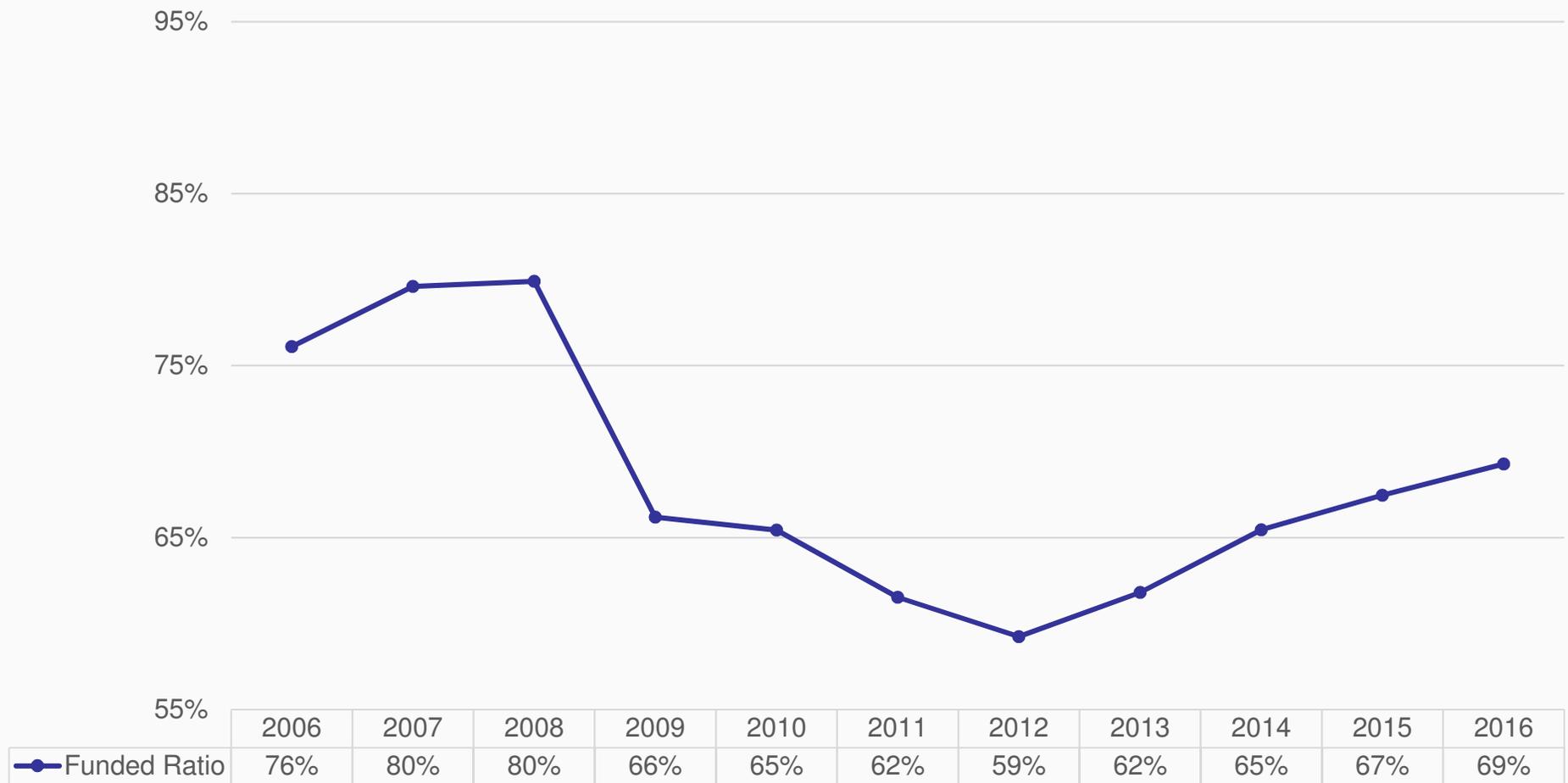


Actuarial Assets vs. UAAL



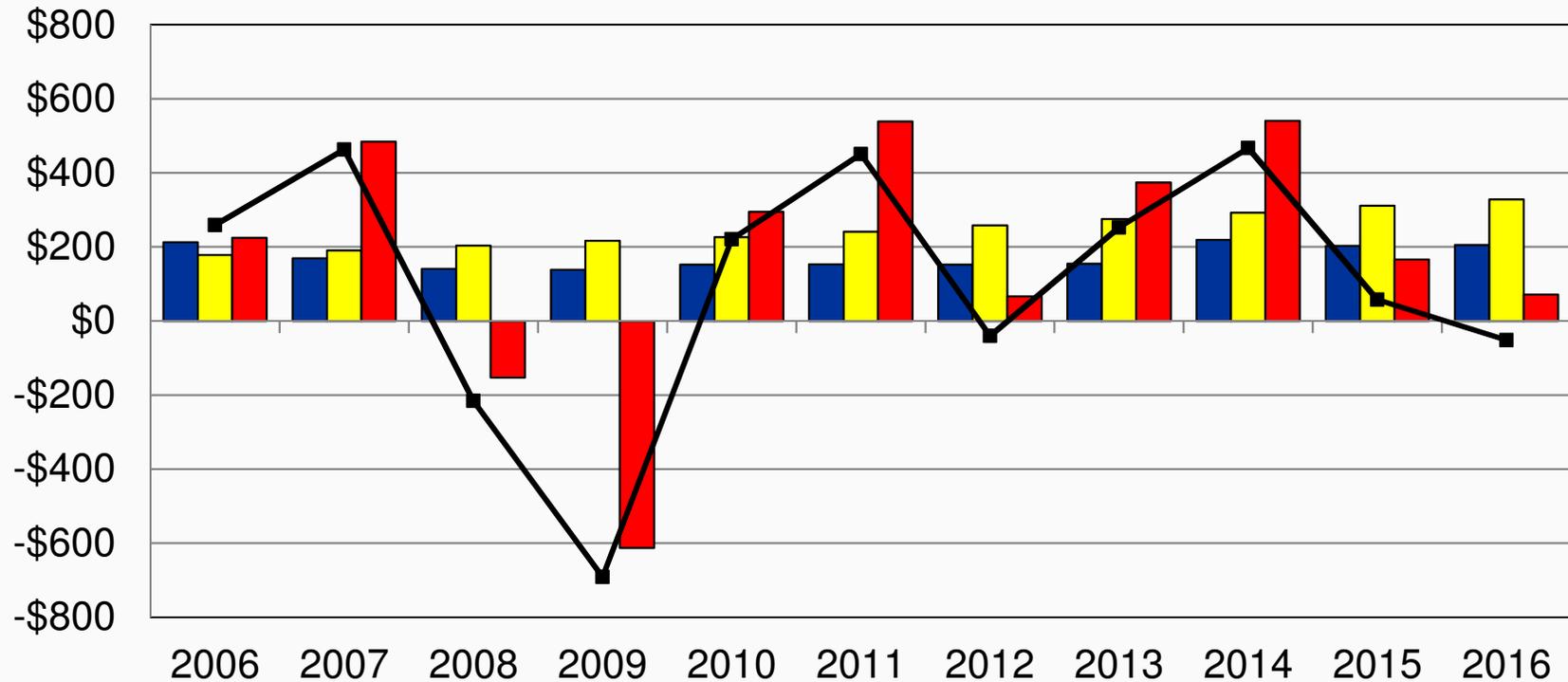


TRS Funded Ratio





Historical Cash Flow (in Millions)





Funding Results

	July 1, 2016 Valuation	July 1, 2015 Valuation
Total Normal Cost Rate	9.87%	9.21%
Less Member Rate	<u>8.15%</u>	<u>8.15%</u>
Employer Normal Cost Rate	1.72%	1.06%
Administrative Expense Load	0.31%	0.28%
Rate to Amortize UAL	<u>9.23%</u>	<u>9.82%</u>
Total Employer Statutory Rate	11.26%	11.16%
Actuarial Accrued Liability	\$5,483.7 million	\$5,351.4 million
Actuarial Value of Assets	\$3,798.9 million	\$3,609.8 million
Unfunded Accrued Liability	\$1,684.8 million	\$1,741.6 million
Funded Ratio	69.28%	67.46%
Amortization Period*	24 Years	26 Years

* Reflects anticipated increase in employer supplemental contribution rate



Progress Toward 100% Funding

