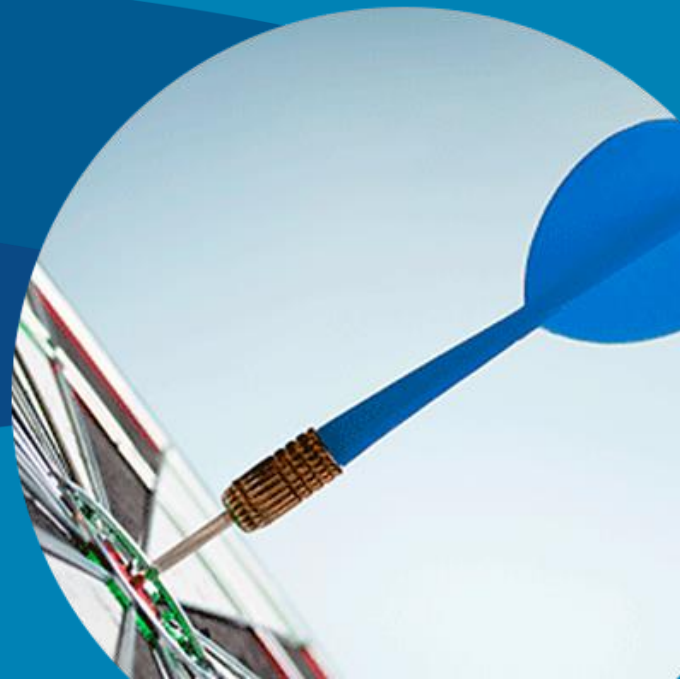




Michigan Judges' Retirement System

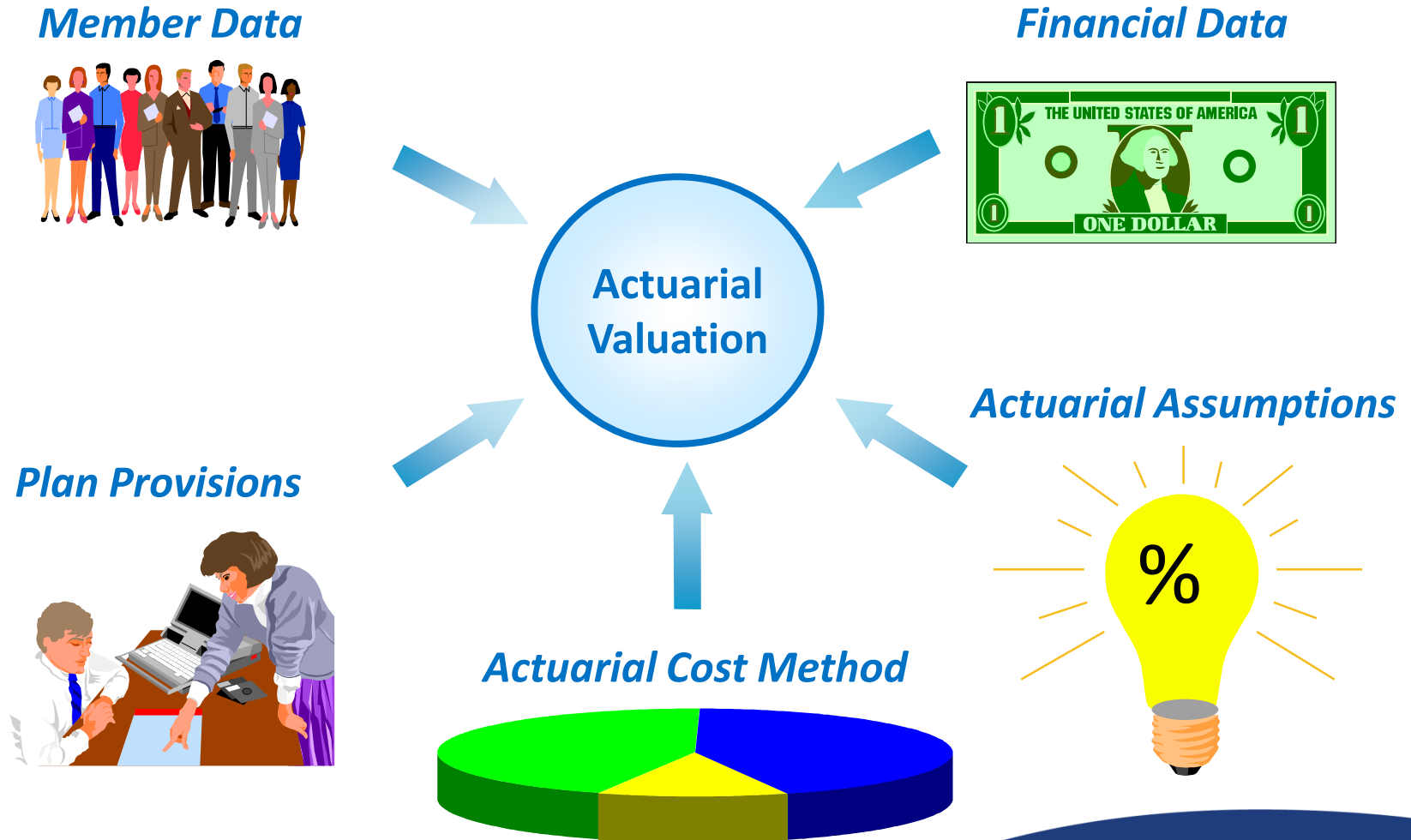
Pension Actuarial Valuation Results
as of September 30, 2019



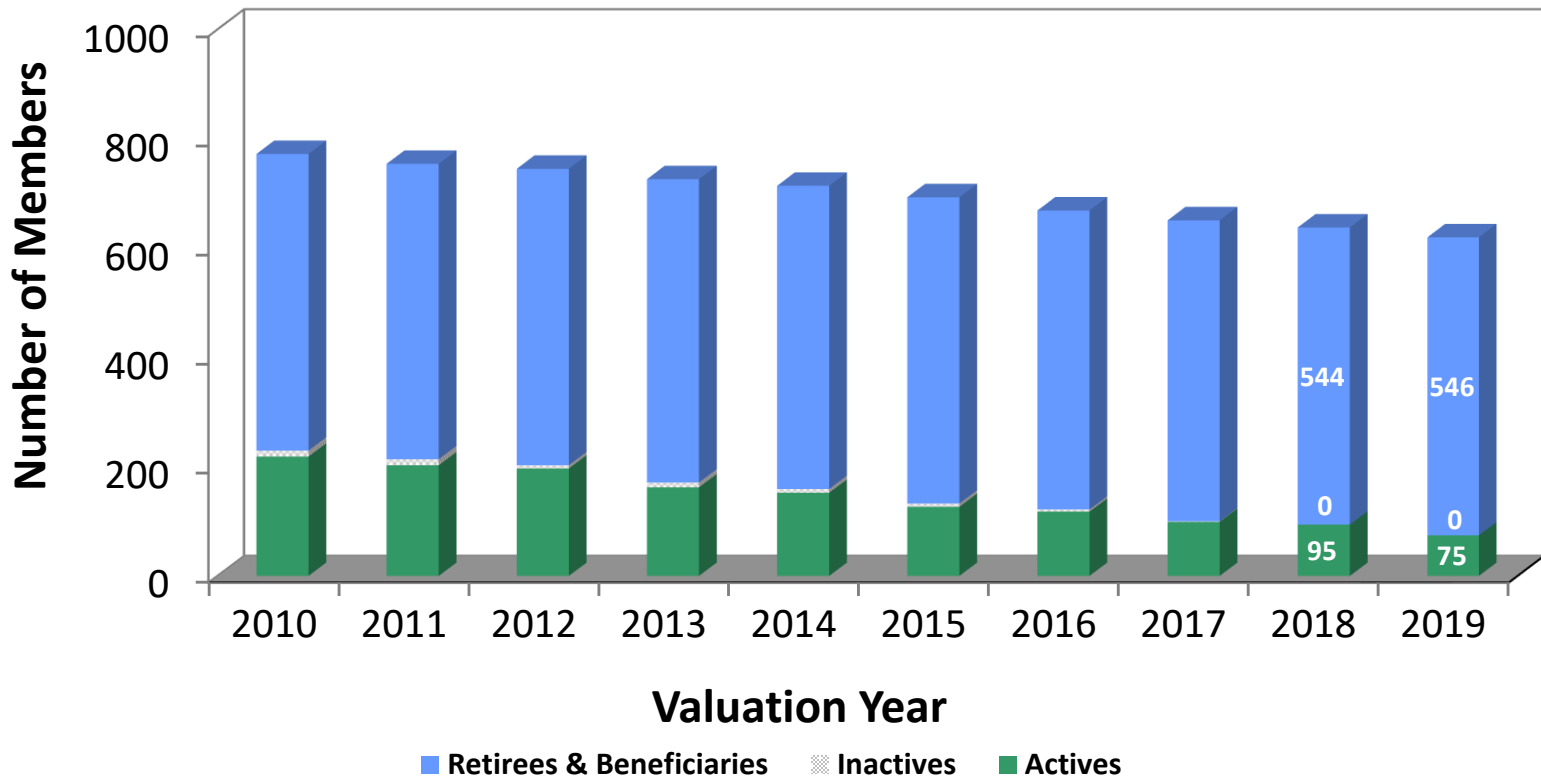
September 30, 2019 Valuation

- Purpose of the September 30, 2019 valuation is twofold:
 - Determine the employer contribution rate for fiscal year 2020
 - Measure the System's funding progress
- Reflects the Dedicated Gains Policy adopted by the Board of Trustees
 - The investment return assumption remained 6.25% as a result of the Policy
 - Market rate of return on assets for FY 2019 too low to trigger the provisions of the Dedicated Gains Policy

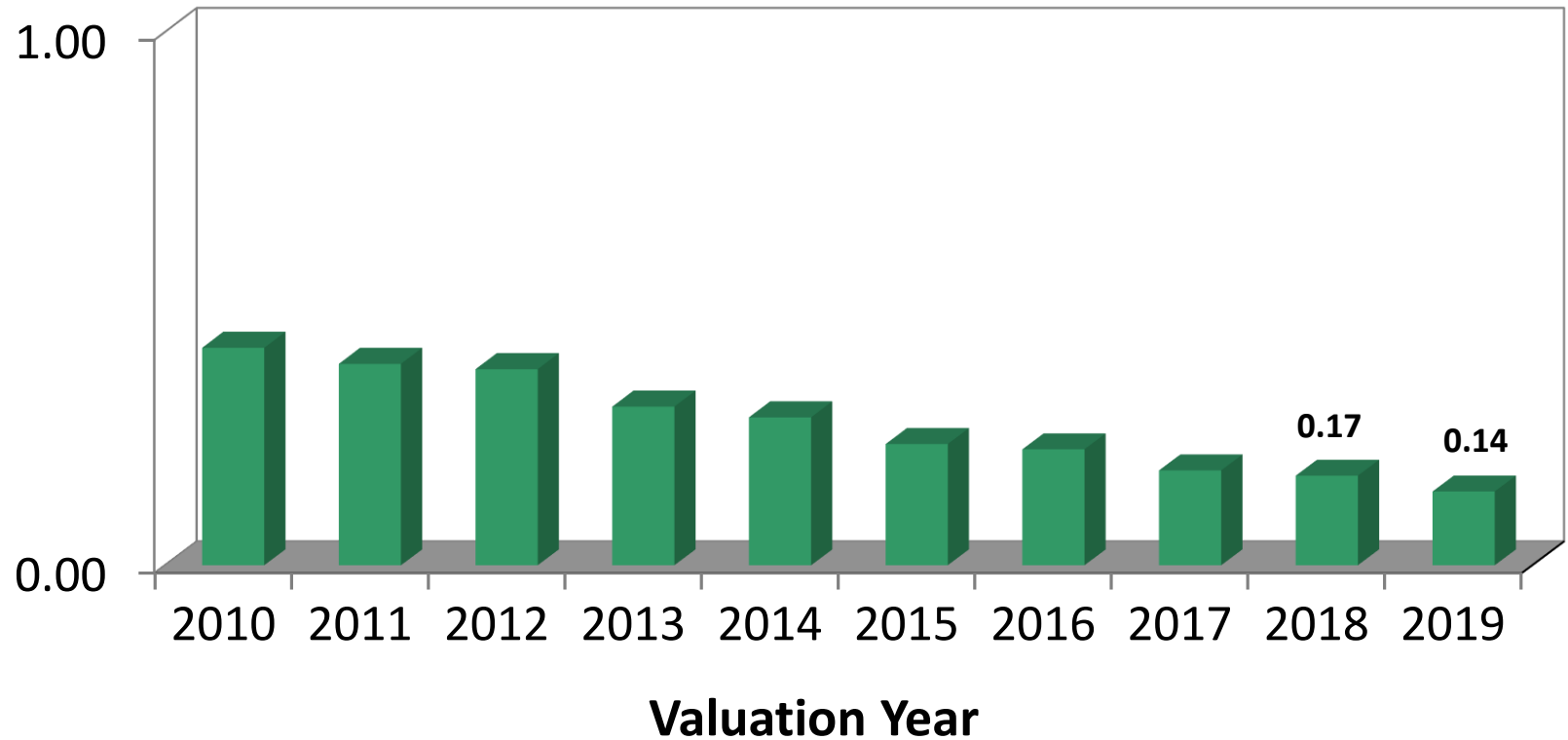
Actuarial Valuation Process



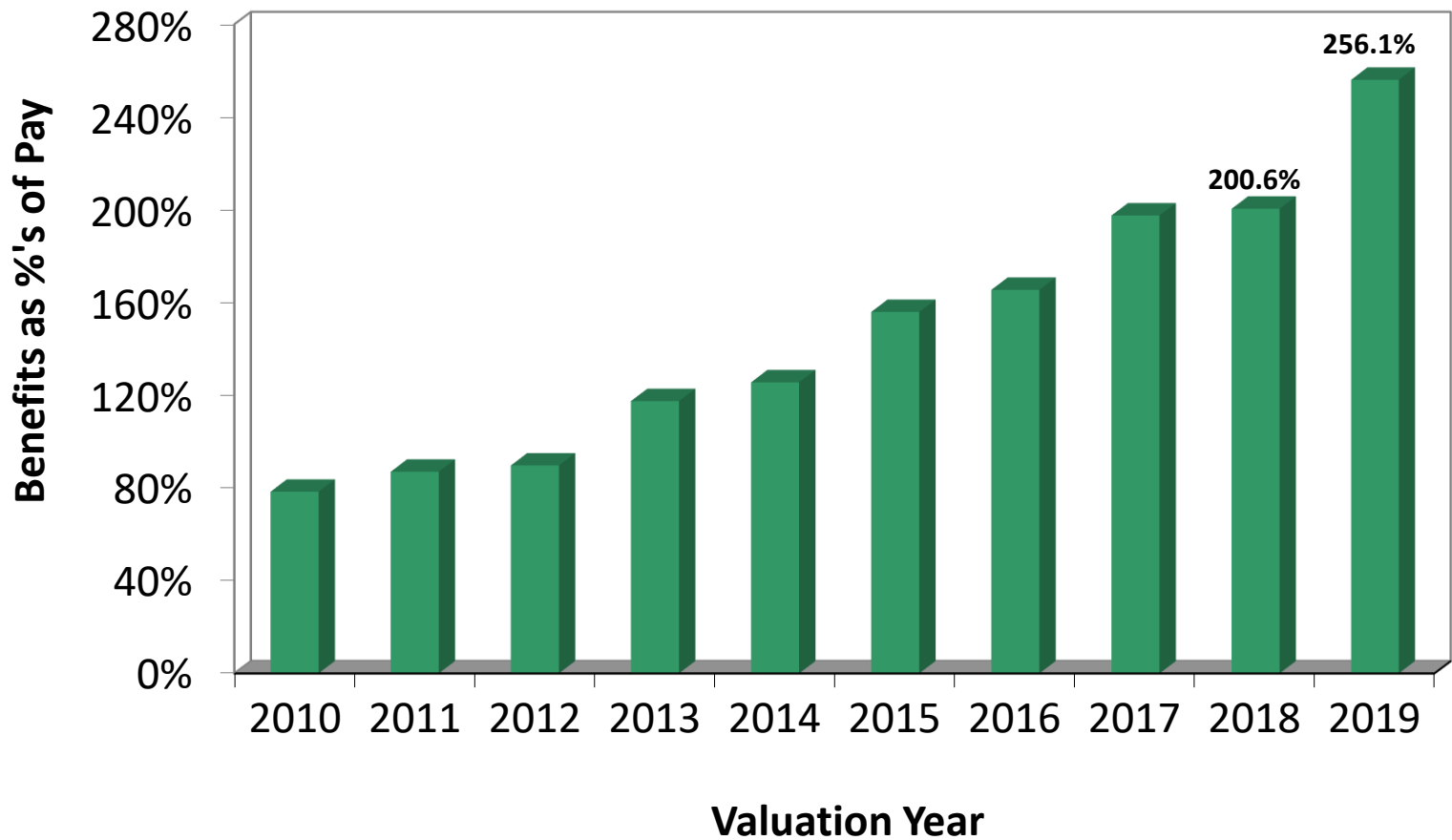
Membership Data



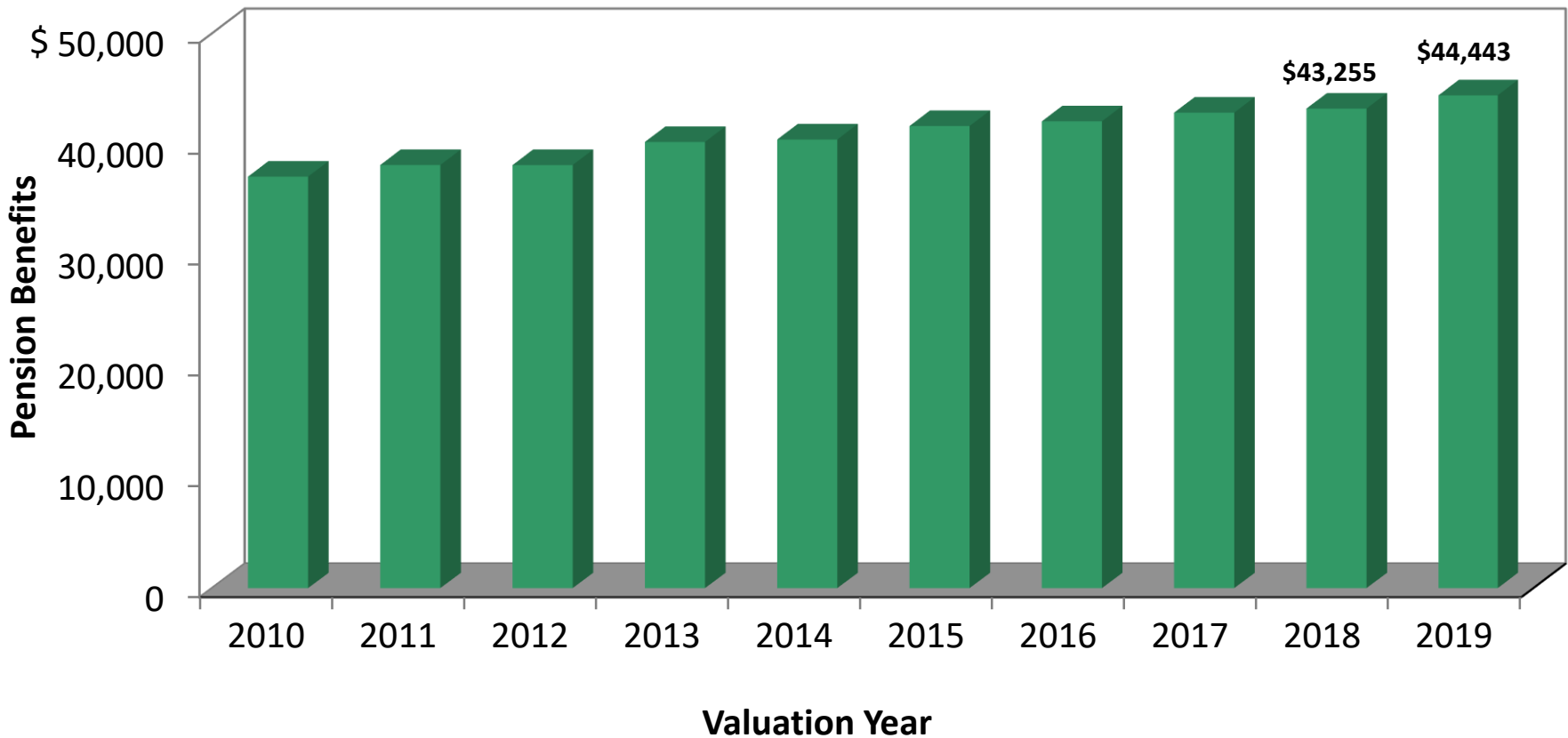
Ratio of Active Members to Pension Benefit Recipients



Pension Benefits Expressed as Percents of Active Member Pay

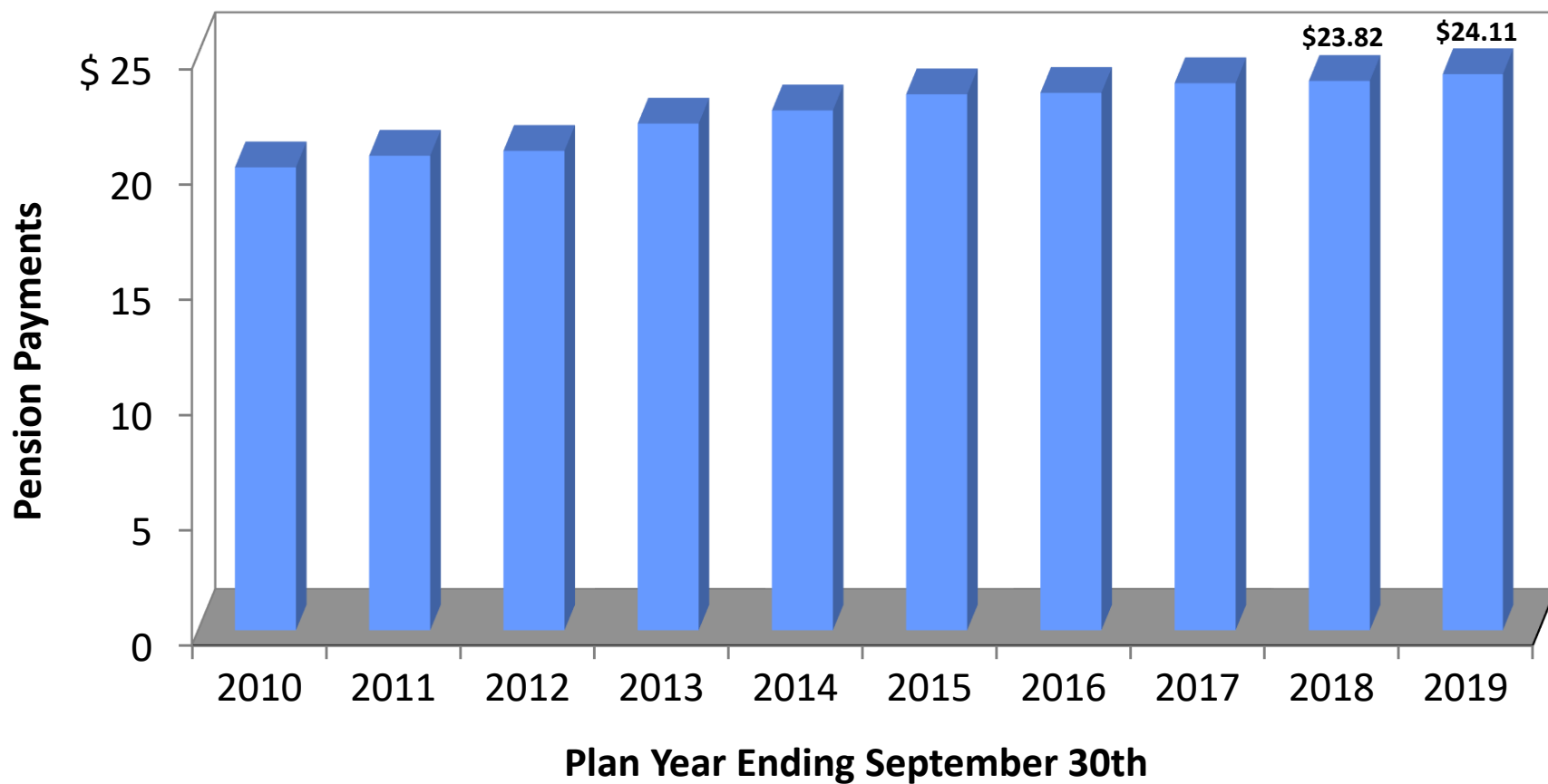


Average Annual Pensions

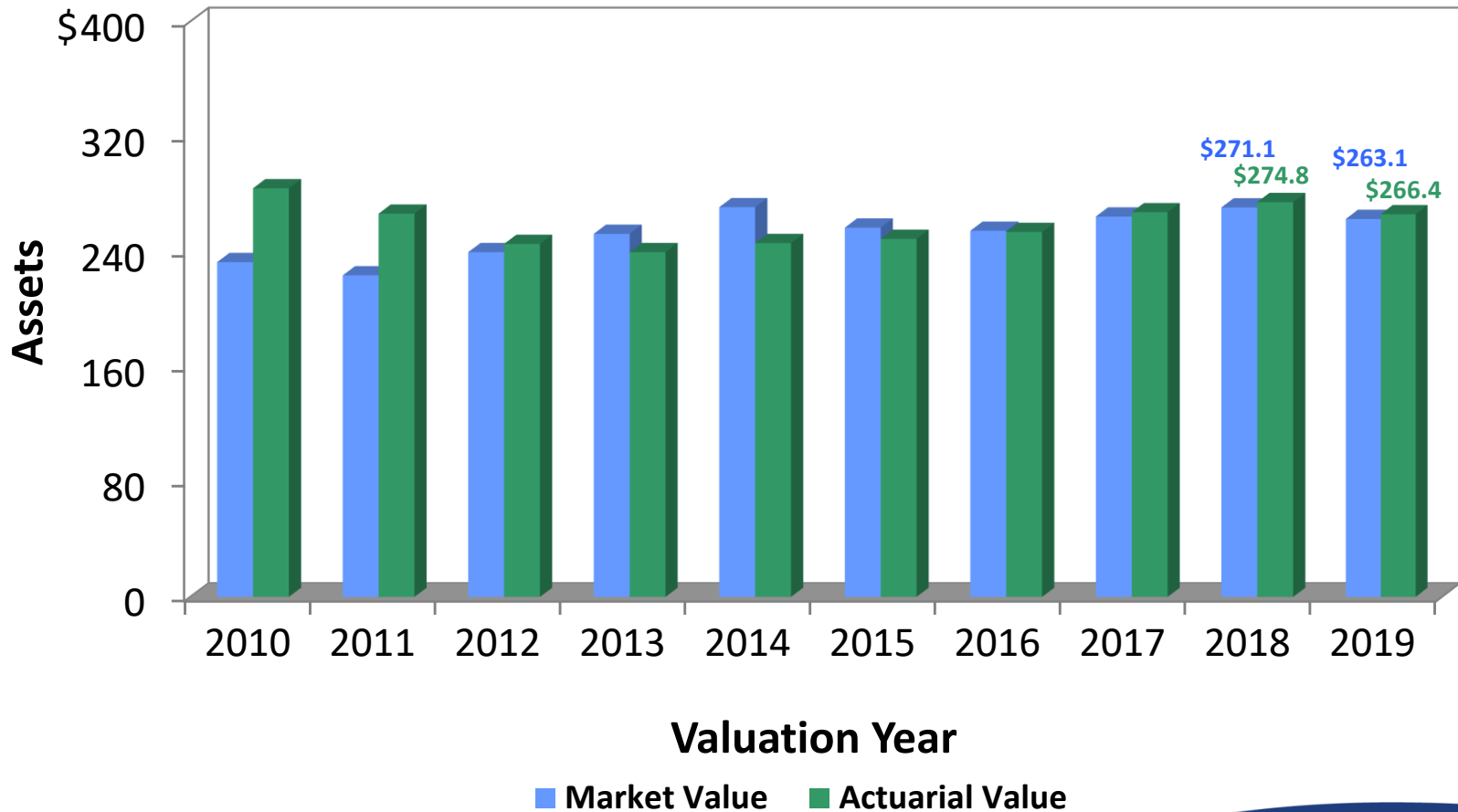


Reported Pension Payments by Plan Year

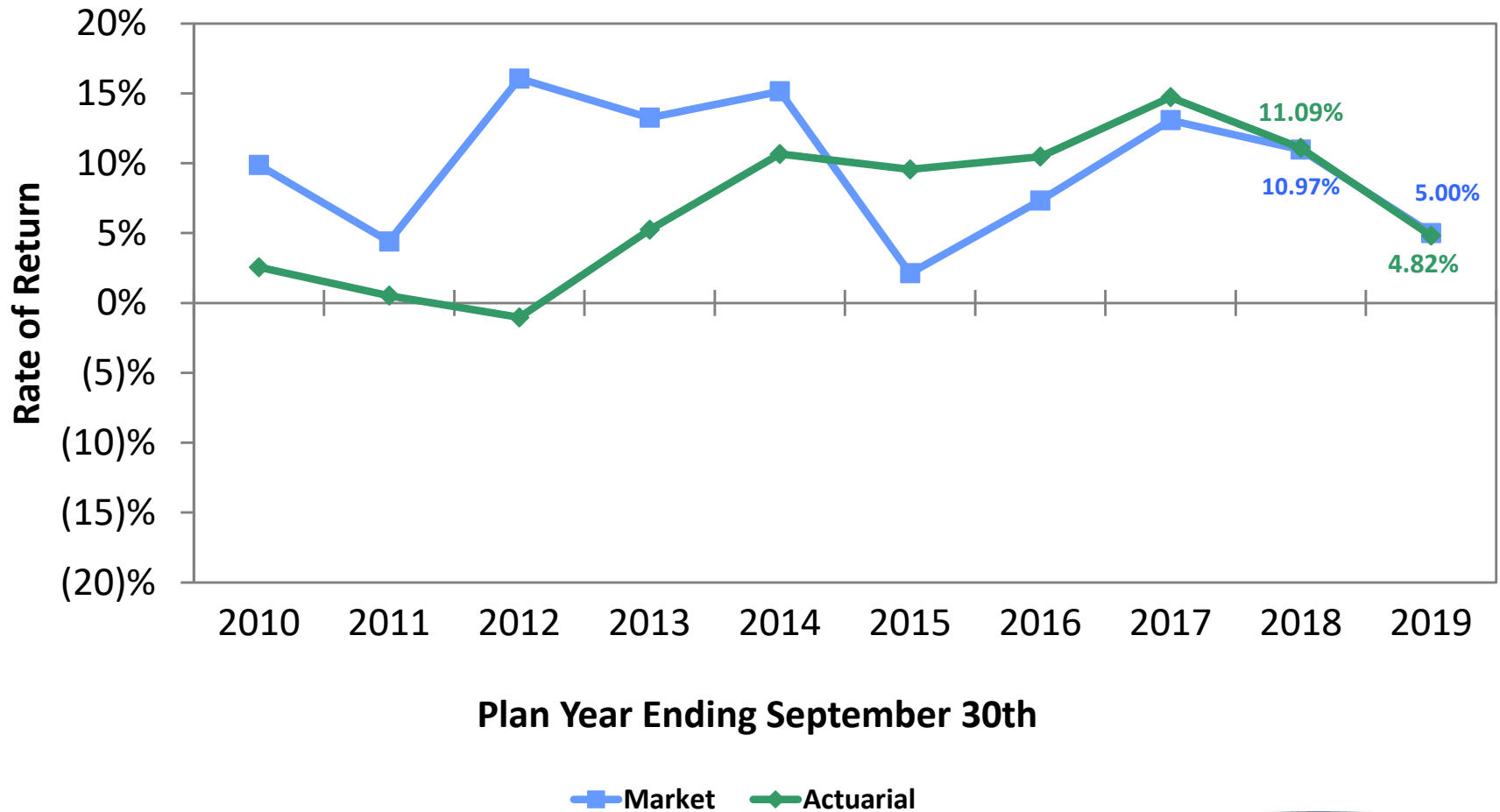
(Amounts in Millions)



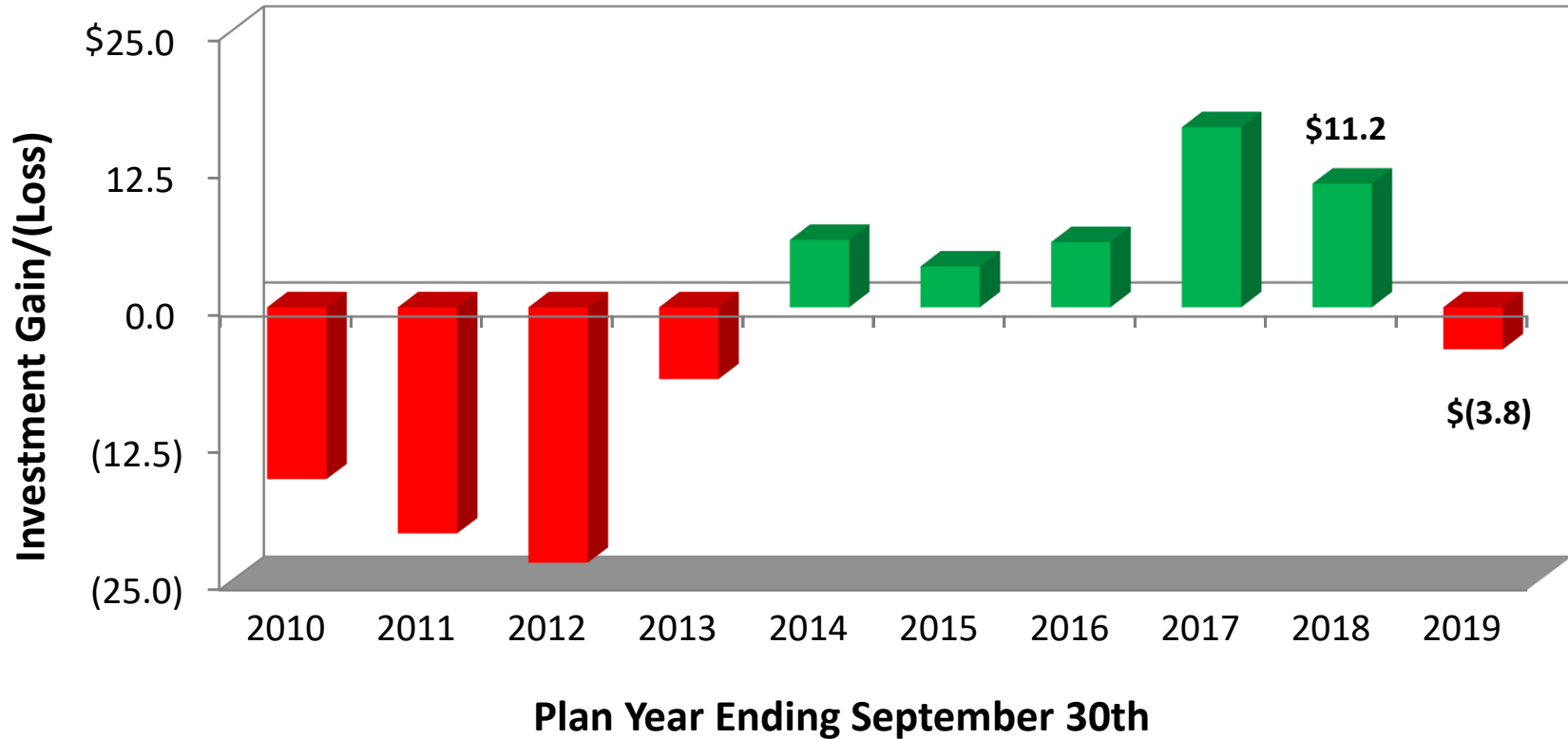
Growth of Pension Assets (Amounts in Millions)



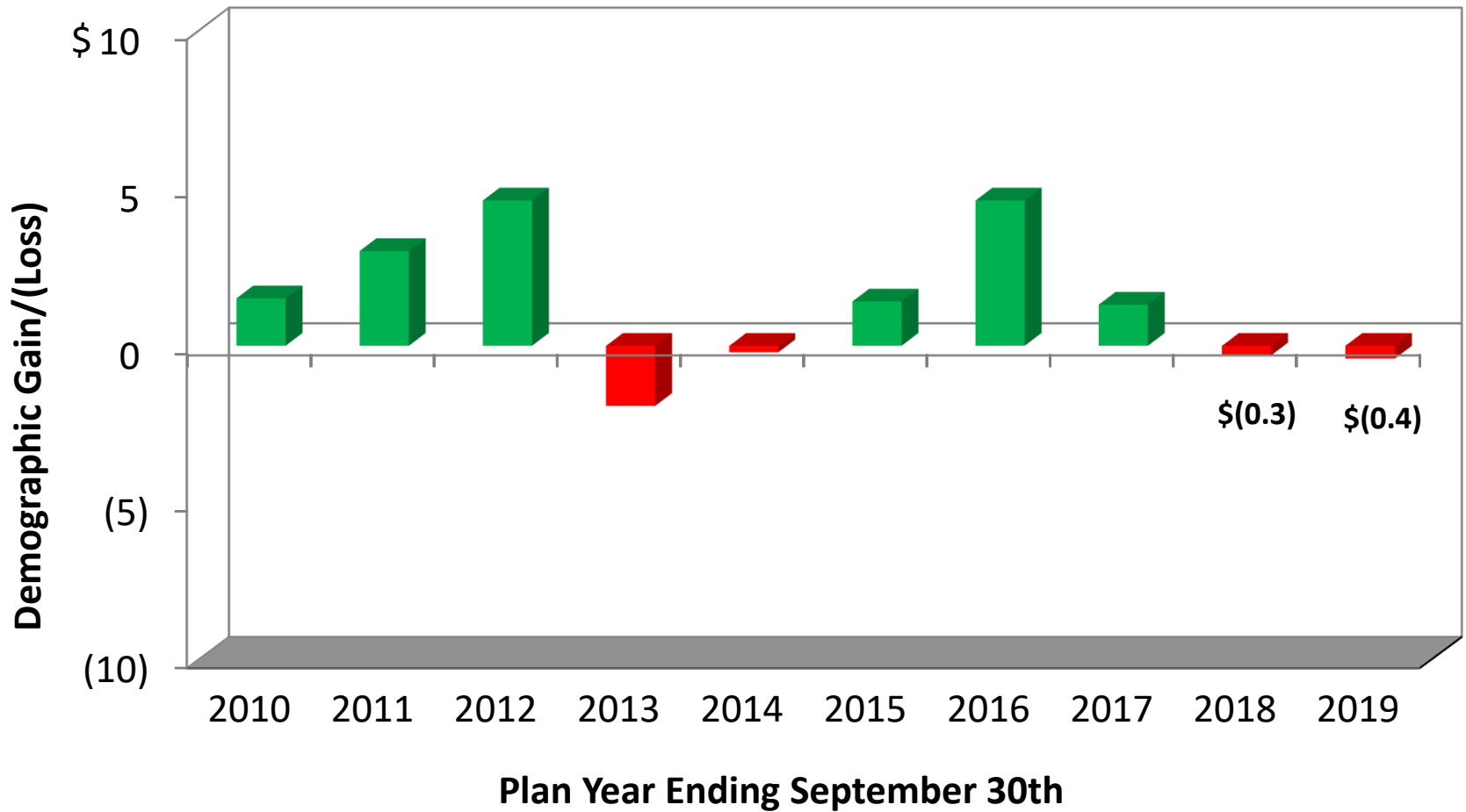
Market & Actuarial Net Rates of Return



Investment Gain/Loss (Amounts in Millions)



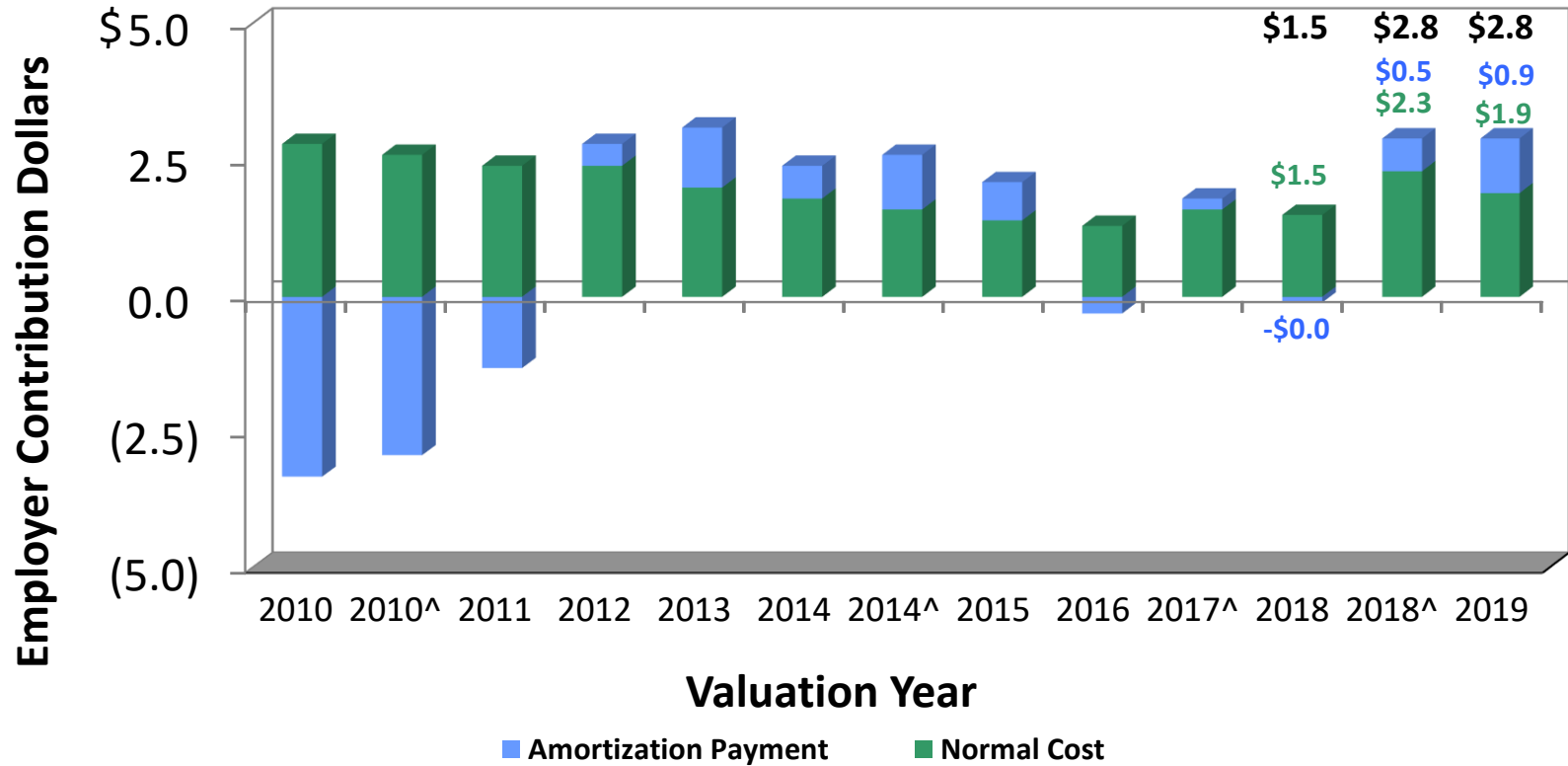
Demographic Gain/Loss (Amounts in Millions)



Gain/(Loss) by Type of Activity (Amounts in Millions)

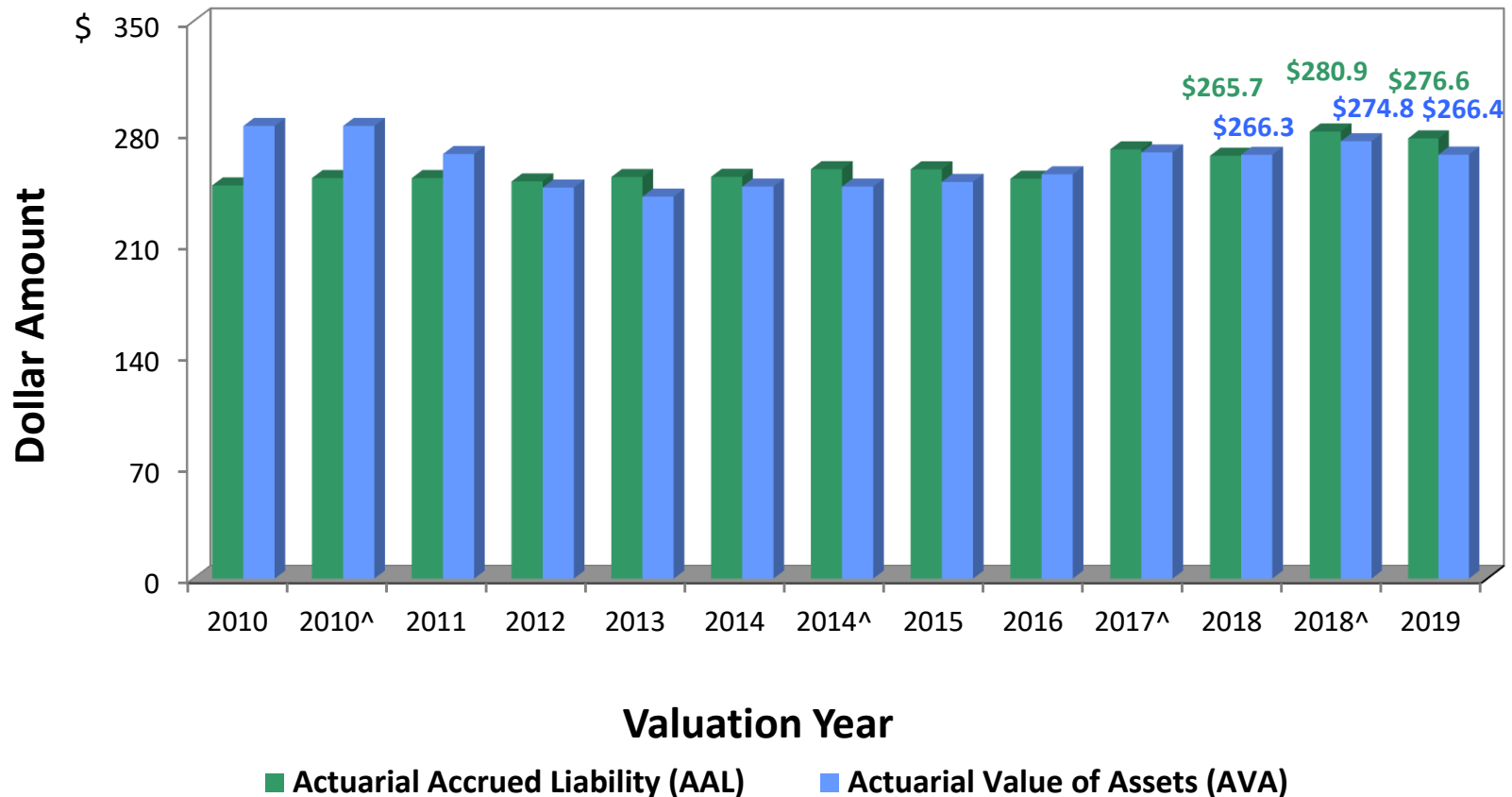
Plan Year					
Ending 9/30	2019	2018	2017	2016	2015
New Entrants	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Retiree Deaths	(0.72)	(1.61)	0.28	2.36	1.01
Investments	(3.77)	11.17	16.34	5.92	3.69
Pay Increases	0.47	0.02	1.04	1.68	1.41
Withdrawals	0.00	0.04	0.05	0.06	(0.06)
Retirements	(0.30)	1.20	(0.58)	0.29	(1.19)
Other	0.17	0.08	0.55	0.16	0.23
Total	(4.15)	10.90	17.68	10.47	5.09

Employer Contribution Dollars Valuation as of September 30th (Amounts in Millions)



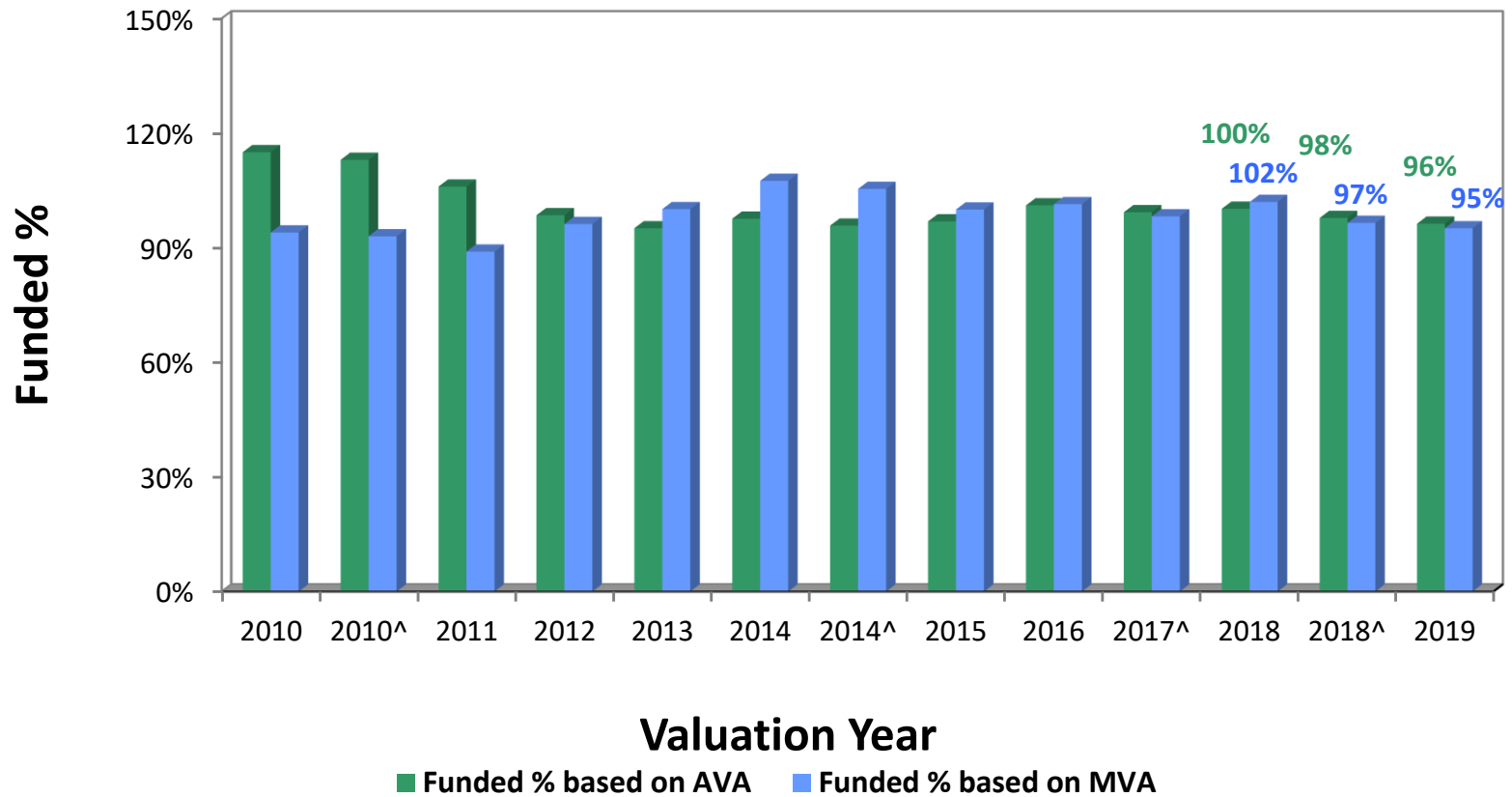
[^] Revised actuarial assumptions and/or methods.

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



^ Revised actuarial assumptions and/or methods.

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



^ Revised actuarial assumptions and/or methods.

Disclaimers

- This presentation is intended to be used in conjunction with the September 30, 2019 pension annual actuarial valuation report. This presentation should not be relied on for any purpose other than the purpose described in the valuation report.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- The actuaries submitting this presentation (Mita Drazilov and Louise Gates) are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.