Cavanaugh Macdonald
CONSULTING, LLC
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Assumption and Method Recommendations for the Washtenaw County Employees' Retirement System and Voluntary Employees Beneficiary Association

November 20, 2020

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Purpose of the Actuarial Valuation

- An actuarial valuation is performed on WCERS and VEBA annually as of the end of the fiscal year. The primary purposes of performing the valuation are:
  - to estimate the liabilities for the future benefits expected to be provided by WCERS and VEBA;
  - to determine the actuarial contribution rate, based on WCERS' and the VEBA's funding policy;
  - to measure and disclose various asset and liability measures;
  - to monitor any deviation between actual WCERS and VEBA experience and experience predicted by the actuarial assumptions so that recommendations for assumption changes can be made when appropriate;
  - to analyze and report on any significant trends in contributions, assets and liabilities over the past several years.

Assumptions

- Demographic (future events that relate to people)
  - Retirement
  - Termination
  - Disability
  - Death
  - In addition, the following VEBA specific assumptions are used:
    - Participation %: 95% of future eligible retirees will elect coverage.
    - Spouse Participation %: 70% of future male retirees will cover a spouse and 50% of future female retirees will cover a spouse.
- Economic (future events that relate to money)
  - Interest rate per year – 7.50% VEBA/7.25% WCERS
  - Inflation - 3.00%
  - Salary rate (net of inflation) vary with age
  - Medical Trend

The assumptions are based on an experience analysis of the Fund over the period ending December 31, 2012 and effective with the December 31, 2013 valuation. The assumptions and methods will next be reviewed in time for implementation with the December 31, 2020 actuarial valuation.

Funding Methodology

- The Funding Policy of the System is to achieve a funded ratio of 100%.
- The following actuarial elements are used:
  - Actuarial Cost Method - Determines how costs are allocated
    - Entry Age Normal.
  - Asset Smoothing Method - Used to lower contribution volatility
    - 5-year smoothing
  - Amortization Method - Determines how the unfunded liability is paid off
    - WCERS
      - Closed 20 year with 4% increases for General
      - Closed 3-year level dollar for Sheriffs
    - VEBA
      - Closed 19 year with 4% increases
- Rates for WCERS and the VEBA are developed in such a way that the employer is charged the same for WCERS/VEBA members and DC/HRA members

The following reading discusses elements of reasonable funding policies, in particular policies for closed plans: https://www.ccactuaries.org/Portals/0/pdf/CCA_PPC_White_Paper_on_Public_Pension_Funding_Policy.pdf

Purpose of the Experience Study

- From GFOA Best Practice **Enhancing Reliability of Actuarial Valuations for Pension Plans:**
  - **Actuarial Experience Study.** While an actuarial gain/loss analysis helps provide a better understanding of a plan's assumed and actual experience during the year, this timeframe is not long enough to identify trends. An actuarial experience study reviews the differences between a plan's assumed and actual experience over multiple years (typically 3 to 5), with the goal of examining the trends related to actual experience and recommending changes to assumptions, if needed.
- The assumptions and funding methodology WCERS and VEBA are reviewed around every five years and documented in the Experience Study.
  - The last experience study was reviewed and adopted in January 2013 and first used in the December 31, 2012 valuations.
  - The results of this experience study will be used for the December 31, 2020 through December 31, 2024 actuarial valuations.

Experience Study Process

- Based on the period from January 1, 2013 – December 31, 2019
  - Typically we would compare Experience (“Actual”) with Assumptions (“Expected”)
  - Given closed nature of funds and the relatively lower impact from the change of assumptions compared to an open fund we are not doing this comparison
  - Consider trends observed during the previous Experience Study in available gain/loss analysis
- Make Judgments About Future Trends:
  - Plan-Specific Experience vs. National Trends
  - Long-Term vs. Short-Term Factors
- Recommend changes in assumptions and funding methodology as needed based on Actuarial Standards of Practice
  - ASOP 4 - Measuring Pension Obligations and Determining Pension Plan Costs or Contributions
  - ASOP 27 - Selection of Economic Assumptions for Measuring Pension Obligations
  - ASOP 35 – Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations
  - ASOP 44 - Selection and Use of Asset Valuation Methods for Pension Valuations
- Implement effective with the December 31, 2020 Actuarial Valuation, which determines contribution rates effective January 1, 2022
- Next Experience Review is scheduled to be implemented effective with the December 31, 2025 Actuarial Valuation

Recommendations
Economic Assumptions

- Reduce inflation from the current 3.00% to 2.50%. This will also prompt a reduction in the following:
  - Reduce investment return from 7.50%/7.25% to 7.00%/6.75% for VEBA/WCERS*
  - Reduce individual salary increases by 0.50% at all ages
  - VEBA trend was updated so that the ultimate rate was reduced from 5.00% to 4.50%, based on the reduction in inflation

*Based on the 20-year expectations from Graystone Consulting's Wealth Strategies Analysis dated October 2020 for WCERS and VEBA, the 20-year returns range from 6.1% to 7.0%. A lower assumption should be considered for both plans. While actuaries do tend to think long term, the closed plan tends to shorten our time horizon a little.

Recommendations
Demographic Assumptions

- Demographic assumptions recommendations:
  - Mortality should be updated to the latest (PUB10) mortality tables with a recent (MP2019) mortality projection
  - Update % electing under the VEBA
- After a review, we are not making recommendations on the other assumptions:
  - The closing of the plans puts more emphasis on the economic and mortality assumptions, which we are updating
  - Generally no trends of gains or losses on the macro level

Recommendations
Funding Methodology

- WCERS and VEBA
  - Continue use of “DB/DC” contribution split
  - Reduce UAAL payment increase from 4.00% to 3.50%
  - Continued use of returns net of investment and administrative expenses, although consideration could be given to explicitly paying administrative expenses as part of the contribution
  - Implement 15-year layered amortization of experience gains or losses beginning in FY 2026 for WCERS and FY 2025 for VEBA
- WCERS
  - Reset actuarial value to market as12/31/2019 to mitigate some of the decrease in contribution that
  - Consider not allowing contribution to decrease after Sheriff’s UAAL is paid off
- VEBA
  - Implement explicit contribution timing like WCERS

Impact of Proposed Changes VEBA

Actuarial Valuation as of December 31, 2019	Current Assumptions	Proposed Assumptions (7.00% return)	Change from Current Assumptions	Proposed Assumptions (6.75% return)	Change from Current Assumptions
Projected Annual Payroll of Retiree Health VEBA Participants [1]	$ 51,822,058	$ 51,572,914		$ 51,572,914	
Actuarial Accrued Liabilities					
a. Active Members	$ 55,250,686	$ 58,280,498		$ 60,341,600	
b. Inactive Members with Deferred benefits	303,292	316,752		330,153	
c. Retired Members and Beneficiaries Receiving Benefits	141,228,636	142,442,803		145,545,713	
d. Total (a. + b. + c.)	$ 196,782,614	$ 201,040,053		$ 206,217,466	
Assets					
a. Actuarial Value of Assets	$ 141,932,023	$ 141,932,023		$ 141,932,023	
b. Funded Ratio based on Actuarial Value of Assets	72.13%	70.60%		68.83%	
Unfunded Actuarial Accrued Liability (UAAL)	$ 54,850,591	$ 59,108,030	$ 4,257,439	$ 64,285,443	$ 9,434,852

The change in mortality resulted in a slight decrease in liability. The reduction in the assumed rate of return and related economic assumptions was the primary driver of the decrease in funded ratio.

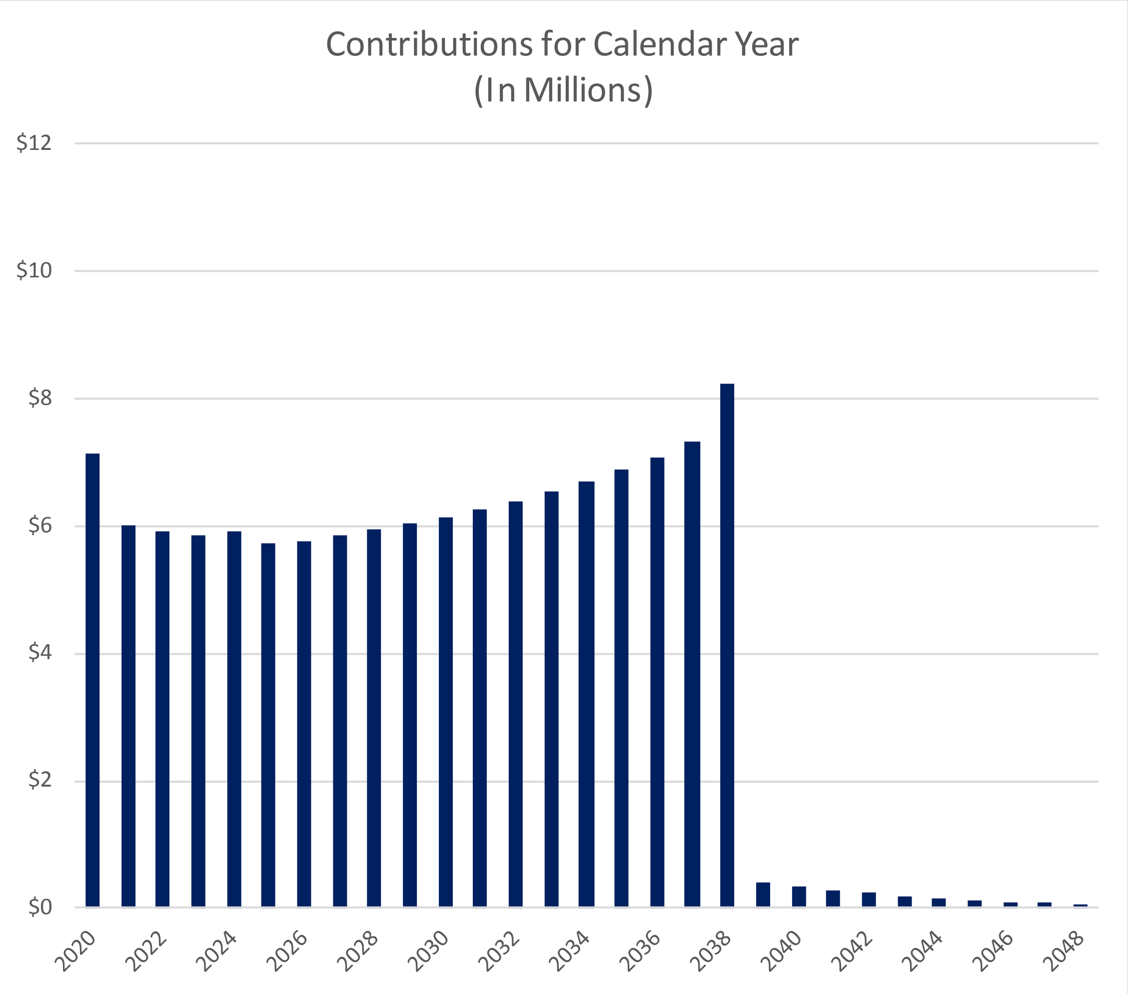
Note that while we show a 7.00% return, we strongly encourage the adoption of the 6.75% return scenarios to be consistent with projected returns over the next two decades.

Impact of Proposed Changes VEBA

Fiscal Year Ending December 31, 2021	Current Assumptions	Proposed Assumptions (7.00% return)	Change from Current Assumptions	Proposed Assumptions (6.75% return)	Change from Current Assumptions
Employer Normal Cost					
a. Amount (including interest)	$ 2,135,257	$ 2,153,729	$ 18,471	$ 2,283,183	$ 147,925
b. As a % of Pay	4.12%	4.18%	0.06%	4.43%	0.31%
Amortization Payment for UAAL					
a. Amount (including interest)	$ 3,966,380	$ 4,202,446	$ 236,066	$ 4,510,389	$ 544,009
b. Funding Period (years)	19	19		19	
Total Employer Funding Contributions	$ 6,101,637	$ 6,356,175	$ 254,537	$ 6,793,572	$ 691,934
Projected Payroll					
a. Retiree Health VEBA Plan Participants	$ 51,822,058	$ 51,572,914		$ 51,572,914	
b. Retiree HRA participants	24,851,543	24,851,543		24,851,543	
c. All Participants	$ 76,673,601	$ 76,424,457		$ 76,424,457	
Employer Chargeback Rate for:					
a. Retiree VEBA Participants	9.88%	10.42%	0.54%	11.27%	1.39%
b. Retiree HRA Participants	3.96%	3.96%	0.00%	3.96%	0.00%
Employer Contribution Dollar					
a. Retiree Health VEBA Plan Participants	$ 5,118,328	$ 5,372,865	$ 254,537	$ 5,810,262	$ 691,934
b. Retiree HRA Participants	983,310	983,310	0	983,310	0
c. All Participants	$ 6,101,637	$ 6,356,175	$ 254,538	$ 6,793,572	$ 691,935

Generally the reduction in assumed return results in an increased need for contributions. Remember “Contributions + Investment Returns = Benefits plus Expenses”? All else being equal, if returns are lower the VEBA and WCERS will need more contributions.

VEBA Projections
Employer Contributions



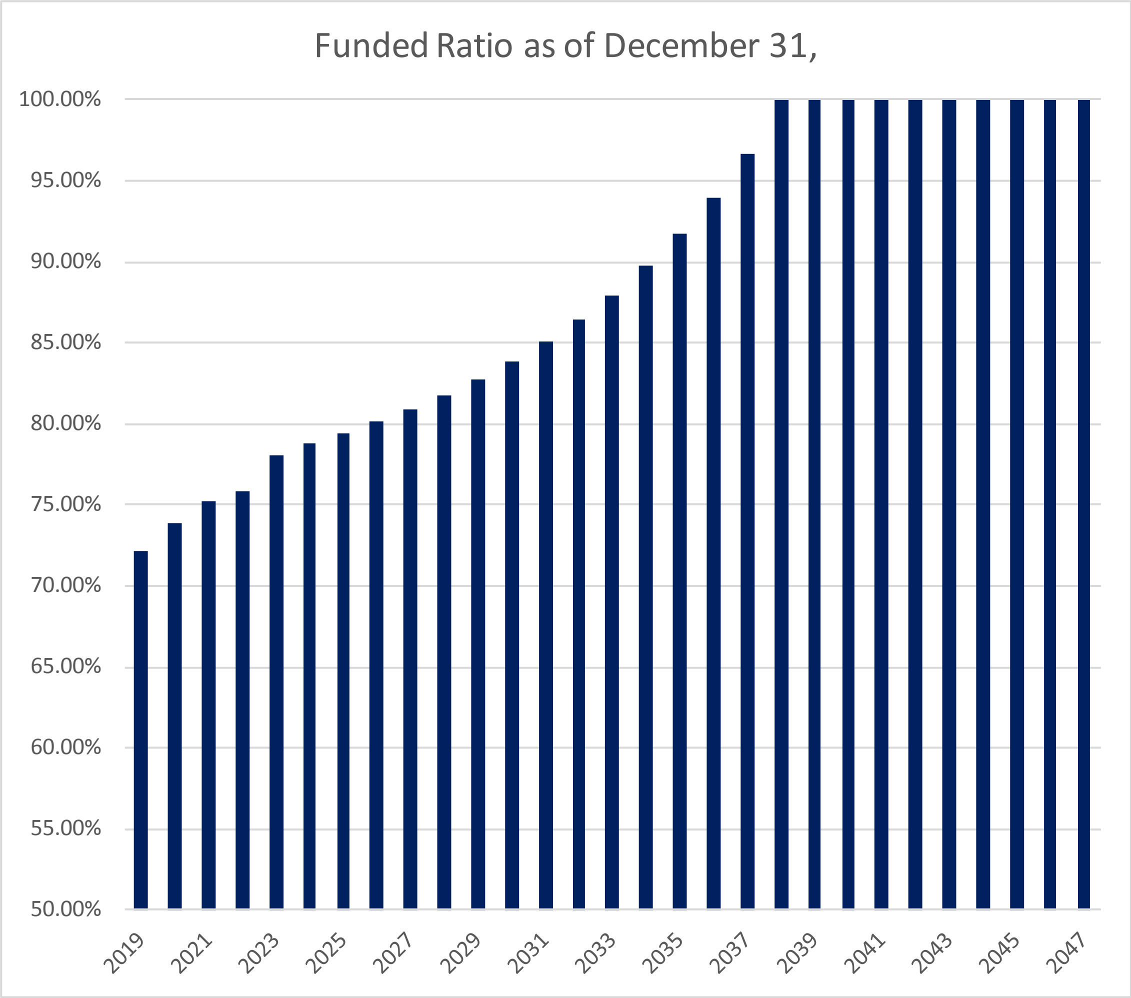
Projected employer contributions are to the left.

The decrease in contributions through 2024 is a result of reflecting the returns during 2019 over 5 years.

The increases after 2026 are a direct result of using a 4% increase to develop the UAAL payment.

Beginning in 2039, the payment is only for the cost of benefits accruing for the last remaining active participants of VEBA.

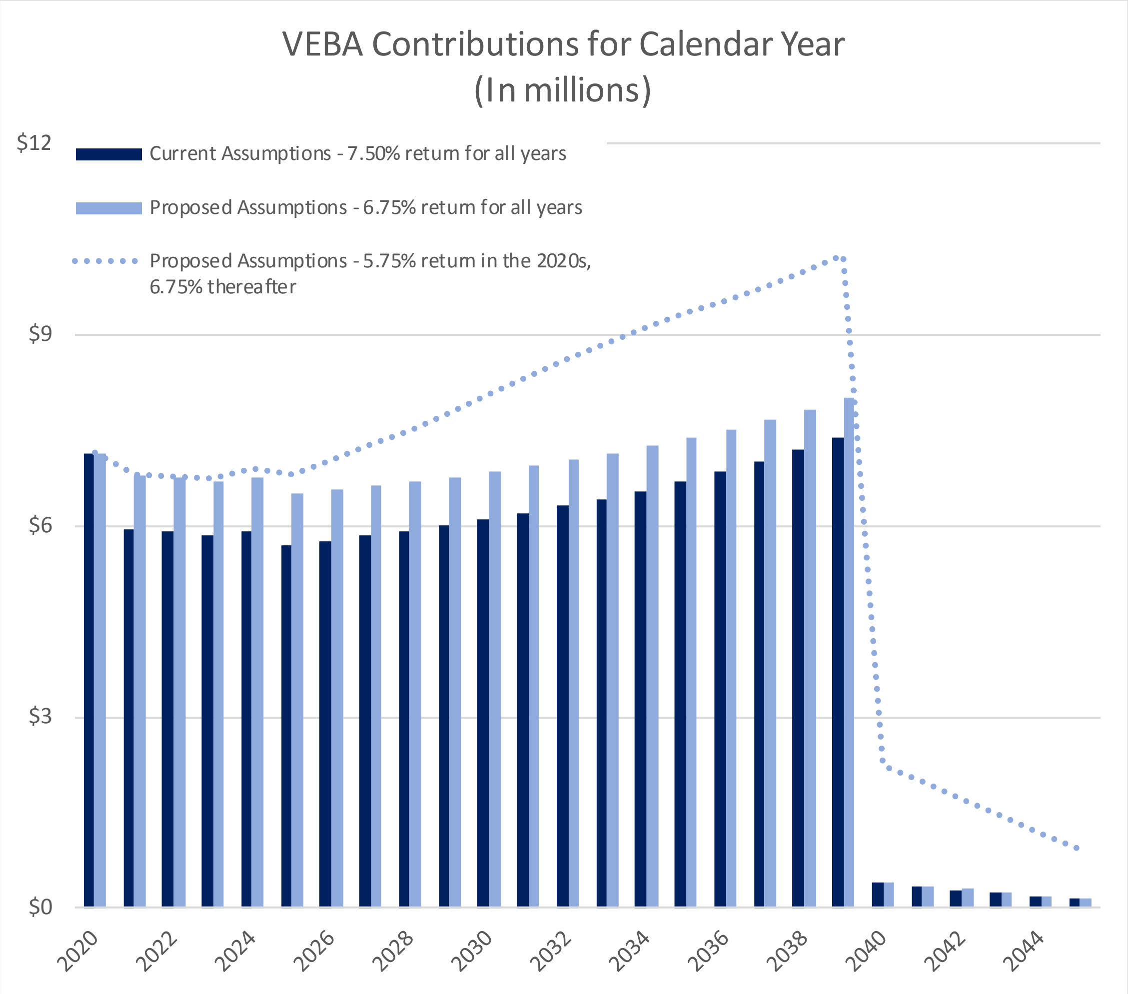
VEBA Projections
Funded Ratio



The funded ratio shown here is a direct result of the funding policy. This is a reasonable policy, for a VEBA.

Some may say full funding should occur a few years earlier due to the VEBA closing on January 1, 2014. But the funding of public VEBAs is not common.

VEBA Projections
Employer Contributions



We have added projected Employer contributions based on the proposed 6.75% assumption package, with one projection based on all assumptions being met and another based upon 5.75% actual returns during the 2020s.

Impact of Proposed Changes
WCERS

Actuarial Valuation as of December 31, 2019	Current Assumptions	Proposed Assumptions (7.00% return)	Change from Current Assumptions	Proposed Assumptions (6.75% return)	Change from Current Assumptions
Summary of Member Data					
Number of Members Included in the Valuation:					
Active Members	553	553		553	
Retirees and Beneficiaries	978	978		978	
Inactive Members	118	118		118	
Total	1,649	1,649		1,649	
Annual Payroll					
Average	$ 69,889	$ 69,889		$ 69,889	
Annual Benefit Payments					
Retirees and Beneficiaries (Average) [1]	$ 25,372	$ 25,372		$ 25,372	
Investment Returns					
Fair Value Rate of Return (net of expenses)	18.52%	18.52%		18.52%	
Actuarial Value Rate of Return	6.49%	6.49%		6.49%	
Summary of Assets and Liabilities					
Total Actuarial Accrued Liability	$ 375,575,246	$ 384,788,174	$ 9,212,928	$ 394,531,656	$ 18,956,410
Actuarial Value of Assets	278,065,396	288,375,162	10,309,766	288,375,162	10,309,766
Unfunded Actuarial Accrued Liability	$ 97,509,850	$ 96,413,012	$ (1,096,838)	$ 116,466,260	$ 18,956,410
Funded Ratio	74.04%	74.94%	0.90%	73.09%	-0.95%

The change in mortality resulted in a slight decrease in liability. The reduction in the assumed rate of return and related economic assumptions was the primary driver of the decrease in funded ratio. Note that reduction in the assumed rate of return was partially offset by the reduction in salary increases for active members.

Note that while we show a 7.00% return, we strongly encourage the adoption of the 6.75% return scenarios to be consistent with projected returns over the next two decades.

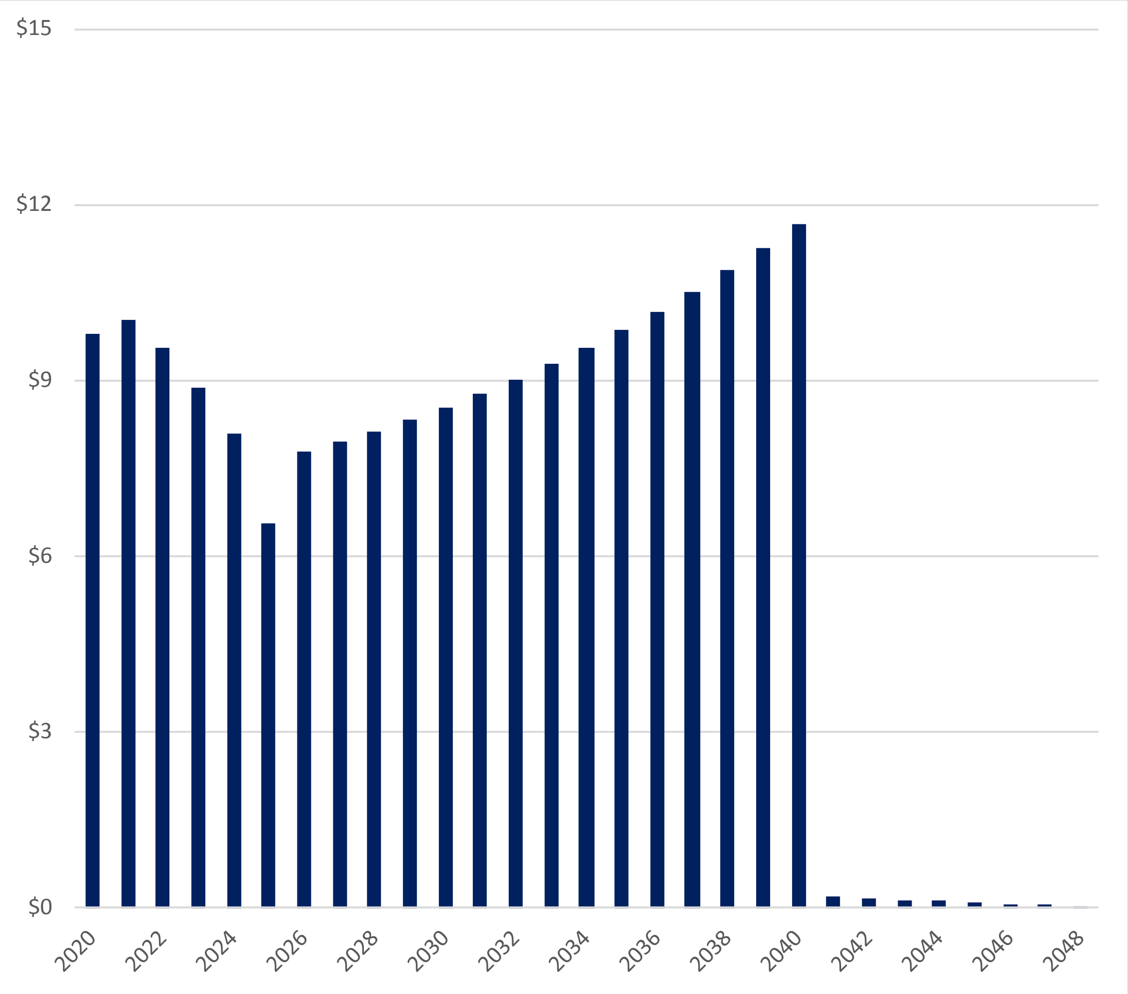
Impact of Proposed Changes
WCERS

Fiscal Year Ending December 31, 2021	Current Assumptions	Proposed Assumptions (7.00% return)	Change from Current Assumptions	Proposed Assumptions (6.75% return)	Change from Current Assumptions
Employer Contributions in Dollars					
Total Normal Cost	$ 4,525,856	$ 4,513,867	$ (11,989)	4,764,723	$ 238,867
Expected Employee Contributions	(2,779,987)	(2,782,065)	$ (2,078)	(2,782,065)	$ (2,078)
Amortization of UAAL					
General	6,175,348	6,236,656	61,308	6,719,894	544,546
Sheriffs	2,130,339	1,930,584	(199,755)	2,377,051	246,712
Total	8,305,687	8,167,240	$ (138,447)	9,096,945	$ 791,258
Total Contribution Dollar	10,051,556	9,899,042	(152,514)	11,079,603	1,028,047
Employer Contribution Rates					
Projected 2021 Payroll					
DB Members	$ 34,749,837	$ 34,775,814	$ 25,977	$ 34,775,814	$ 25,977
DC Members	28,677,854	28,043,461	(634,393)	28,043,461	(634,393)
All members	63,427,691	62,819,275	(608,416)	62,819,275	(608,416)
Employer Rate for active members in DB Plan	15.88%	16.03%	0.15%	17.20%	1.32%
Employer Rate for members in DC Plan	8.38%	8.53%	0.15%	9.70%	1.32%

[1]Beginning with the December 31, 2015 valuation, the rate is based on the combined payroll of the defined benefit and defined contribution participants

Note that there is currently a reduction in contribution if the December 31, 2019 Valuation were recast based on the proposed assumption packages. This is primarily due to amortizing all UAAL over 20 years to provide for more contribution stability. Given the results of the next couple of slides, we would recommend the contributions be based on the current assumptions, and that these assumptions be implemented for the December 31, 2020 valuation.

WCERS Projections
Employer Contributions



Projected employer contributions are to the left.

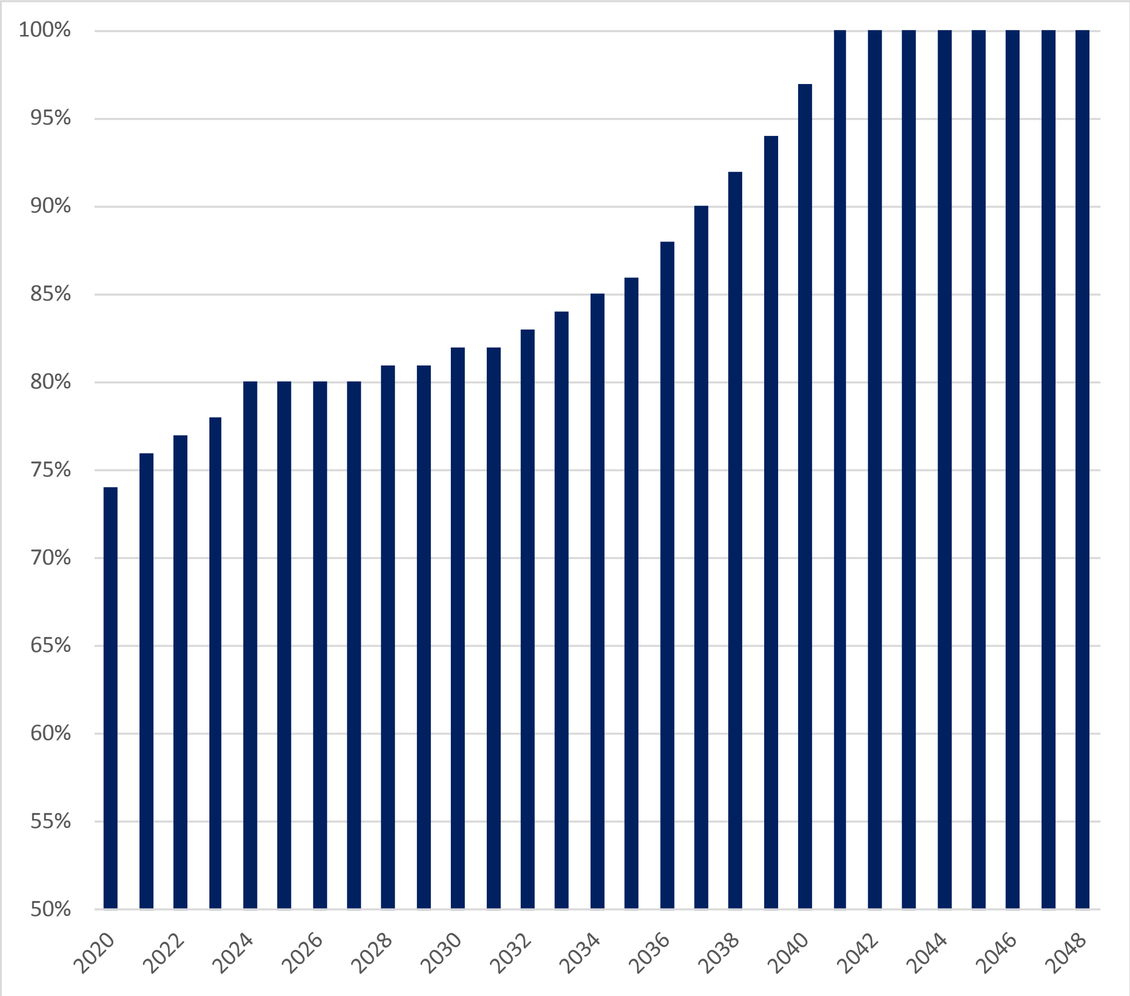
The decrease in contributions through 2024 is a result of reflecting the returns during 2019 over 5 years.

The decrease in 2025 is due paying the final payment for Sheriffs.

The increases after 2026 are a direct result of using a 4% increase to develop the UAAL payment.

Beginning in 2041, the payment is only for the cost of benefits accruing for the last remaining active participants of WCERS.

WCERS Projections
Funded Ratio



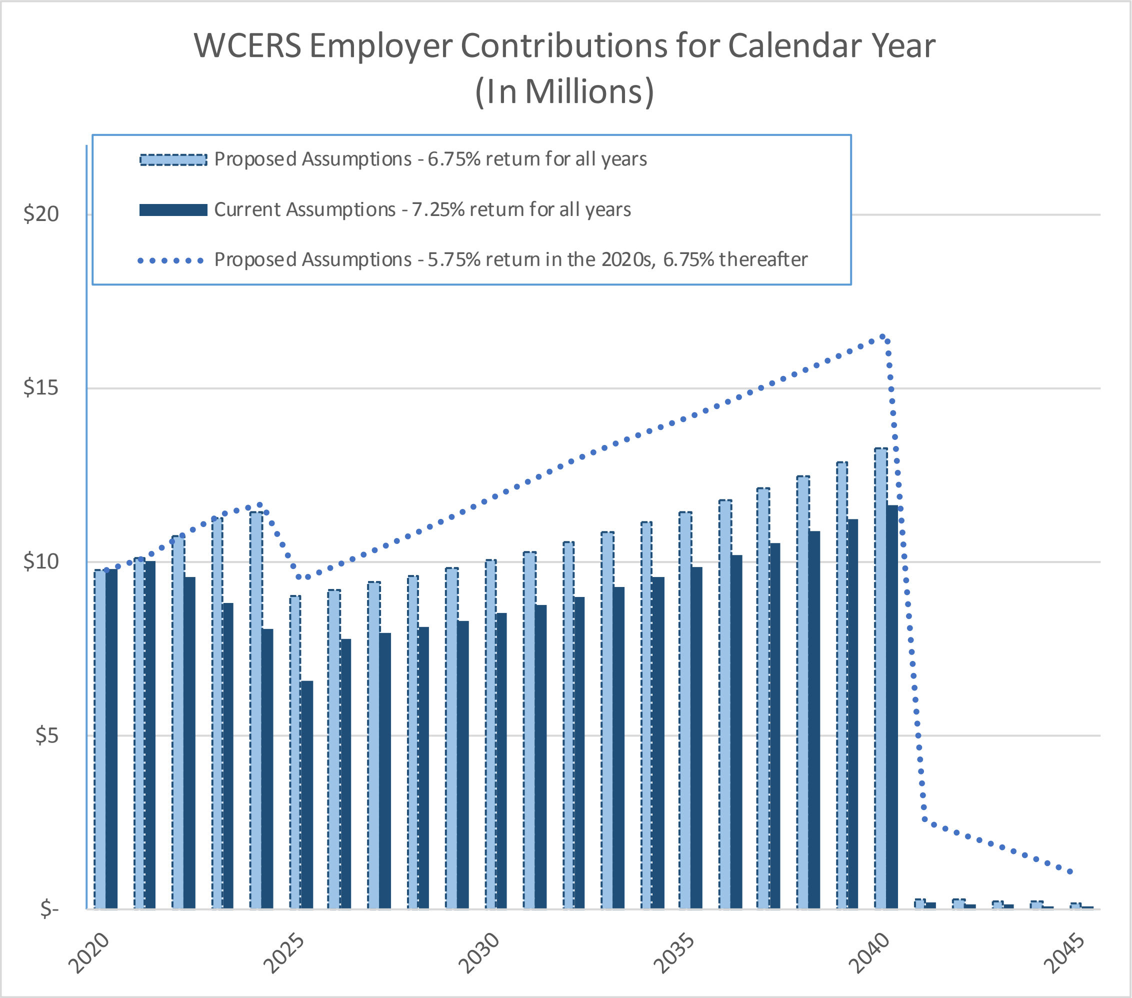
The funded ratio shown here is a direct result of the funding policy.

The 21-year period for funding a closed plan like WCERS is on the higher end of practice.

The funded ratio grows only 10% from 2025 to 2035, which is a result of the 4% UAAL payment increase.

We will review ways to improve the curve with the Board later this year when we discuss the experience review.

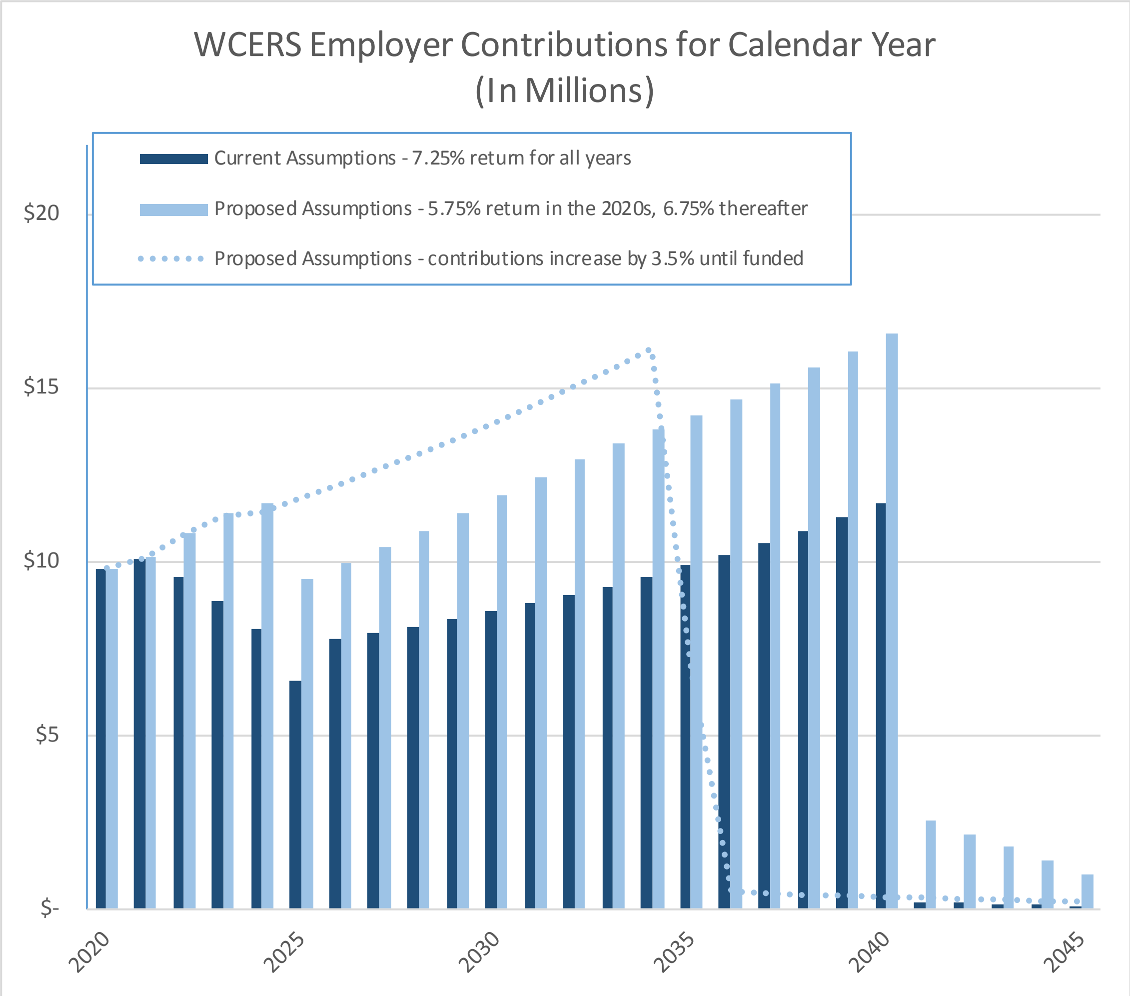
Alternative Projections Employer Contributions



We have added projected Employer contributions based on the proposed 6.75% assumption package, with one projection based on all assumptions being met and another based upon 5.75% actual returns during the 2020s.

Resetting the AVA to Market takes some of the “dip” out of the projections when the Sheriff’s contribution ends.

Alternative Projections Employer Contributions



Instead of letting the contribution dip we increase the previous years contribution by 3.5%. This results in 100% funding occurring 5 years earlier, a bit more in line for funding of a closed public plan.

Certification

Future actuarial measurements may differ significantly from current measurements due to Fund experience differing 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 Fund provisions or applicable law. Because of limited scope, Cavanaugh Macdonald performed no analysis of the potential range of such future differences, except for some limited analysis in financial projections or required disclosure information. Results prior to December 31, 2018 were provided by the prior consulting actuary.

We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

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