



New Castle County

2018 Pension Plan Review

March, 2018





2018 Valuation Overview

- Plans
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- Valuation Approach & Assumptions
- Funded Status
- Total Recommended County Contributions
- Net Allocated County Contributions
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- Future Outlook
- Conclusions



Demographics

	Actives	Terminated Vested	Retired	Disabled	Total	<i>Prior Year Total</i>
County Employees' Pension Plan	139	24	158	16	337	<i>344</i>
Employees' Retirement System	11	3	316	1	331	<i>336</i>
- Police	609	58	782	28	1,477	<i>1,512</i>
- General Personnel						
Alternative Pension Plan (closed plan)	5	1	27	0	33	<i>37</i>
Crossing Guards Pension Plan	75	8	53	1	137	<i>141</i>
County 2011 Pension Plan	197	17	0	0	214	<i>174</i>
Total	1,036	111	1,336	46	2,529	<i>2,544</i>



Plan Assets

Market Value and Actuarial Value

	12/31/2016	12/31/2017
Market Value	\$401,979,779	\$440,103,062
Investment Return	4.11%	14.75%
Actuarial Value*	\$427,266,539	\$435,477,499
Investment Return	7.03%	7.36%
Actuarial Value/Market Value	106%	99%

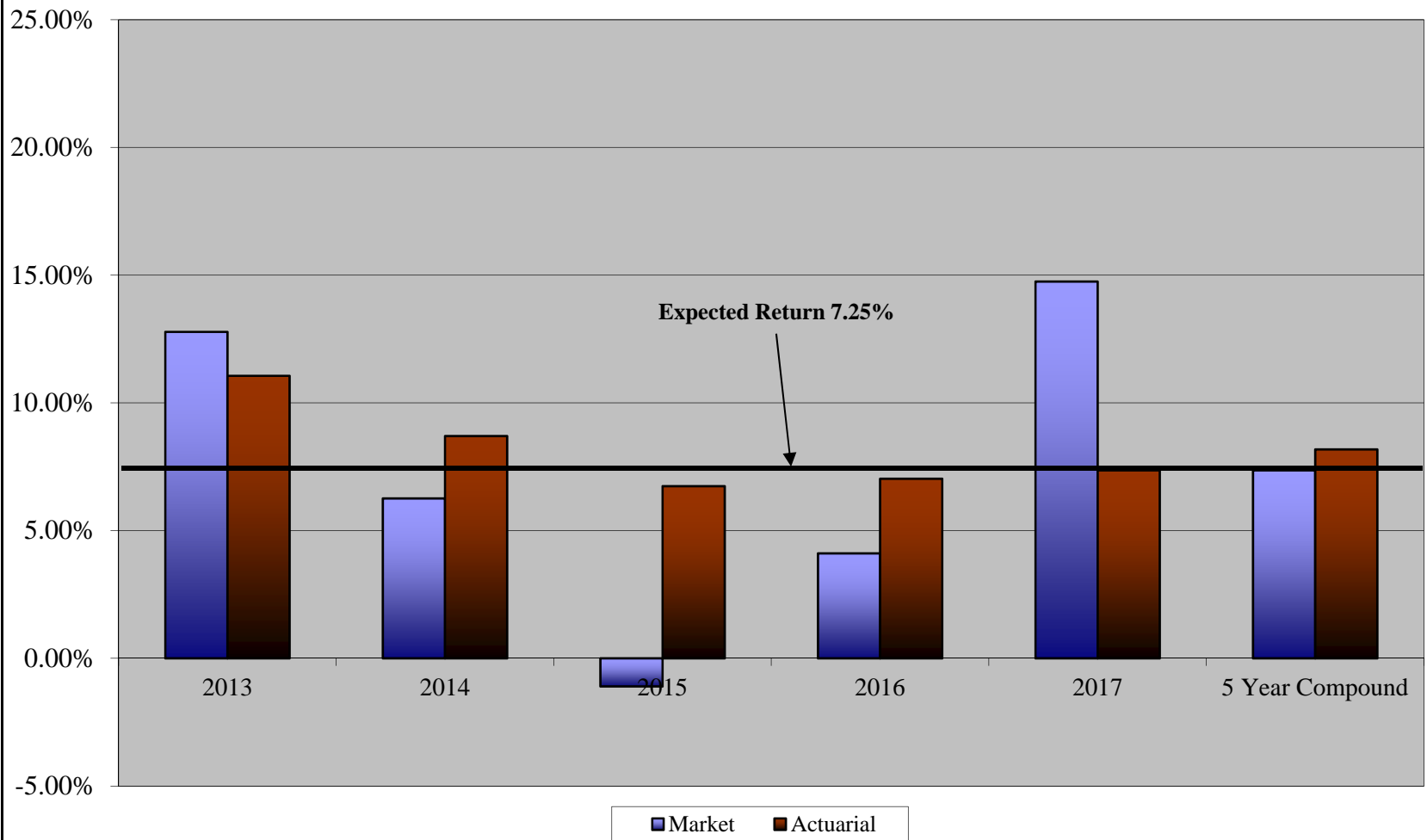
5 Year Average Investment Return

	12/31/2016	12/31/2017
Market Value	6.71%	7.20%
Actuarial Value*	6.76%	8.18%

* Note: Actuarial Value of Assets is based on 5 year averaging method for investment gains/losses.



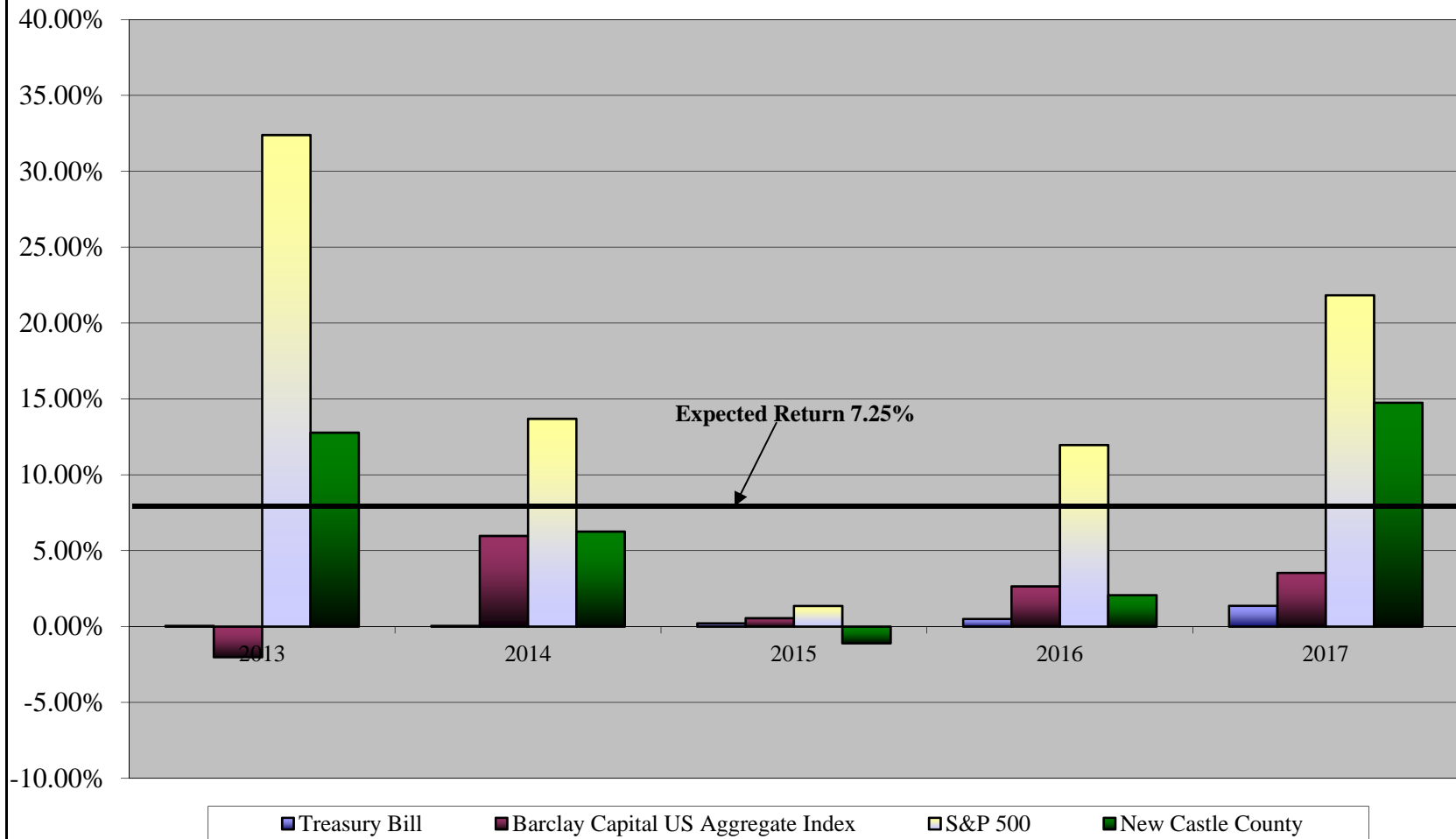
Rates of Return Market and Actuarial Asset Values



* Investment return assumption changed to 7.25% as of January 1, 2018



Comparison of Investment Performance (Market Value) to Selected Indices



* Investment return assumption changed to 7.25% as of January 1, 2018



Market Value Changes

Market Value of Assets 1/1/2017		\$401,979,779
Contributions	\$21,217,269	
Income	6,186,488	
		27,403,757
Unrealized Appreciation and Other Investment Proceeds		54,344,651
Benefit Payments	(40,732,525)	
Expenses	(2,892,600)	
		<u>(43,625,125)</u>
Market Value of Assets as of 12/31/2017		\$440,103,062



Valuation Approach

- 1/1/2017 Demographic Population Projected Forward to 1/1/2018
- Actual Assets and Contributions Recognized



2018 Valuation Assumptions

Investment Return	7.25% (Last year: 7.50%)
Salary Increases	4.00%
Ultimate Retirement Age	Varies by Plan:
General	Age 70
Police	30 years of service
County	Age 65 with 5 years of service
Alternate	Age 65 with 15 years of service
Crossing Guards	Age 75
County 2011 Pension Plan	Age 70
Mortality	RP-2000 Combined Healthy Males/Females Table projected to 2011 with Scale BB
Disability	75% of 1974-78 Social Security Experience Study
Withdrawal	Tables based on age and service
Spouse	80% assumed married
Post Retirement Adjustment	For Retirement System only: Non-Police – 2% of initial benefit per annum Police – 3% per annum Assumed 40% of Cost of COLA paid by the State
State Contributions (Police Plan)	Average of past 3 plan years: 2,400,623
Expenses	Average of past 3 plan years: 959,200



Total Funded Status

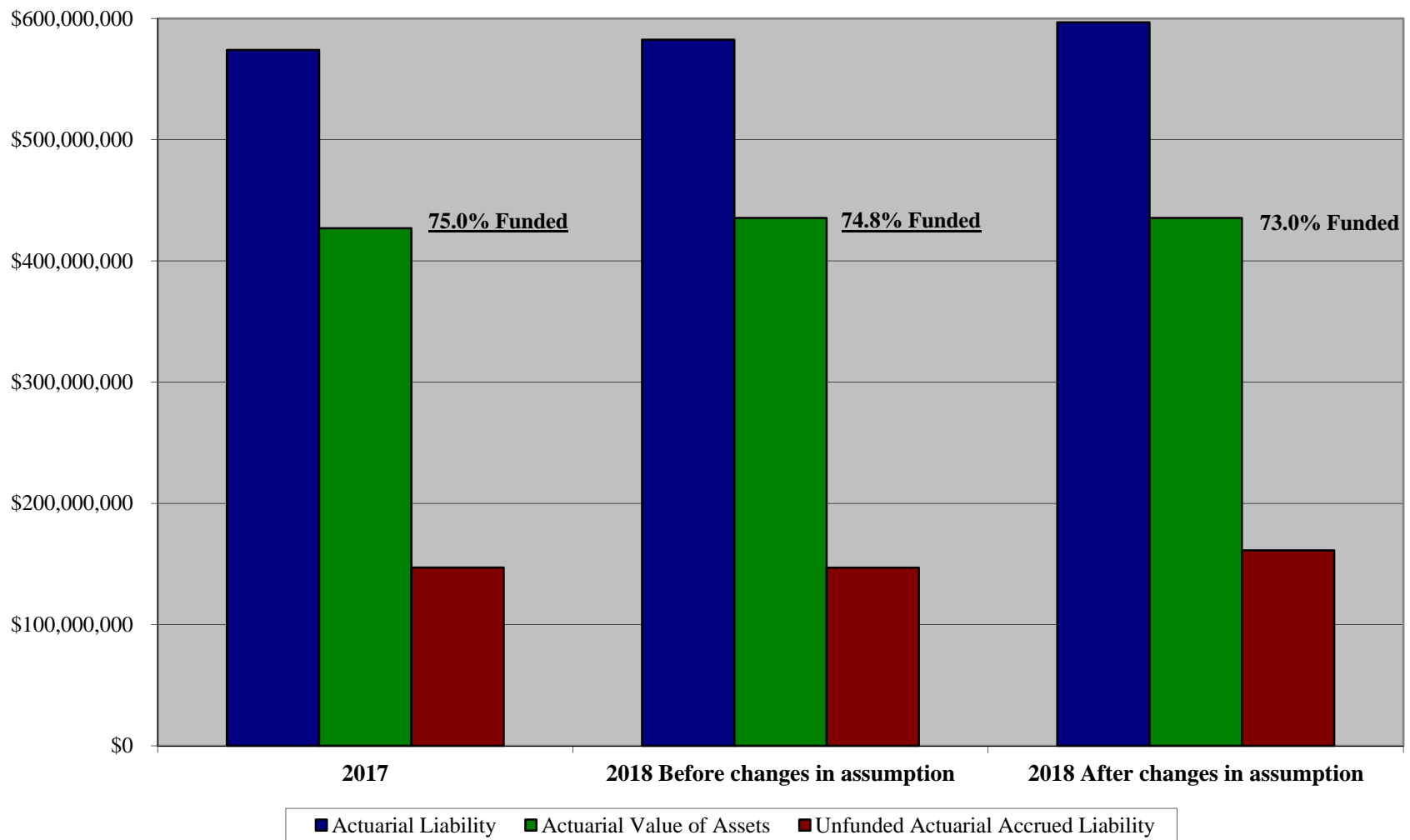
	01/01/2017	01/01/2018 (Before change in assumption)	01/01/2018 (After change in assumption)
Actuarial Accrued Liability	\$569,851,000	\$582,470,150	\$596,729,644
Actuarial Value of Assets	427,267,000	435,477,499	435,477,499
Unfunded Actuarial Accrued Liability	142,584,000	146,992,651	161,252,145
Funded Ratio	75.0%	74.8%	73.0%

Present Value of Accumulated Benefits*	\$538,142,000	\$550,748,387	\$564,262,084
Market Value of Assets	401,980,000	440,103,062	440,103,062
Funded Ratio	74.7%	79.9%	78.0%

* Unit Credit Basis



Total Plan Funded Status





Total Recommended County Contributions

	2017 (FY18)	2018 (FY19)
Total Normal Cost	\$7,975,000	\$7,849,000
Employee Contributions	(\$2,903,000)	(\$2,727,000)
Net County Normal Cost	\$5,072,000	\$5,121,000
Amortization Payments	\$14,375,000	\$16,285,000
Total as of Beginning of Plan Year	\$19,448,000	\$21,406,000
Total as of End of Plan Year	\$20,906,000	\$22,958,000
Expected State Subsidy*	\$2,507,000	\$2,574,000
Total Net of Expected State Contribution	\$18,400,000	\$20,384,000
As a % of Payroll	26.23%	29.82%
As a % of Payroll (4 Primary Plans)**	25.66%	30.33%

*The Expected State contribution amounts of \$2,331,953 and \$2,400,623 for 2017 and 2018 adjusted with interest to end of year.

**Includes offset for Crossing Guards and expected additional County Contribution for the Police Plan of \$114,100 for Fiscal Year 2019 and \$834,000 for Fiscal Year 2018.



Net Allocated County Contributions

	County Pension Plan	Retirement System		Alternate	County 2011	Crossing Guards	Total
		General	Police				
2017							
Contribution	\$1,948,000	\$12,885,000	\$3,269,178	\$27,000	\$187,000	\$82,000	\$18,400,000
As % of Pay	17.53%	28.19%	154.88%	9.33%	2.10%	4.10%	26.23%
Subtotal (excluding Crossing Guards)					\$18,317,000		
As % of Pay*					25.66%		
2018							
Contribution	\$2,095,000	\$14,358,000	\$3,594,000	\$27,000	\$223,000	\$87,000	\$20,384,000
As % of Pay	20.15%	32.71%	169.97%	8.75%	2.26%	4.82%	29.82%
Subtotal (excluding Crossing Guards)					\$20,297,000		
As % of Pay*					30.33%		

* Includes offset for expected additional County Contribution for the Police Plan of \$114,100 for Fiscal Year 2019 and \$834,000 for Fiscal Year 2018.



Governmental Accounting Standards Board (GASB) Summary

	GASB (6/30/17)	Funding (12/31/17)
Actuarial Method	Entry Age Normal (EAN)	Entry Age Normal (EAN)
Measurement Date	6/30/2017	12/31/2017
Actuarial Accrued Liability (AAL)	\$ 589,509,000	\$ 596,730,000
Assets*	\$ 425,727,000	\$ 435,478,000
Funded Ratio: Assets/AAL	72.2%	73.0%
Unfunded Liability	\$ 163,782,000 (Net Pension Liability)	\$ 161,252,000 (Unfunded Actuarial Liability)

* GASB – Market Value of Assets
 Funding – Actuarial (Smoothed) Value of Assets



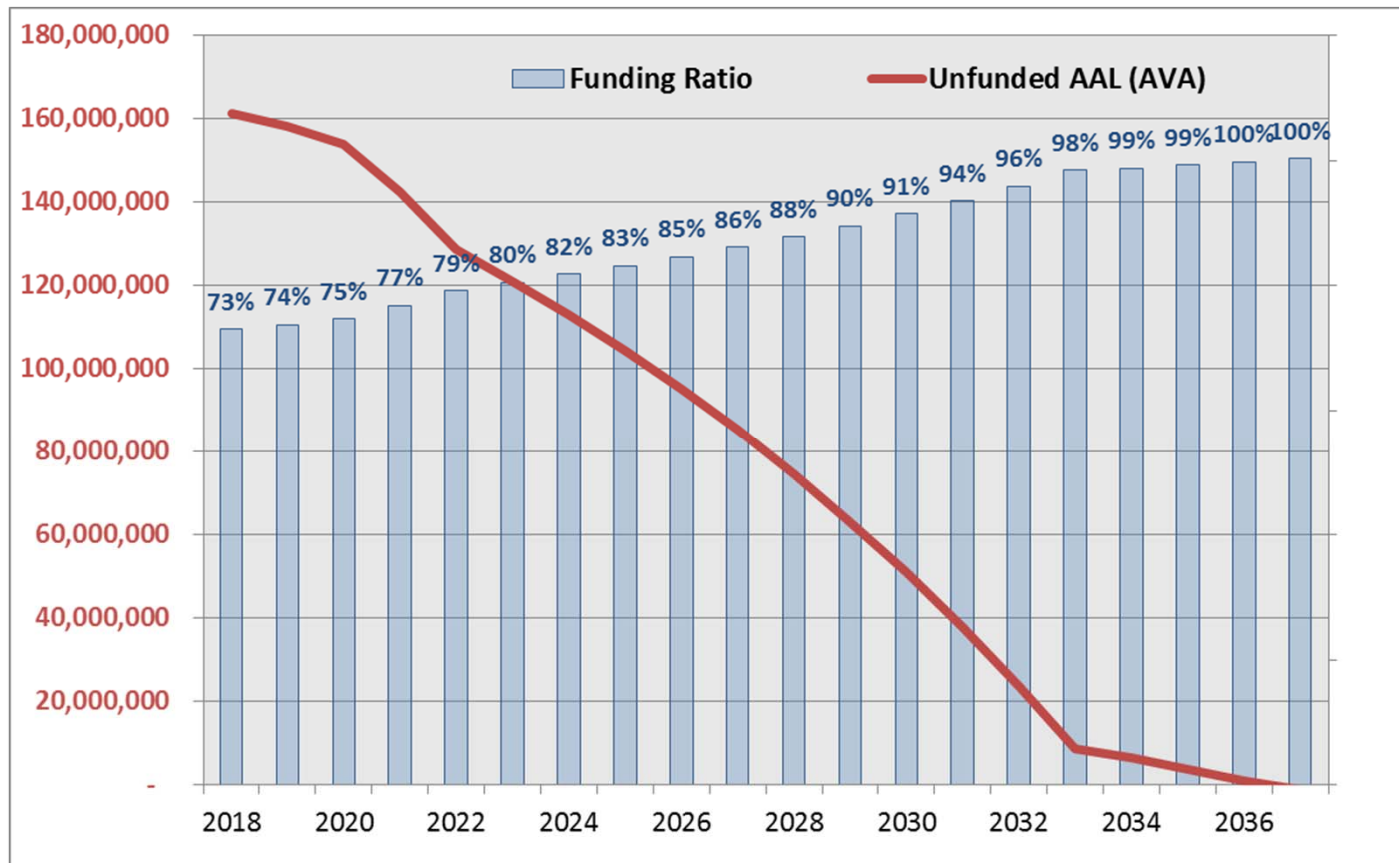
Conclusions

- Funded Ratios
 - Net change very small from experience
 - Decrease due to the change in investment return assumption and Actuarial loss on Liabilities and Assets
- Factors Impacting Plan Costs/Liabilities
 - Small loss on Actuarial Asset Basis (Gain on Market Value Return on Assets) – relative to (prior) 7.50% expected return
 - Experience loss (<2%) due to changes in the plan population
- Actuarial Contributions
 - Percent of Pay Rate: increase about 3.60% in total
 - Amount increased by \$2.0 million



Future Outlook - Funding

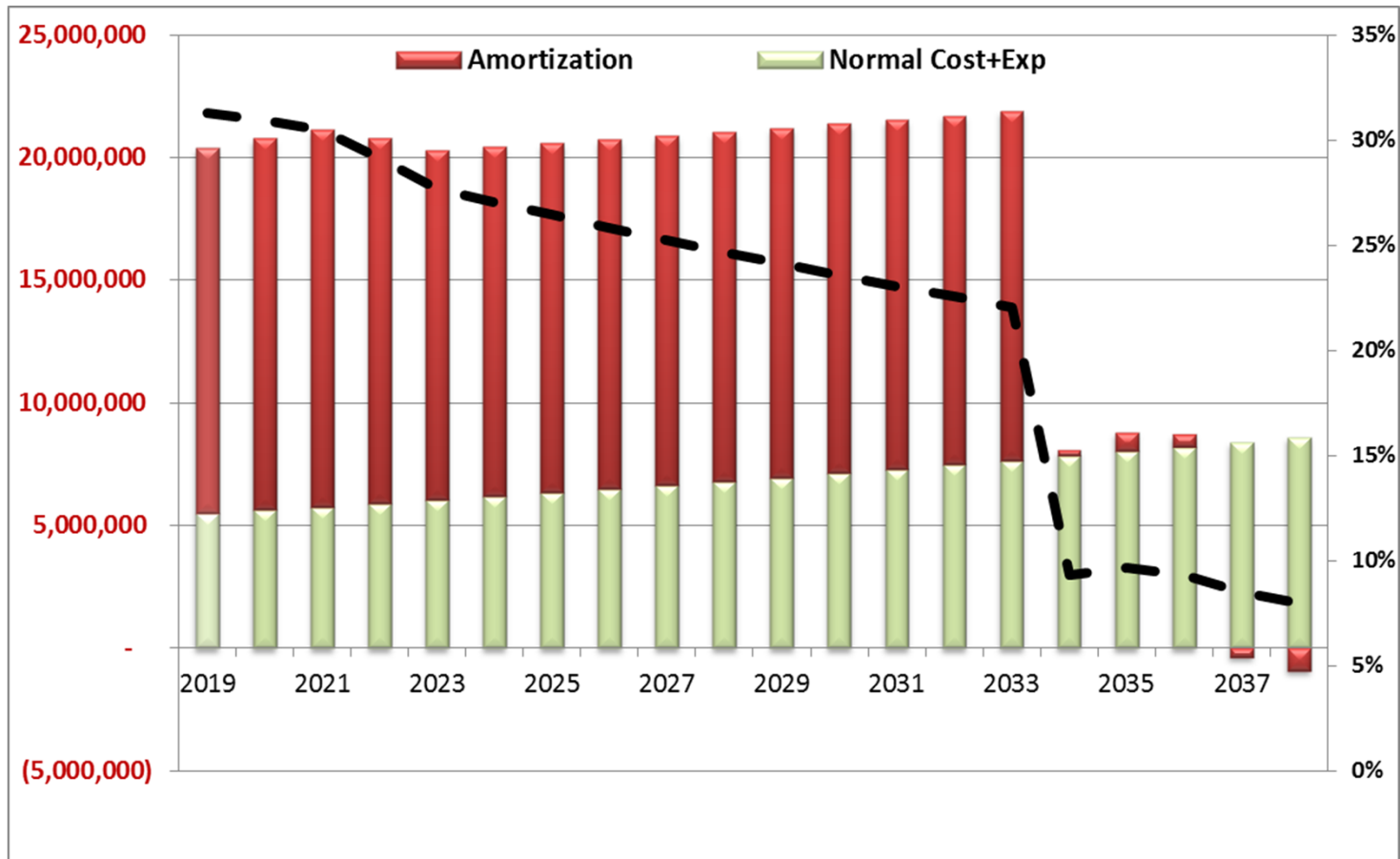
1. BASELINE: NO GAINS OR LOSSES





Future Outlook - Cost

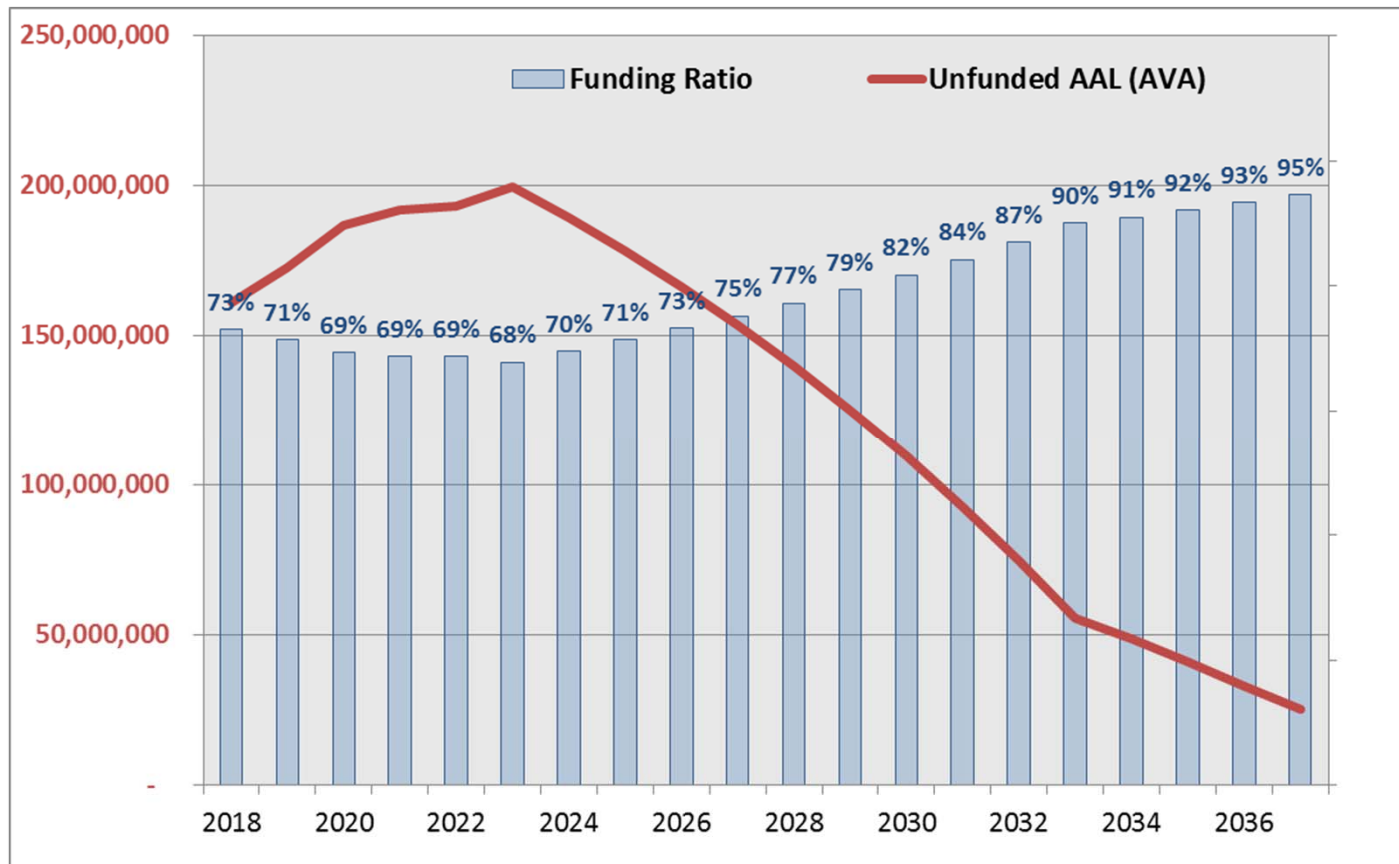
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Future Outlook - Funding

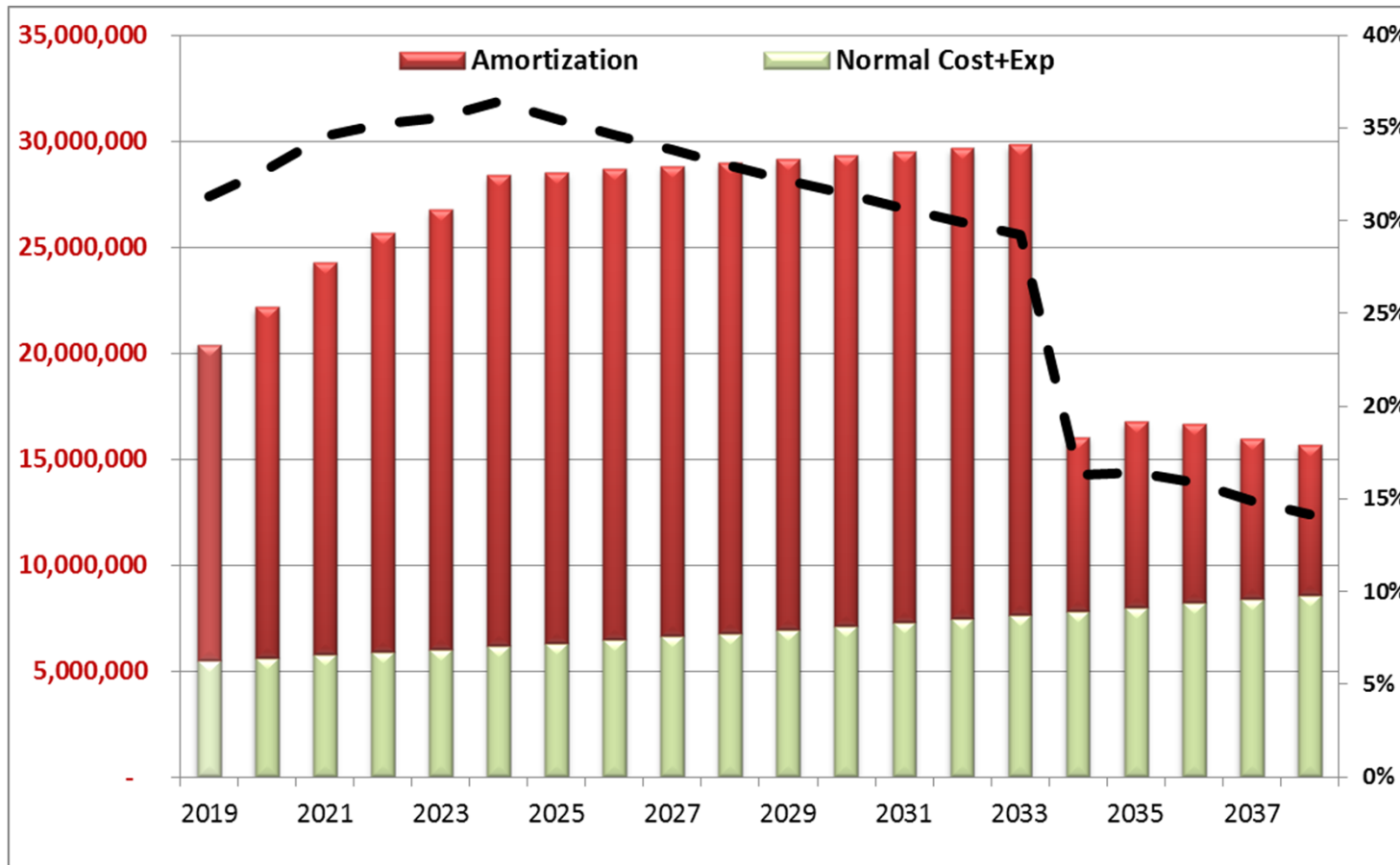
2. SUDDEN LOSS: -10% RETURN





Future Outlook - Cost

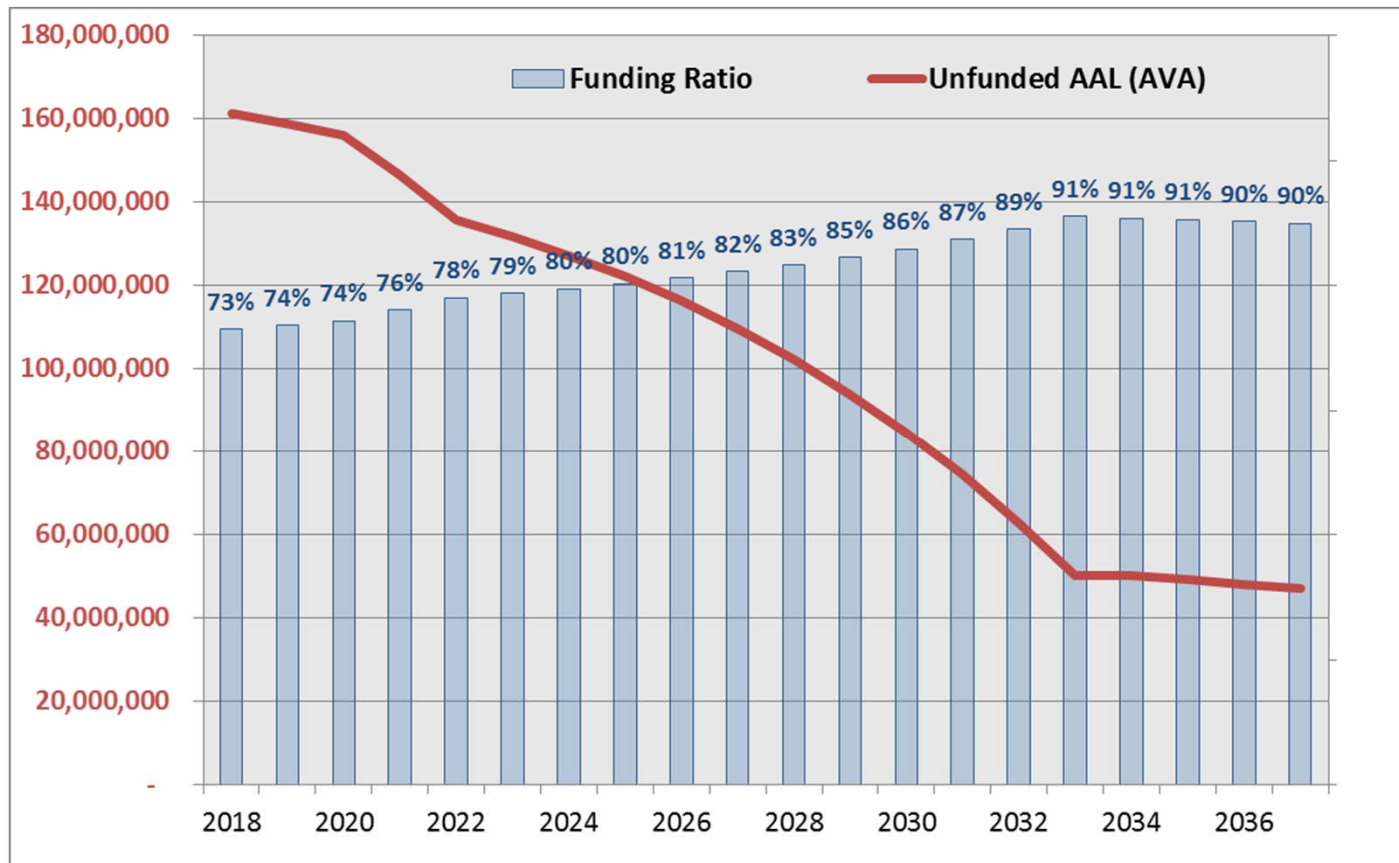
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Future Outlook - Funding

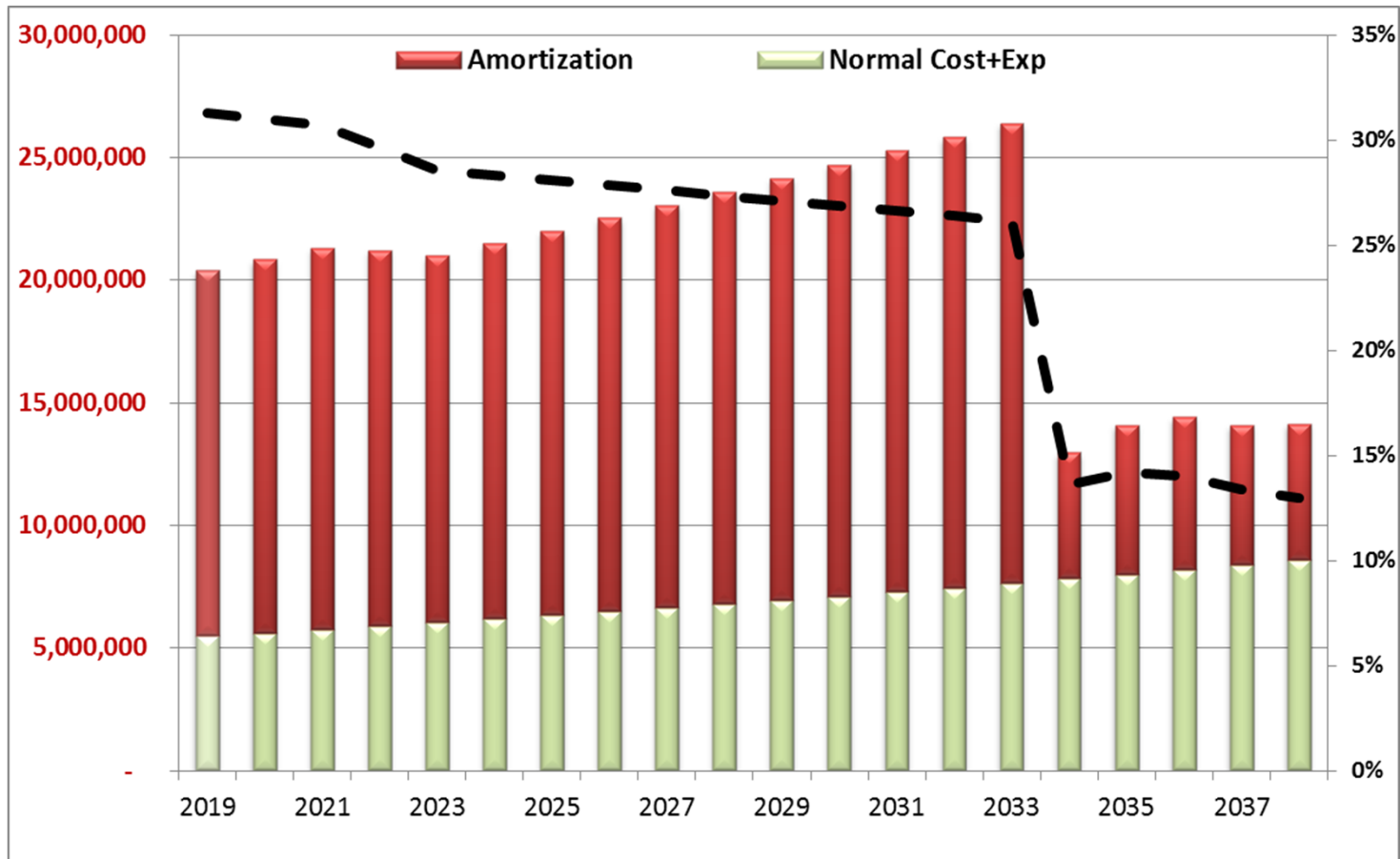
3. GRADUAL LOSSES: 6.5% return each year





Future Outlook - Cost

3. GRADUAL LOSSES: 6.5% return each year



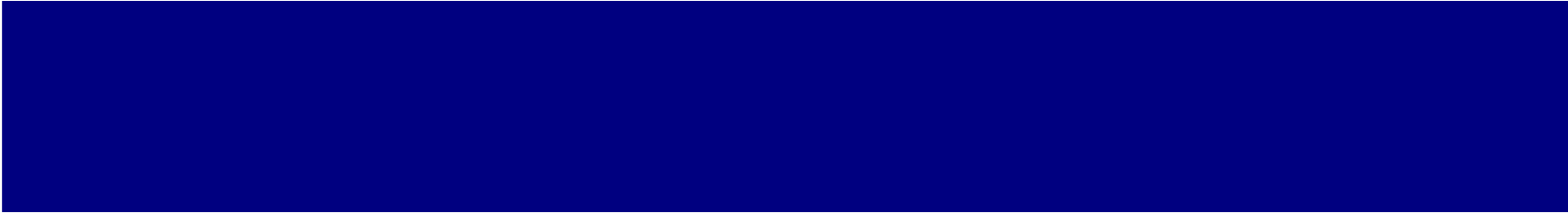


Appendix



Summary of Results

	1/1/2017	1/1/2018	% Change
<u>TOTAL PLANS</u>			
Number of Participants			
Active	1,092	1,036	
Terminated Vested or due Refund	96	111	
Retired	<u>1,356</u>	<u>1,382</u>	
Total	2,544	2,529	(0.6%)
Annual Expected Compensation of Active Participants	\$70,151,158	\$68,356,863	(2.6%)
Average Expected Annual Compensation of Active Participants	\$64,241	\$65,982	
Average Age	51.23	51.16	
Average Service	16.10	16.51	
<u>ASSETS</u>			
Market Value	\$401,979,779	\$440,103,062	9.5%
Actuarial Value	\$427,266,539	\$435,477,499	1.9%
<u>FUNDING PROGRESS</u>			
Actuarial Accrued Liability	\$ 569,850,765	\$ 596,729,644	4.7%
Funding Ratio	75.0%	73.0%	
<u>RECOMMENDED CONTRIBUTION</u>			
Total Contribution as of 12/31:*	\$24,290,059	\$26,790,733	10.3%
Four County Plans Subtotal	\$20,824,293	\$22,871,313	
Subtotal as % of Payroll	30.56%	34.37%	
Net Subtotal as % of Payroll**	25.66%	30.33%	
Estimated Contribution for Police Covered in State Plan	\$3,383,580	\$3,832,392	
As a % of Payroll	12.60%	14.05%	
Crossing Guards Plan	\$82,187	\$87,068	
County 2011	\$187,097	\$222,836	
* Includes County contributions to State Plans for Police			
**Reflects estimated State contribution of \$2,331,953 and \$2,400,623 for 2017 and 2018 respectively.			
The State contribution amounts of \$2,331,953 and \$2,400,623 for 2017 and 2018 are the average amounts of the last 3 years of State contributions			



EMPLOYEES' RETIREMENT SYSTEM							
	County Employees Pension Plan	General Personnel	Police	Alternate Pension Plan	Crossing Guards	County 2011	Total
	\$	\$	\$	\$	\$	\$	\$
Allocated Market Value of Assets at 12/31/2016	45,456,262	221,953,517	124,961,344	1,008,938	2,246,265	6,353,454	401,979,779
Employee Contributions	253,267	1,984,245	91,071	0	15,690	351,291	2,695,564
Buybacks	0	0	0	0	0	0	0
Employee Contributions	253,267	1,984,245	91,071	0	15,690	351,291	2,695,564
Employer Contributions	2,281,193	9,786,845	1,574,575	69,859	82,187	2,945,414	16,740,073
State Contributions			1,781,632				1,781,632
	2,534,460	11,771,090	3,447,278	69,859	97,877	3,296,705	21,217,269
Benefit Payments	2,948,879	22,366,897	14,969,333	86,182	156,681	204,553	40,732,525
Prorata Administration Expenses *	112,722	550,396	309,877	2,502	5,570	15,755	996,822
Prorata Investment Expenses	214,376	1,046,756	589,331	4,758	10,594	29,964	1,895,778
	3,275,977	23,964,049	15,868,541	93,442	172,845	250,272	43,625,125
Expected Return	3,268,699	15,649,635	8,609,427	72,293	160,137	571,059	28,331,250
Actual Return	6,844,920	33,422,326	18,816,997	151,928	338,248	956,719	60,531,139
Market Value of Assets at 12/31/2017	51,559,665	243,182,884	131,357,078	1,137,283	2,509,545	10,356,606	440,103,062
Allocated Actuarial Value of Assets at 12/31/2017**	39,144,477	253,917,038	138,896,699	576,472	1,503,881	1,438,932	435,477,499

* Adjusted for miscellaneous receipts

** Re-allocated based on Actuarial Accrued Liability