

New Castle County Employees' Retirement Plans

2021 Actuarial Review

March, 2021





1/1/2021 Valuation

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- Changes in Plan Population
- Plan Assets
- Actuarial Assumption Summary
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2021 Valuation Summary

	2020	2021	Change
<u>Participants</u>			
Active	1,019	1,047	+28
<u>Inactive</u>	<u>1,502</u>	<u>1,517</u>	<u>+15</u>
Total	2,521	2,564	+43
Average Employee Age	51.2	50.7	-0.5
Average Service	16.0	15.5	-0.5
Benefits Paid (\$mm)	\$43.3	\$44.9	+\$1.6
<u>Funding (\$ millions)</u>			
Assets (Market)	\$468.5	\$515.7	+\$47.2
Assets (Actuarial)	\$446.1	\$473.4	+\$27.3
Actuarial Accrued Liability	\$657.0	\$703.8	+\$46.8
Funding Ratio	67.9%	67.3%	-0.6%
Unfunded Liability	\$210.9	\$230.4	+\$19.5
<u>Contributions</u>			
Contribution Rate, Total	38.92%	38.83%	-0.09%
Contribution Rate, Net	39.62%	39.31%	-0.31%



Demographic Changes

	Actives	Terminated Vested	Retired	Disabled	Total	<i>Prior Year Total</i>
County Employees' Pension Plan	114	18	187	14	333	<i>333</i>
Employees' Retirement System						
- Police	8	0	315	1	324	<i>330</i>
- General Personnel	491	54	823	22	1,390	<i>1,410</i>
Alternative Pension Plan (closed plan)	5	1	23	0	29	<i>30</i>
Crossing Guards Pension Plan	67	6	53	0	126	<i>131</i>
County 2011 Pension Plan	362	0	0	0	362	<i>287</i>
Total	1,047	79	1,401	37	2,564	<i>2,521</i>

% of Workforce in County 2011 Plan: 34%
 (% of Payroll = 30%)



Plan Assets

Market Value of Assets 1/1/2020		\$468,522,520
Contributions	\$31,013,266	
Income	5,033,139	
		\$36,046,405
Unrealized Appreciation and Other Investment Proceeds, Net of Fees		56,970,609
Benefit Payments	(\$44,850,355)	
Expenses	(977,681)	
		<u>(\$45,828,036)</u>
Market Value of Assets as of 12/31/2020		\$515,711,498



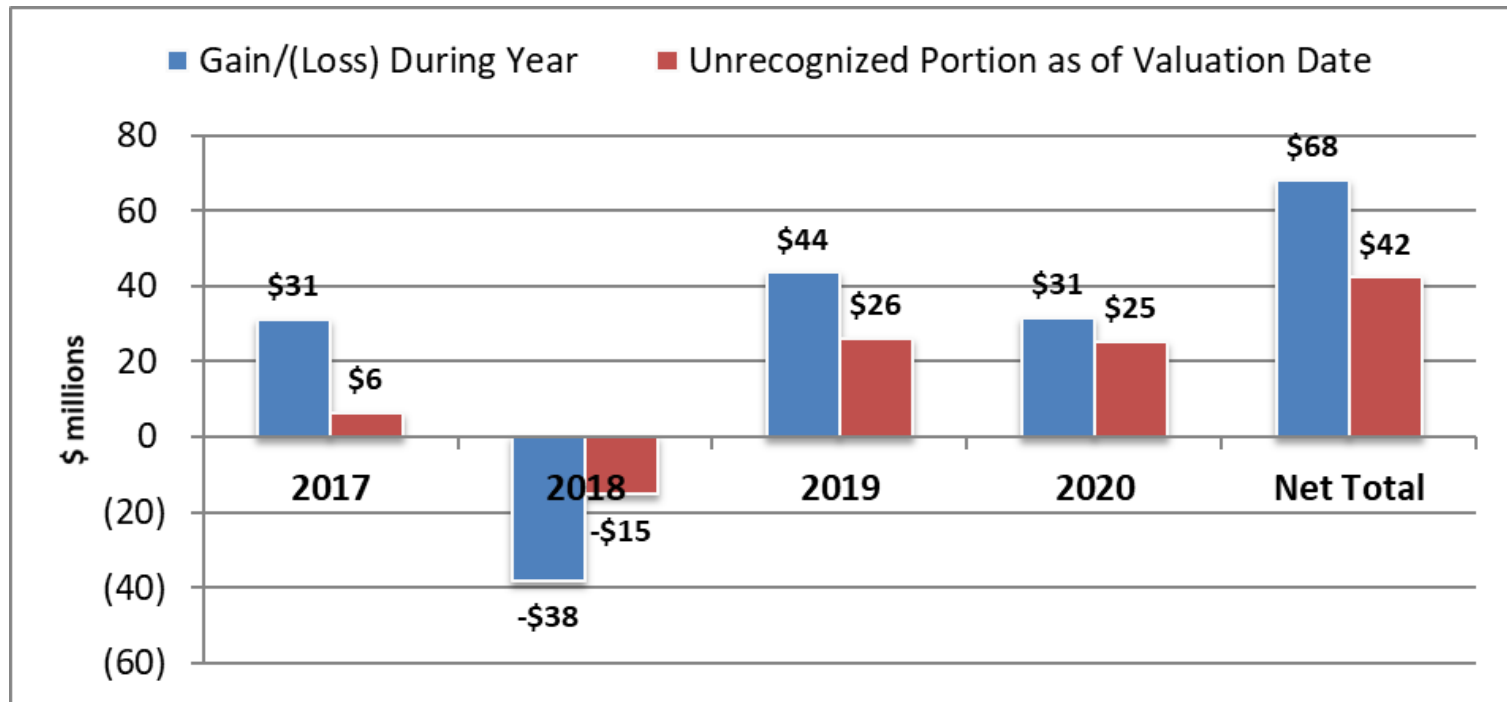
Plan Assets

	1/1/2020	1/1/2021
Market Value	\$468,522,522	\$515,711,498
Investment Return	18.0%	13.8%
Actuarial Value*	\$446,093,246	\$473,385,898
Investment Return	7.0%	10.0%
Unrecognized Gain/(Loss)	\$22,429,276	\$42,325,600

* Note: Actuarial Value of Assets is based on 5-year smoothing of investment gains/losses.

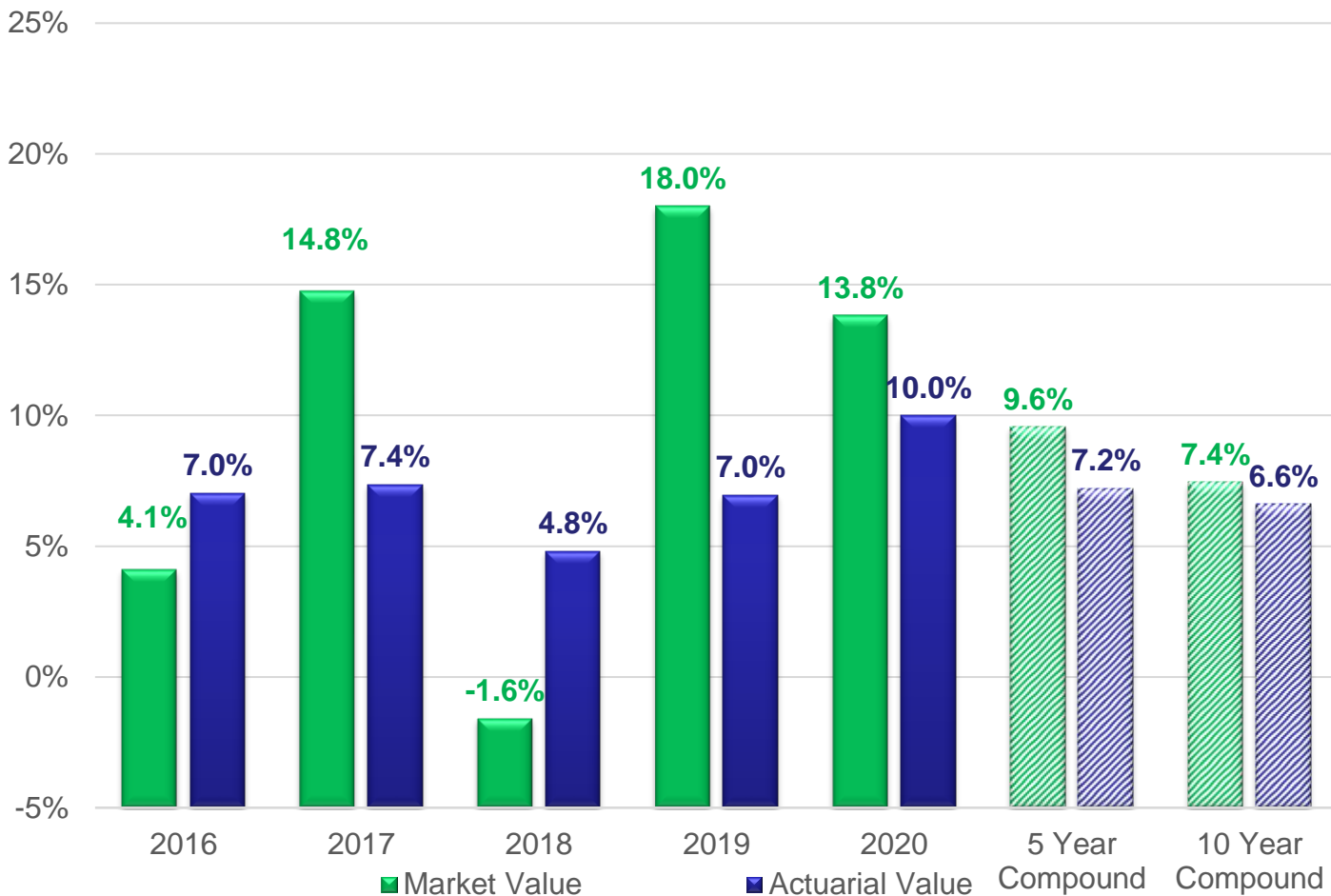


Actuarial Value of Assets





Rates of Return Market and Actuarial Asset Values





Actuarial Assumptions

Investment Return	7.00%
Salary Increases	7.75% for 10 years, then 2.75%/3.25%
Retirement	Varies by Plan and Group:
General, 2011	20% at 50 up to 100% at 70
County	10% at 50 up to 100% at 66
Police	30% at 20 years svc, up to 100% at 30 years
Crossing Guards	10% at 60 up to 100% at 75
Mortality	RP-2014 Blue Collar (0,1) with generational improvements
Disability	0.1% to 0.2%
Withdrawal	Varies by Group - Tables based on service Rates range from 0.3% to 24.0%, decreasing with service

All assumptions were reviewed in 2018 (next full review in 2023)



Valuation Approach

- 1/1/2020 Actuarial Liability (based on 1/1/2020 data)
“Rolled Forward” to 1/1/2021
 - Increased for normal cost
 - Increased for interest
 - Decreased for benefits paid
- Actual Assets and Contributions Recognized through 12/31/2020
- Each year’s investment gain or loss recognized over 5 years
- Change in treatment of Police COLA
 - Old: Value 60% of COLA, no offset
 - New: Value 100% of COLA (3%), offset for State Amount



Funding Progress

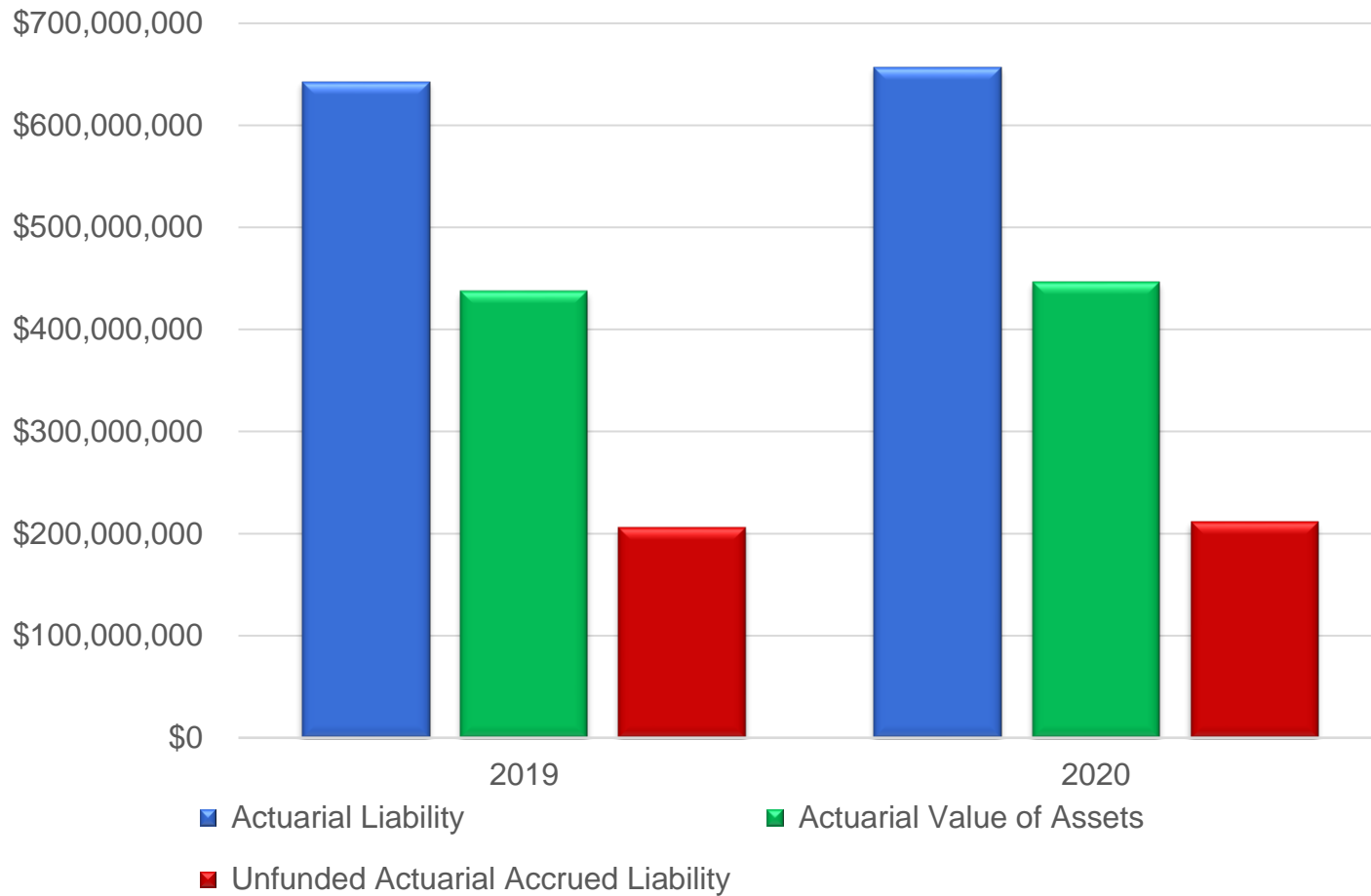
	1/1/2020	1/1/2021
Actuarial Accrued Liability (AAL)	\$656,965,969	\$703,817,614
Actuarial Value of Assets (AVA)	446,093,246	473,385,898
Unfunded Actuarial Accrued Liability	\$210,872,723	\$230,431,716
Funded Ratio (AVA/AAL)	67.9%	67.3%

Present Value of Accumulated Benefits (PVAB)*	\$620,507,966	\$668,906,941
Market Value of Assets (MVA)	468,522,522	515,711,498
Funded Ratio (MVA/PVAB)	68.5%	77.1%

* Unit Credit Basis: no future accruals



Change in Funded Status





Actuarially Determined Employer Contribution (ADEC)

	Fiscal 2021	Fiscal 2022
Total Normal Cost with Expenses	\$8,062,000	\$7,885,000
% of Valuation Payroll	12.35%	11.85%
Employee Contributions	(2,686,000)	(2,670,000)
Net County Normal Cost	5,376,000	5,215,000
% of Valuation Payroll	8.23%	7.84%
Amortization of UAAL	21,579,000	24,084,000
Total as of Beginning of Plan Year	26,955,000	29,298,000
Total as of End of Plan Year (ADEC)	\$28,842,000	\$31,349,000
Expected State Subsidy*	(2,025,000)	(4,070,000)
Total Net of Expected State Contribution	\$26,817,000	\$27,279,000
% of Payroll	38.92%	38.83%
% of Payroll (4 Primary Plans)**	39.62%	39.31%

*The Expected State contribution amounts are estimated based on a 3-year rolling average

**Includes offset for Crossing Guards and expected additional County Contribution for the Police Plan of \$102,000 for Fiscal Year 2021 and \$233,000 for Fiscal Year 2022.



County Contributions by Group

	County Pension Plan	Retirement System		Alternate	County 2011	Crossing Guards	Total
		General	Police				
2020							
Contribution as % of Pay	\$2,464,000 25.98%	\$17,744,000 45.25%	\$5,927,000 521.85%	\$31,000 9.84%	\$547,000 3.21%	\$104,000 5.98%	\$26,817,000 38.92%
Subtotal (excluding Crossing Guards) as % of Pay*					\$26,611,000 39.62%		
2021							
Contribution as % of Pay	\$2,452,000 27.82%	\$17,427,000 46.71%	\$6,580,000 653.56%	\$29,000 9.24%	\$690,000 3.27%	\$102,000 5.95%	\$27,279,000 38.83%
Subtotal (excluding Crossing Guards) as % of Pay*					\$26,944,000 39.31%		

* Includes offset for Crossing Guards and expected additional County Contribution for the Police Plan of \$85,000 for Fiscal Year 2020 and \$102,000 for Fiscal Year 2021



Accounting/Funding Comparison

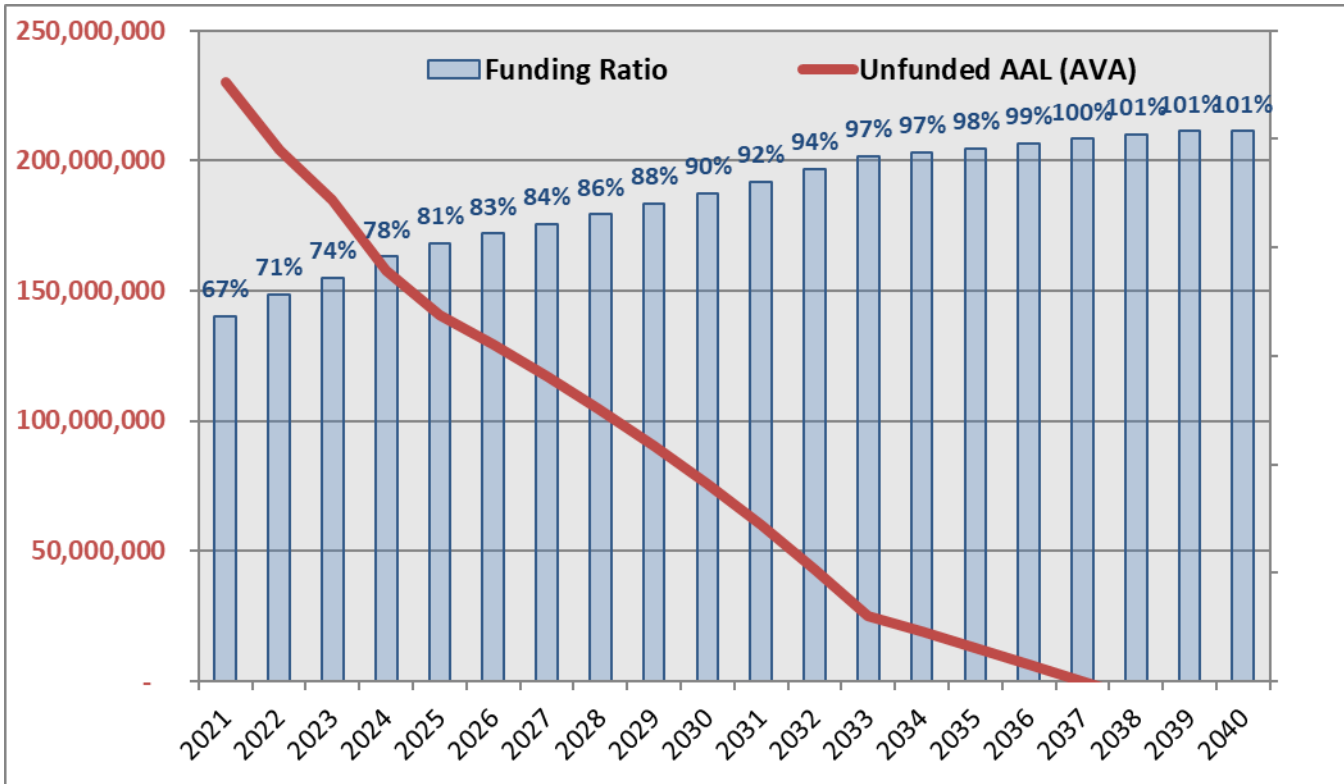
	GASB (6/30/20)	Funding (12/31/20)
Measurement Date	6/30/2020	12/31/2020
Actuarial Liability	\$ 660,731,476 (Total Pension Liability)	\$ 703,817,614 (Actuarial Accrued Liability)
Plan Assets*	\$ 457,082,924 (MVA)	\$ 473,385,898 (AVA)
Funded Ratio: Assets/Liability	69.2%	67.3%
Unfunded Liability	\$ 203,648,552 (Net Pension Liability)	\$ 230,431,716 (Unfunded Actuarial Liability)

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



Future Outlook - Funding

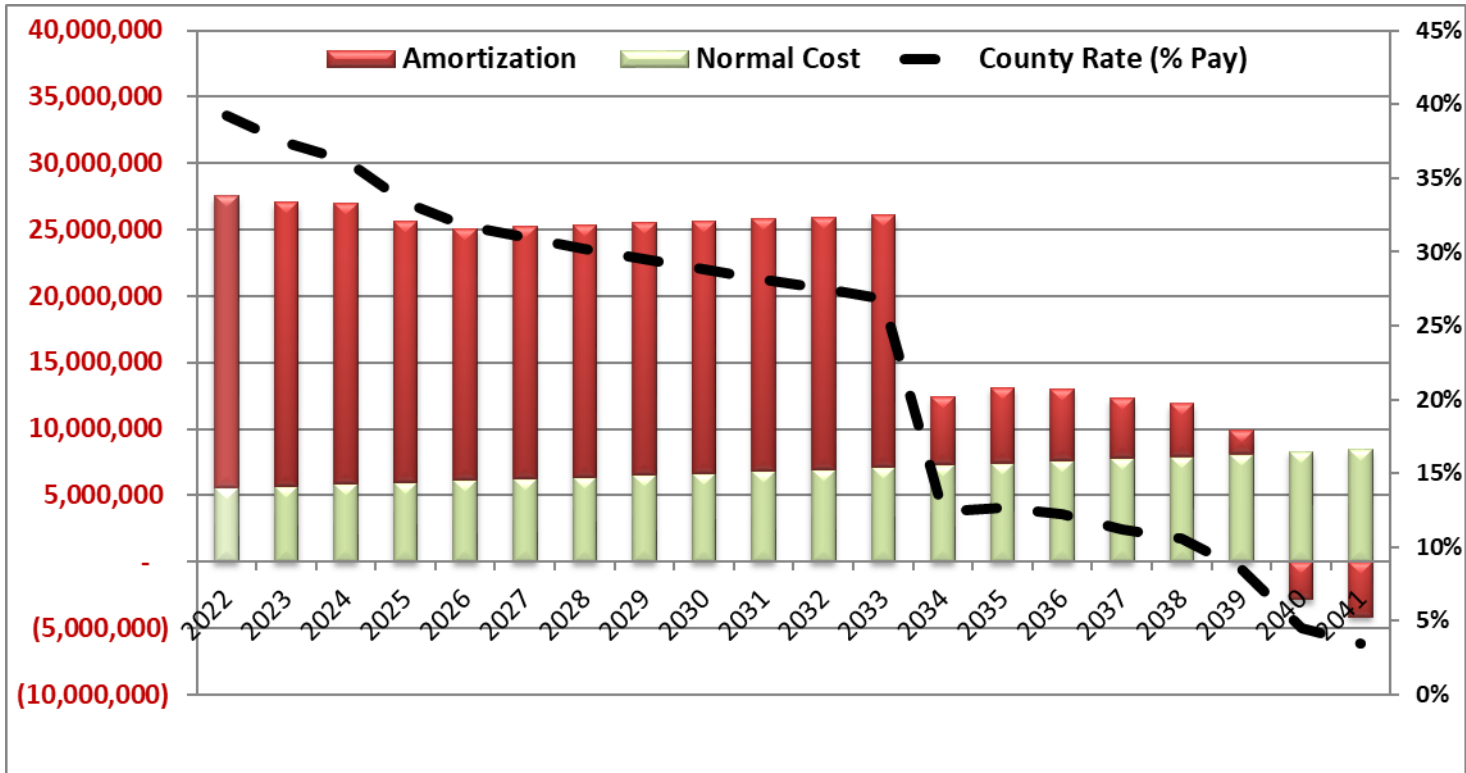
1. BASELINE: NO GAINS OR LOSSES





Future Outlook - Cost

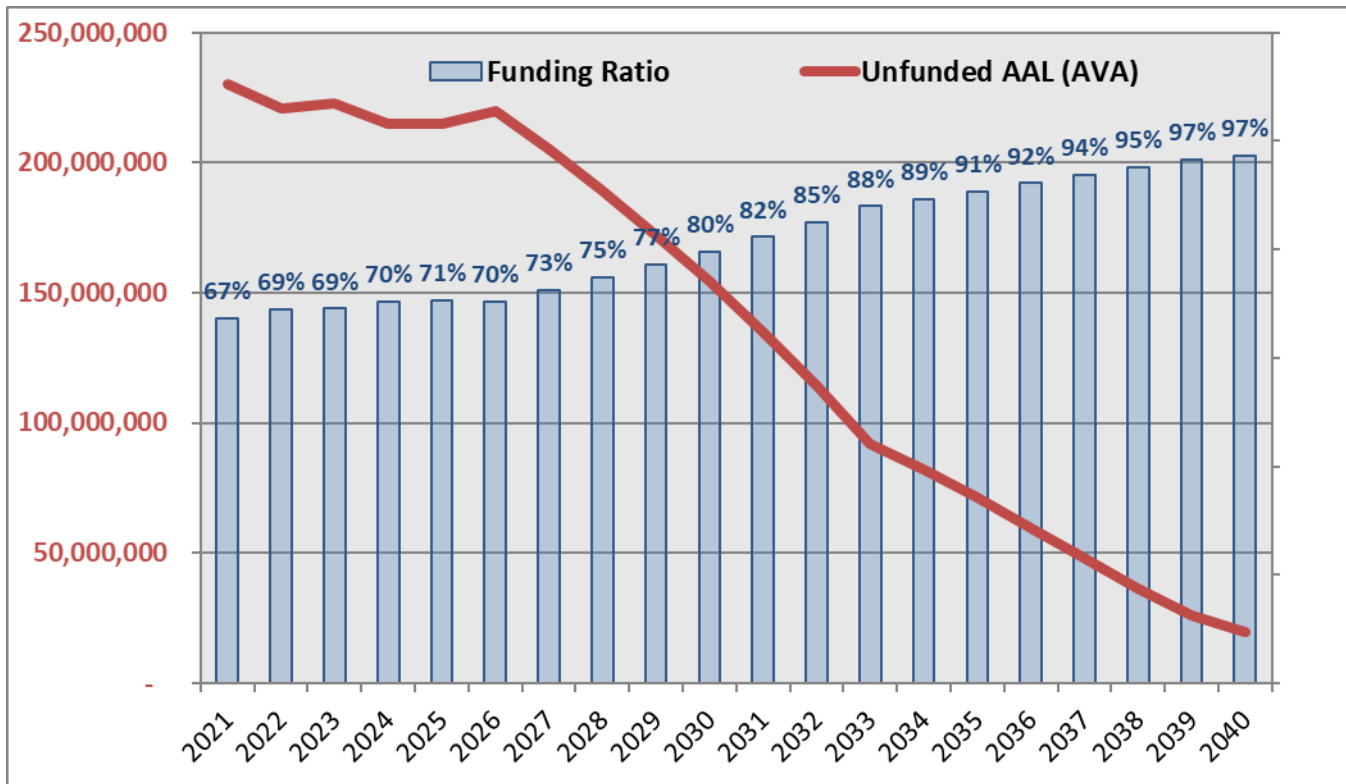
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Future Outlook - Funding

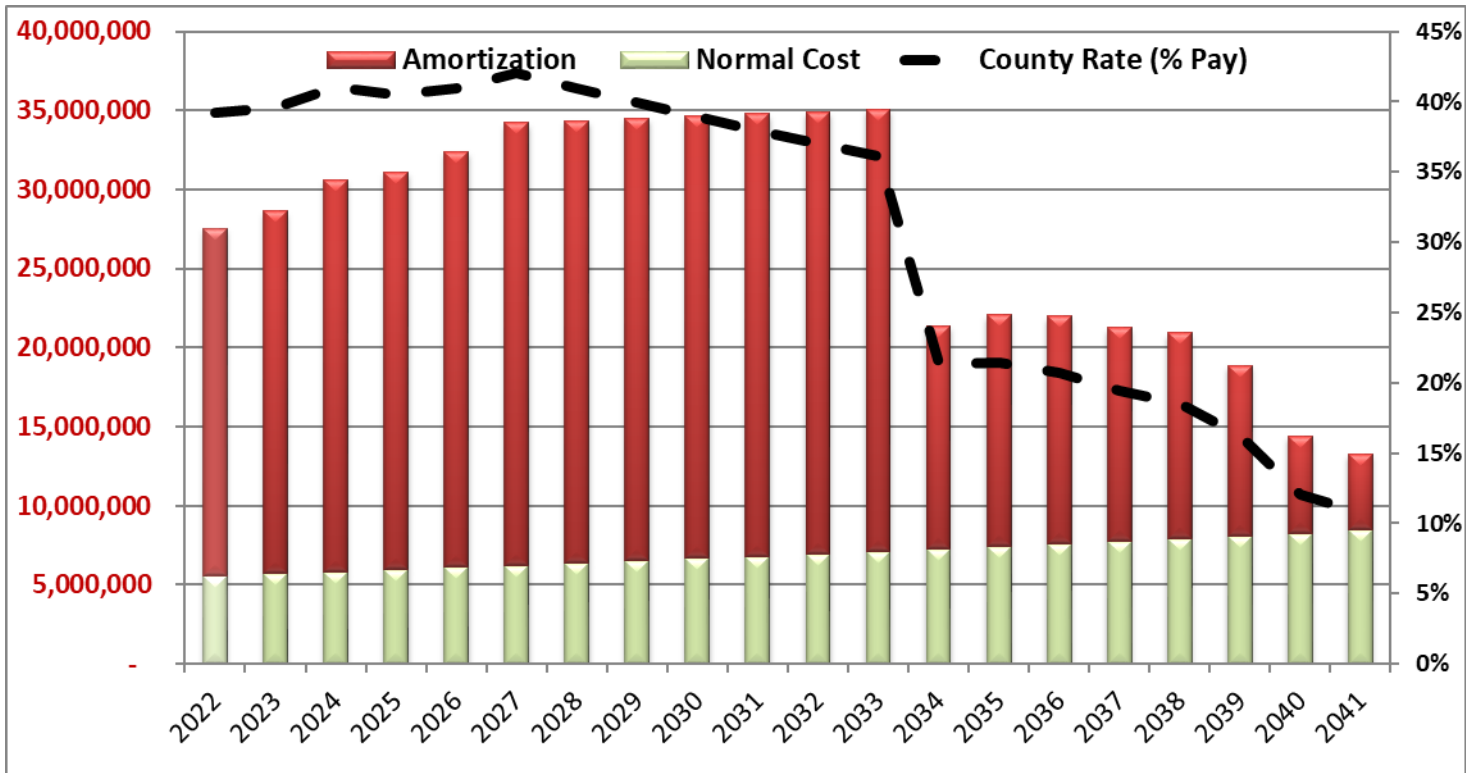
2. STRESS TEST: -10% in 2021





Future Outlook - Cost

2. STRESS TEST: -10% in 2021





Conclusions

- Funded Status
 - Investment gains in 2019 and 2020 are helping!
 - Demographic experience improved funding slightly
 - Assumption change added to liability
 - Net impact, UAAL is higher but funding ratio is almost the same
- Actuarial Contributions
 - County Rate: about same % of pay as prior valuation
 - Estimated amount increased by about \$0.3 million
- Future Outlook
 - Recent investment gains will drive costs down, without offsetting losses going forward
 - Significant funding improvement in base case, and about a decade of contributions near the current amount
 - Growth of 2011 Plan population continues to decrease the overall Normal Cost rate (% of payroll), County rate is currently about 8% of payroll



Appendix:

Valuation Results by Plan Risk Assessment & Plan Maturity



Allocation of Assets

EMPLOYEES' RETIREMENT PLANS

	County Employees Pension Plan	General Personnel	Police	Alternate Pension Plan	Crossing Guards	County 2011	Total
Actuarial Accrued Liability	\$57,801,047	\$394,319,781	\$243,903,209	\$679,648	\$2,185,329	\$4,928,600	\$703,817,614
Actuarial Value of Assets	40,593,806	276,931,704	150,386,990	477,318	1,534,761	3,461,367	473,385,898
Funding Ratio	67.3%	67.3%	67.3%	67.3%	67.3%	67.3%	67.3%
Unfunded Accrued Liability	17,207,241	117,388,077	93,516,219	202,330	650,568	1,467,233	230,431,716



Contribution Development

ACTUARIALLY DETERMINED CONTRIBUTION							
	County Employees Pension Plan	General Personnel	Police	Alternate Pension Plan	Crossing Guards	County 2011	Total
Total Normal Cost	\$659,805	\$5,534,574	\$517,803	\$2,940	\$41,194	\$1,128,471	\$7,884,787
Expected Employee Contributions	219,186	1,760,416	52,781	0	16,644	621,187	2,670,214
Net County Normal Cost							
(a) Dollar Amount	440,619	3,774,158	465,022	2,940	24,550	507,284	5,214,573
(b) Percentage of Projected Payroll	5.00%	10.12%	46.19%	0.94%	1.43%	2.40%	7.42%
Amortization Payment							
(a) Dollar Amount	\$1,850,762	\$12,512,374	\$9,488,122	\$24,200	\$71,219	\$137,122	\$24,083,798
(b) Percentage of Projected Payroll	21.00%	33.54%	942.39%	7.70%	4.14%	0.65%	34.28%
County Contribution, Beginning of Year (less Expected State Contribution)							
(a) Dollar Amount	\$2,291,381	\$16,286,532	\$6,149,592	\$27,140	\$95,769	\$644,406	\$25,494,820
(b) Percentage of Payroll	26.00%	43.65%	610.80%	8.63%	5.56%	3.05%	36.29%
Net 4-Plan Contribution, End of Year (less Expected State Contribution)							
(a) Dollar Amount	\$2,451,777	\$17,426,589	\$6,580,063	\$29,040	\$102,473	\$689,514	\$27,279,457
(b) Percentage of Payroll	27.82%	46.71%	653.56%	9.24%	5.95%	3.27%	38.83%



Risk Assessment

1. Investment Return Risk

<i>As of 1/1/2021 (\$ mm)</i>	Current Return Assumption	1% Lower Per Year
Actuarial Liability	\$703.8	\$781.4
Plan Assets	473.4	473.4
Unfunded Liability	\$230.4	\$308.1
Funding Ratio	67%	61%
Employer Contribution	\$27.3	\$36.5
Total Contribution Rate	38.83%	50.37%

2. Longevity Risk

<i>As of 1/1/2021 (\$ mm)</i>	Current Mortality Assumption	10% Lower Mortality Rates
Actuarial Liability	\$703.8	\$721.0
Plan Assets	473.4	473.4
Unfunded Liability	\$230.4	\$247.6
Funding Ratio	67%	66%
Employer Contribution	\$27.3	\$29.0
Total Contribution Rate	38.83%	40.03%



Plan Maturity

