

# Howard County Retirement Plan

## July 1, 2017 Actuarial Valuation Results

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 @BoltonPartners



# Agenda

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- Five year participant summary
- Contribution results
- Changes to contribution rate
  - FY17 investment gains
  - Lower than expected COLAs
  - Higher than expected pay increases
- Return and return assumption
- Funded ratio/Risk measures

# Participant Summary

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	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Active	1,596	1,669	1,692	1,760	1,803
Terminated Vested	189	191	195	198	191
Retirees & Beneficiaries	506	556	619	660	731
Disabled	11	13	18	18	17
Total Population	2,302	2,429	2,524	2,636	2,742
Active Average Age	47.73	47.66	47.54	47.24	47.00
Active Average Service	11.53	11.28	11.07	10.97	10.79
Active Average Salary	\$58,499	\$60,042	\$62,097	\$62,854	\$65,303

# County Contribution Results

	Amount	Percent of Payroll
FYE 6/30/2018	\$13,647,657	11.7%
FYE 6/30/2019	\$14,296,317	11.5%

# Historical County Contribution Rates

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FYE	% of Payroll		FYE	% of Payroll
6/30/2019	11.5%		6/30/2014	13.1%
6/30/2018	11.7%**		6/30/2013	12.3%
6/30/2017	11.6%*		6/30/2012	11.7%*
6/30/2016	12.4%		6/30/2011	11.9%
6/30/2015	13.5%		6/30/2010	11.1%

- County elected to contribute 11.9% in FY2012 and 12.4% in FY2017
- County plans to contribute 12.4% in FY2018

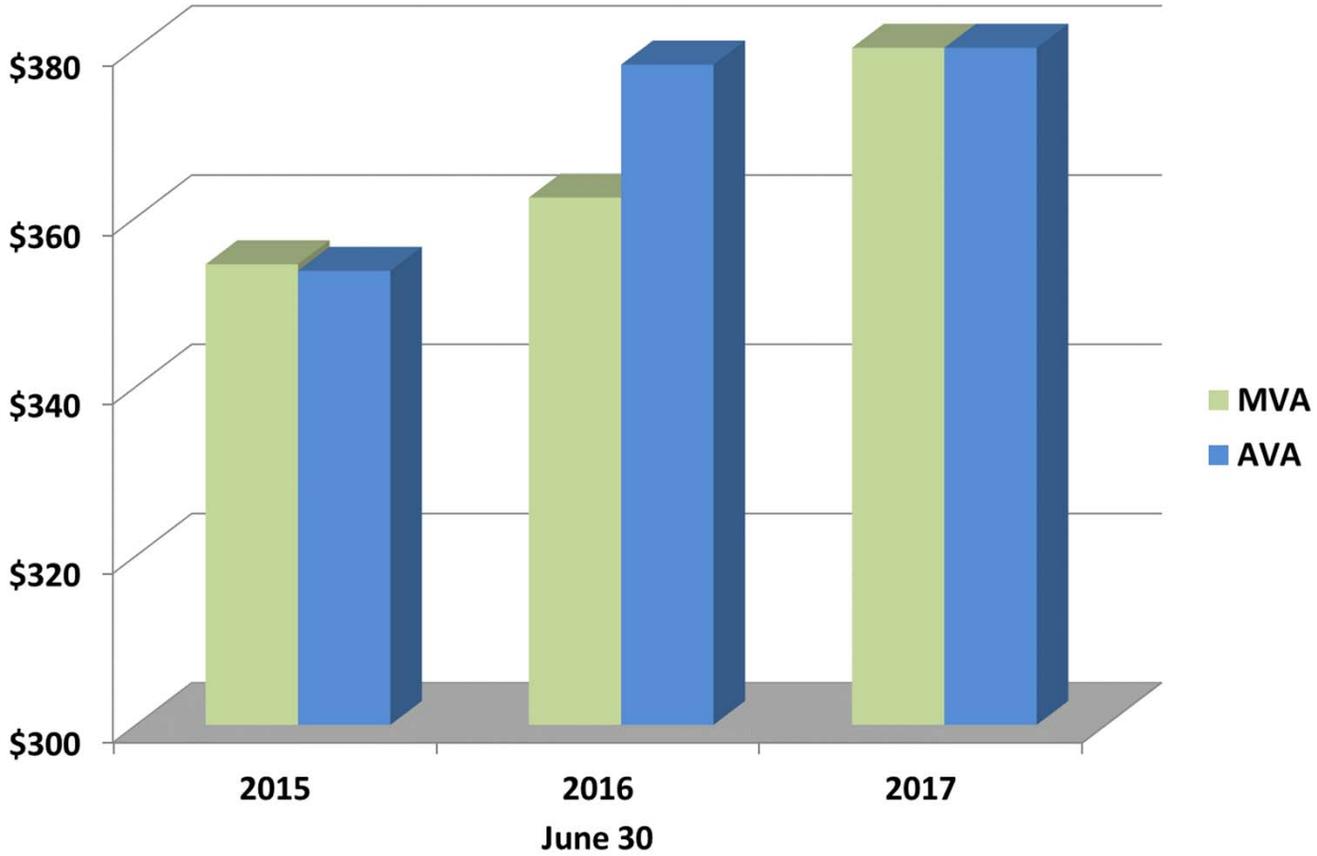
# Reasons for Rate Change

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- FY17 return was 12.5% and "AVA" return was 7.9%
- Retiree COLA was 1.32% but assumed to be 2.75%
- Corrections – average pay increase was 7.22% for continuing actives (4.25%-6.75% assumed)
- All others – average pay increase was 6.33% for continuing actives (4.00%-6.55% assumed)

# Three Year Asset Summary

Asset Values (in Millions)



# Investment Return

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- Investment Return on actuarial basis for year ended 6/30/2017 was greater than expected
  - Assume that assets will earn 7.5% net return
  - Investment return on a market value basis was 12.5%: MVA = \$410.1 million
  - Investment return on an actuarial value basis was 7.9%: AVA = \$410.4 million
  - Investment losses of \$0.3 million not recognized (in last year's valuation, \$15.7 million of investment losses not recognized)

# Historical Investment Returns

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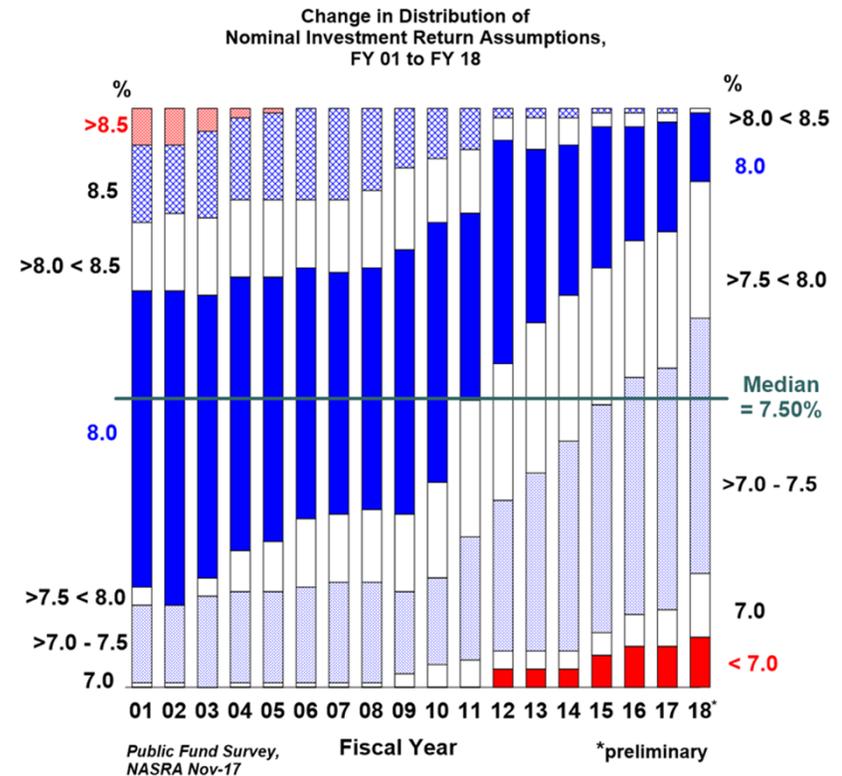
FYE	MVA	AVA	FYE	MVA	AVA
6/30/2017	12.5%	7.9%	6/30/2012	-0.9%	2.1%
6/30/2016	1.3%	6.0%	6/30/2011	21.9%	5.1%
6/30/2015	2.9%	9.5%	6/30/2010	14.8%	2.3%
6/30/2014	15.8%	11.6%	6/30/2009	-15.9%	2.6%
6/30/2013	11.8%	6.2%	6/30/2008	-6.7%	9.4%

# Current Trends

## LOCAL

County	Discount Rate
Anne Arundel County	7.50%
Baltimore County	6.375%
Caroline County	7.10%
Carroll County	7.00%
Cecil County	7.00%
Charles County	7.50%
Frederick County	7.00%
Harford County	7.00%
St. Mary's County	7.25%

## NATIONAL

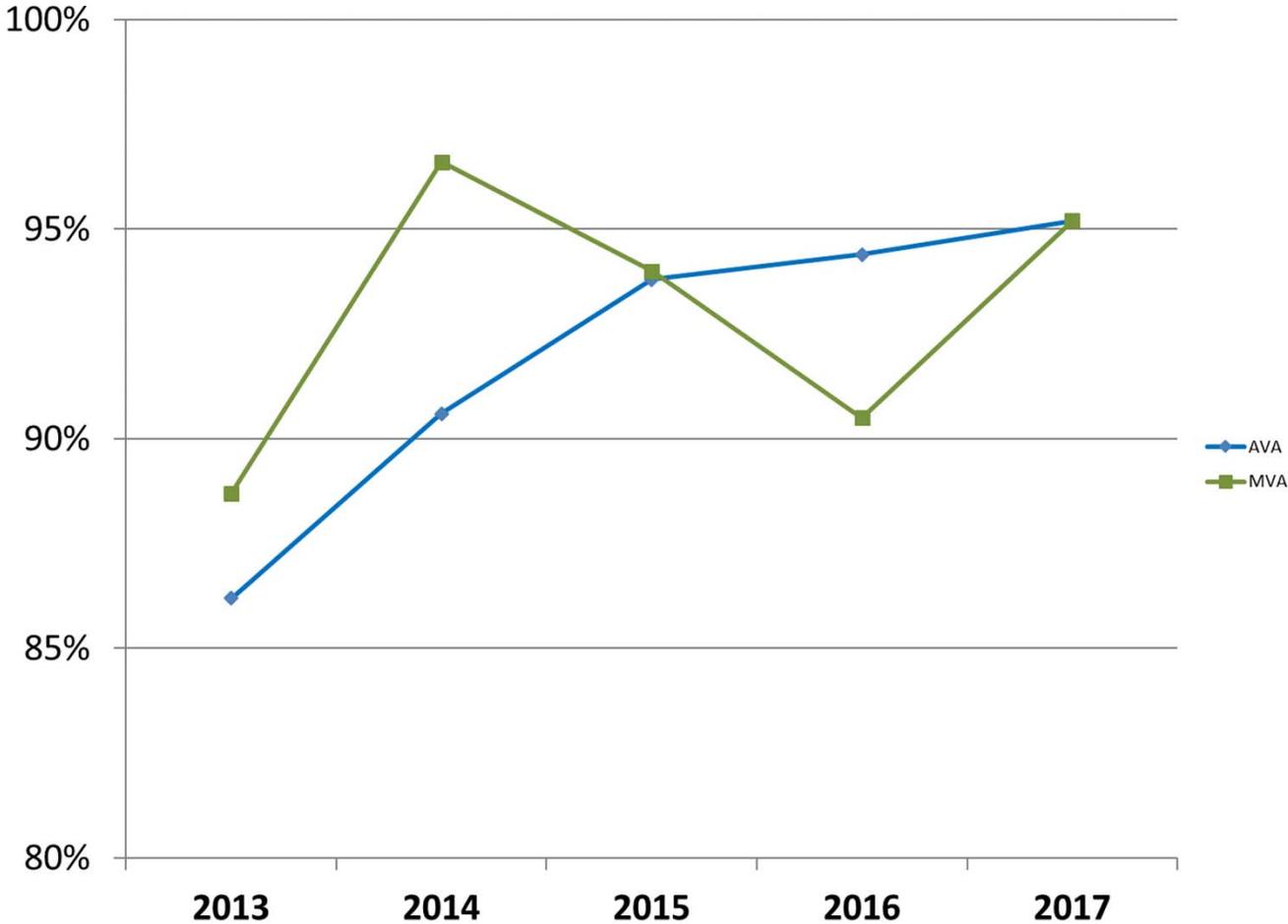


# Funded Ratio

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	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Actuarial Value of Assets	\$318.5	\$353.6	\$378.0	\$410.4
Actuarial Accrued Liabilities	\$351.6	\$377.1	\$400.5	\$431.0
Funded Ratio	90.6%	93.8%	94.4%	95.2%
Unfunded Actuarial Accrued Liabilities	\$33.2	\$23.5	\$22.5	\$20.6
Market Value of Assets	\$339.6	\$354.4	\$362.3	\$410.1
Funded Ratio on MVA	96.6%	94.0%	90.5%	95.2%
Covered Payroll	\$97.1	\$101.1	\$108.6	\$112.6
UAAL as a Percentage of Payroll	34.2%	23.2%	20.7%	18.3%

# Funded Ratio



# Risk Measures

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<b>Risk Measure</b>	<b>7/1/2015</b>	<b>7/1/2016</b>	<b>7/1/2017</b>	<b>Conservative Measures</b>
Retiree Liability as a Percent of Total Liability	44%	44%	45%	<50%
Market Value of Assets to Payroll	3.4	3.3	3.5	<5
Liabilities to Payroll	3.6	3.6	3.7	<5
Benefit Payments to Contributions	0.7	0.8	0.9	1-3

# Summary

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- Plan reasonably funded (over 90% on MVA and AVA basis)
- Funding levels still improving
- More focus on risk
- Possible changes in future valuations
  - Experience study prior to 7/1/2018 valuation

# Disclosure

This presentation was prepared for the Howard County Retirement Plan Committee and is not intended for use by anyone else. The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments based on assumptions and methods and data sources contained in the annual actuarial reports. Those reports describe the limitations on the uses/purposes of these results. Because valuations are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are inherently imprecise. There is no uniquely “correct” level of contributions for the coming plan year.

Ann Sturner and Kris Seets are credentialed actuaries meeting the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. They are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries. We are not aware of any direct or material indirect financial interest or relationship that could create a conflict of interest that would impair the objectivity of our work.