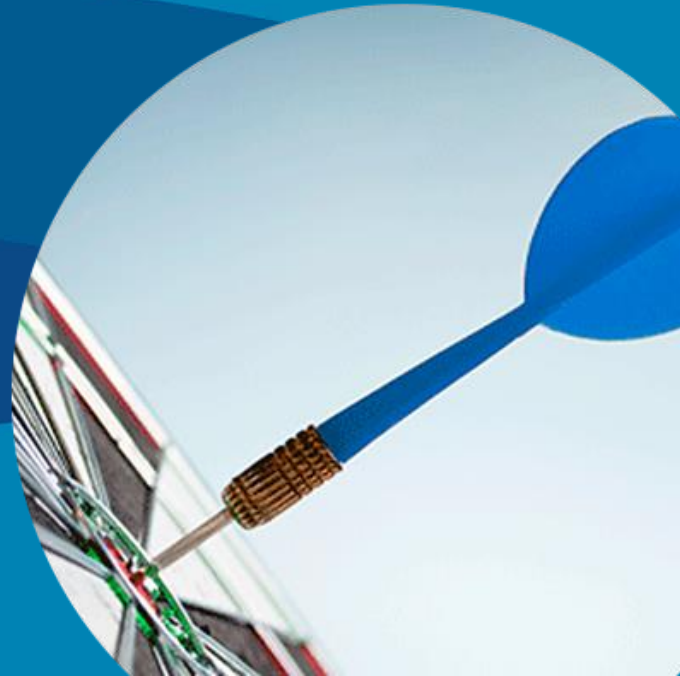




Employees' Retirement System of the State of Hawaii

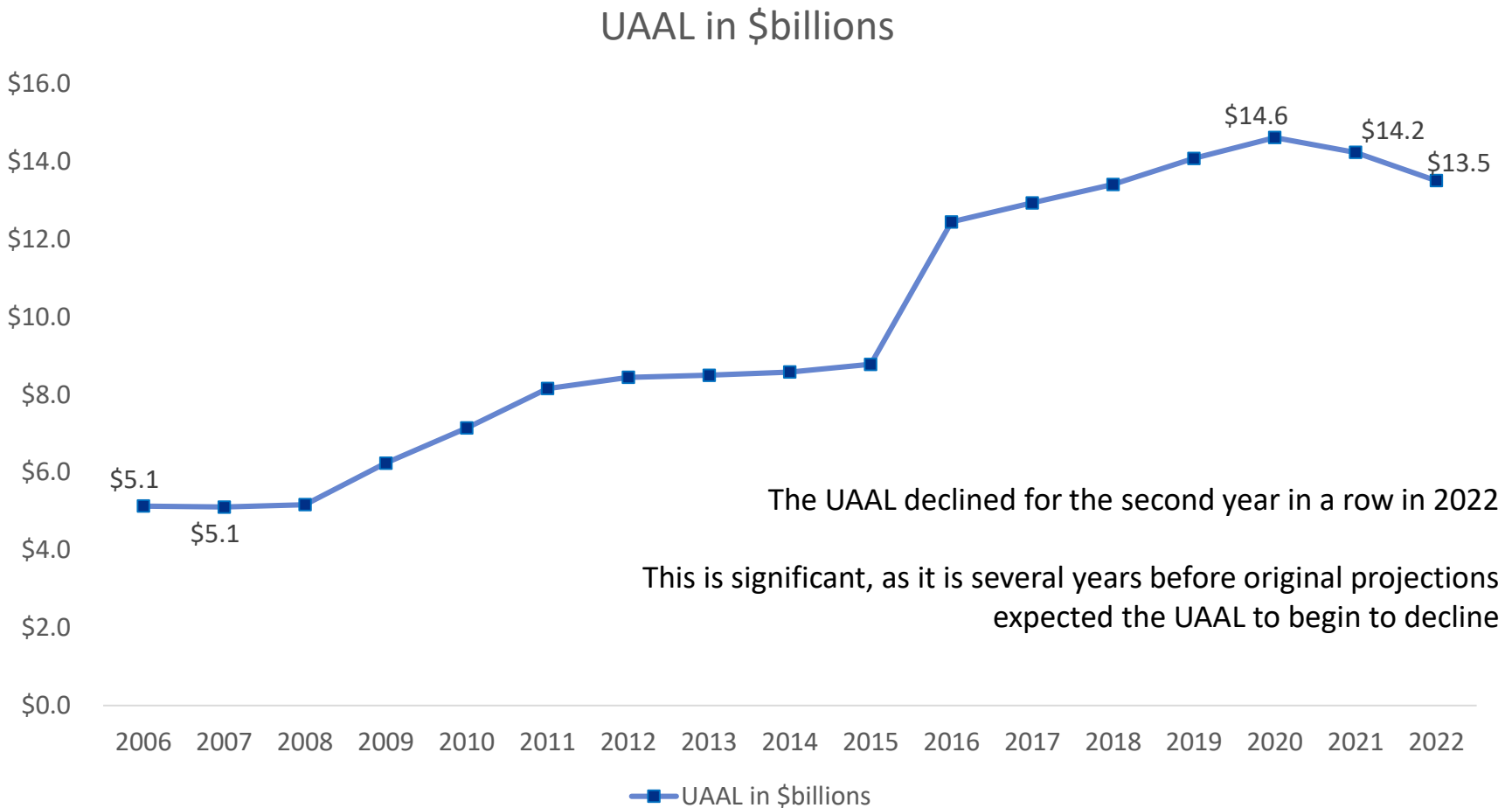
2022 Valuation Results
January 9, 2023



Purpose of the Actuarial Valuation

- Annual health checkup of ERS
- The **primary** purpose is to assess the current contribution funding policy set in statute
 - Determine whether the current contribution rates are expected to fully amortize the UAAL over a period of 30 years or less (Statutory Maximum)
 - Recommend changes if found not adequate
- Funding Period: the estimated number of years it will take to fully pay off the current UAAL assuming current contributions remain in place and all assumptions are met

History of the ERS Unfunded Actuarial Accrued Liability



2022 Actuarial Valuation Results

Valuation Year	2019	2020	2021	2022
Based on Smoothed Asset Value				
UAAL (\$ Billions)	\$14.07	\$14.61	\$14.23	\$13.51
Actuarial Funded Ratio	55.2%	55.3%	58.3%	61.2%
Funding Period in years*	26	26	24	24
Based on Market Value				
Actuarial Funded Ratio	54.9%	53.2%	64.3%	62.8%
Funding Period in years*	26	26	19	23

*Based on open group projection, recognizing new benefits for members hired after June 30, 2012

By Employee Group

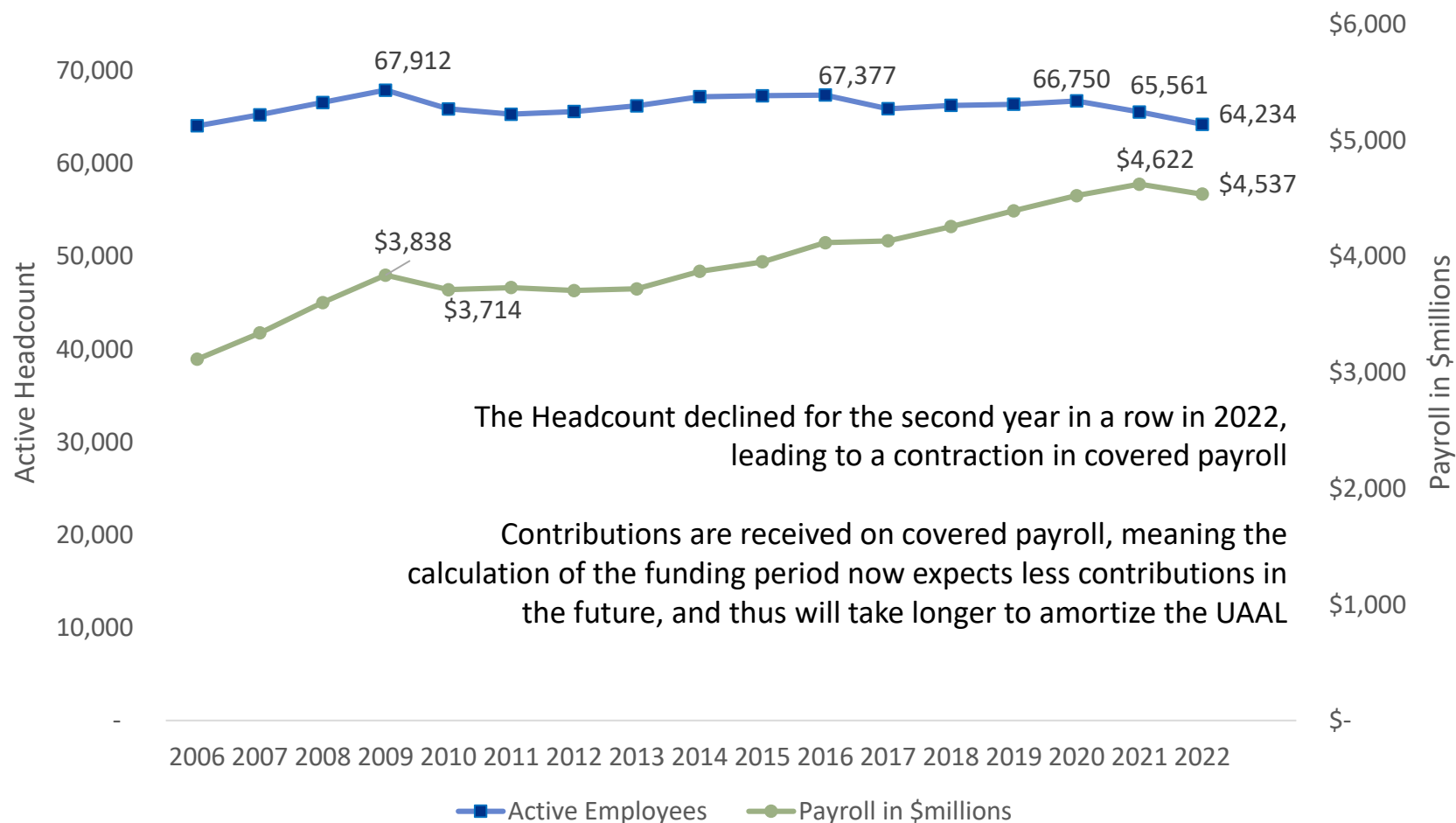
Valuation Year	2019	2020	2021	2022
Police and Fire Employees (11% of Payroll)				
UAAL (\$ Billions)	\$2.50	\$2.65	\$2.46	\$2.23
Actuarial Funded Ratio	58.7%	58.8%	63.3%	67.4%
Funding Period in years*	28	28	25	23
All Other Employees (89% of Payroll)				
UAAL (\$ Billions)	\$11.57	\$11.96	\$11.77	\$11.28
Actuarial Funded Ratio	54.3%	54.5%	57.1%	59.7%
Funding Period in years*	25	25	23	24

*Based on open group projection, recognizing new benefits for members hired after June 30, 2012

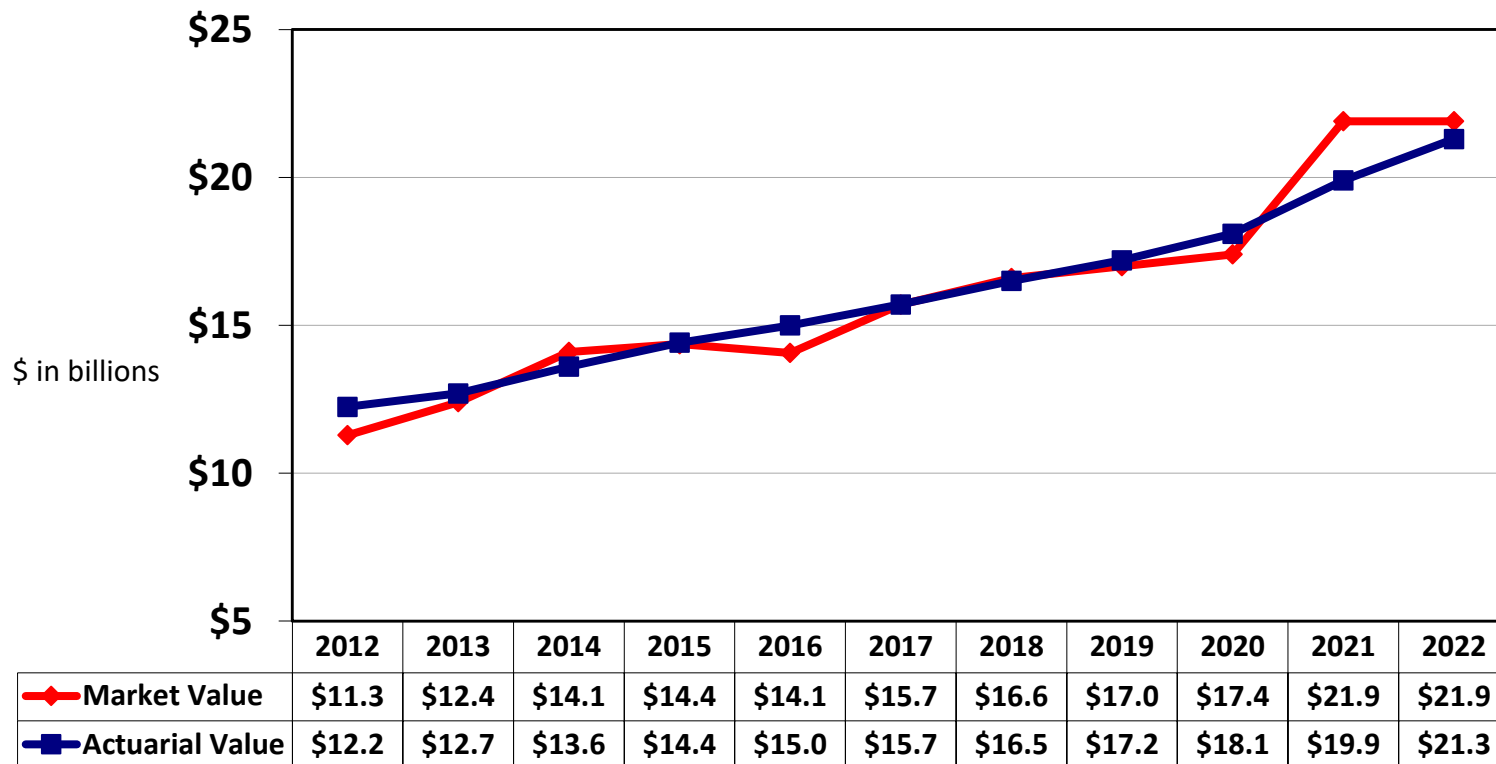
Sources of Impact

- **Investments** underperformed the 7.00% assumption on a market basis, but...
 - Smoothing technique deferred most of the FY21 outperformance into future years (approximately \$2.0 billion)
 - Net between the two years is a gain on actuarial value of assets
- **Liabilities** grew slower than expected
 - Salary increases smaller than current expectations, heavily due to non-base compensation being down
- **Projected Contributions** in dollars are expected to be lower due to headcount contractions, lower salary growth, and changes in the experience study which lowered growth expectations

History of the ERS Active Headcount and Payroll

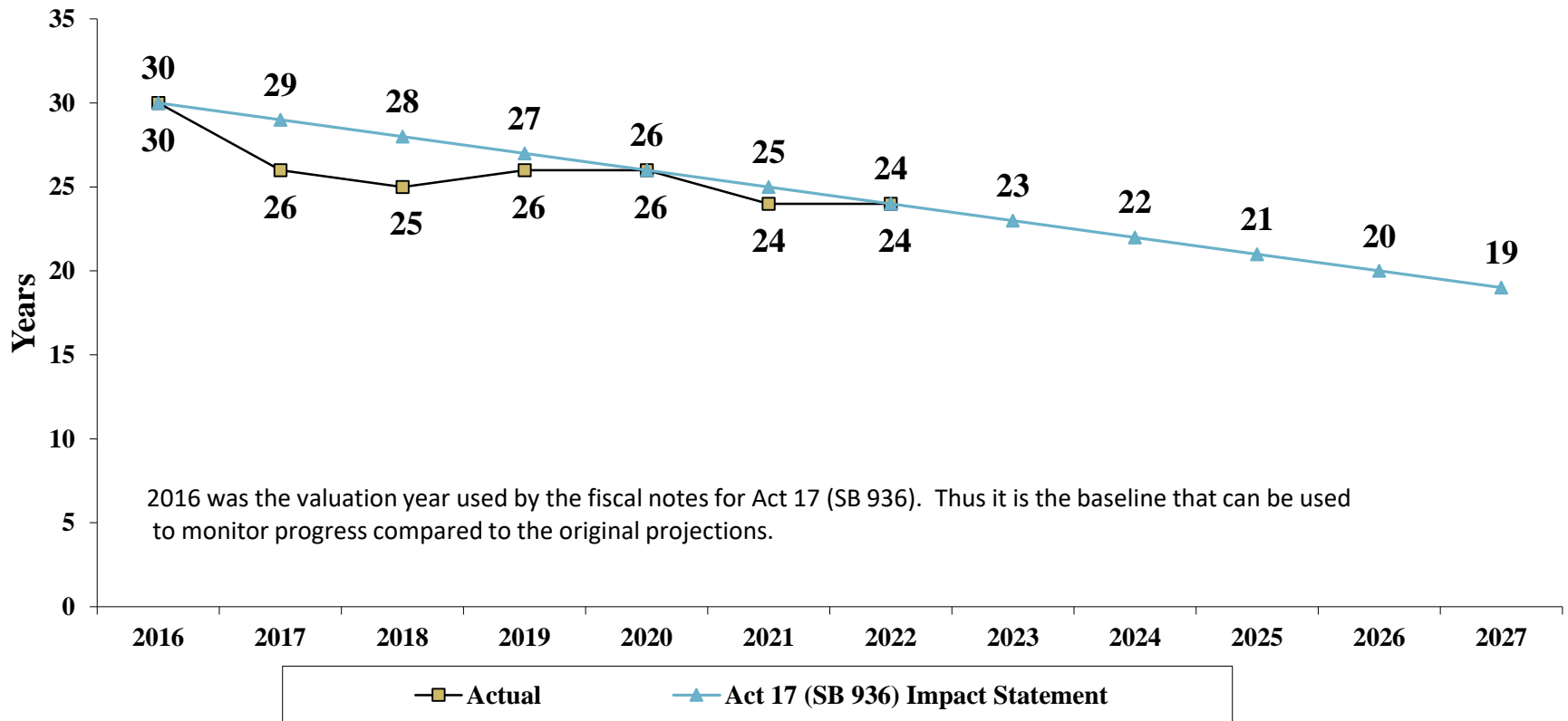


Market and Actuarial (Smoothed) Values of Assets



Actuarial Value is a 4-year smoothed version of the Market Value

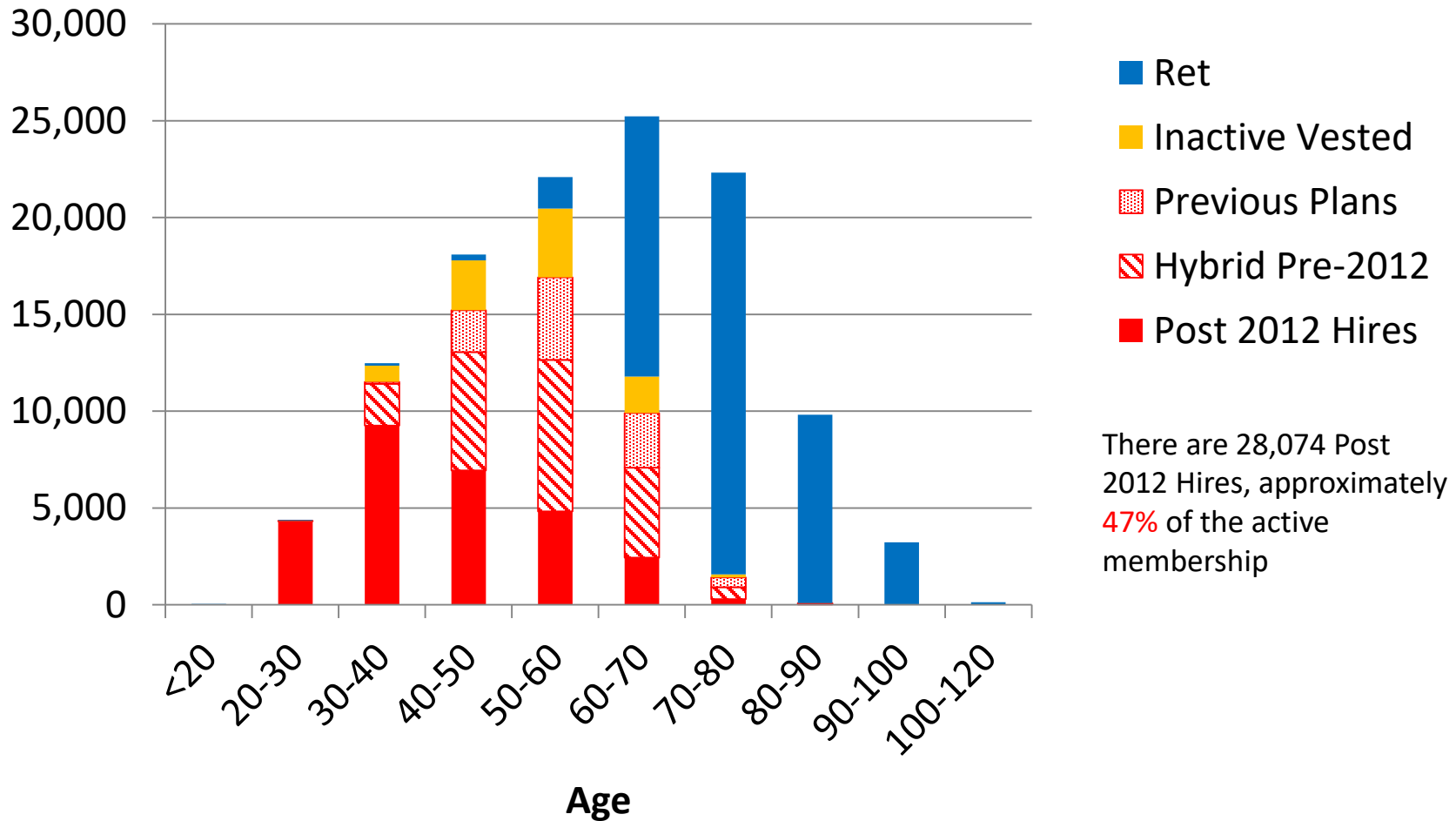
Projection of Funding Period from 2016 Legislative Impact Statement vs Actual Valuation Outcomes



Assumes all assumptions met, including 7.00% return each year on the June 30, 2022 smoothed value of assets

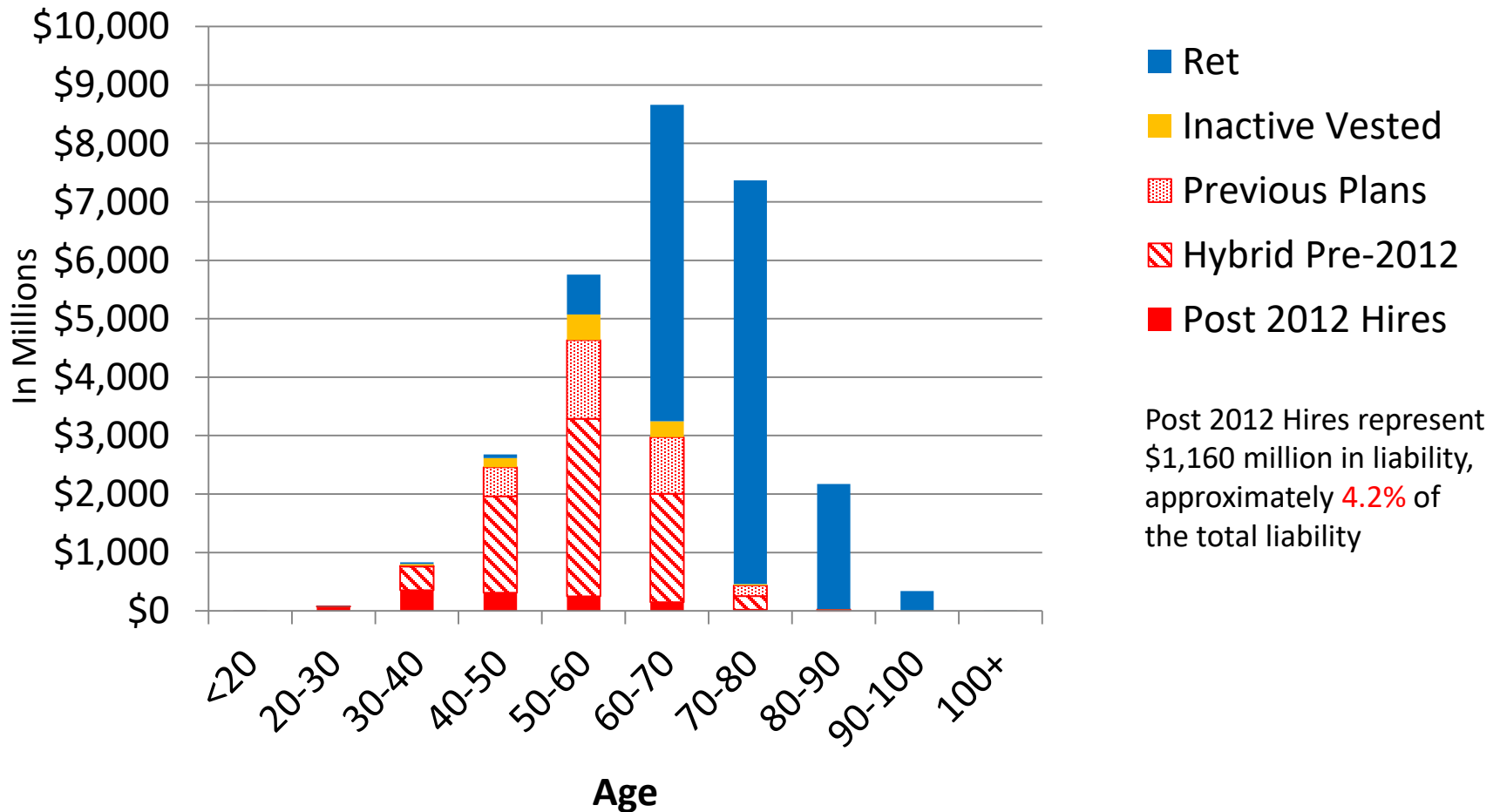
Impact of New Benefit Tiers:

All Other Employees: Counts by group and by age

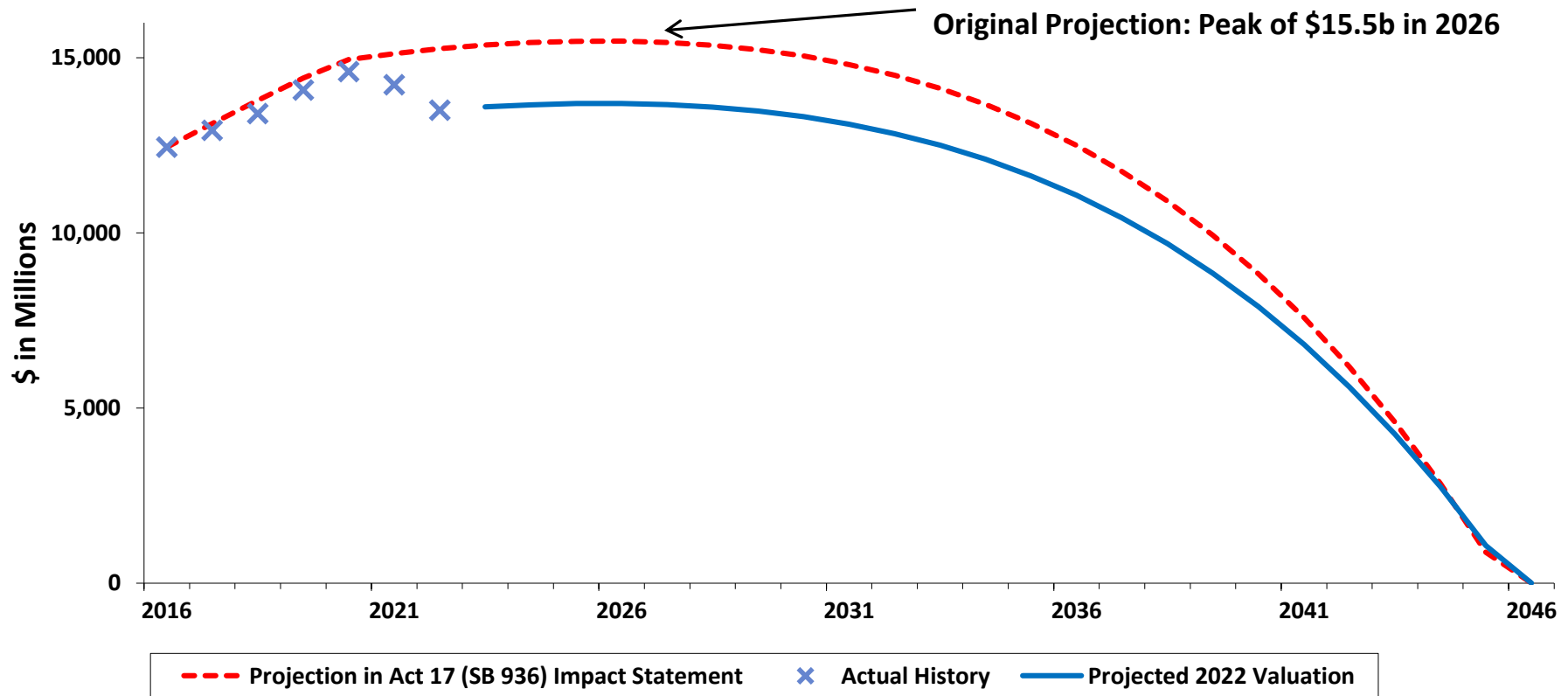


Impact of New Benefit Tiers:

*All Other Employees: **Liability** by group and by age*



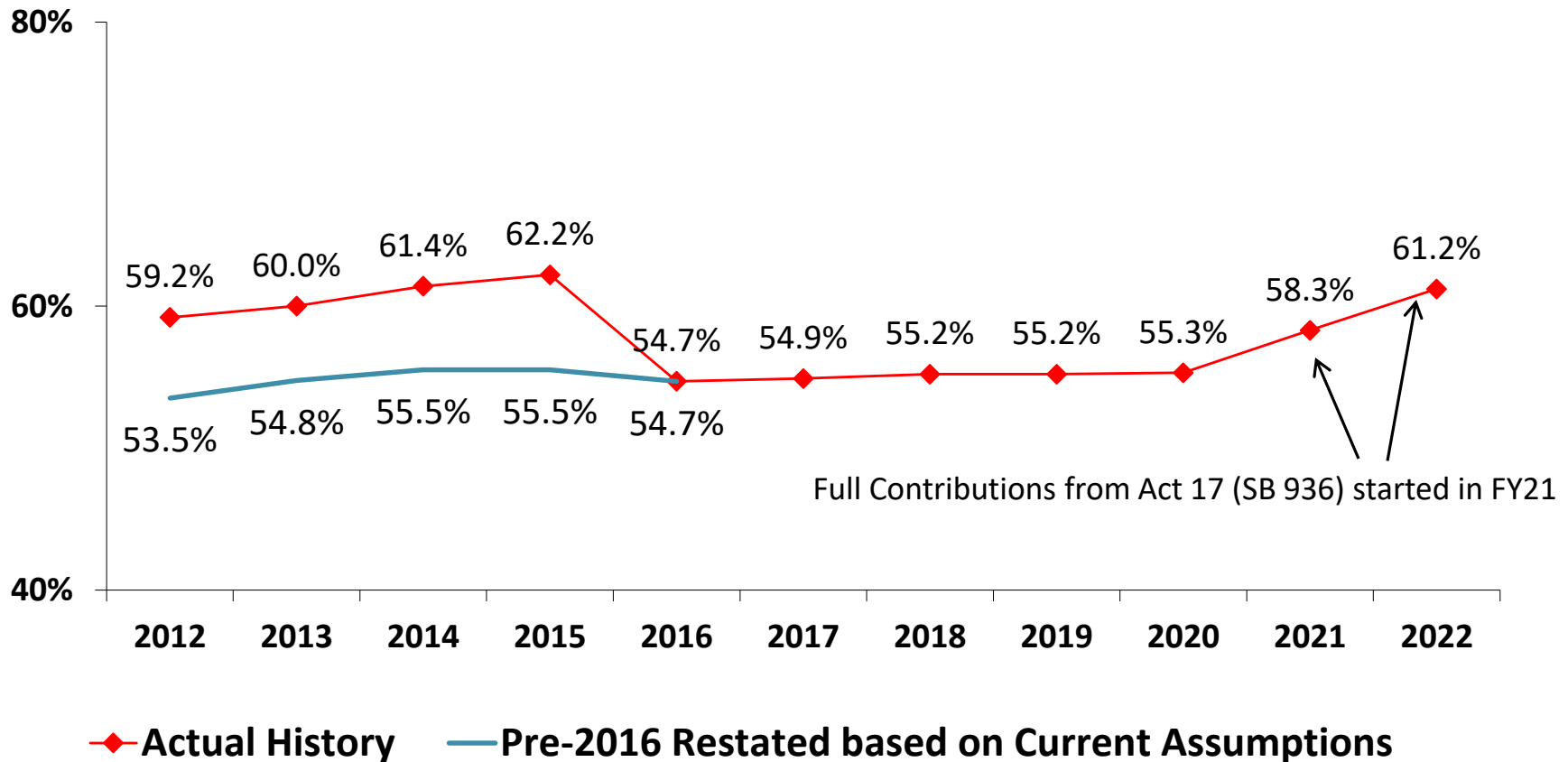
Actual vs Projected UAAL



Assumes all assumptions met, including 7.00% return each year on the June 30, 2022 smoothed value of assets

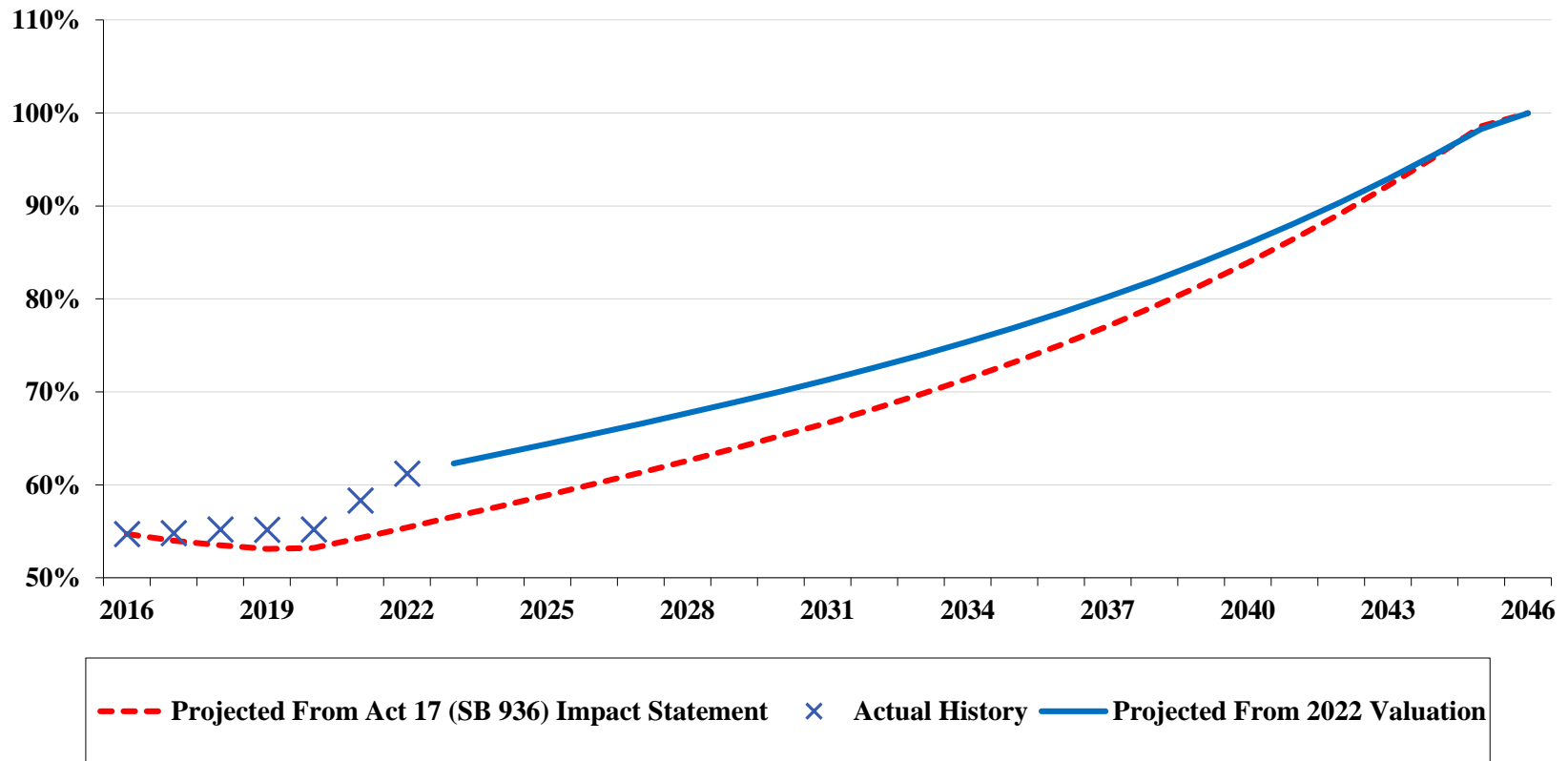
History of Funded Ratio

Funded Ratio is the Ratio of the Assets to the Liabilities



Investment Return Assumption was lowered from 7.5% to 7.0% in 2016

Projection of Funded Ratio Compared to Original Legislative Communications



Assumes all assumptions met, including 7.00% return each year on the June 30, 2022 smoothed value of assets

Probabilities of Future Outcomes

	From 2020 Valuation	From 2021 Valuation	From 2022 Valuation
Fully Funded by 2046 (Date from Act 17 (SB 936))	55.1%	57.0%	54.8%
Fully Funded Within 30 Years from Valuation Date	62.1%	65.9%	64.9%
Funding Period Never Breaches 30 Years	80.9%	84.1%	74.9%

Slight pullback in these scenarios from contraction in headcount and payroll base and lower growth expectations from experience study

All scenarios use a 7% expected median return with a 10% standard deviation, projected off of smoothed assets

Summary and Possible Alternatives for Improvement

- As shown, now that the contribution rates have reached the top of the phase in, the strategy put in place in 2017 is accomplishing the original goals
- It is currently projected that the funded ratio will improve and the UAAL will decline year over year going forward
- However, there have been changes in industry best practices and the 30 year maximum amortization period in Statute is no longer encouraged
- A process of lowering this maximum over time would be seen very favorably by bond raters and would satisfy all of the new Actuarial Standards of Practice
- We look forward to working with the ERS Board to developing a strategy for strengthening this policy

Valuation Summary

- The disciplined commitment to follow the contribution schedule from Act 17 (SB 936) continues the process of strengthening the financial outlook for ERS.
- The scheduled employer contribution rates are expected to be adequate to satisfy Hawaii Revised Statutes §88-122(e)(1). The Statutory Stress Test shows this is true even with substantial adverse experience.
- However, all of the positive outlook assumes the scheduled contribution rates occur and investment income objectives are achieved. It is imperative that the currently scheduled funding strategies are sustained.