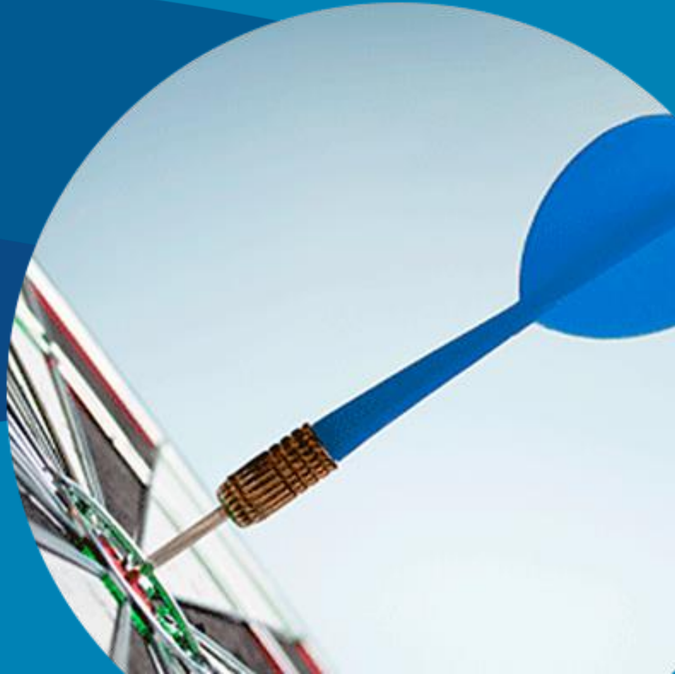
Michigan State Police

Retiree Health Actuarial Valuation Results as of September 30, 2020



Retiree Health Benefits
The Funding Issue

- Unlike pensions, health benefits have not been pre-funded for a long period of time
  - Most public plan sponsors nationwide have not pre-funded health benefits either
- Costs rise as more members retire, and health inflation usually outpaces general inflation
- Pre-funding contributions have been calculated since 1999 – but pre-funding started in Fiscal Year (FY) 2013

GRS

September 30, 2020 Valuation

- Purpose of the September 30, 2020 valuation is twofold:
  - Determines the actuarially computed employer contribution for FY 2023
  - Measures the retiree health plan's funding progress
- Reflects investment return assumption remaining at 6.90% as the market rate of return for FY 2020 was too low to trigger the provisions of the Dedicated Gains Policy adopted by the Board of Trustees

GRS

September 30, 2020 Valuation

- Reflects these provisions of Public Act 674 of 2018:
  - Gradual transition from level percent of payroll amortization of Unfunded Actuarial Accrued Liabilities (UAAL) to level dollar amortization
  - 1.75% payroll growth assumption used for the September 30, 2020 valuation for amortization purposes only
- Employer contributions included in this presentation do not incorporate the “contribution floor” provisions of Public Act 674 of 2018

FY 2020 – Expenditures vs. Contributions

- FY 2020 expenditures for employer paid retiree health care benefits:
  - $28.3 million
    - Excludes retiree paid premiums
    - Excludes $4.6 million in other governmental contributions
- FY 2020 contributions for retiree health care Benefits:
  - $58.3 million
    - Excludes $4.6 million in other governmental contributions

Amounts reported above are from the 2020 SPRS financial statements.

Actually Computed Employer Contribution FY 2023 ($ in Millions)

- Actuarially Computed employer contribution for FYE September 30, 2023:

	FY 2023	
Employer Normal Cost	$	9.0
Amortization of UAAL[1]		37.9
Employer Contribution	$	46.9

[1] *Unfunded Actuarial Accrued Liabilities (UAAL) were amortized over 16 years from October 1, 2022.*

- Once fully funded, the annual employer contribution requirement decreases to the normal cost

Actuarial Gain/(Loss) ($ in Millions)

		Gain/(Loss)
1. **Premiums.** Gains and losses resulting from actual premiums in valuation year versus that assumed from prior valuation.	$	54.7
2. **Investment Income.** If there is greater investment income than assumed, there is a gain. If less income, a loss.		(1.6)
3. **Demographic and Other.** Gains and losses resulting from demographic experience, data adjustments, timing of financial transactions, etc.		5.0
4. **Composite Gain/(Loss) During Year.**	$	58.1

Circumstances That Would Increase Projected Costs

- Medicare funding reductions or cost shifting
- Unexpected new benefit recipients (from health benefit cutbacks of other employers)
- Health inflation worse than assumed; the actual future contributions will depend on future per capita health cost increases*
- Lower than expected investment returns; bigger impact as plan assets grow
- This is not a complete list

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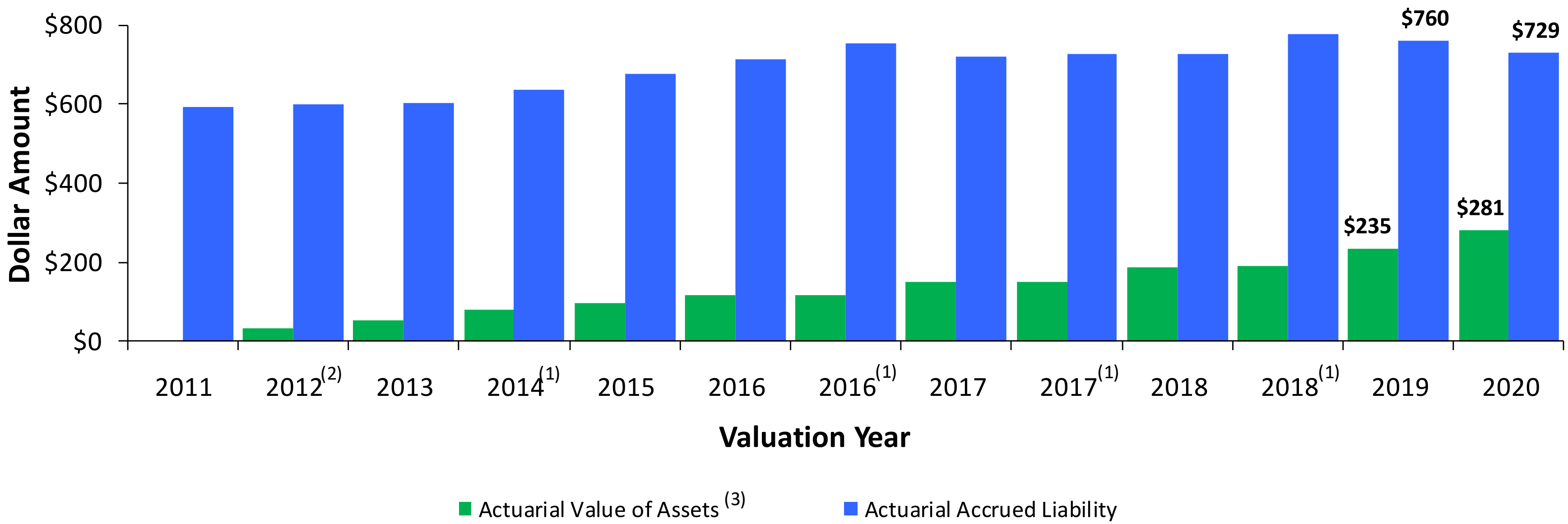
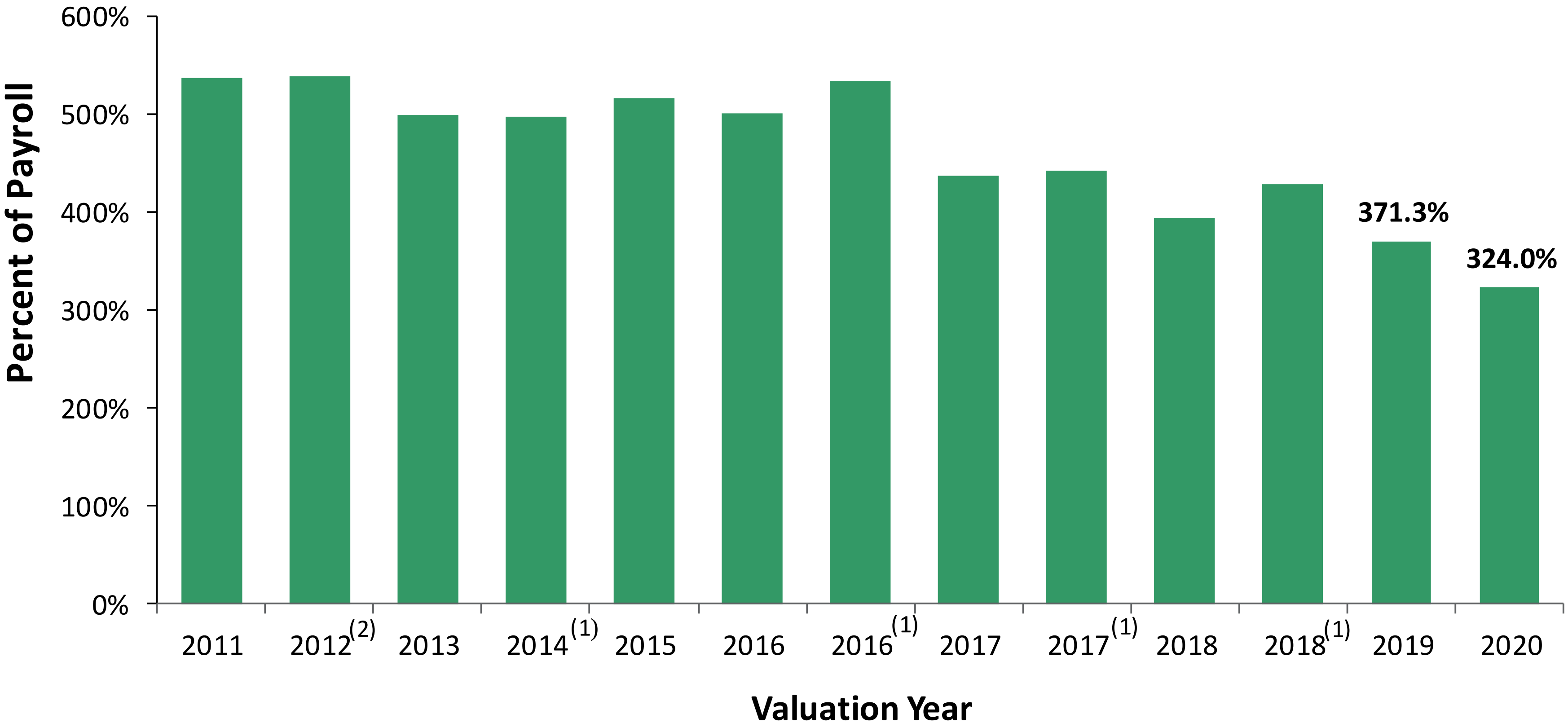
* *Pre-65 per capita costs are projected to increase 7.50% the first year, graded down to 3.50% in the fifteenth year. Post-65 per capita costs are projected to increase 6.25% the first year, graded down to 3.50% in the fifteenth year.*

Health Assets & Accrued Liabilities
Full Actuarial Funding ($ in Millions)



(1) *Reflects assumption changes (not including trend assumption)*
(2) *Revised benefit provisions*
(3) *Actuarial value of assets were equal to the market value of assets prior to 2018*

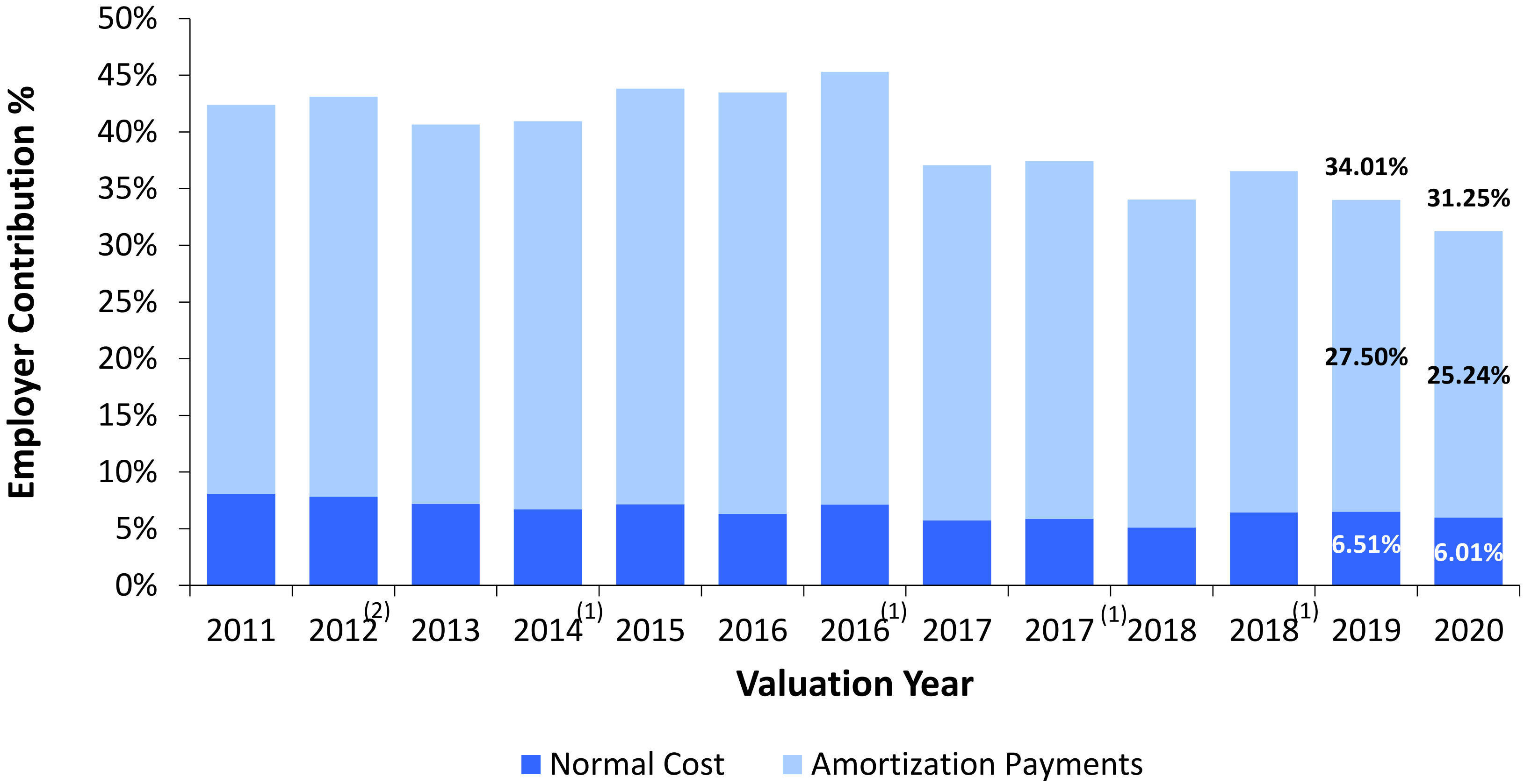
Unfunded Accrued Liabilities as %'s of Payroll Full Actuarial Funding



(1) Reflects assumption changes (not including trend assumption)

(2) Revised benefit provisions

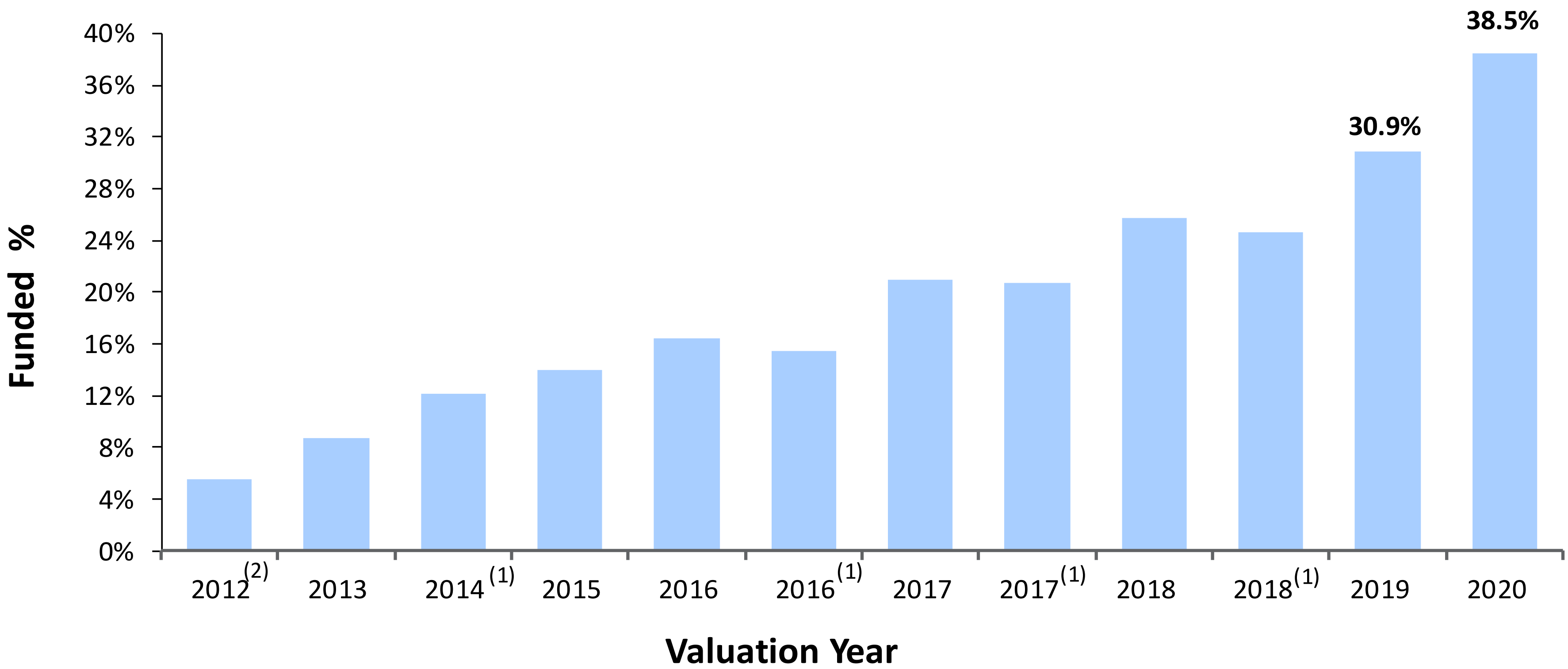
Required Employer Contributions as Percents of Payroll (Full Actuarial Funding)



(1) Reflects assumption changes (not including trend assumption)

(2) Revised benefit provisions

Funded Percent



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(1) Reflects assumption changes (not including trend assumption)
(2) Revised benefit provisions

Disclaimers

- This presentation is intended to be used in conjunction with the September 30, 2020 retiree health 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 (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.