

# St. Louis County Retirement Plan

January 1, 2019 Actuarial Valuation Results Summary

Presented by Mike Ribble, FSA, EA, MAAA, FCA

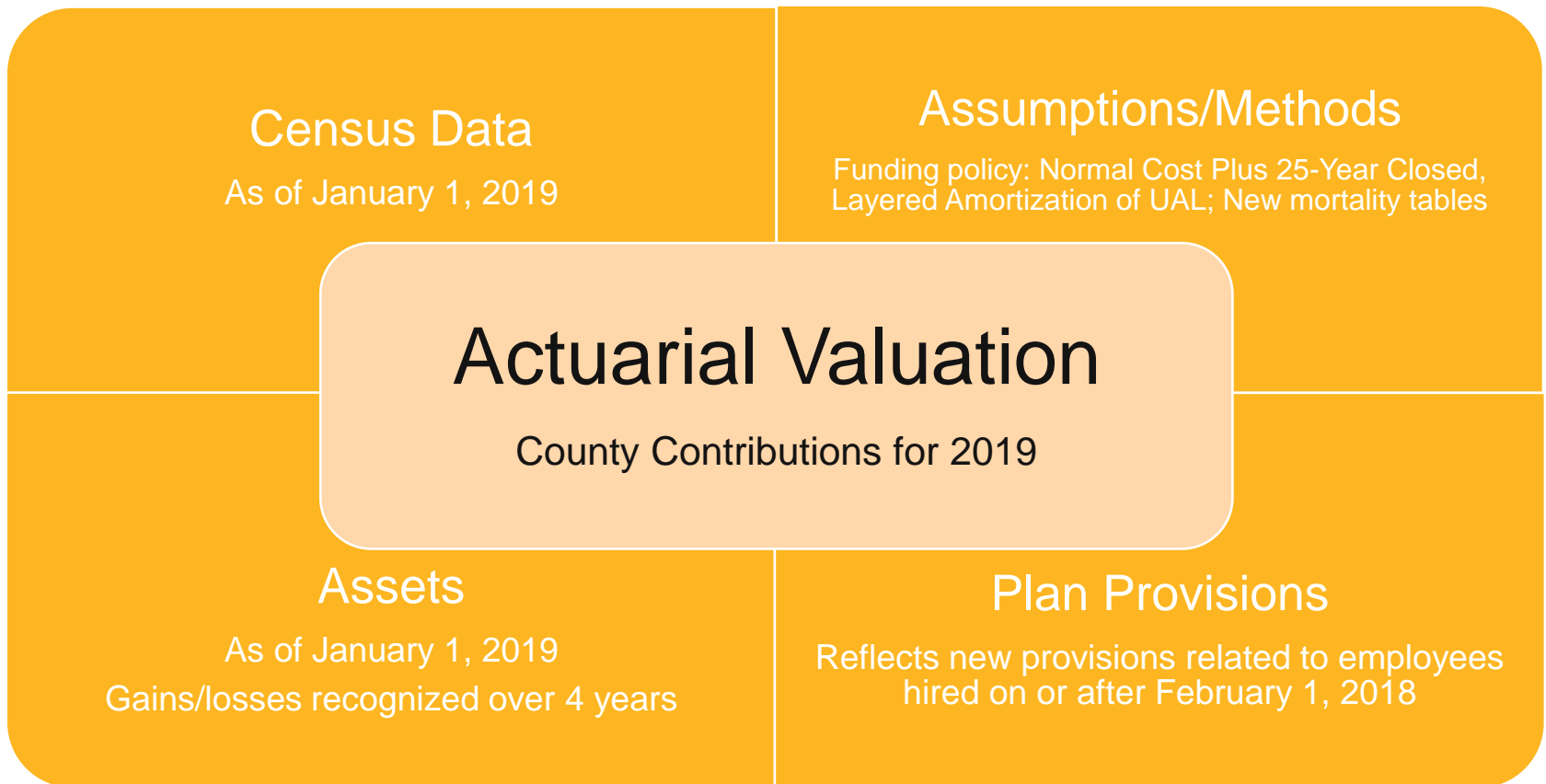
June 27, 2019

**BUCK**

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# Overview – Valuation Process



# Overview – Changes from the January 1, 2018 Valuation

- The following changes were reflected in the January 1, 2019 valuation:
  - **Mortality** was changed, for Plan A, from a blended Fully Generational table consisting of 70% RP-2000 and 30% RP-2000 Blue Collar projected using Scale BB to a blend of 85% PubG-2010 and 15% PubS-2010 mortality tables using the most recent mortality improvement scale of MP-2018. The change increased the Civilian Plan Liability by about 1.3%, or \$9.4M.
  - **Mortality** was changed, for Plan B, from a Fully Generational RP-2000 Blue Collar table projected using Scale BB to 100% PubS-2010 mortality table using the most recent mortality improvement scale of MP-2018. The change increased the Police Plan Liability by about 1.6%, or \$4.2M.
  - Effective January 1, 2019, the **amortization method** was changed from a 25-year, open (or rolling) amortization method to a 25-year, closed, layered amortization method. All future changes in the accrued liability due to amendments, gains and losses, and assumption changes are amortized over a 25-year closed, layered method. The initial amortization base was created for the contribution payable during 2019.
  - During 2018, St. Louis County approved **plan provision changes** for civilian and police employees hired on or after February 1, 2018, which included changes to vesting, retirement eligibility and benefit provisions, in addition to these employees contributing 4% of their salary to the plan.

# Overview – Experience

- **Plan experience** for the year ending December 31, 2018
  - Return on market value of assets of (6.9%) versus 7.50% assumed
  - Return on actuarial value of assets of 4.8% versus 7.50% assumed
    - Increase in unfunded liability of:
      - \$14.0 million for the Civilian Plan
      - \$4.1 million for the Police Plan
  - Liability gains and losses resulted in a net change to the unfunded liability of:
    - \$12.9 million decrease for the Civilian Plan
    - \$8.0 million decrease for the Police Plan
- **Assumption changes** for (mortality rates) resulted in an increase in unfunded liability of:
  - \$9.4 million for the Civilian Plan
  - \$4.2 million for the Police Plan

# Overview – Results

- **Funded percentage**

- Decreased from 74.3% to 73.8% for the Civilian Plan
- Increased from 57.1% to 58.3% for the Police Plan

- **Total Annual Cost in 2019**

- \$28.3 million for the Civilian Plan (\$28.7 million in 2018)
- \$15.32 million for the Police Plan (\$15.7 million in 2018)

- **Expected Employee Contributions in 2019**

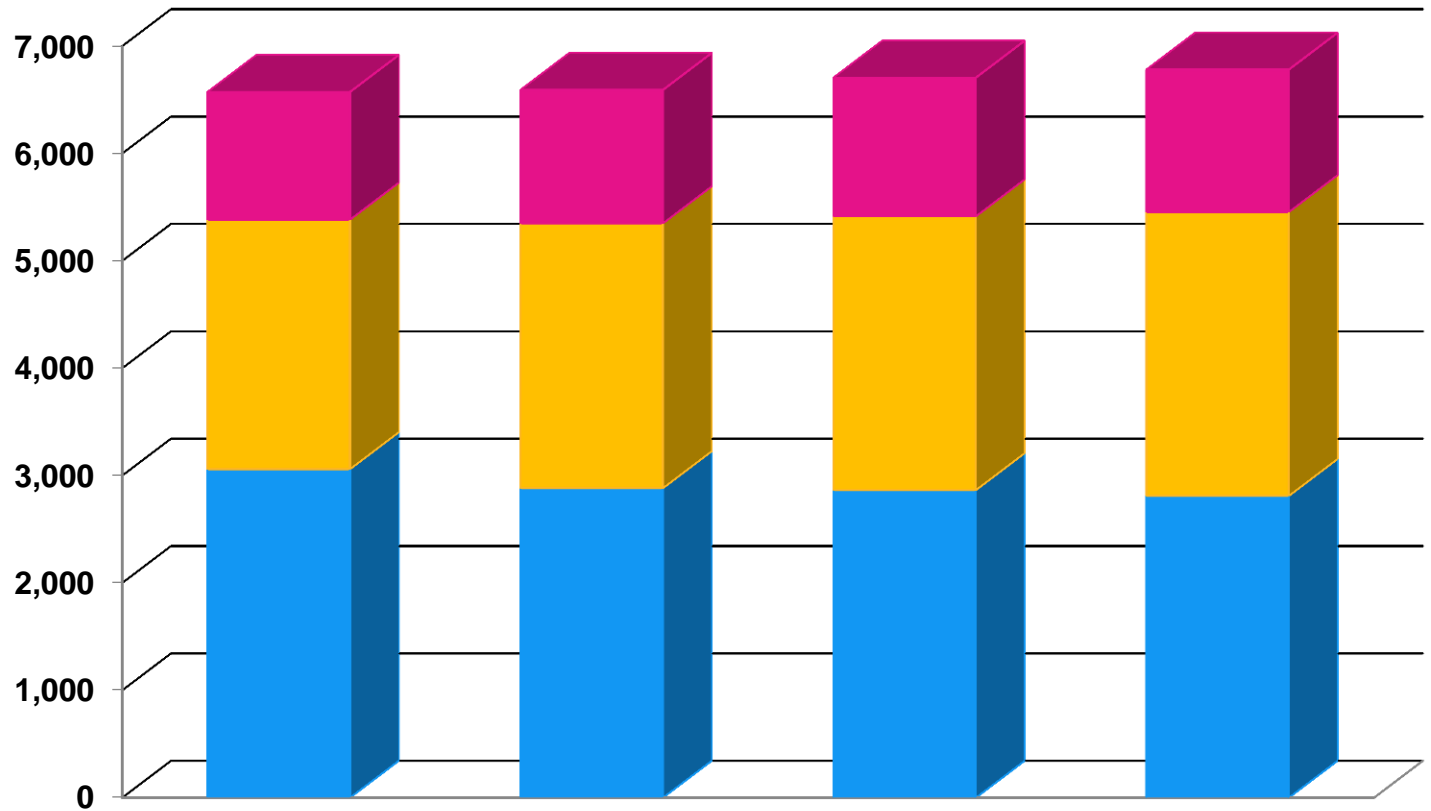
- \$0.4 million for the Civilian Plan
- \$0.06 million for the Police Plan

- **Total Employer Cost in 2019**

- \$27.9 million for the Civilian Plan (\$28.7 million in 2018)
- \$15.26 million for the Police Plan (\$15.7 million in 2018)

# Covered Population

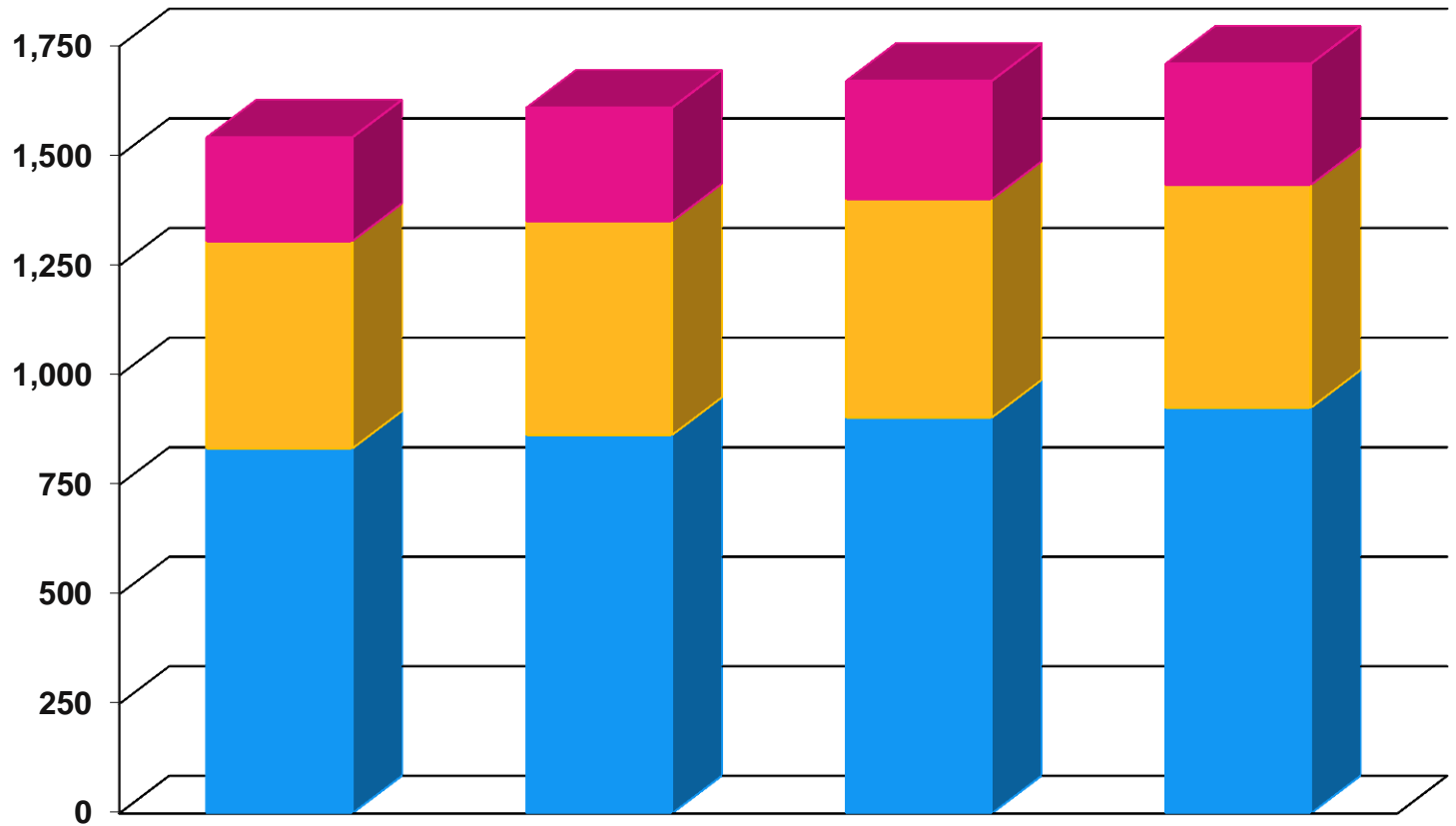
Members as of January 1 - Civilian



	2016	2017	2018	2019
Terminated Vested	1,188	1,241	1,290	1,325
Receiving Benefits	2,324	2,467	2,550	2,644
Earning benefits	3,060	2,883	2,865	2,811
<b>Total</b>	<b>6,572</b>	<b>6,591</b>	<b>6,705</b>	<b>6,780</b>

# Covered Population

Members as of January 1 - Police



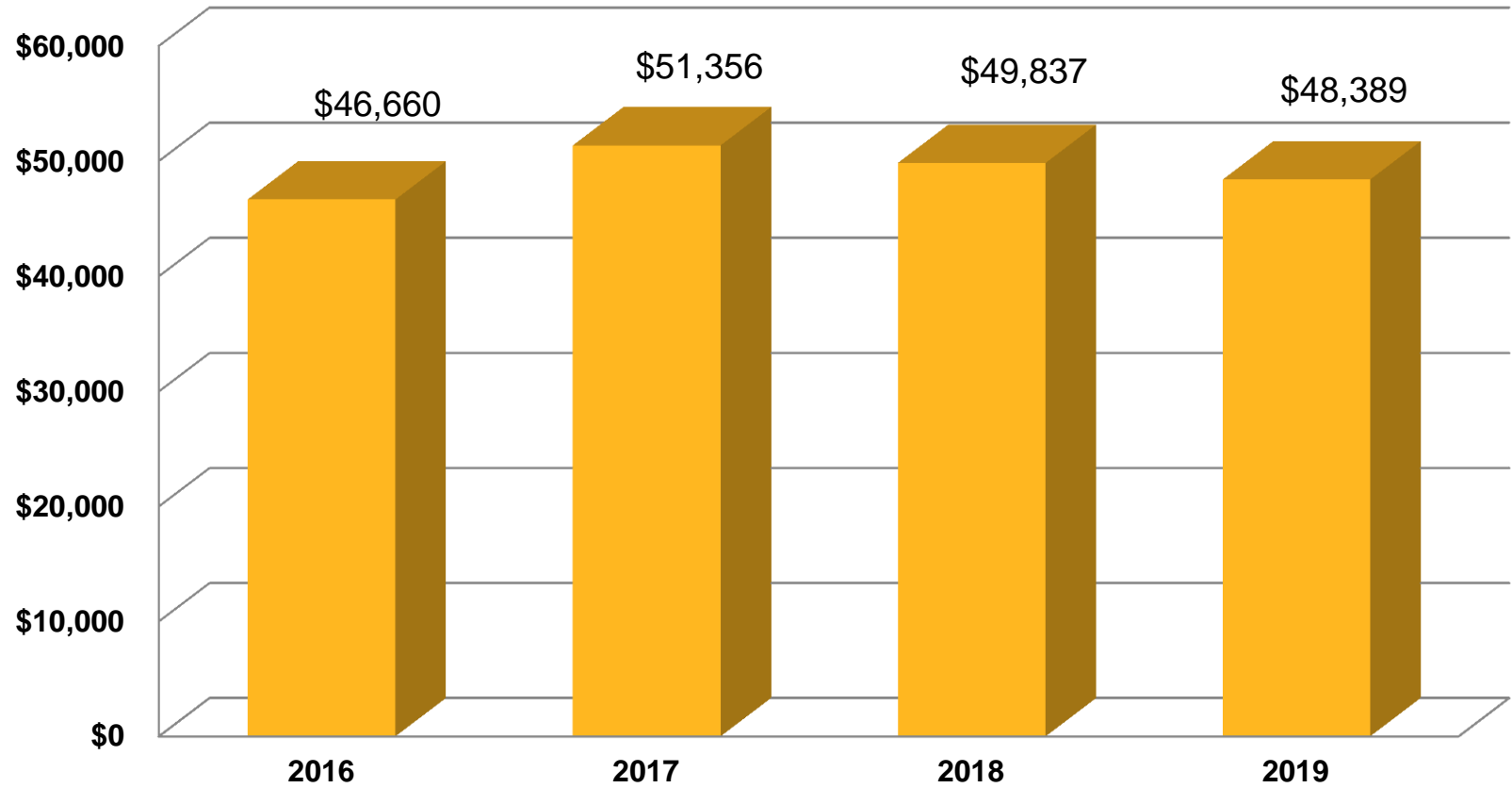
Terminated Vested	236	259	269	276
Receiving Benefits	473	487	498	508
Earning benefits	833	864	904	926

<b>BUCK</b>	<b>Total</b>	<b>1,542</b>	<b>1,610</b>	<b>1,671</b>	<b>1,710</b>
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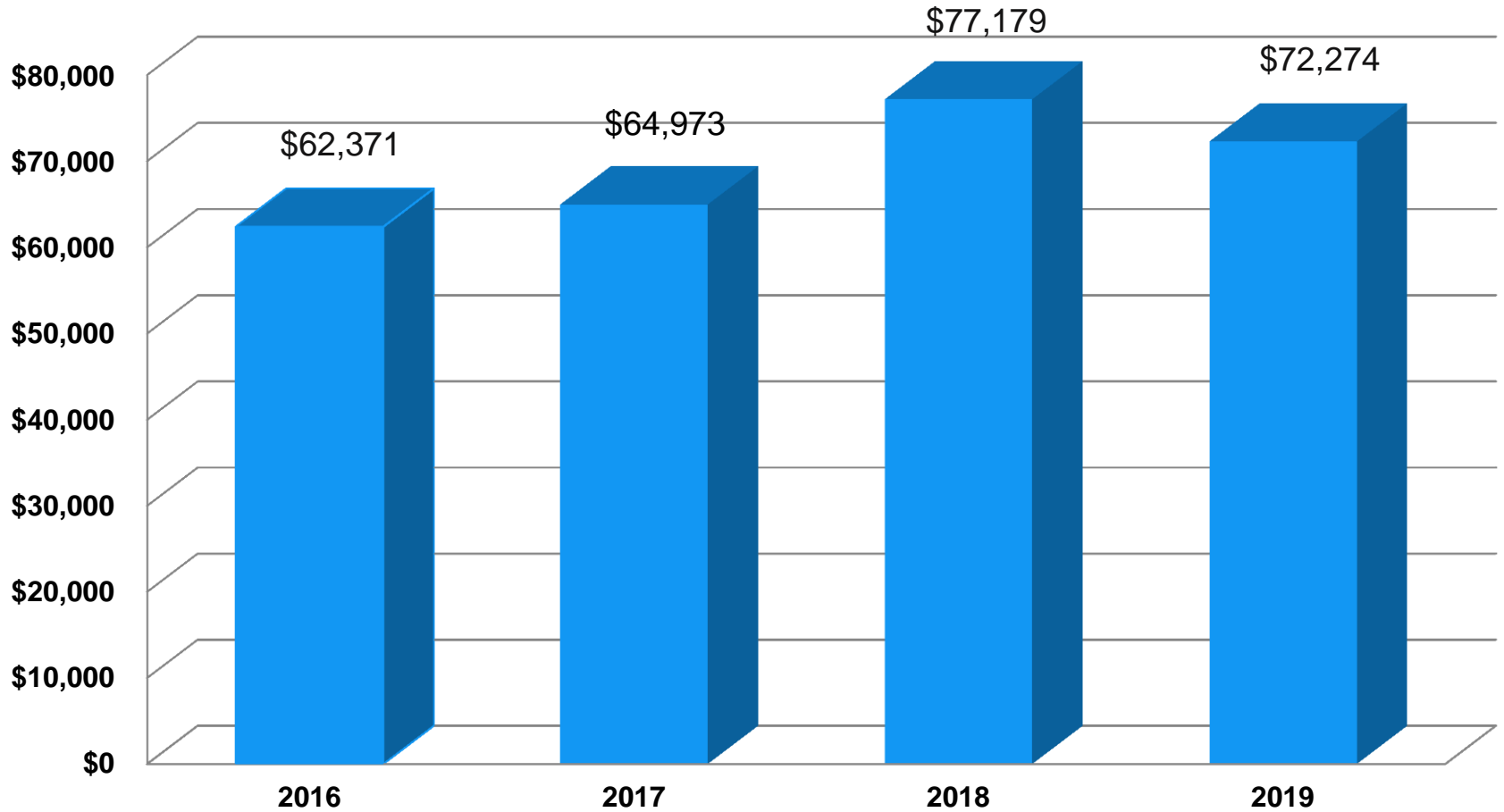
# Covered Population

Average Plan Year Pay for January 1 - Civilian



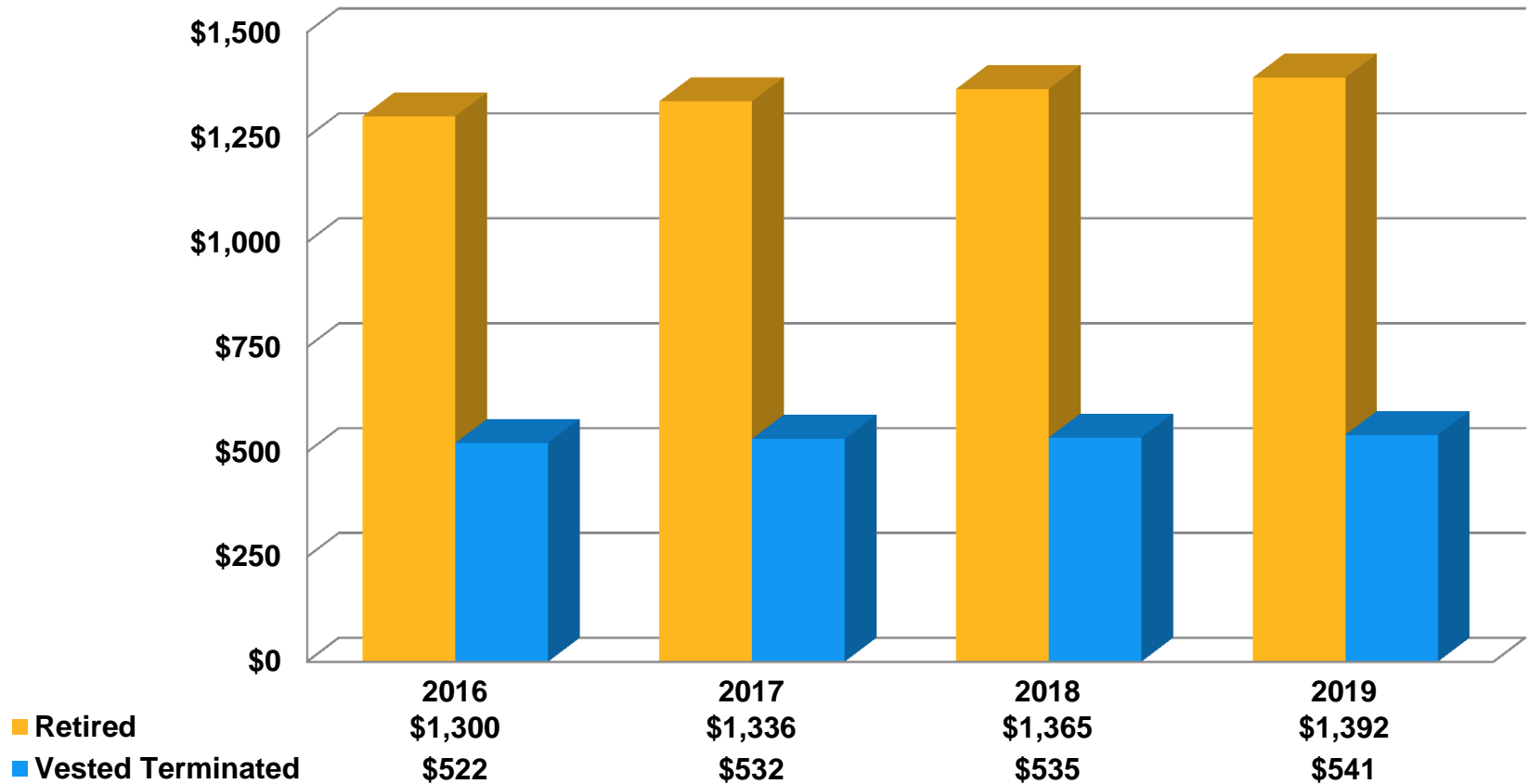
# Covered Population

Average Plan Year Pay as of January 1 - Police



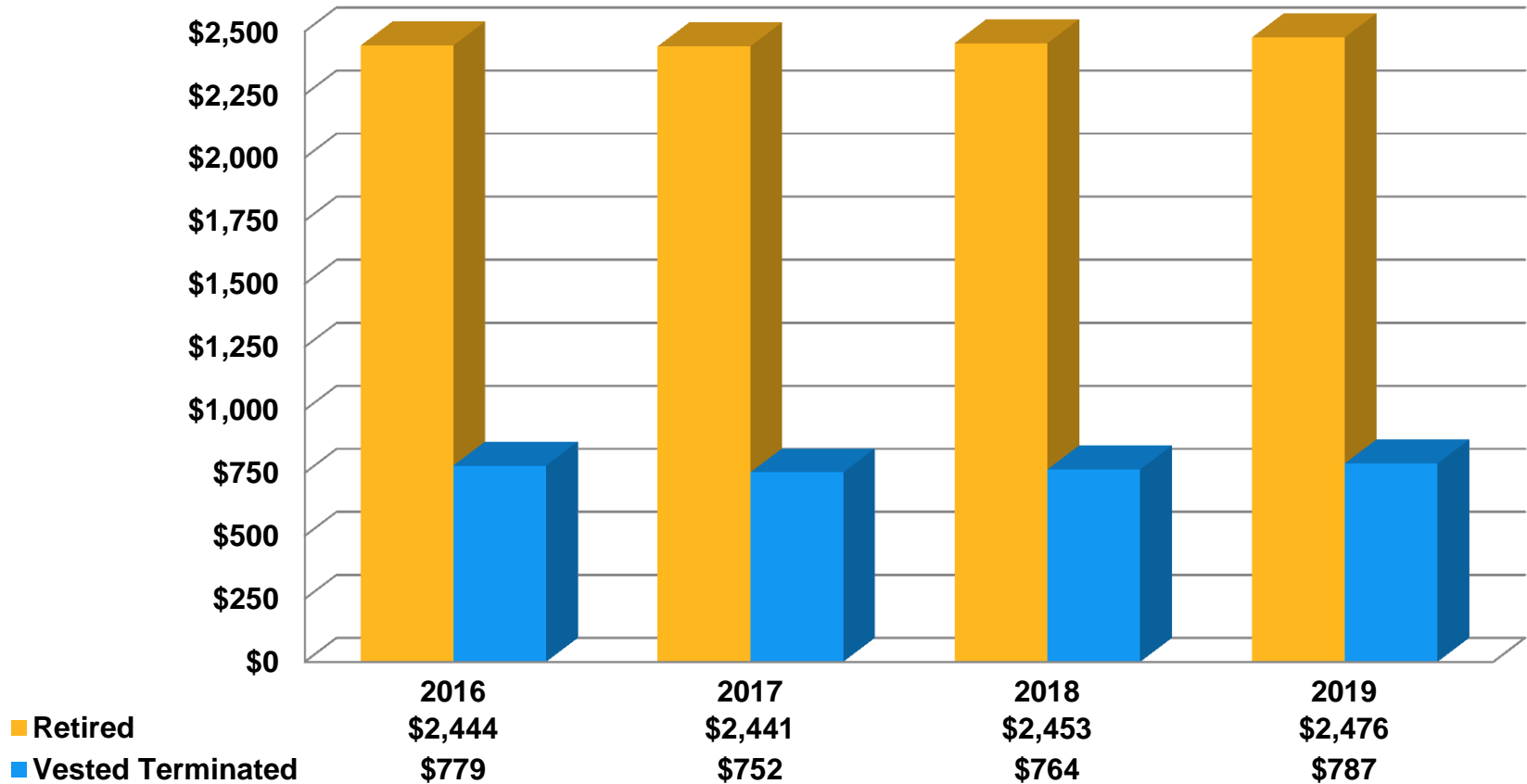
# Covered Population

Average Monthly Pension as of January 1 - Civilian



# Covered Population

Average Monthly Pension as of January 1 - Police



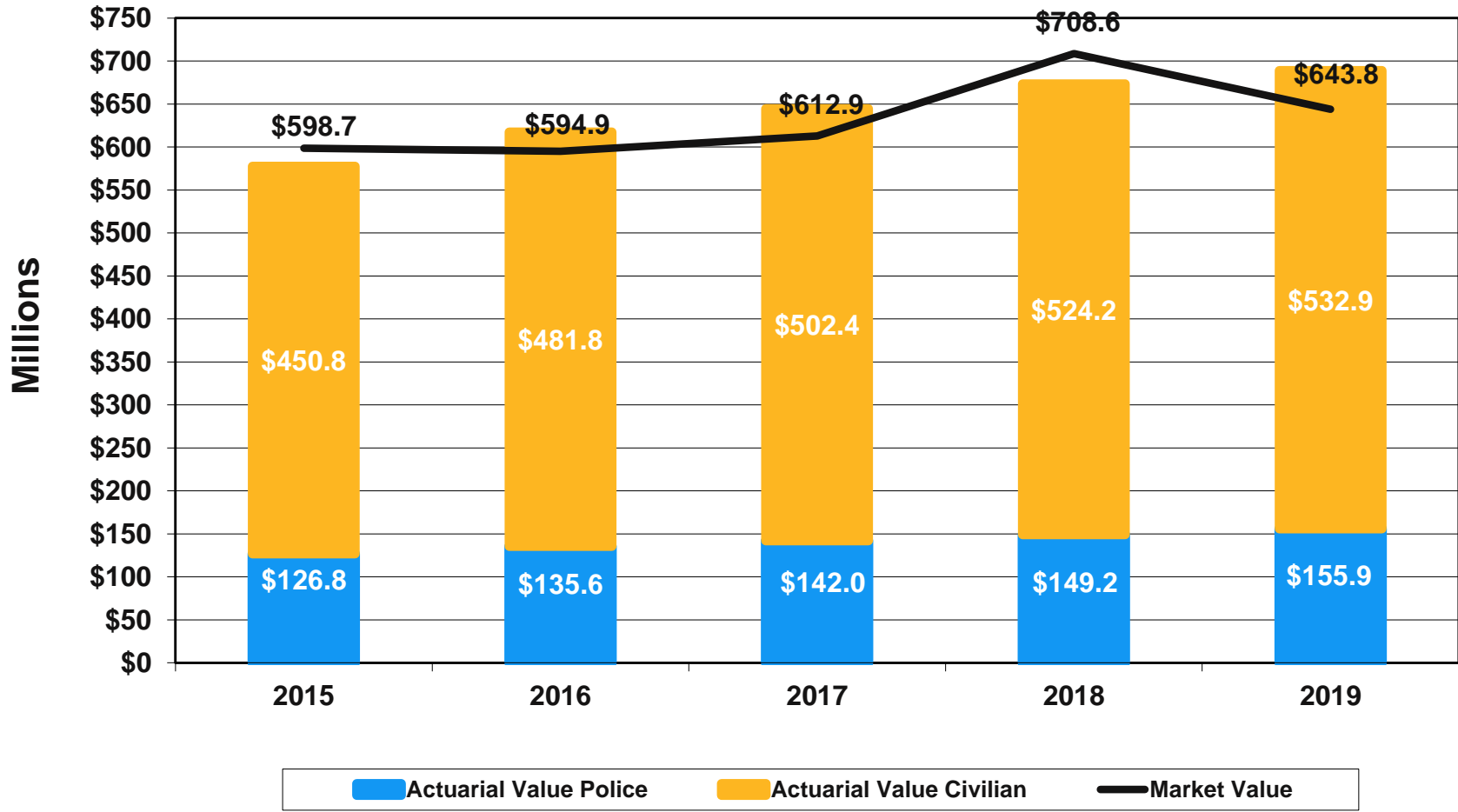
## Plan Assets

- As of January 1, 2019, market value of plan assets totaled \$643.8M.
- Performance History:

Year Ending December 31	Actuarial Value Rate of Return	Market Value Rate of Return	Assumed Interest Rate
2014	9.5%	5.5%	8.00%
2015	9.5%	1.8%	8.00%
2016	6.9%	5.6%	7.75%
2017	7.5%	18.9%	7.75%
2018	4.8%	(6.9%)	7.50%

# Plan Assets

Actuarial Value of Assets vs. Market Value of Assets as of January 1



# Actuarial Valuation

Actuarial Status as of January 1, 2019 - Civilian

Actuarial Accrued Liability = \$722.6 million

Funded Percentage = 73.8% (Actuarial Value Basis - \$532.9 million)



**Total Present Value of Plan Benefits  
(\$826.5 million)**

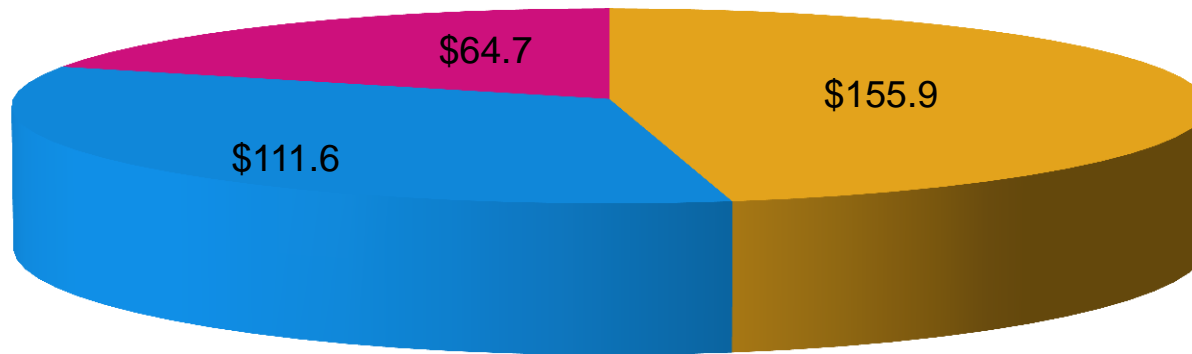
- Actuarial Value of Assets
- Unfunded Liability
- Future Normal Costs - Funded by County

# Actuarial Valuation

Actuarial Status as of January 1, 2019 - Police

Actuarial Accrued Liability = \$267.4 million

Funded Percentage = 58.3% (Actuarial Value Basis - \$155.9 million)



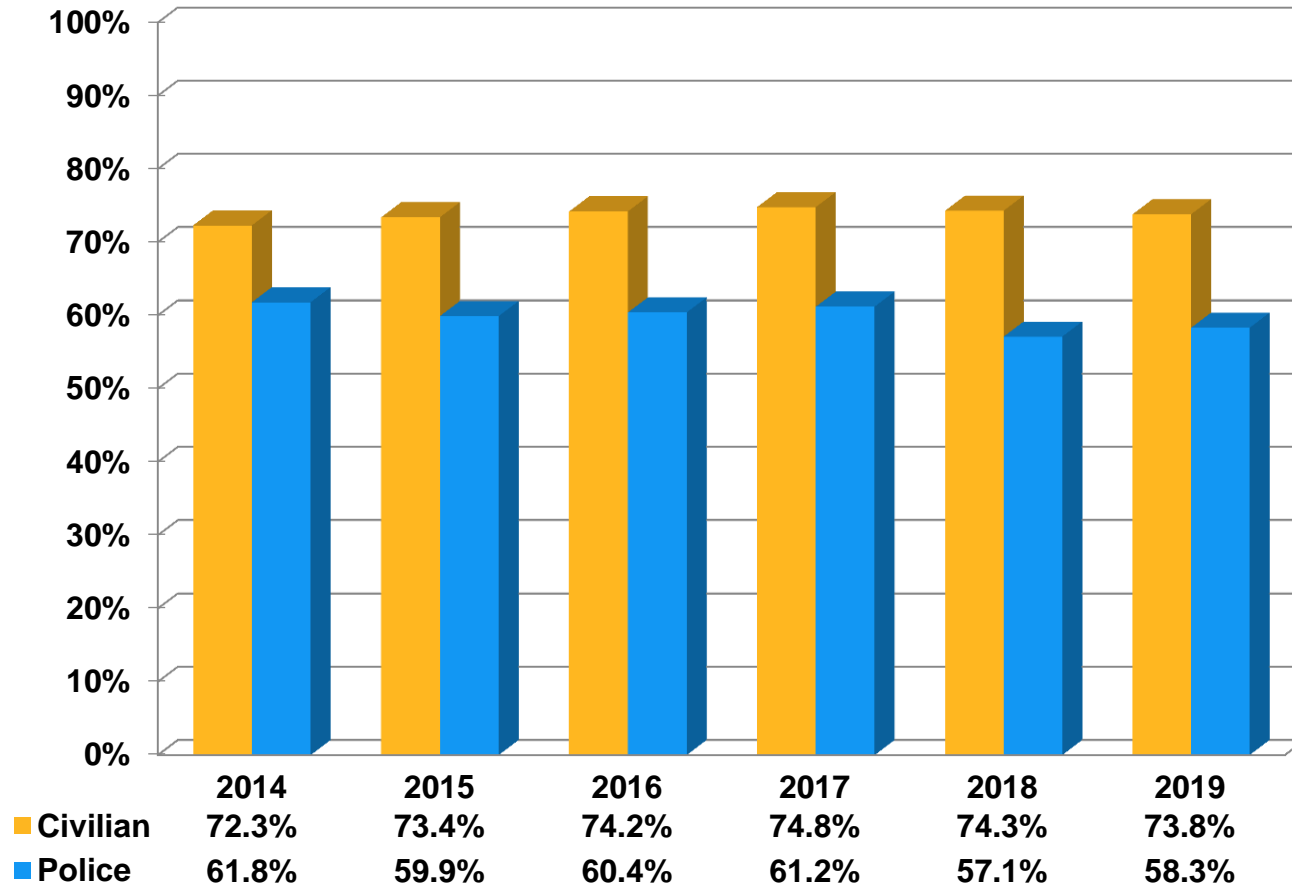
**Total Present Value of Plan Benefits  
(\$332.2 million)**

- Actuarial Value of Assets
- Unfunded Liability
- Future Normal Costs - Funded by County



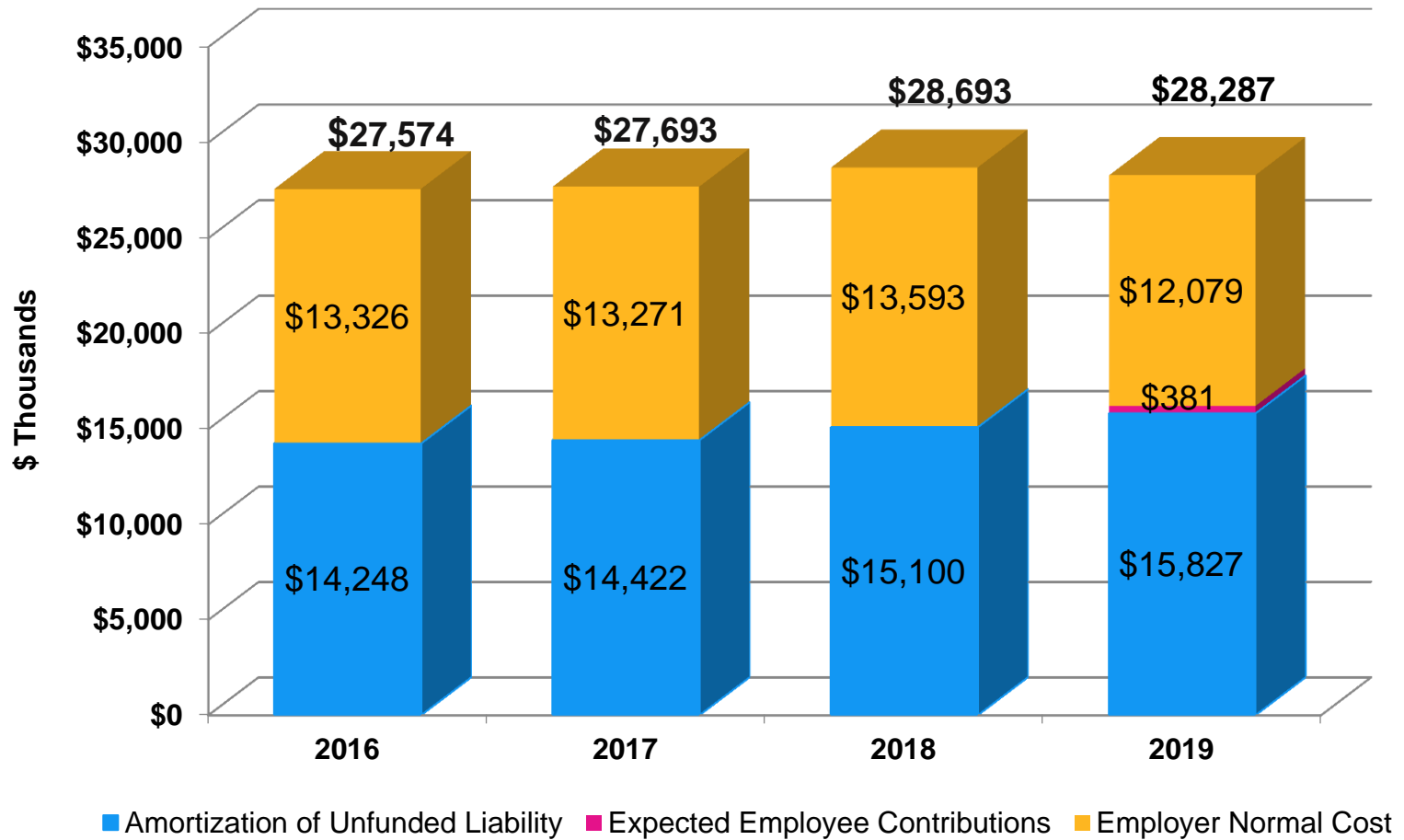
# Funded Status

History as of January 1



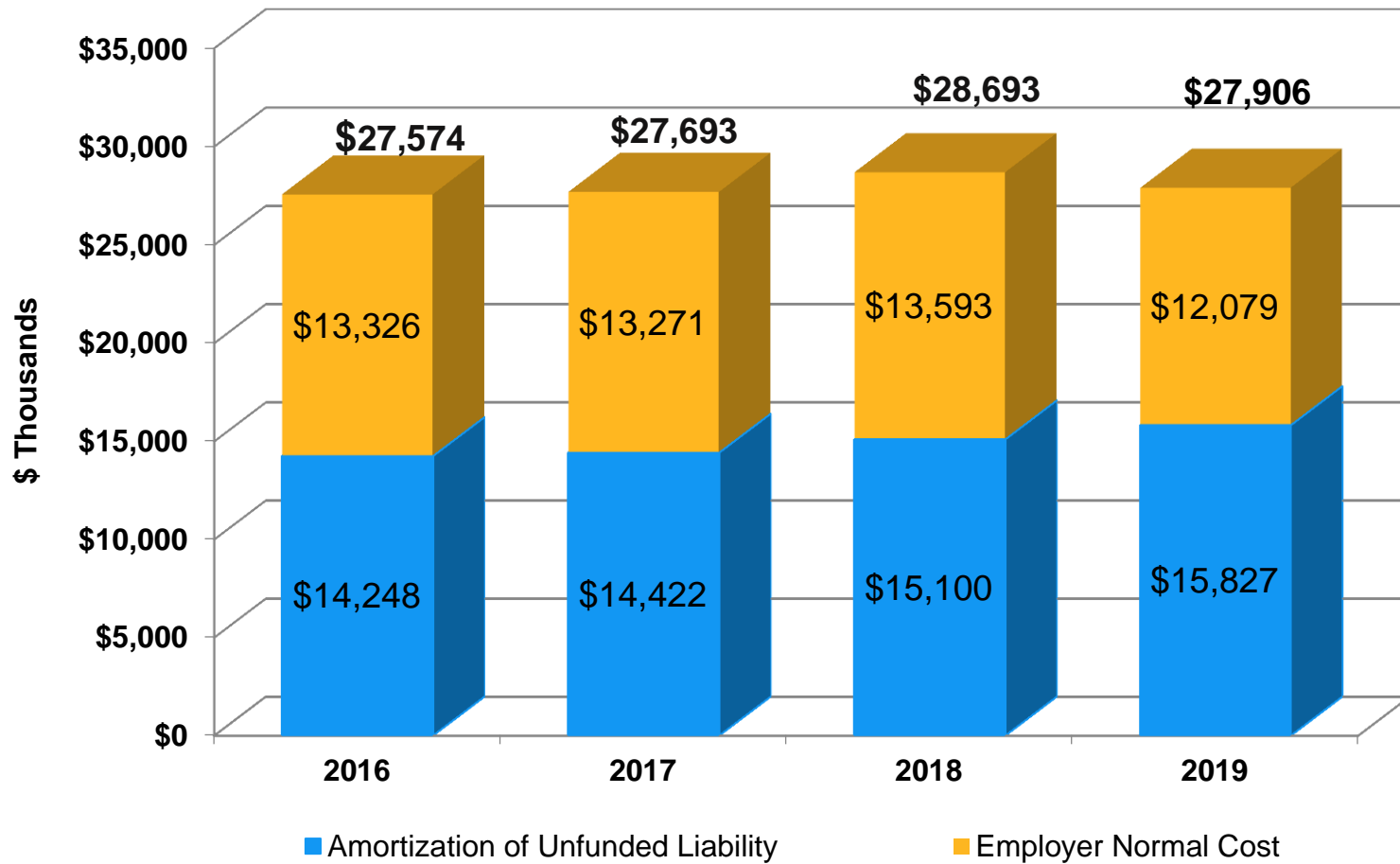
# Total Annual Required Contributions

Civilian



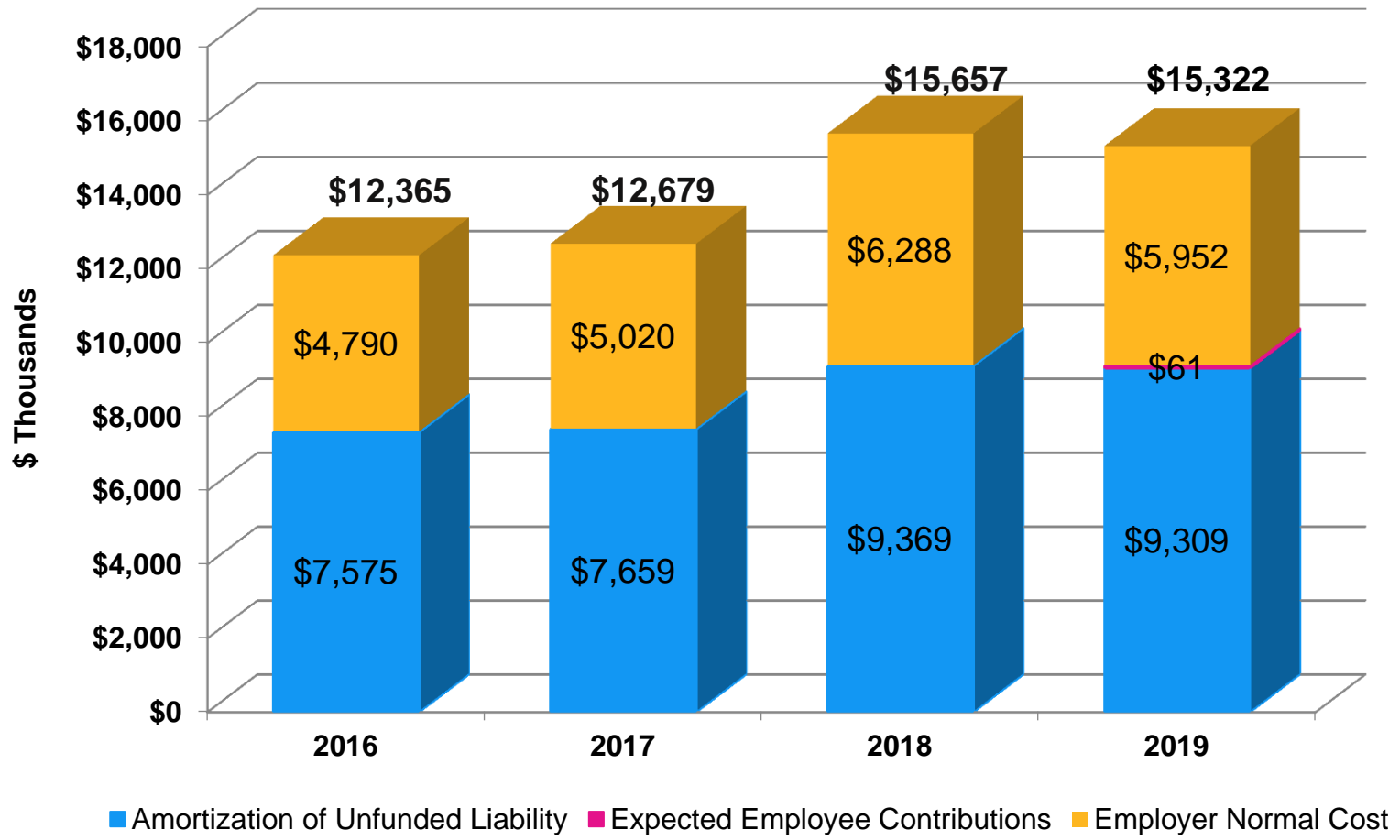
# Total Employer Required Contributions

Civilian



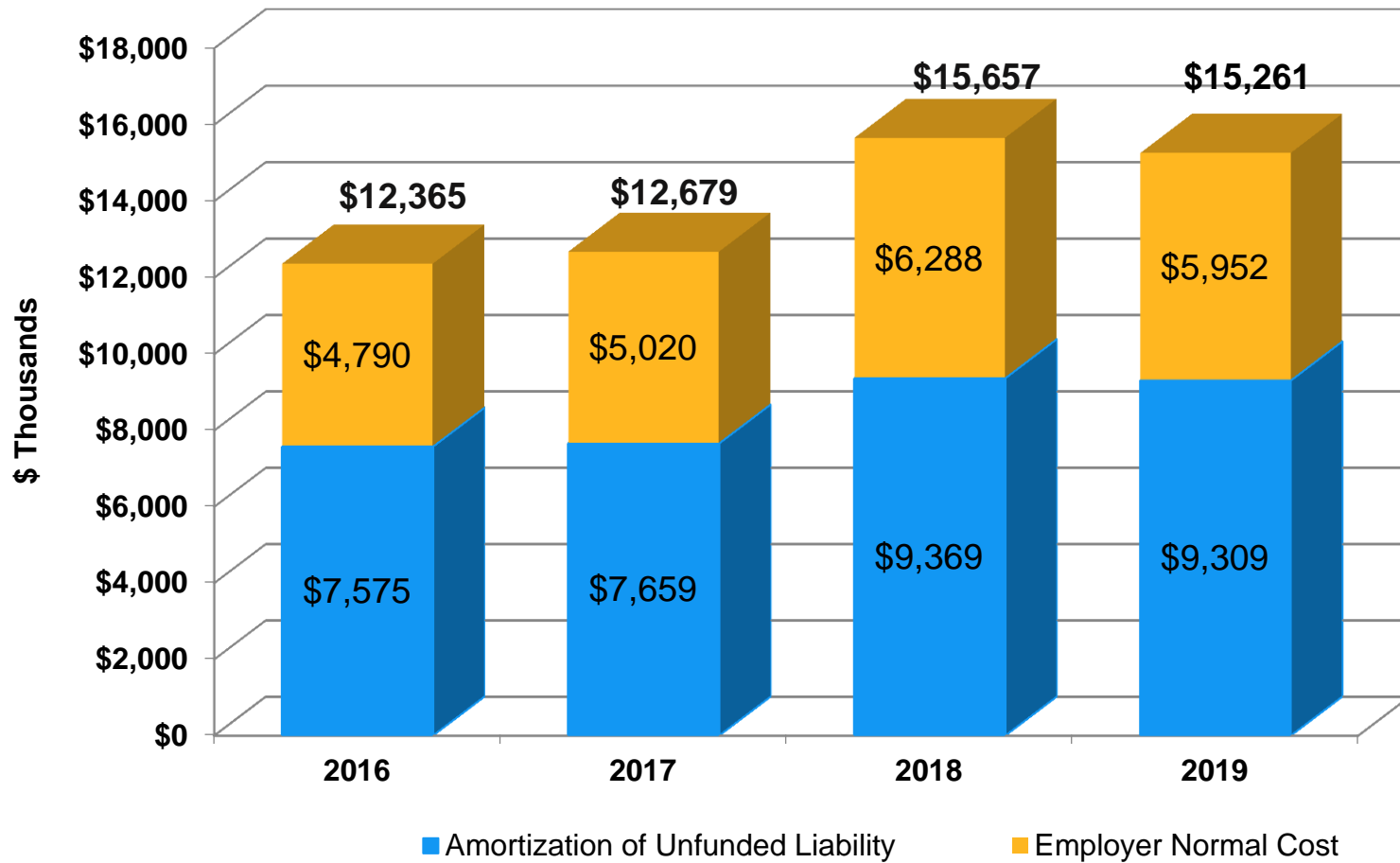
# Total Annual Required Contributions

Police



# Total Employer Required Contributions

Police



# Appendix

## Data, Methods, Assumptions and Plan Provisions

- All Data, Assumptions, Methods and Plan Provisions are outlined in the January 1, 2019 Actuarial Valuation Report for the St. Louis County Retirement Plan.
- The purpose of this presentation is to provide to the Board a summary of the January 1, 2019 valuation results for discussion during the Board meeting attended by the actuary. This presentation should be considered part of the January 1, 2019 Actuarial Valuation Report services. A full Actuarial Valuation Report has been provided concurrent with this presentation.

## Qualification Statement and Disclosures

The results in this presentation were developed for the Retirement Board of Trustees of St. Louis County (the Board) by Buck using generally accepted actuarial principles and techniques in accordance with all applicable Actuarial Standards of Practice (ASOPs). This report may be used by the Board and St. Louis County for determining contributions for fiscal 2019. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without prior review. No third party recipient of Buck's work product should rely upon Buck's work product absent involvement of Buck or without our approval.

Where presented, references to "funded ratio" and "unfunded accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as: plan experience different from that anticipated by the economic and demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

Michael A. Ribble is a Fellow in the Society of Actuaries, Enrolled Actuary, Member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. He is available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.



