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City of Grand
Forks
Pension Plan

January 1, 2020 Actuarial Valuation Results

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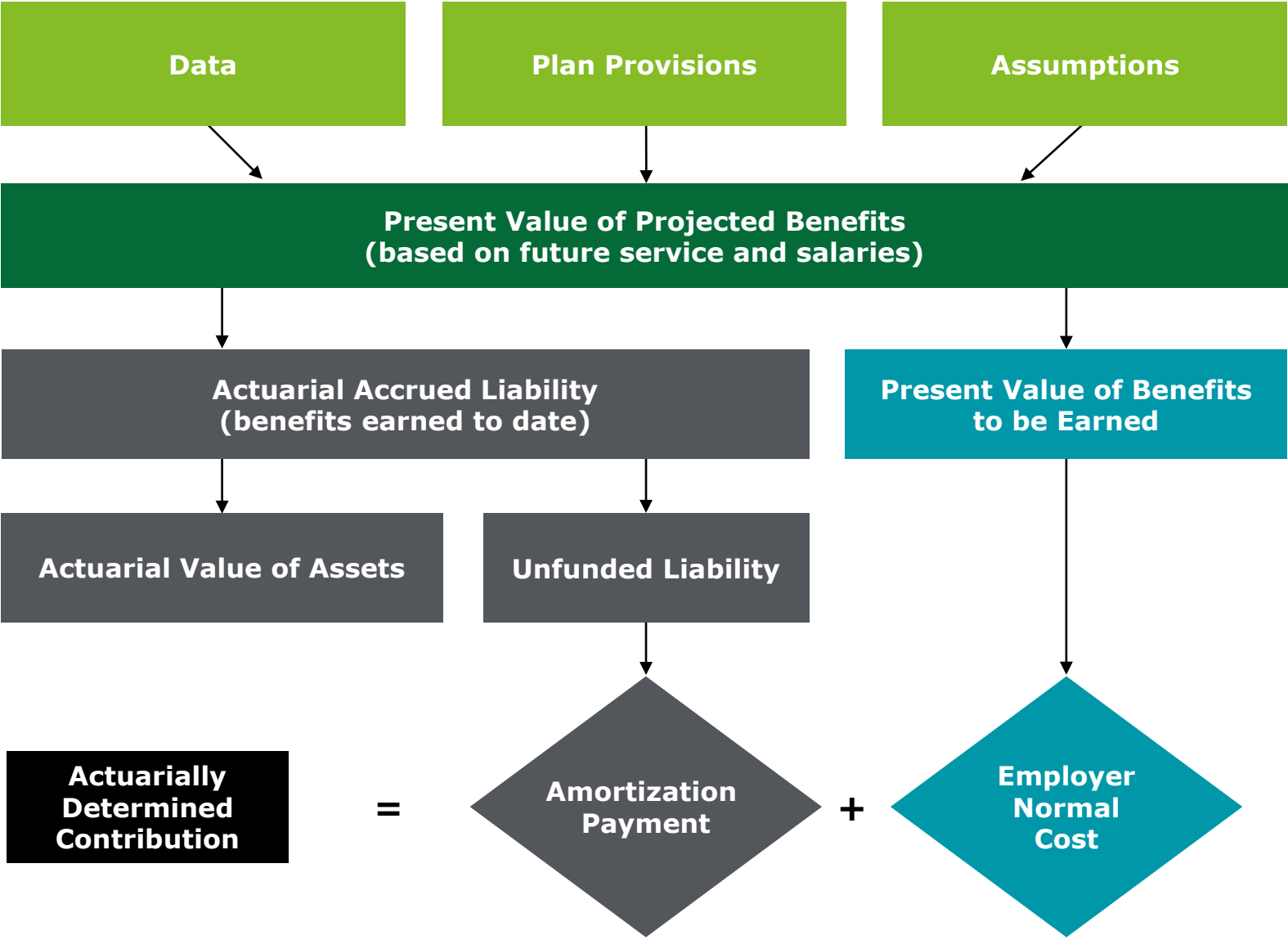
Deloitte Consulting LLP
May 7, 2020

Agenda

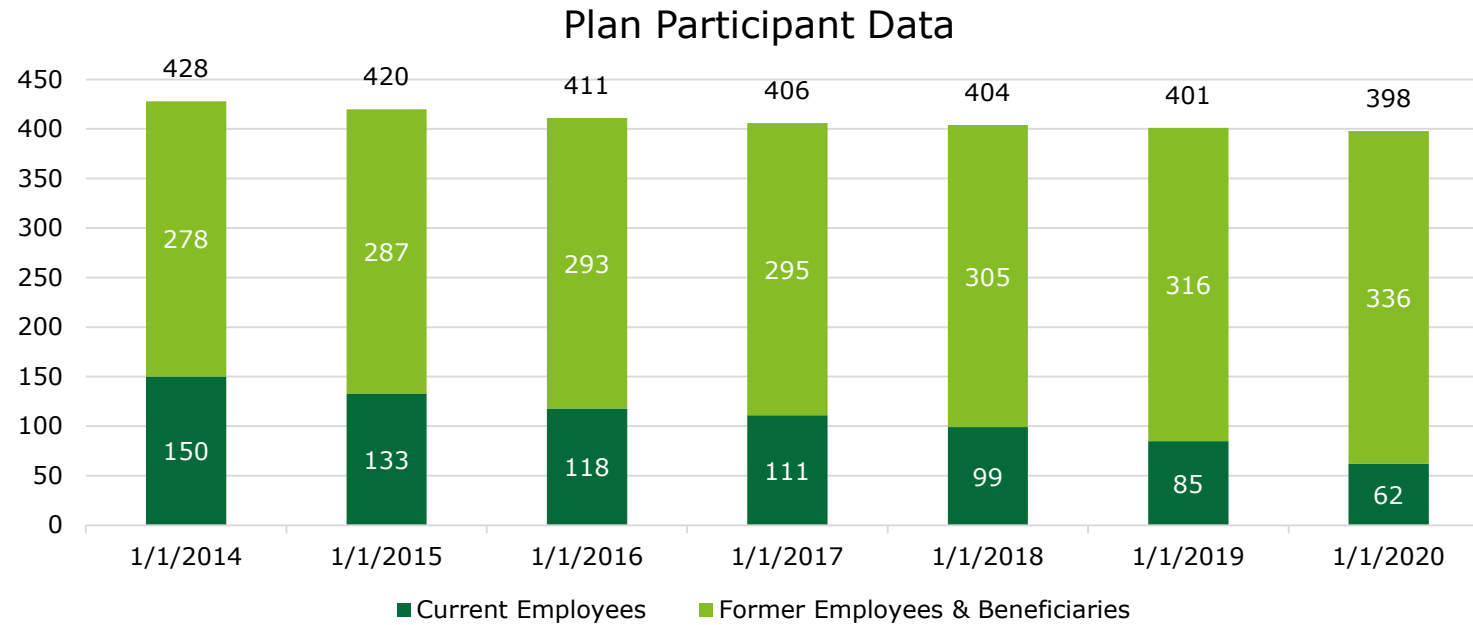
1. January 1, 2020 valuation results
2. Actuarially determined contribution

January 1, 2020 Valuation Results

Development of actuarially determined contribution



Plan participant data



	1/1/2014	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	1/1/2020
Average Expected Compensation for Current Employees	\$ 60,629	\$ 62,836	\$ 68,081	\$ 68,580	\$ 72,620	\$ 74,463	\$ 77,639
Average Annual Benefit for Former Employees Currently in Payment Status	\$ 19,524	\$ 20,256	\$ 20,820	\$ 21,972	\$ 22,512	\$ 23,095	\$ 24,141

Key assumptions

Economic Assumptions

Investment Return

1/1/2019

1/1/2020

7.50%

7.25%

Individual Salary Increase

2.75%

2.50%

Inflation

2.75%

2.50%

Other Assumptions

Mortality

Police & Firefighters:

- RP-2014 "Employees" and "Healthy Annuitants" tables for Males and Females with blue collar adjustment, rolled back to base year of 2006 using MP-2014 and generationally projected using MP-2019 (changed from MP-2018 generational projection)

All others:

- RP-2014 "Employees" and "Healthy Annuitants" tables for Males and Females without collar or amount adjustments, rolled back to base year of 2006 using MP-2014 and generationally projected using MP-2019 (changed from MP-2018 generational projection)

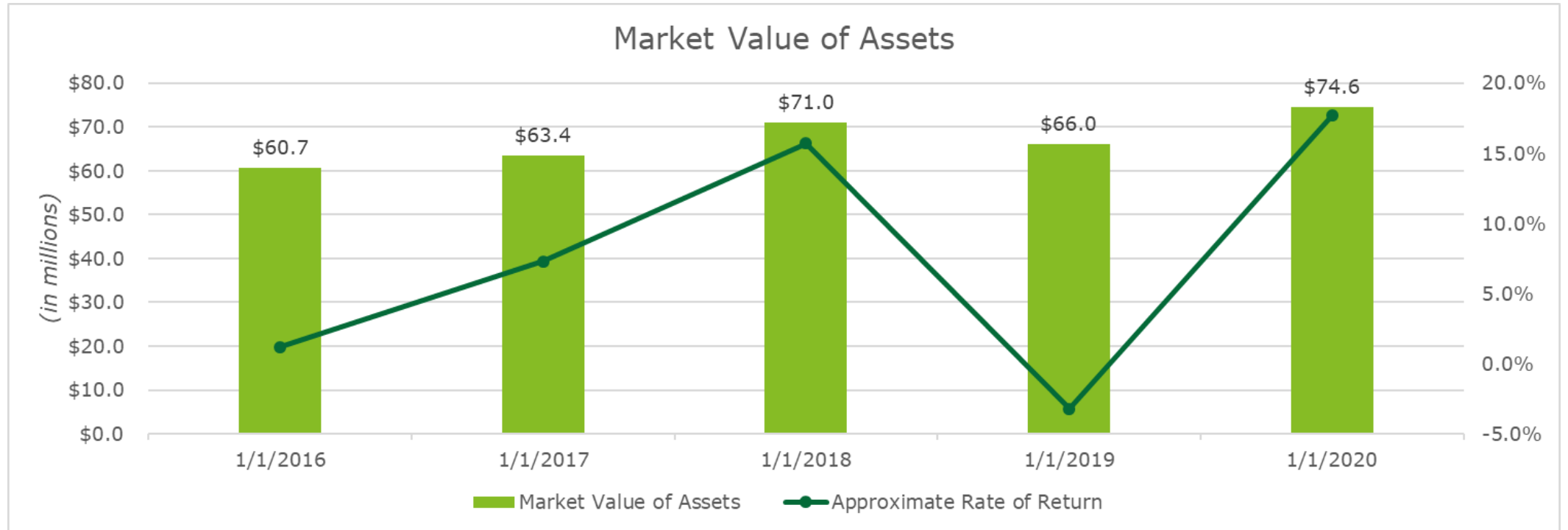
Retirement

Graded retirement rates based on selected retirement age

Expense Load

Last year's actual expenses rounded to the nearest \$10,000 (\$220,000 for 2020)

Plan assets – market value

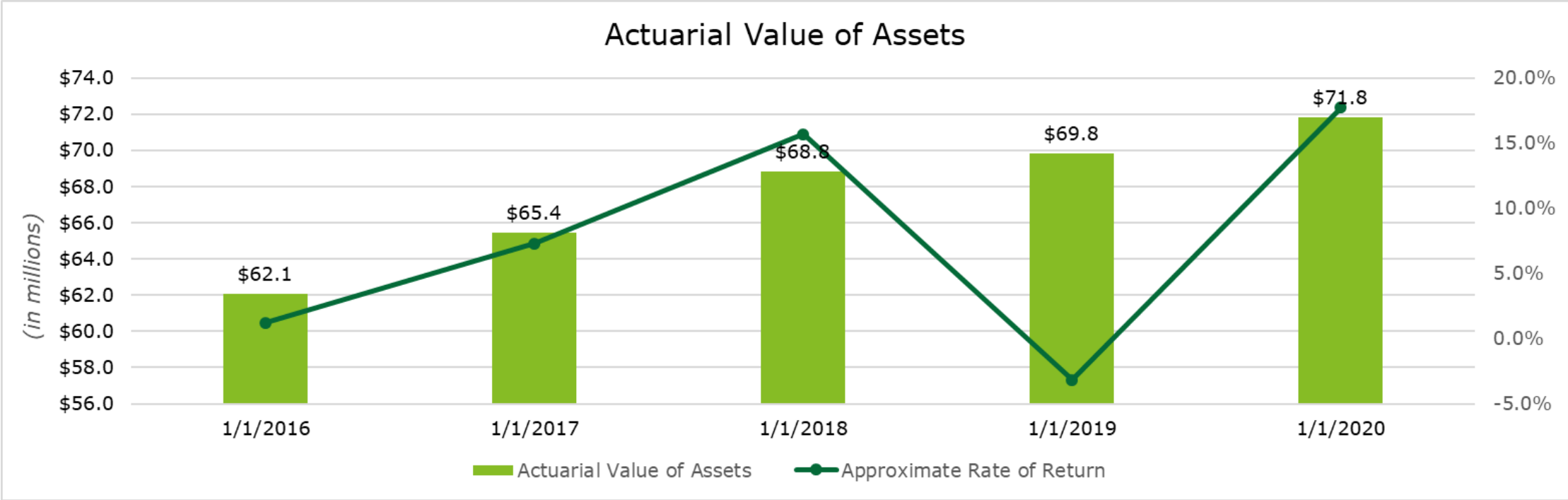


Prior Year:	2015	2016	2017	2018	2019
Employee Contributions	\$0.5	\$0.4	\$0.4	\$0.4	\$0.3
Employer Contributions	\$3.6	\$3.6	\$3.3	\$3.3	\$3.8
Benefit Payments	\$5.1	\$5.5	\$5.7	\$6.3	\$6.8
Approximate Rate of Return	1.2%	7.3%	15.7%	-3.2%	17.7%

Asset smoothing

		AVA Development
1. Market value of assets as of January 1, 2019		\$ 66,007,049
2. Net additions (reductions)		
(i) Employer contributions	\$ 3,838,566	
(ii) Employee contributions	322,264	
(iii) Benefit payments	(6,799,809)	
(iv) Actual expenses	(219,381)	
(v) Total		(2,858,360)
3. Interest on (1) and (2), adjusted for timing		4,881,420
4. Expected market value of assets as of January 1, 2020: (1) + (2v) + (3)		\$ 68,030,109
5. Actual Market Value of Assets as of January 1, 2020		74,584,143
6. Asset (gain)/loss in 2019: (4) - (5)	\$ (6,554,034)	
7. Asset (gain)/loss in 2018	7,387,525	
8. Asset (gain)/loss in 2017	(5,073,831)	
9. Asset (gain)/loss in 2016	318,161	
10. Unrecognized portion of prior asset gains and losses: [(6) * 0.8] + [(7) * 0.6] + [(8) * 0.4] + [(9) * 0.2]		(2,776,612)
11. Actuarial value of assets as of January 1, 2020: (5) + (10)		\$ 71,807,531

Plan assets – actuarial value



Comments:

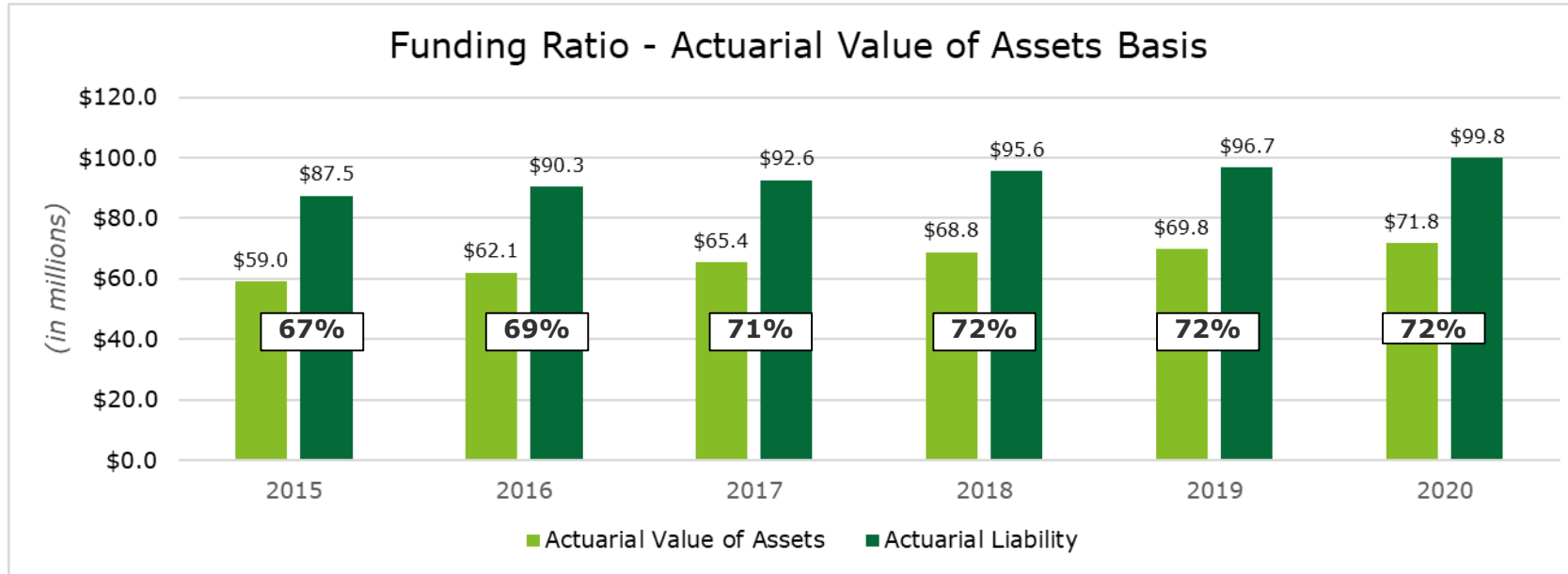
- Changed to a five-year smoothing method in 2001
- The 2019 asset gain was approximately \$6.6 million

Actuarial Gain/Loss

	Expected Unfunded Liability	
1. Unfunded liability at January 1, 2019	\$ 26,924,560	
2. Interest at 7.5%	2,019,342	
3. Subtotal: (1) + (2)	\$ 28,943,902	
4. Employer contributions with interest to December 31, 2019	\$ (4,016,052)	
5. Employer normal cost with interest to December 31, 2019	641,647	
6. Net contribution toward unfunded liability: (4) + (5)	(3,374,405)	
7. Expected unfunded liability at January 1, 2020: (3) + (6)	\$ 25,569,497	
8. Increase/(decrease) in liability due to assumption changes	1,781,318	
9. Expected unfunded liability after changes: (7) + (8)	\$ 27,350,815	
10. Actual unfunded liability as of January 1, 2020:	28,022,269	
11. Actuarial (gain)/loss: (10) - (9)	\$ 671,454	

The \$0.7 million actuarial loss is due to a demographic experience loss, offset by favorable asset experience.

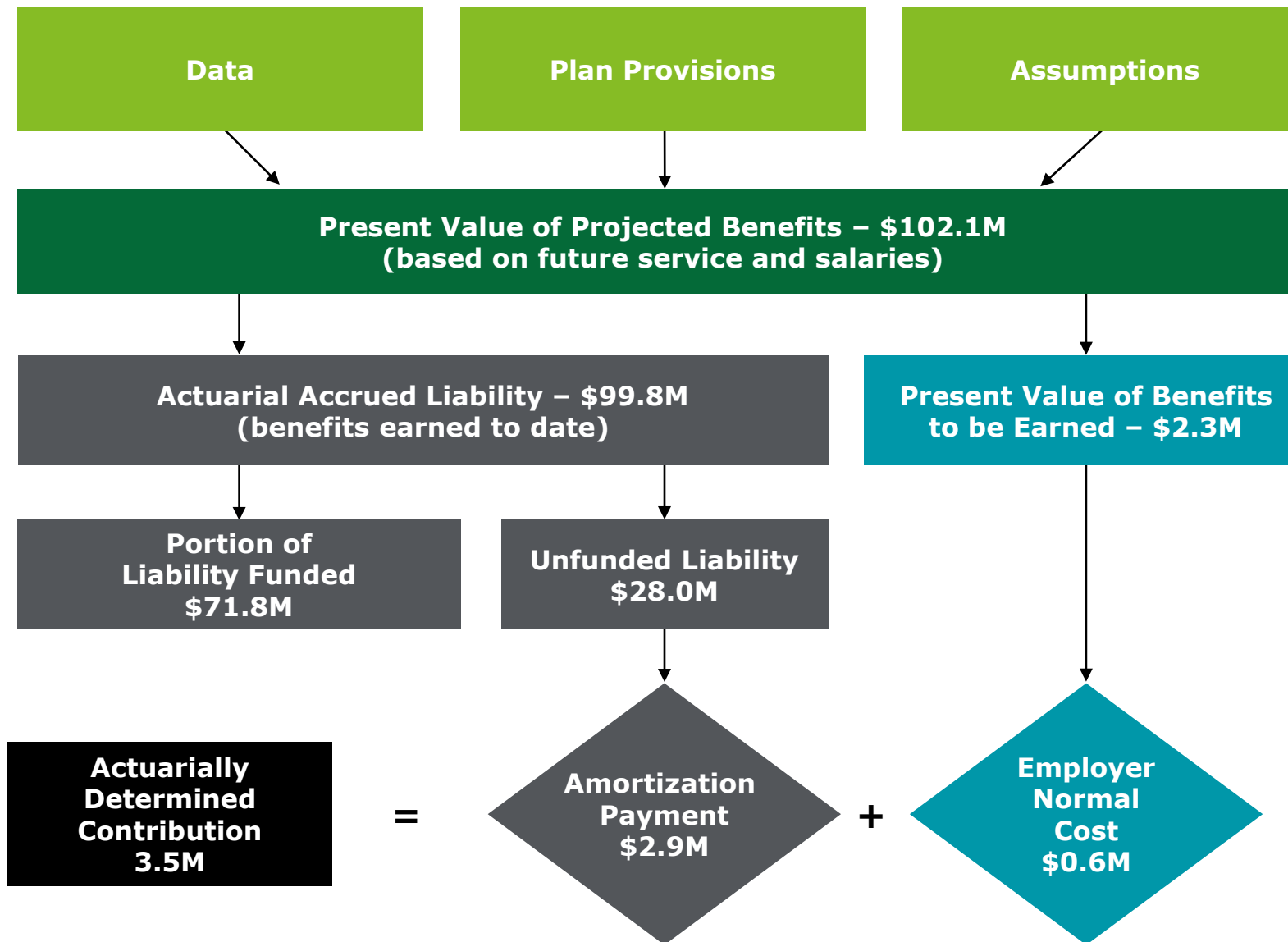
Funding ratio



Funded status on a Market Value of Assets basis is 75% compared to 68% in 2019.

Actuarially Determined Contribution

Development of actuarially determined contribution



Actuarially determined contribution

Illustrated as a dollar amount and as a percent of considered payroll:

	1/1/2019		1/1/2020	
Total Normal Cost	\$938,798	16.8%	\$861,091	19.4%
Expected Employee Contributions	<u>(341,917)</u>	<u>(6.1)%</u>	<u>(269,487)</u>	<u>(6.1)%</u>
Employer Normal Cost	\$596,881	10.7%	\$591,604	13.3%
Amortization Payment	<u>2,739,822</u>	<u>48.9%</u>	<u>2,914,176</u>	<u>65.6%</u>
Actuarially Determined Contribution	\$3,336,703	59.6%	\$3,505,780	78.9%

Historical actuarially determined contribution

