

## REGIONAL TRANSIT AUTHORITY EXECUTIVE COMMITTEE AGENDA

**\*\*\* VIA TELECONFERENCE \*\*\***

**Call: +1 (805) 788-9200**

**Input the 4-digit Meeting Number followed by #: 5145#**

**Enter Attendee Access Code followed by #: 124578#**

**Wednesday August 12, 2020**

**10:00 a.m. – 11:00 a.m.**

This agenda is available/posted at: <http://www.slorta.org/board/rta-board-meetings>

Individuals wishing accessibility accommodations at this meeting under the Americans with Disabilities Act (ADA) may request such accommodations to aid hearing, visual, or mobility impairment (including Limited English Proficiency) by contacting the RTA offices at 781-4833. Please note that 48 hours advance notice will be necessary to honor a request.

### **Important Notice Regarding COVID-19**

Due to the Coronavirus (COVID-19) and in accordance with the Governor's Executive Order N-29-20 relating to the convening of public meetings, **the RTA Executive Committee will still hold the August 12, 2020 meeting and will be conducted via teleconference. However, at this time, the meeting will be closed to members of the public and non-essential RTA staff. Below are instructions for the public on how to leave public comments.**

**Members of the public are encouraged to participate & provide comments in the following ways:**

**Public Comments** – The RTA Executive Committee will still be accepting general public comments for items not on the August 12, 2020 agenda, as well as public comments on specific items in the agenda. Public members can submit comments by:

- **Phone – Verbal Public Comments** – Call: [\(805\) 781-4833](tel:8057814833) – State and spell your name, state the agenda item number you are calling about and leave your comment/s. **Verbal comments must be received no later than 8:00 a.m. on August 12, 2020** (the day of the meeting) and will be limited to **three (3) minutes**. Every effort will be made to include your comments into the record but due to time limitations, some comments may not be included,
- **Email – Written Public Comments** – Email to: [info@slorta.org](mailto:info@slorta.org) – Public comments (on any agenda item or on any item of interest not on the agenda within the jurisdiction of the RTA Board) can be submitted via email no later than **5:00 p.m. on Tuesday, August 11, 2020.**

The Regional Transit Authority is a Joint Powers Agency serving the residents and visitors of:

**Arroyo Grande Atascadero Grover Beach Morro Bay Paso Robles Pismo Beach San Luis Obispo County of San Luis Obispo**

- **Mail – Written Public Comments** – Public comments (on any agenda item or on any item of interest not on the agenda within the jurisdiction of the RTA Board) can be submitted by mail. **Public Comments by mail must be received by RTA no later than 5:00 p.m. on Tuesday, August 11, 2020.**

**Mail to:**  
**Clerk of the Board, RTA**  
**179 Cross Street**  
**San Luis Obispo, CA 93401**

**\*\*\*Note:** Every effort will be made to include your comments into the record, but due to time limitations, some comments may not be included

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1. **Call Meeting to Order, Roll Call**
2. **Public Comment:** The San Luis Obispo Regional Transit Authority Executive Committee reserves this portion of the agenda for members of the public to address any items not on the agenda and within the jurisdiction of the Committee. Comments are limited to three minutes per speaker. The Committee will listen to all communication, but in compliance with the Brown Act, will not take any action on items that are not on the agenda.
3. **Information Items**
  - A-1 Executive Director's Report (Verbal; Receive)
  - A-2 Update on RTA Response to COVID-19 Pandemic (Verbal; Receive)
  - A-3 Update on TIFIA Loan Agreement (Verbal, Receive)
  - A-4 Update Bus Maintenance Facility Construction (Verbal; Receive)
4. **Action Items**
  - B-1 Authorize New SLOCPT Rates for January 2021 Implementation (Approve)
5. **Consent Items**
  - C-1 Executive Committee Meeting Minutes of June 3, 2020 (Approve)
6. **September 2, 2020 Draft RTA Board Agenda:** The Executive Committee is asked to review and comment on the proposed agenda items.

Information Items

- A-1 Executive Director's Report (Receive)
- A-2 Strategic Business Plan Results (if available; possibly November)

Action Items

- B-1 Authorize New SLOCPT Rates for January 2021 Implementation (Approve)
- B-2 Approve TIFIA Loan Agreement for Construction of 253 Elks Lane (Approve)

Consent Items

- C-1 Executive Committee Meeting Minutes of June 3, 2020 (Information)
- C-2 RTA Board Meeting Minutes of July 8, 2020 (Approve)
- C-3 Amendment to Agreement with Kitchell (Approve)
- C-4 Agreement with CPS HR Consulting for Diversity & Inclusion Review (Approve)

Closed Session Item: Significant exposure to litigation pursuant to subdivision (d) of section 54956.9.

7. **Closed Session:** CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION (Government Code section 54956.9.) It is the intention of the Executive Committee to meet in closed session concerning the following item: (1) Number of potential cases: One.
8. **Adjournment**

Next RTA Executive Committee Meeting: **October 14, 2020**

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1000 Mill Street  
San Luis Obispo, CA 93408  
(805) 781-5465 Phone  
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www.SLOPensionTrust.org



## 2020 Annual Actuarial Valuation

Included in this package are the following documents:

- 2020 Actuarial Valuation recommendation memo to Board of Trustees
  - Adopted as of June 22, 2020
- Presentation by Plan Actuary to the Board of Trustees – June 22, 2020
- 2020 Actuarial Valuation and Supplementary Exhibits – Gabriel Roeder Smith, Plan Actuary
- Deferred Implementation Date for rate increases –
  - actuarial adjustments to increase
  - contribution rate increases by Class of member (Miscellaneous, Probation, Safety)
- Pension Contribution Rate Increase History – 2014-2020
- Funding Projections
  - Baseline projection at 6.875% Earnings Assumption / Discount Rate with forecasted investment return of 6.875%, Inflation rate of 2.25% and other recommended actuarial assumption updates (e.g., updated mortality tables).
    - Basis of recommended funding level
  - Illustrative projection at 6.875% Earnings Assumption / Discount Rate with forecasted investment return of 6.750% - For illustration only
  - Illustrative projection at 6.750% Earnings Assumption / Discount Rate with forecasted investment return of 6.750% - For illustration only
  - Illustrative projection at 6.500% Earnings Assumption / Discount Rate with forecasted investment return of 6.500% - For illustration only

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## Board of Trustees

1000 Mill Street  
San Luis Obispo, CA 93408  
Phone: (805) 781-5465  
Fax: (805) 781-5697  
www.SLOPensionTrust.org



Date: June 22, 2020

To: Board of Trustees

From: Carl Nelson – Executive Director  
Amy Burke – Deputy Director

### **Agenda Item 8: January 1, 2020 Actuarial Valuation and Pension Contribution Rates**

Accompanying this memo are –

- **Actuarial Valuation presentation** by Paul Wood, Actuary, of Gabriel Roeder Smith on the results of the 2020 Annual Actuarial Valuation of the Plan.
- **Draft January 1, 2020 Annual Actuarial Valuation** prepared by Gabriel Roeder Smith (GRS) – the Plan Actuary - with additional supplementary tables of data.
- **Deferred Implementation Date** for rate increases and adjusted amounts of pension contribution rate increase as well as allocation of rate increases by class of Member (Miscellaneous, Probation, Safety).
- **Pension Contribution Rate Increase History – 2014-2020**
- **Funding Projections –**
  - **Baseline** 30-year projection of funded status and contribution rates for the Plan
    - Earnings Assumption (discount rate) of 6.875% in 2020
    - Forecast investment returns of 6.875% long term
    - Inflation Assumption of 2.250%
    - Retiree COLAs of 2.500% (Tier1) and 2.000% (Tier 2 & 3)
    - Salary Growth Assumption of 2.750% (+ merit increase scale)
    - Payroll Growth Assumption of 2.750%
    - Mortality Tables updated to Pub 2010 w/ MP2019 projection scale

- Baseline – Variations - Illustrative 30-year projection similar to the Baseline projection, but with Earnings Assumptions (discount rates) and forecast returns as shown below
  - 6.875% Earnings Assumption and forecast returns of 6.750%.
  - 6.750% Earnings Assumption and forecast returns of 6.750%.
  - 6.500% Earnings Assumption and forecast returns of 6.500%.

### **Recommendation:**

It is recommended that the Board take the following actions:

1. Approve the January 1, 2020 Actuarial Valuation.
2. Approve the transfer of \$33,440,791 from the Current Reserve to the Retiree Reserve as recommended by GRS in the Reserves Comment of the Valuation (page A-2).
3. Approve the recommendation of the Plan Actuary to increase the current level of County Appropriation and Employee Contribution rates such that a **Total Contribution Rate of 47.92% effective January 1, 2020 is received - an increase of 3.60% over the current Charged Rate of contributions as of 1/1/20** as recommended by GRS in the Contribution Rate Comment of the Valuation (page A-2).
  - a. This increase is subject to delayed implementation as may be requested by the Plan Sponsor, with adjustments to the rate calculated by GRS to account for the deferred implementation. In addition, this rate increase is the aggregate pension contribution rate increase for all classes of Members. Different contribution rate increases are recommended for Miscellaneous, Probation and Safety classes of Members due to their differing benefit formulas.
  - b. See the attached **Deferred Implementation Date** exhibit to this memo for the applicable pension contribution rate increases.



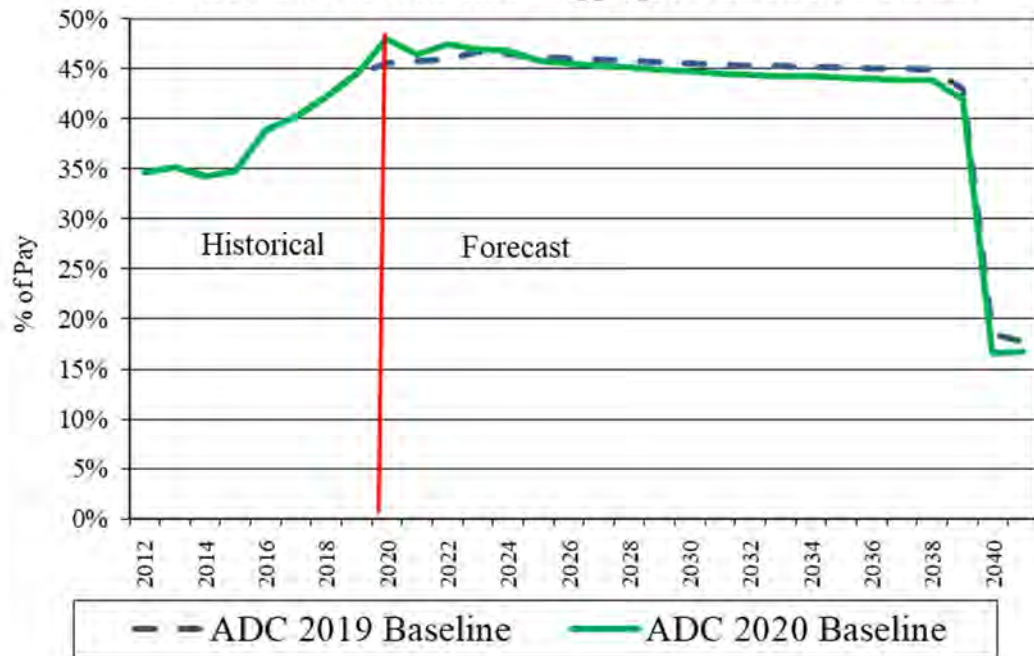
## Discussion – Contribution Rate:

The valuation indicates an increase in the Total Required Contribution Rate (or Actuarially Determined Contributions (ADC) vs. the current Charged Rate of contributions) to 47.92% effective January 1, 2020. This **increase of 3.60%** is attributable to –

1. Normal Cost – Minor change as plan demographics evolved over the valuation year – Contribution impact = -0.25% of pay
2. Investment Earnings less than expected over the five-year period used to in the Valuation – Contribution impact = +0.64% of pay
3. Salary increases slightly lower than assumed rate – Contribution impact = -0.04% of pay
4. Retirement rates – slightly earlier than assumed rate – Contribution impact = +0.10% of pay
5. Mortality Experience increases slightly longer-lived retirees than assumed rate – Contribution impact = +0.44% of pay
6. Retiree COLA – higher than assumed rate (based on CPI data) – Contribution impact = +0.24% of pay
7. Net demographic experience losses - Contribution impact = -0.07% of pay
8. Actual Charged Rate of Pension Contributions at start of 2020 relative to the 2019 ADC rate (natural variation as turnover among Plan members takes place) - Contribution impact = +0.20% of pay
9. Changes in Actuarial Assumptions –
  - a. Discount Rate / Earnings Assumption – decrease from 7.000% to 6.875% - Contribution impact = +1.42% of pay
  - b. Retirement Rates – adjust assumptions to match experience - Contribution impact = +0.61% of pay
  - c. Termination/ Withdrawal Rates – adjust assumptions to match experience - Contribution impact = -0.13% of pay
  - d. Mortality – Update to Updated mortality tables - Contribution impact = +0.44% of pay

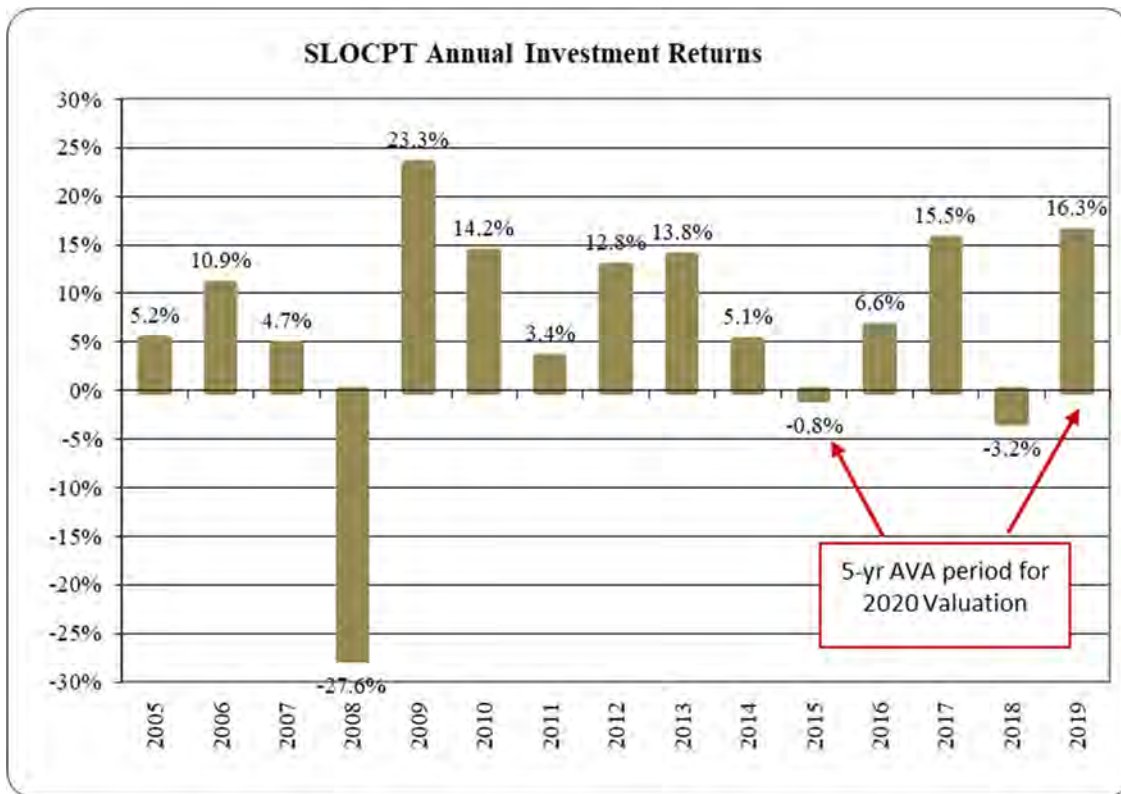
By way of illustration, the following graph shows the ADC forecast from the Baseline forecasts for the 2019 Actuarial Valuation and the 2020 Actuarial Valuation.

# **SLO Retirement Plan - Contribution Rates - 2020 vs. 2019 Baseline - Aggregate - all member classes**



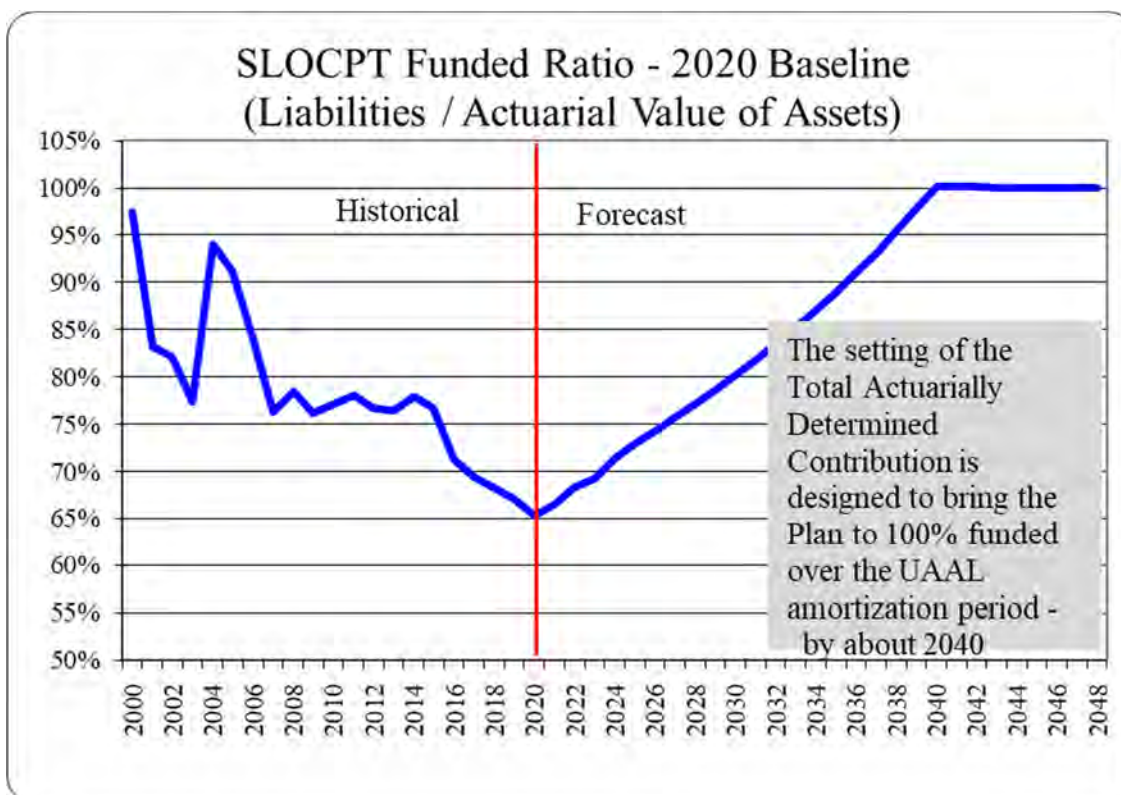
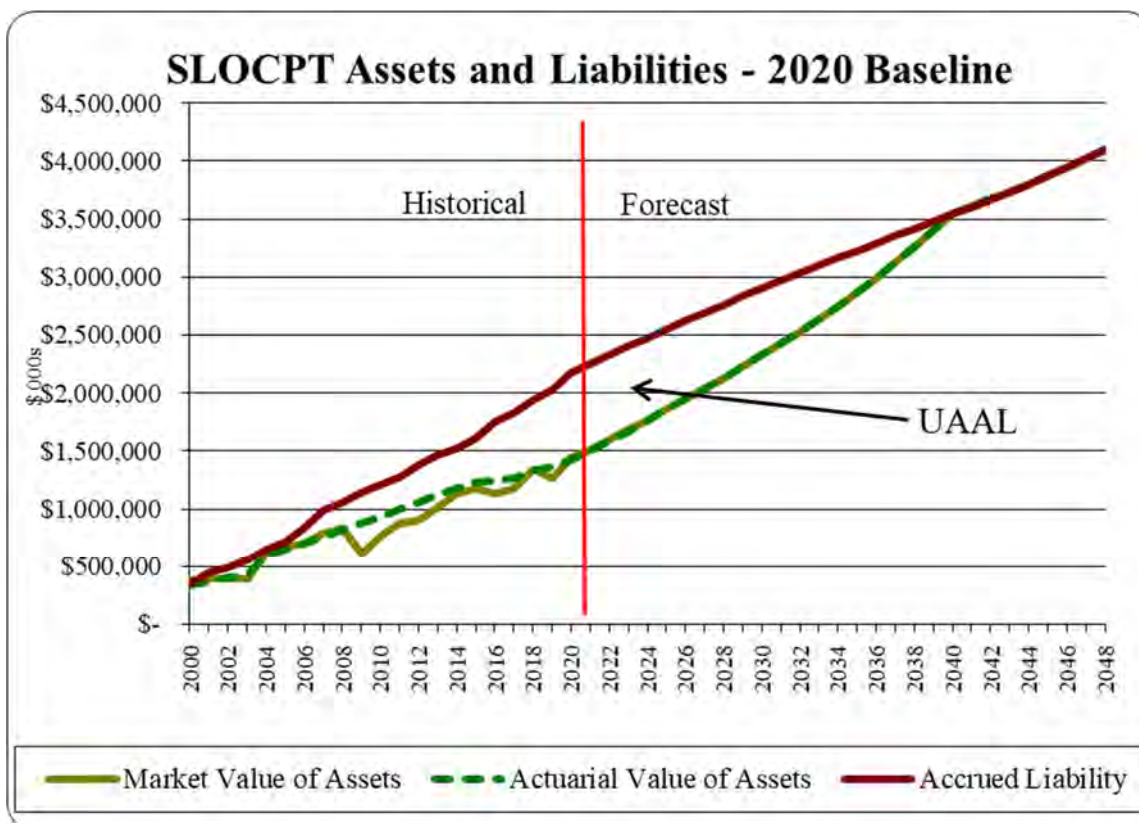
### Discussion – Investment Returns:

The effect of the below-expectations investment return in the five-year asset smoothing period of 2015-2019 is the result of the investment return history shown below



### Discussion – Funded Ratio:

The valuation results also indicate that the funded ratio of the Plan – Actuarial Accrued Liabilities (AAL) vs. Actuarial Value of Assets (AVA) has declined from 67.1% in 2019 to **65.3%** in 2020. See the attached Actuarial Valuation presentation for further detail on the sources of the decrease. The Baseline projections of assets and liabilities and funded ratio are shown in the following graphs.



Respectfully submitted,

# **2020 Annual Actuarial Valuation Presentation by Plan Actuary**

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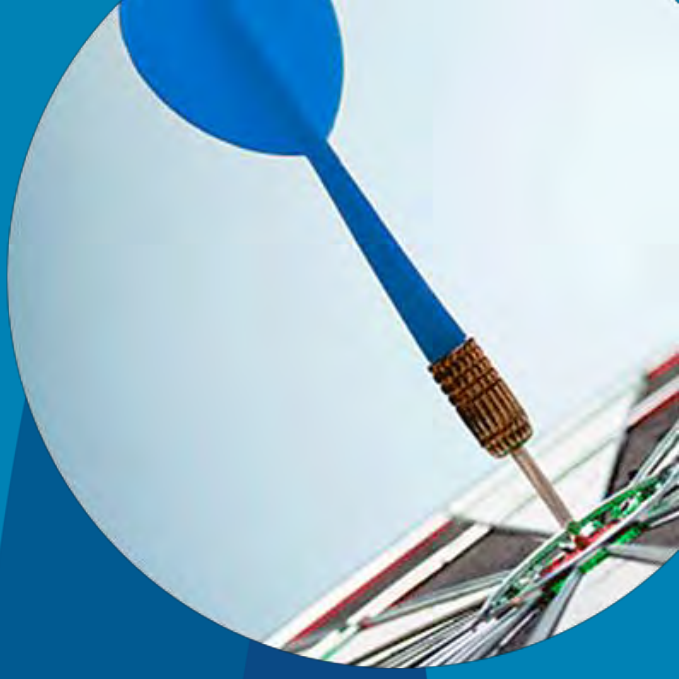


# San Luis Obispo County Pension Trust

B-1-11

**Actuarial Valuation  
As of January 1, 2020**

**Paul Wood, ASA, FCA, MAAA  
Thomas Lyle, ASA, FCA, EA, MAAA**



# Actuarial Valuation

## *Rate Increase*

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- Rate increase of 3.60% recommended
  - The Actuarially Determined Contribution (ADC) is 47.92%, while the rate being charged is 44.32%
  - Charged rate includes 2.68% increase recommended as of July 1, 2020 from the prior valuation
- The rate increase comes from three primary sources
  - First, from assumptions changes based on the most recent experience study (2.34%)
  - Second, from investment earnings less than assumed
  - Third, from demographic experience including payroll growing different than expected

B-1-12



# Actuarial Valuation

## *Development of the ADC and Recommended Rate Increase*

	Jan 1, 2020	Jan 1, 2019	Change
1. Total Normal Cost	21.04%	20.60%	0.44%
2. Amortization Payment	26.88%	23.92%	2.96%
3. Actuarially Determined Contribution (1.+2.)	47.92%	44.52%	3.40%
4. Total Charged Rate (actual)	44.32%	42.22%	2.10%
5. Recommended Rate Increase	3.60%	2.30%	

# Actuarial Valuation

## *Development of the Charged Rate*

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Category	Rates as a Percent of Payroll
Employee Contributions	16.48%
Employer Appropriations	25.16%
Total	41.64%
Increase at 7/1/2020	2.68%
Grand Total Contributions	44.32%

\*Amounts shown on are based on actual contributions from July 1, 2019 through December 31, 2019

# Actuarial Valuation

## *Charged Rate Summary*

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- The current charged rate is not adequate to meet the Actuarially Determined Contribution
- Assumption changes had the largest impact on ADC
- Future normal cost and future charged rates will trend downward as more Tier 3 members join the plan
- There are deferred asset gains, therefore there is some downward pressure on the ADC
- Total payroll growth less than the assumed rate, which put upward pressure on the ADC

# Actuarial Valuation

## *Assumption Changes*

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- Rate of return decreased from 7.00% to 6.875% as of January 1, 2020
- Rate of inflation decreased from 2.50% to 2.25%
- The mortality tables were updated to the Pub-2010 tables projected with scale MP-2019
- Retirement rates were updated for all groups
- Termination rates were updated for Miscellaneous members

# Membership

## *Summary of Active Members*

2020	Tier 1	Tier 2	Tier 3	Total
Miscellaneous	941	250	1,143	2,334
Probation	75	0	45	120
Safety	117	48	133	298
Total	1,133	298	1,321	2,752

2019	Tier 1	Tier 2	Tier 3	Total
Miscellaneous	1,039	259	1,026	2,324
Probation	72	0	44	116
Safety	140	52	93	285
Total	1,251	311	1,163	2,725

B-1-17

# Membership

## *Reconciliation*

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- The year started with 2,725 actives
  - 329 new hires
  - 13 returned to work
  - 315 actives ceased active status
- Implication
  - Tier 3 members pay a lower contribution amounts
  - Fixed cost of UAAL remains the same

B-1-18

# Assets

## Returns

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- Market value return was 15.21%
  - Fair market value increased from \$1,272 million to \$1,439 million
  - The amount of investment income “expected” was \$95 million
  - The actual amount of investment income received was \$190 million
  - The \$95 million gain is to be phased in over 5 years
- The actuarial value return was 5.68%
  - This is less than the assumption and produces a loss in this year

# Assets

## *Gains and Losses*

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- The portion of each year's investment gains and losses being recognized is:
  - 2019      \$ 19.1
  - 2018      \$ (29.2)
  - 2017      \$ 17.1
  - 2016      \$ (3.8)
  - 2015      \$ (21.0)
  - Total recognized for this year    \$(17.9) million
- Total yet to be recognized
  - the difference between the actuarial and market value
  - \$ 22.2 million in deferred gains
- Actuarial value of assets is 98% of market value



# Results

## *Tiers and Class - Normal Costs - 2020*

Class/Tier	Tier 1	Tier 2	Tier 3	Total
Misc.	23.76%	18.76%	15.92%	19.80%
Probation	27.09%	N/A	20.05%	24.91%
Safety	<u>29.69%</u>	<u>27.22%</u>	<u>23.68%</u>	<u>26.87%</u>
Blended	24.79%	20.42%	17.11%	21.04%

B-1-21

# Results

## *Liabilities - Total Plan Basis*

	Jan 1, 2020	Jan 1, 2019	Change
Accrued Liability	\$2.17B	\$2.03B	\$140M
Unfunded Accrued Liability	\$753M	\$667M	\$86M
Actuarial Value of Assets (AVA)	\$1.42B	\$1.36B	\$60M
Funded Ratio (AVA Basis)	65.3%	67.1%	(1.8)%
Market Value of Assets (MVA)	\$1.44B	\$1.27B	\$170M
Funded Ratio (MVA Basis)	66.3%	62.6%	3.7%

B-1-22

# Results

## *Attribution of Change in Funded Ratio and Actuarially Determined Contribution*

	Funded Ratio	Increase/ (Decrease)	Rate	Increase/ (Decrease)
<b>Actual as of 1/1/2019</b>	<b>67.1%</b>		<b>44.52%</b>	
Expected at 1/1/2020	68.3%	1.2%	44.47%	(0.05)%
Expected at 1/1/2020 (with actual payroll)	68.3%	0.0%	44.52%	0.05%
Experience items during 2019:				
Decrease in normal cost	68.3%	0.0%	44.27%	(0.25)%
Due to investment experience	67.5%	(0.8)%	44.91%	0.64%
Due to pay increases	67.5%	0.0%	44.87%	(0.04)%
Due to retirement experience	67.4%	(0.1)%	44.97%	0.10%
Due to mortality experience	67.0%	(0.4)%	45.41%	0.44%
Due to COLA experience	66.8%	(0.2)%	45.65%	0.24%
Due to other factors	66.9%	0.1%	45.58%	(0.07)%
Assumption Changes	65.3%	(1.6)%	47.92%	2.34%
<b>Actual as of 1/1/2020</b>	<b>65.3%</b>		<b>47.92%</b>	

# HISTORICAL PERSPECTIVE

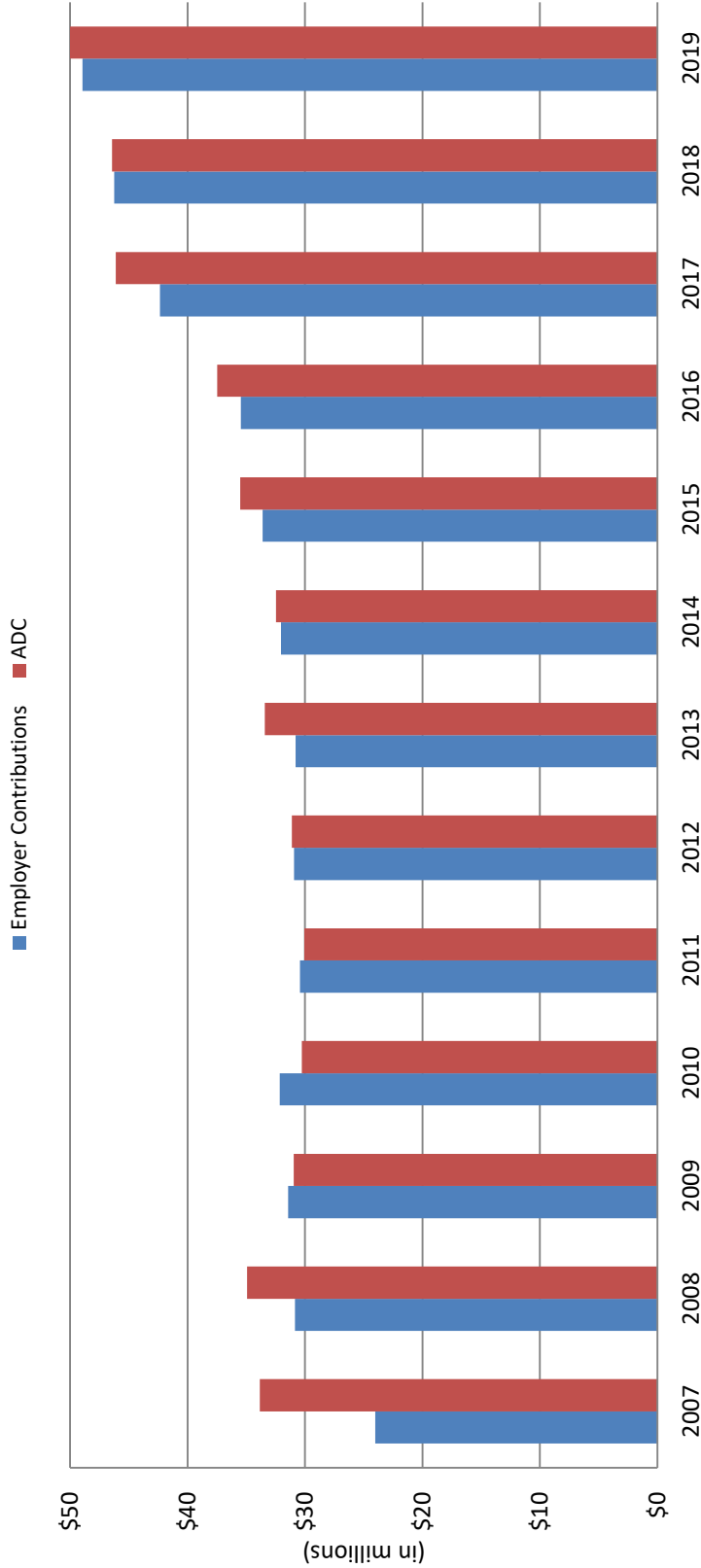
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# Historical Perspective

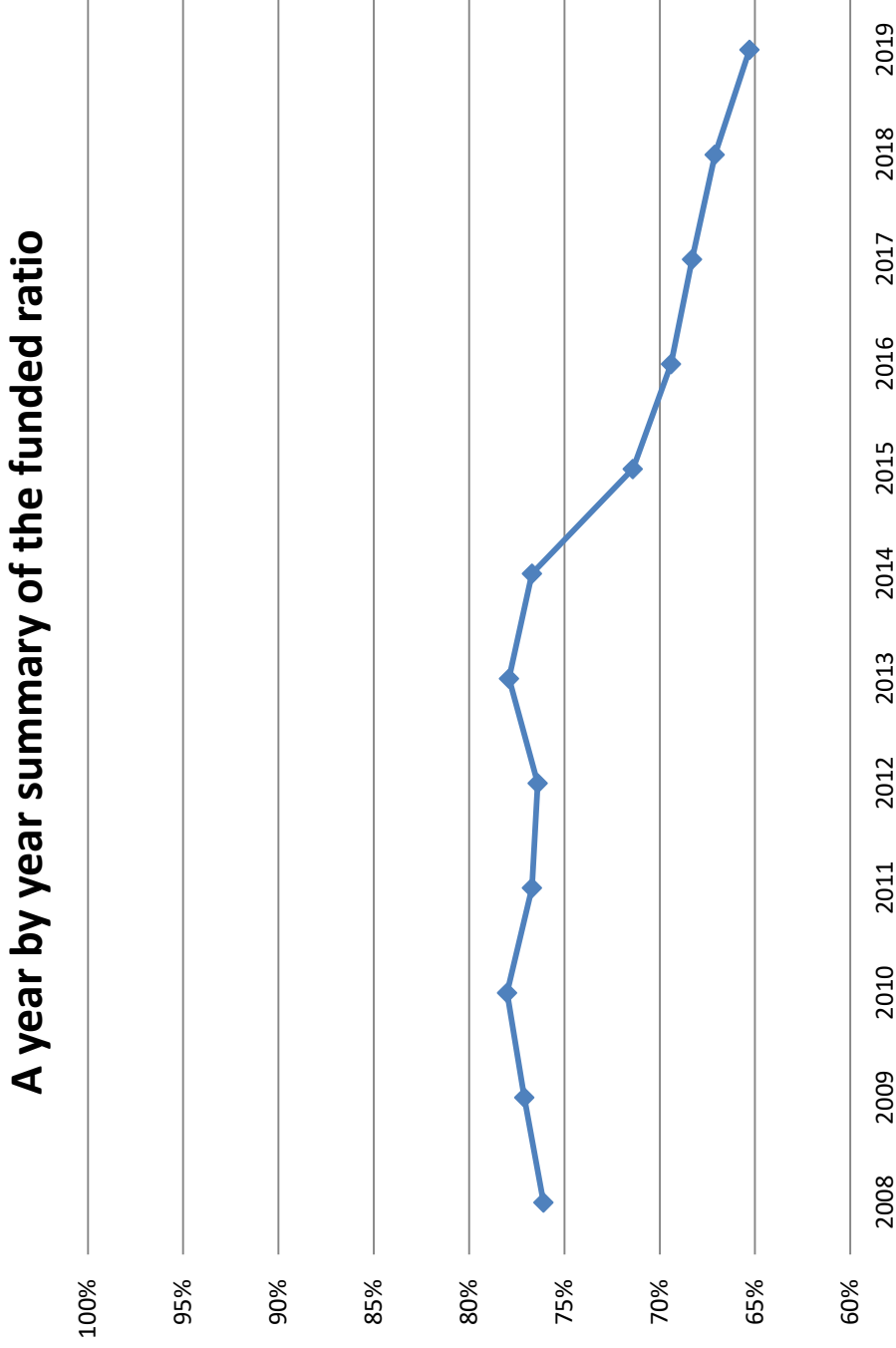
*How Has The Trust Done In Meeting Its Long Term Obligations?*

***Actuarially Determined Contribution vs Actual Contribution Made***



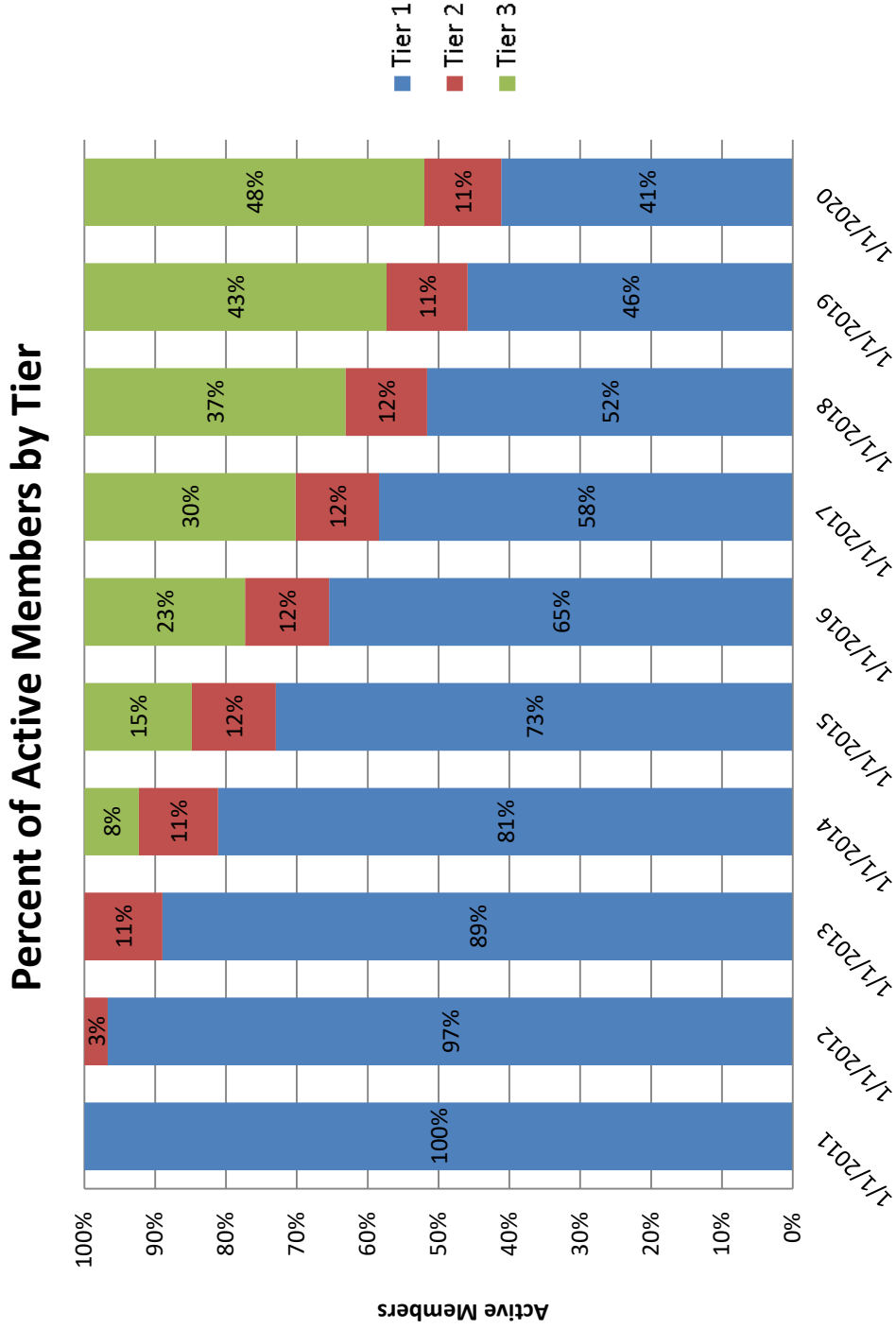
# Historical Perspective

*How Well Are The Assets Of The Trust Covering The Accrued Liabilities?*



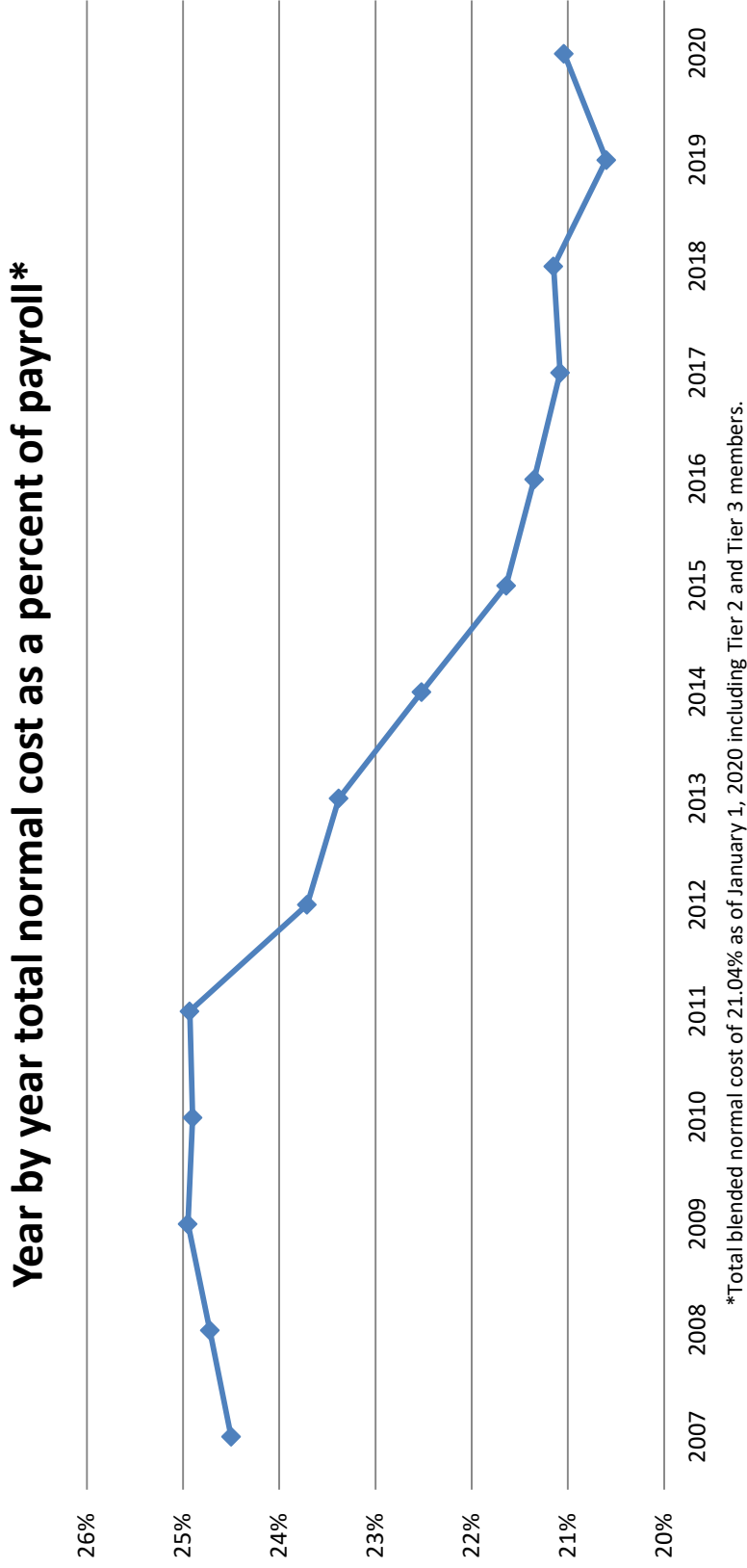
# Historical Perspective

## Active Members By Tier



# Historical Perspective

*Has The Plan's Normal Cost Been Stabilized?*



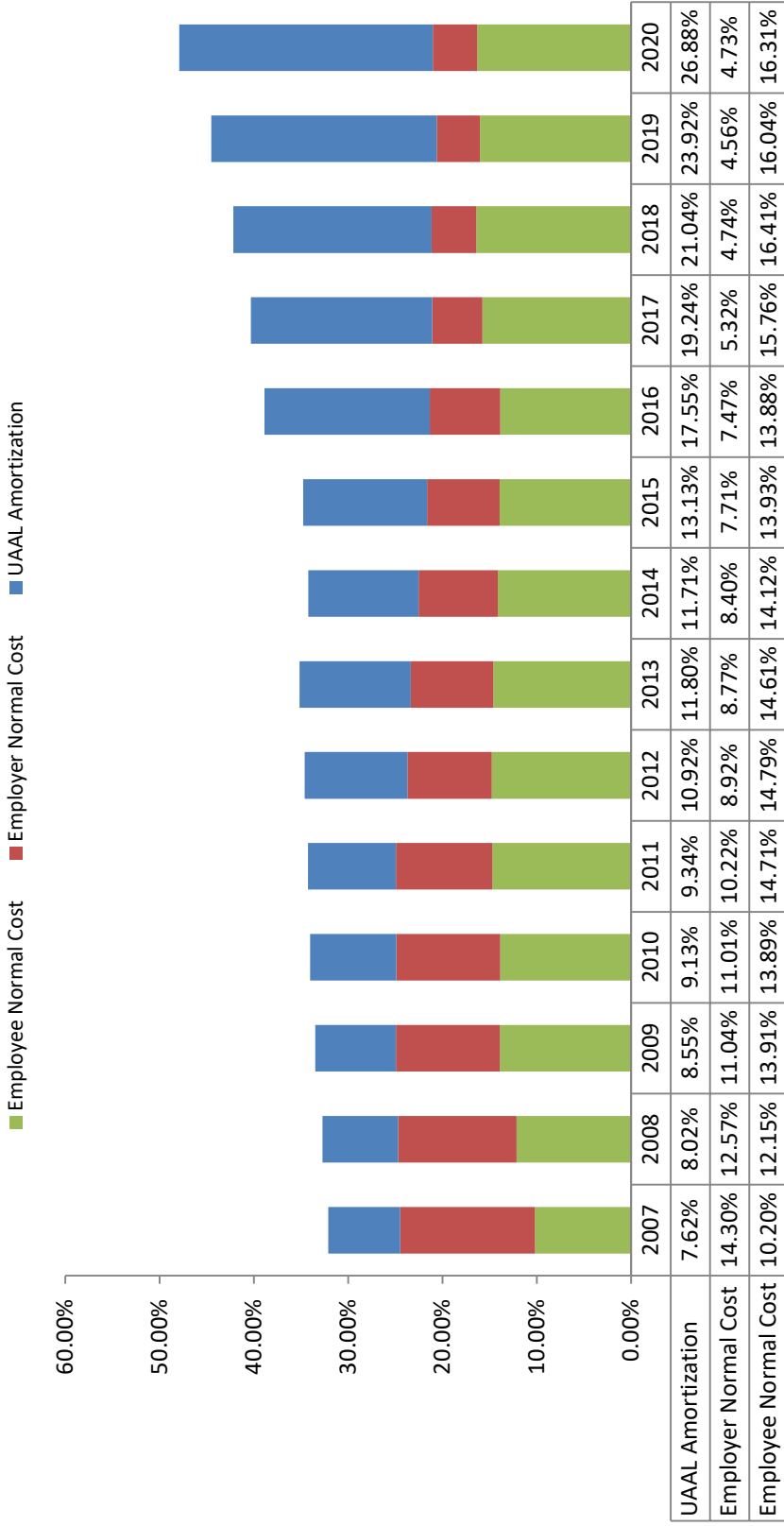
B-1-28



# Historical Perspective

*How Are County Costs Split Between Current Costs And Amortization Of Past Costs?*

## Normal Cost and UAAL Amortization



# Historical Perspective

## *Asset Volatility Ratio*

- Measures impact of asset volatility on contribution rates
- Higher ratios mean more significant impact on rates from asset volatility

All numbers in (000)	2010	2015	2020
Market Value of Assets	\$764,989	\$1,135,803	\$1,439,004
Covered Payroll	\$161,783	\$177,004	\$205,694
Asset Volatility = Assets / Payroll	4.73	6.42	7.00
Increase in Actuarially Determined Contribution Resulting From a 10% Asset Loss	0.86%	1.04%	1.03%

# LONG TERM PROJECTIONS

B-1-31



# Long Term Projections

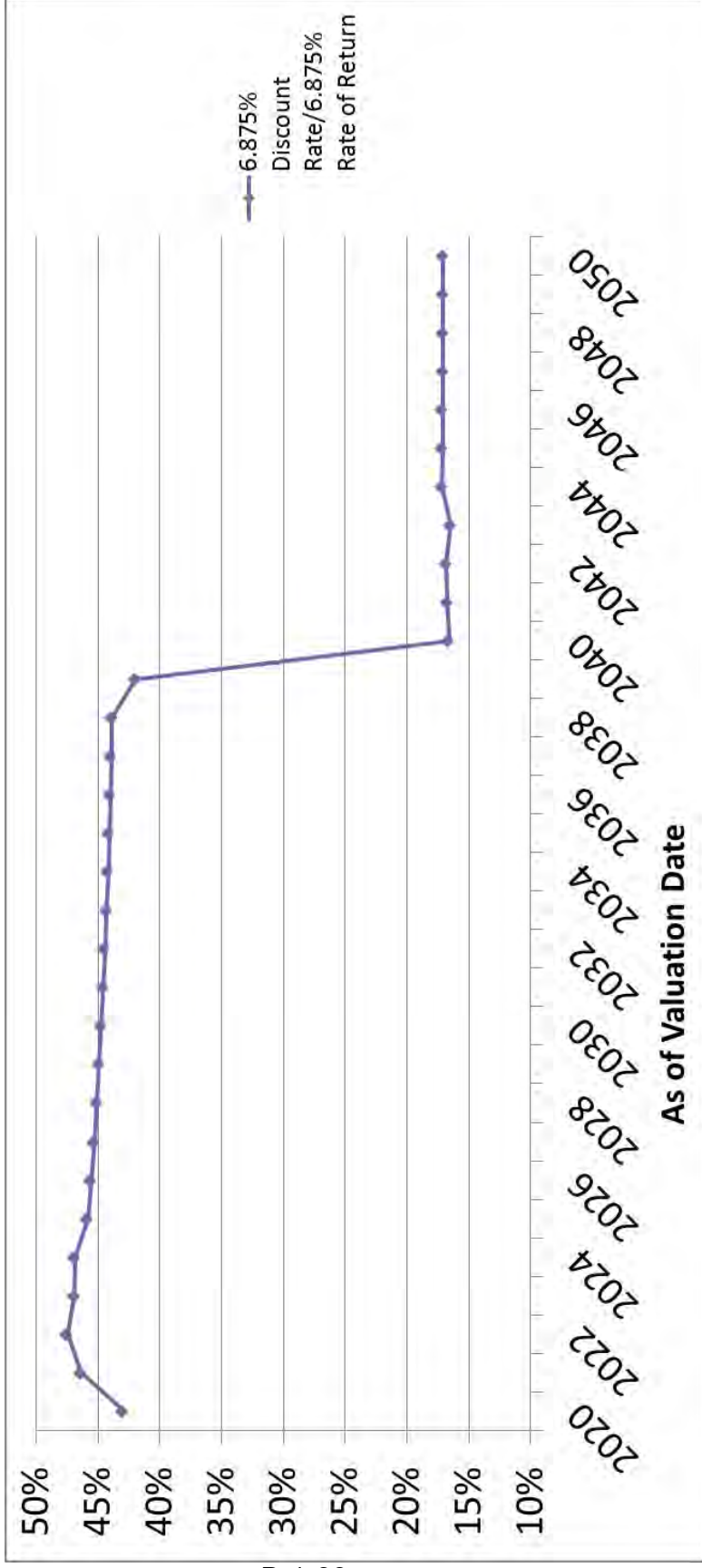
## *Deterministic Projections as of 1/1/2020*

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- Results based on a closed 20 year amortization period for original base, with new layers amortized of a closed 20 year period
- Total contribution rate drops significantly once the UAL is fully paid off
- Results based on level percent of pay financing – means the contribution will remain level as a percent of pay and therefore, will increase each year as a dollar amount
- Three sets of projections are provided:
  - 6.875% Discount Rate with 6.875% Rate of Return Each Year
  - 6.875% Discount Rate with 6.750% Rate of Return Each Year Beginning in 2021
  - 6.875% Discount Rate in 2020 and 6.750% Discount Rate Beginning in 2021 with 6.750% Rate of Return Each Year Beginning in 2021

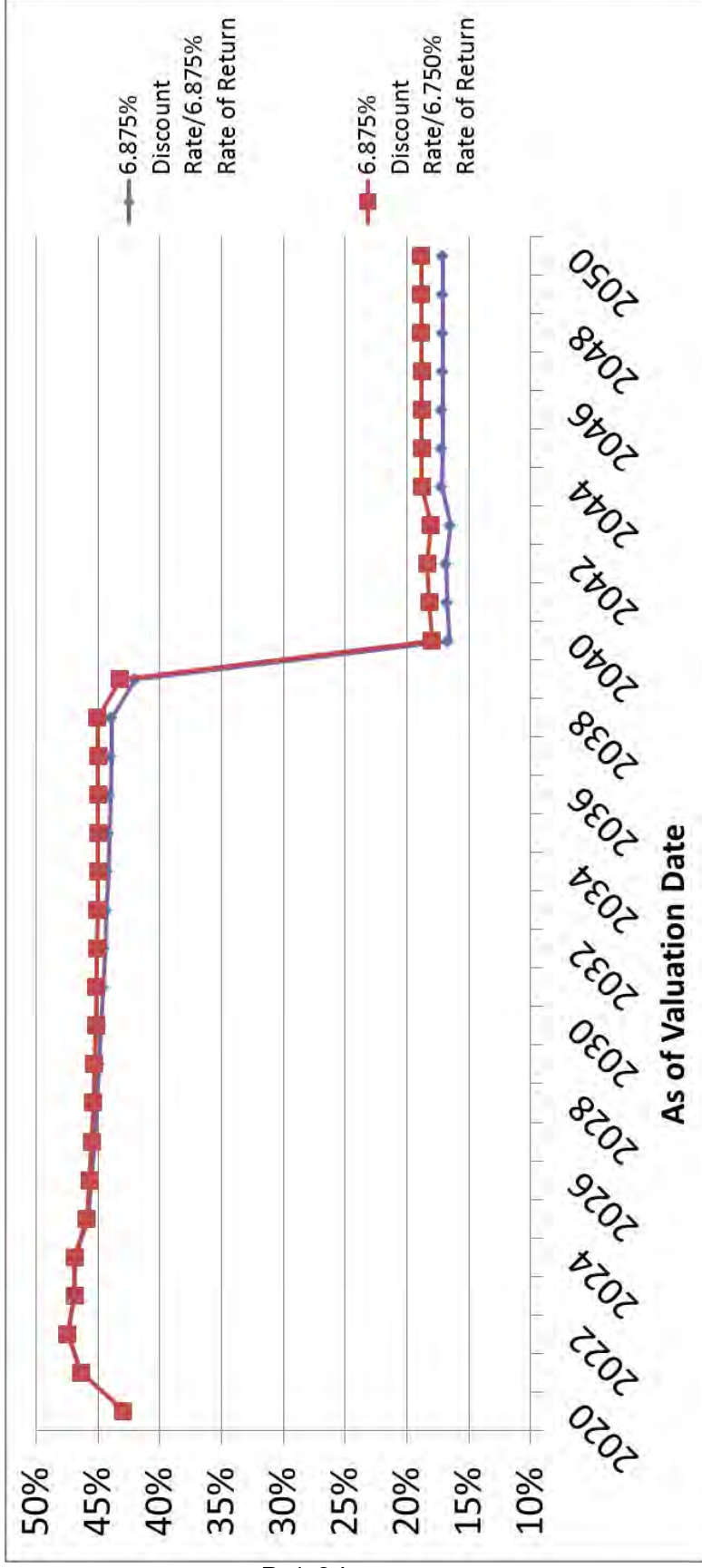
# Long Term Projections – Contribution Rate

## *Deterministic Projections as of 1/1/2020*



# Long Term Projections – Contribution Rate

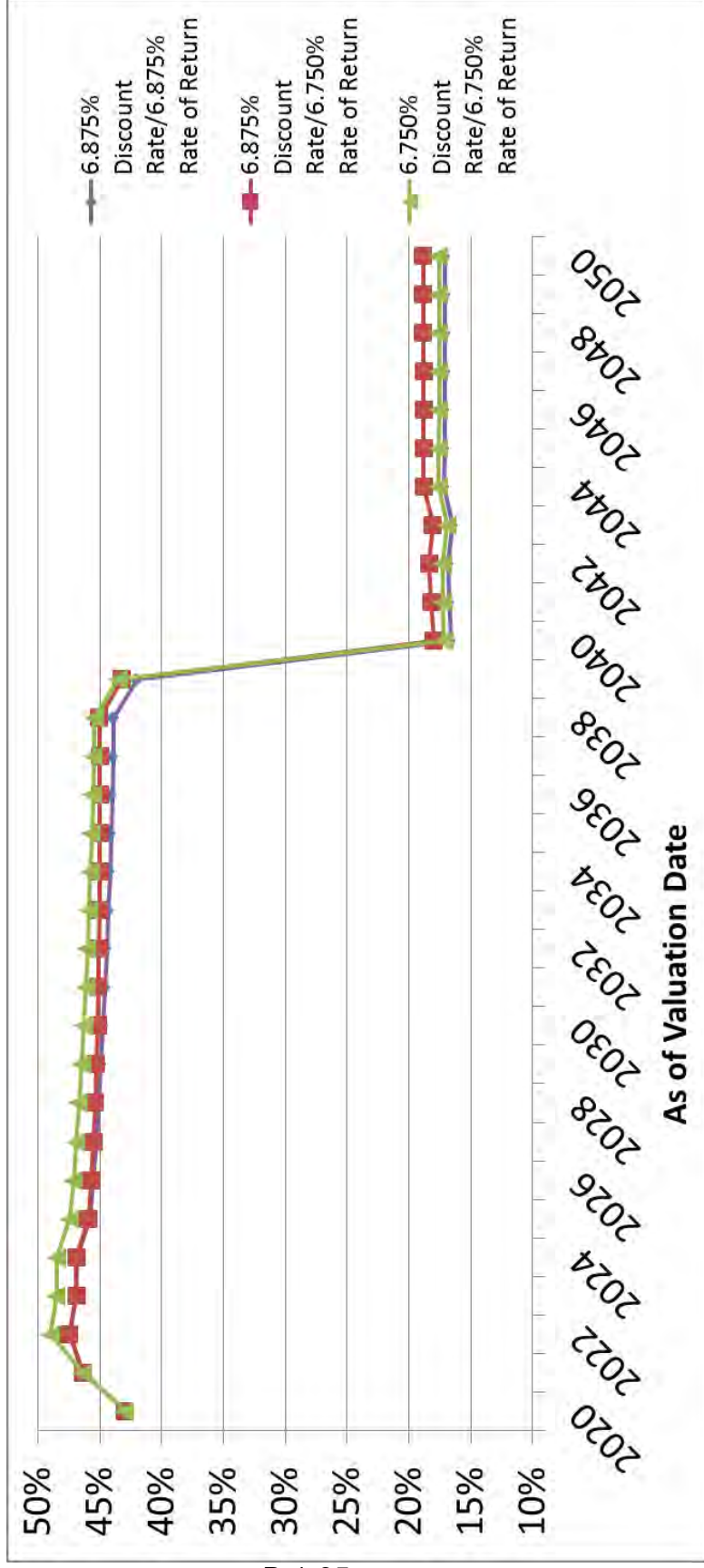
## Deterministic Projections as of 1/1/2020



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# Long Term Projections – Contribution Rate

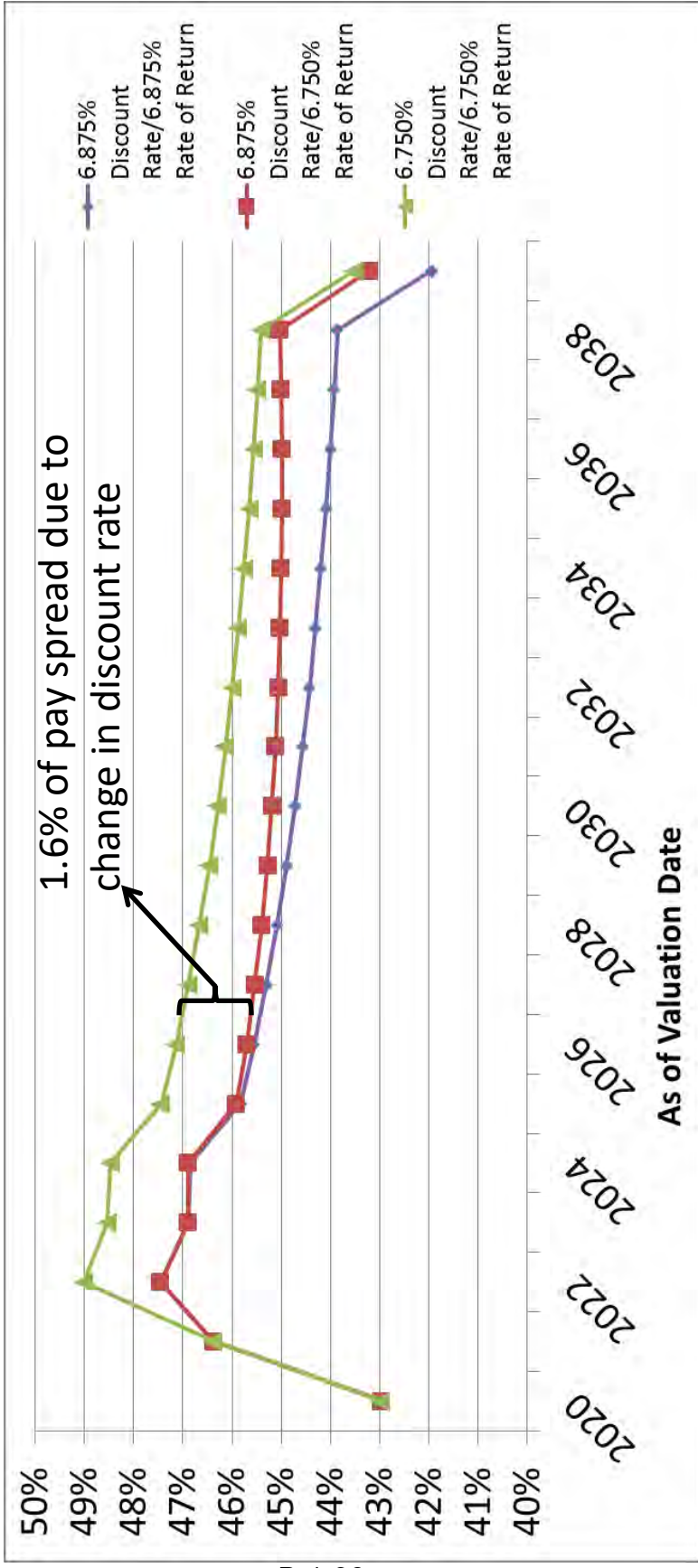
## *Deterministic Projections as of 1/1/2020*





# Long Term Projections – Contribution Rate

## *Deterministic Projections as of 1/1/2020 – Before the Cliff*

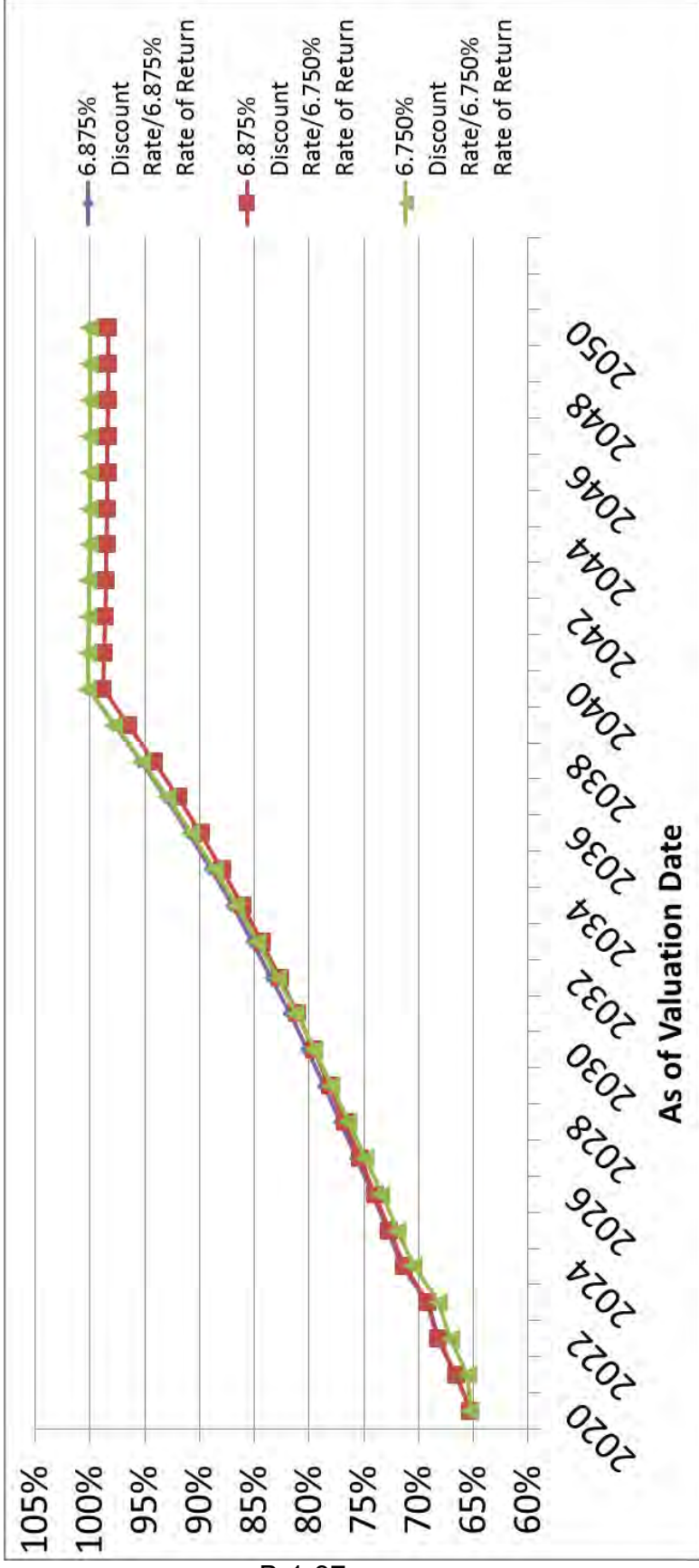


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# Long Term Projections – Funded Ratio

*Deterministic Projections as of 1/1/2020*



# Long Term Projections

## *Stress Testing*

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- In the midst of the global pandemic, there has been significant volatility in the capital markets
- While 2019 was a great year for investments, there is tremendous uncertainty surrounding returns in 2020 and beyond
- If and when the recovery happens, we don't know exactly what it will look like
- Stress test scenarios are based on the 6.75% discount rate beginning in 2021, shape of the resulting curves and outcomes would be similar under the 6.875% discount rate

# Long Term Projections

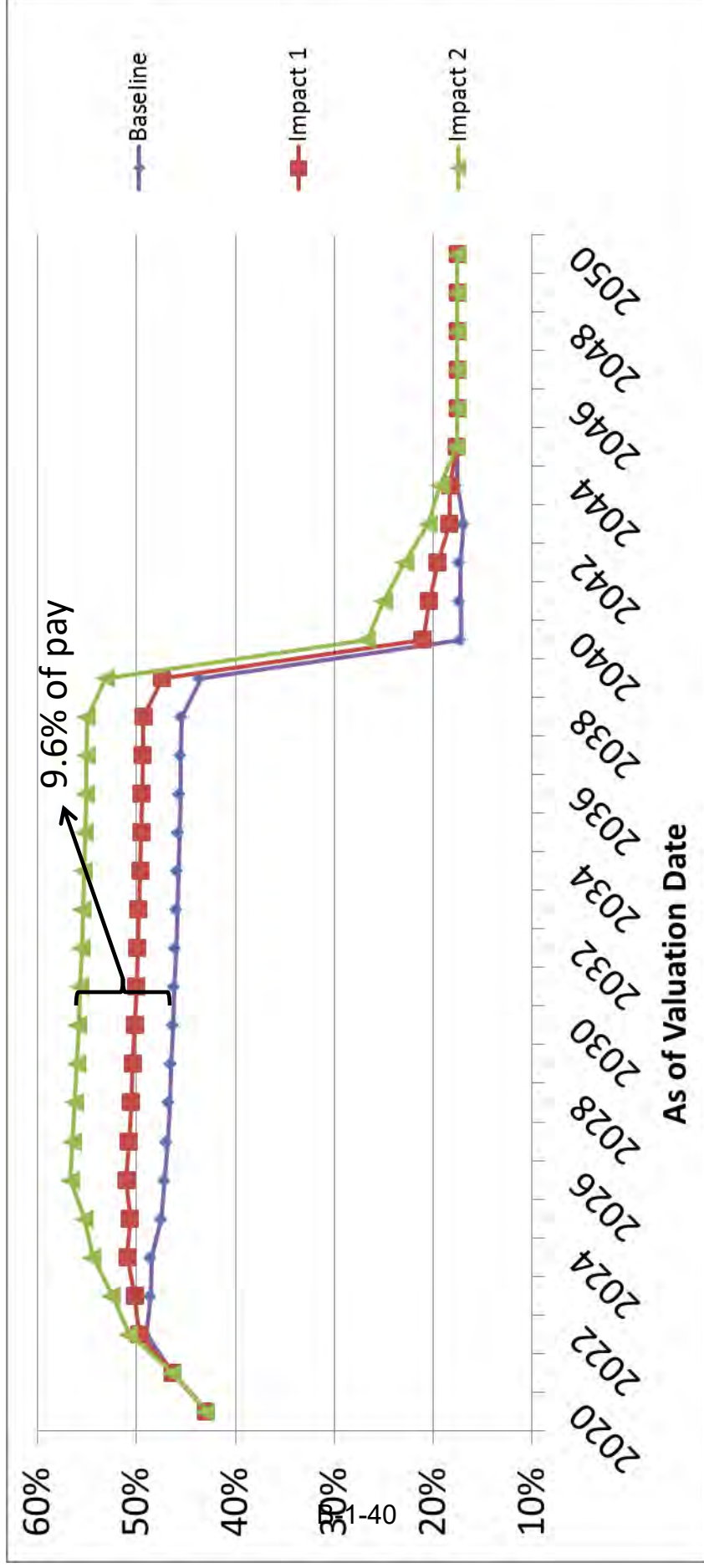
## *Stress Testing – No Recovery*

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- Let's look at a couple of scenarios that demonstrate the sensitivity to returns in the short term
  - Baseline: 6.875% return in 2020 and 6.75% return thereafter
  - Impact 1: 0.00% return in 2020 and 6.75% return thereafter
  - Impact 2: -10.00% return in 2020 and 6.75% return thereafter

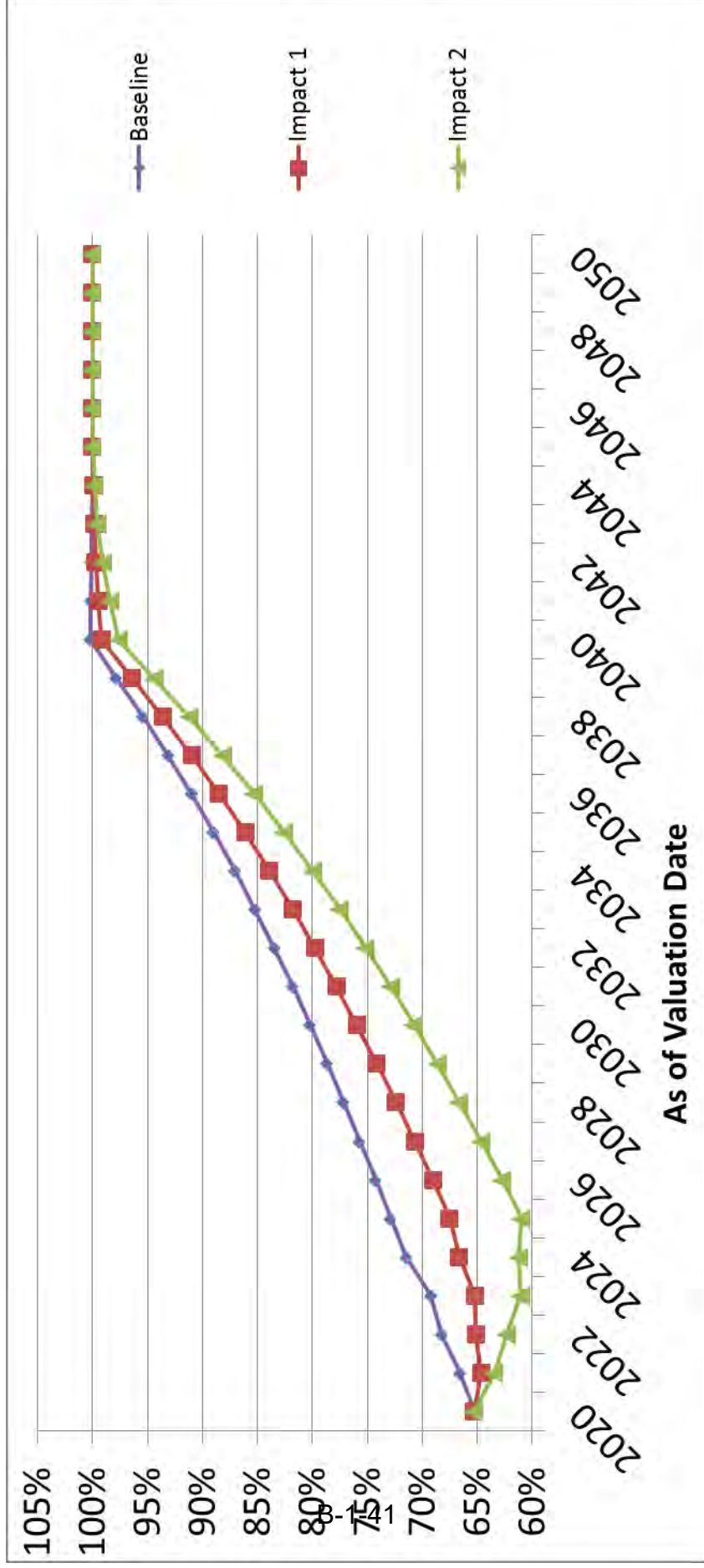
# Long Term Projections

## *Stress Testing – No Recovery – Contribution Rates*



# Long Term Projections

*Stress Testing – No Recovery – Funded Ratio*



# Long Term Projections

## *Stress Testing – Partial Recovery*

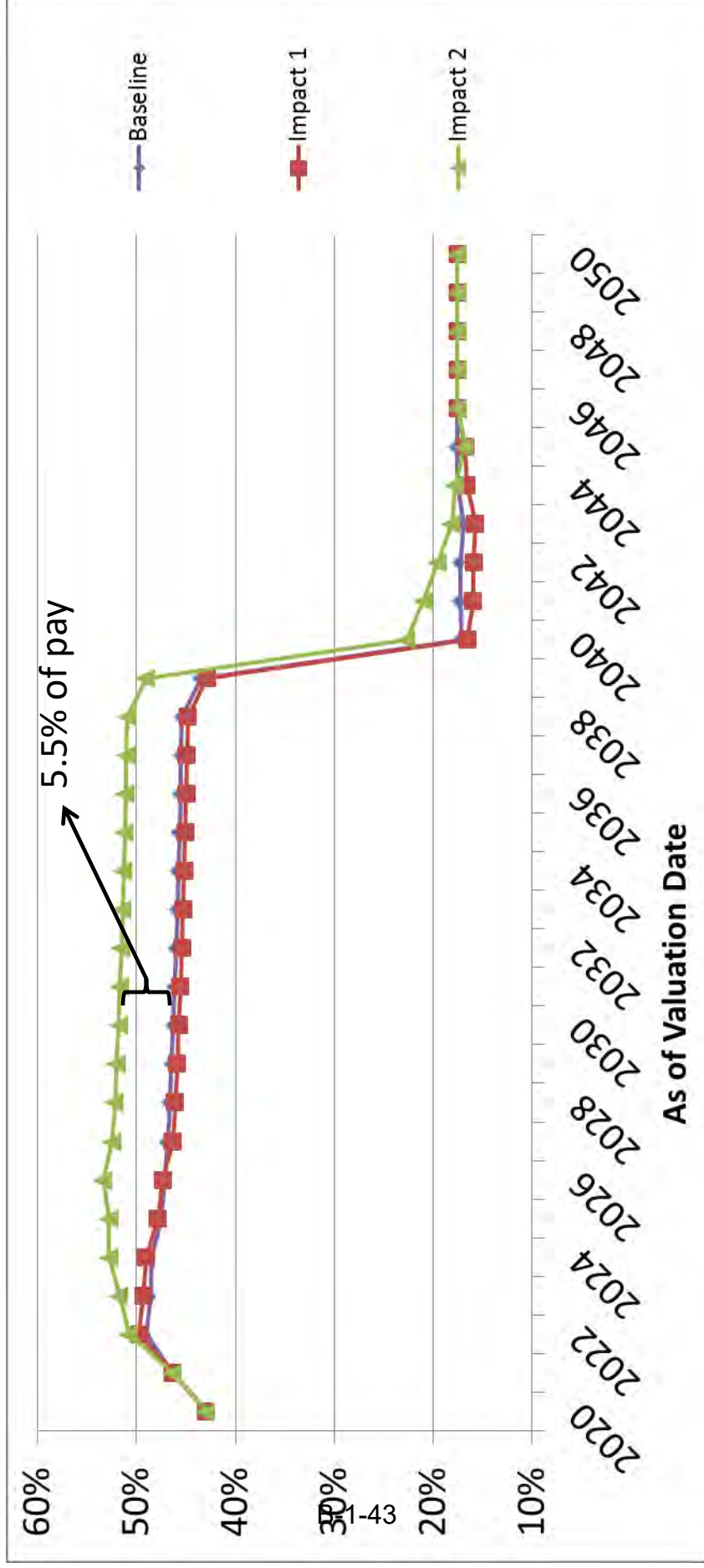
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- Let's look at those same two scenarios but with a partial recovery in 2021
  - Baseline: 6.875% return in 2020 and 6.75% return thereafter
  - Impact 1: 0.00% return in 2020, 15.00% return in 2021 and 6.75% return thereafter
  - Impact 2: -10.00% return in 2020, 15.00% return in 2021 and 6.75% return thereafter



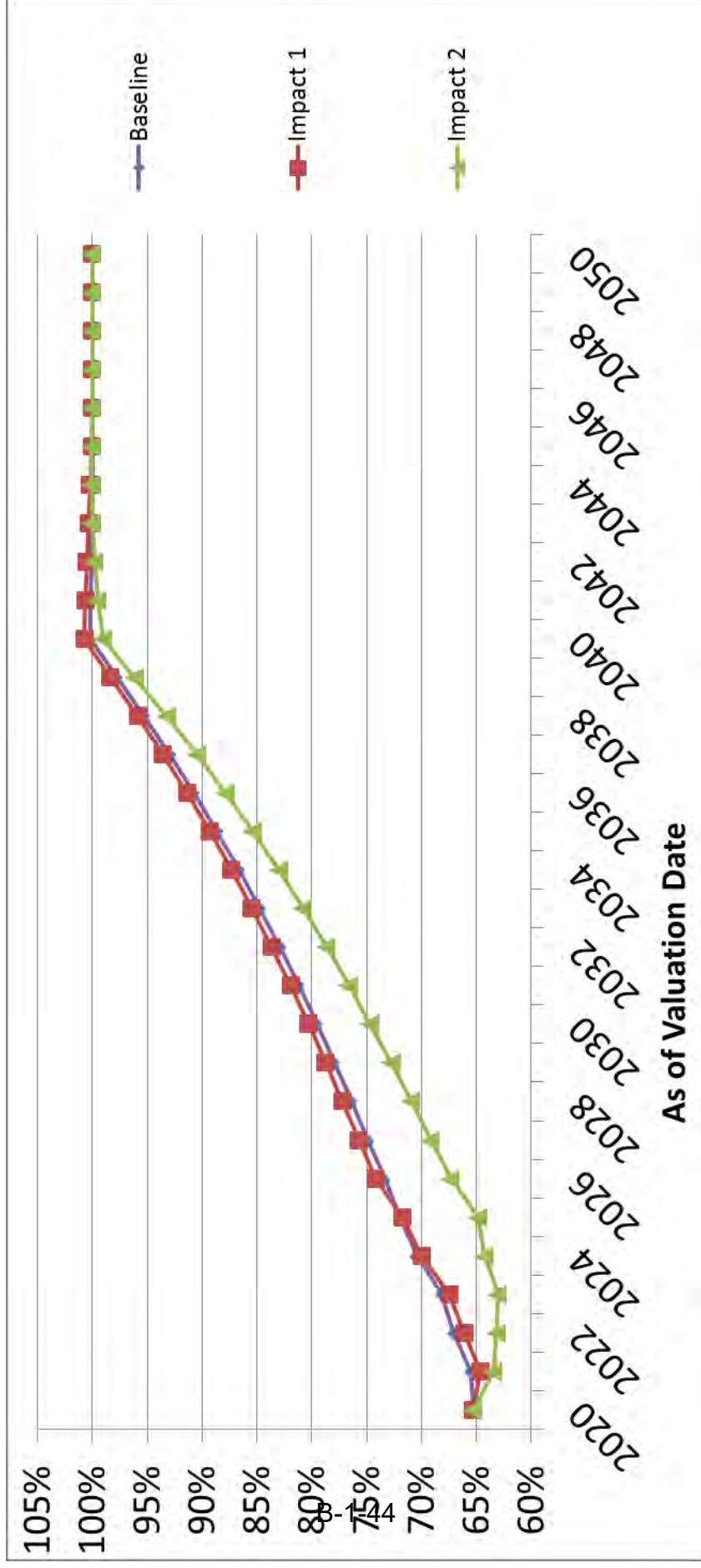
# Long Term Projections

## *Stress Testing – Partial Recovery – Contribution Rates*



# Long Term Projections

## *Stress Testing – Partial Recovery – Funded Ratio*





# Long Term Projections

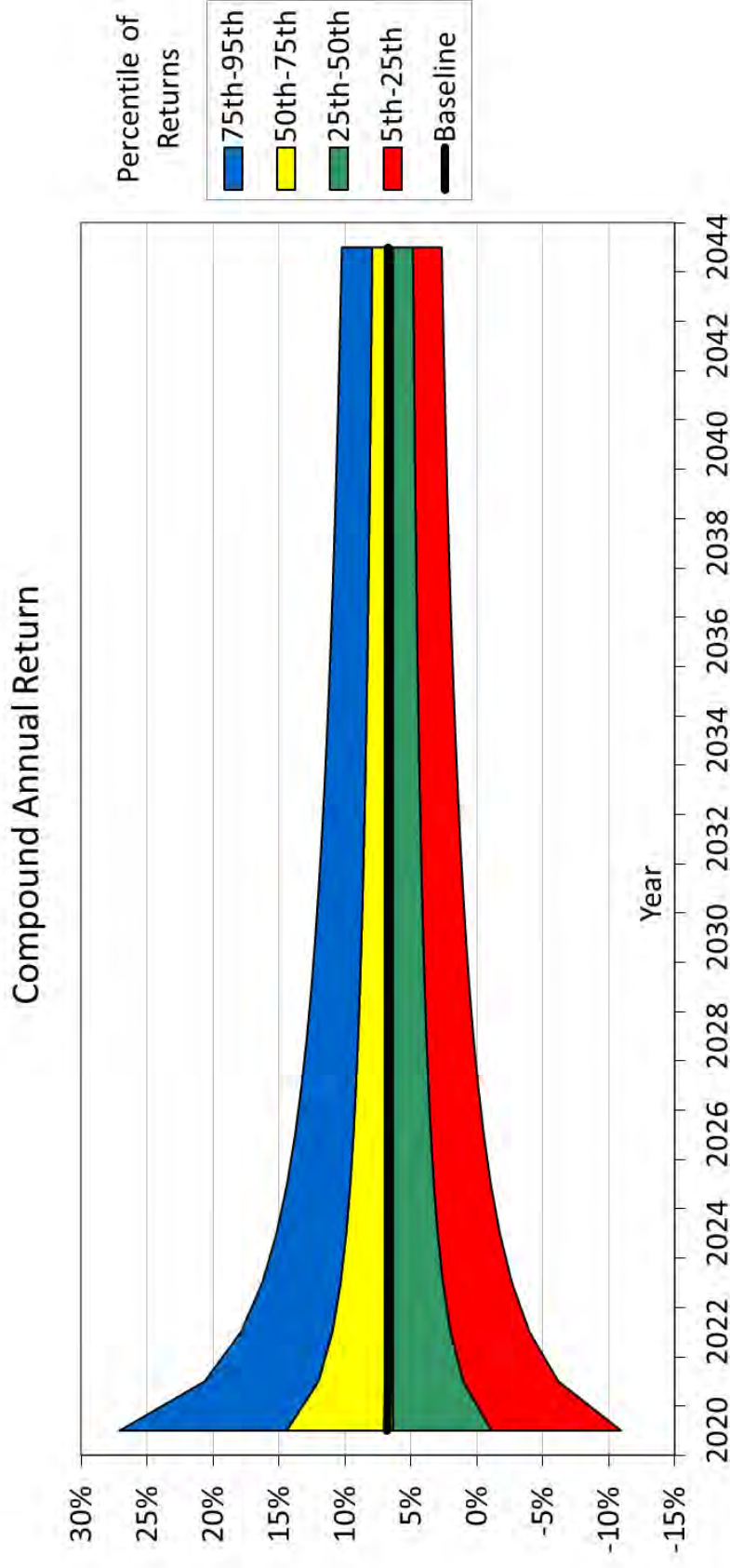
## *Cone of Uncertainty*

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- Now let's talk about the likelihood of certain outcomes
- As we have learned with the global pandemic, models are useful but also are constantly changing over time
- There is no one single outcome, rather, there is a range of outcomes with various likelihoods
- We can call this the “Cone Of Uncertainty”

# Cone of Uncertainty

## *Annual Compound Rates of Return*

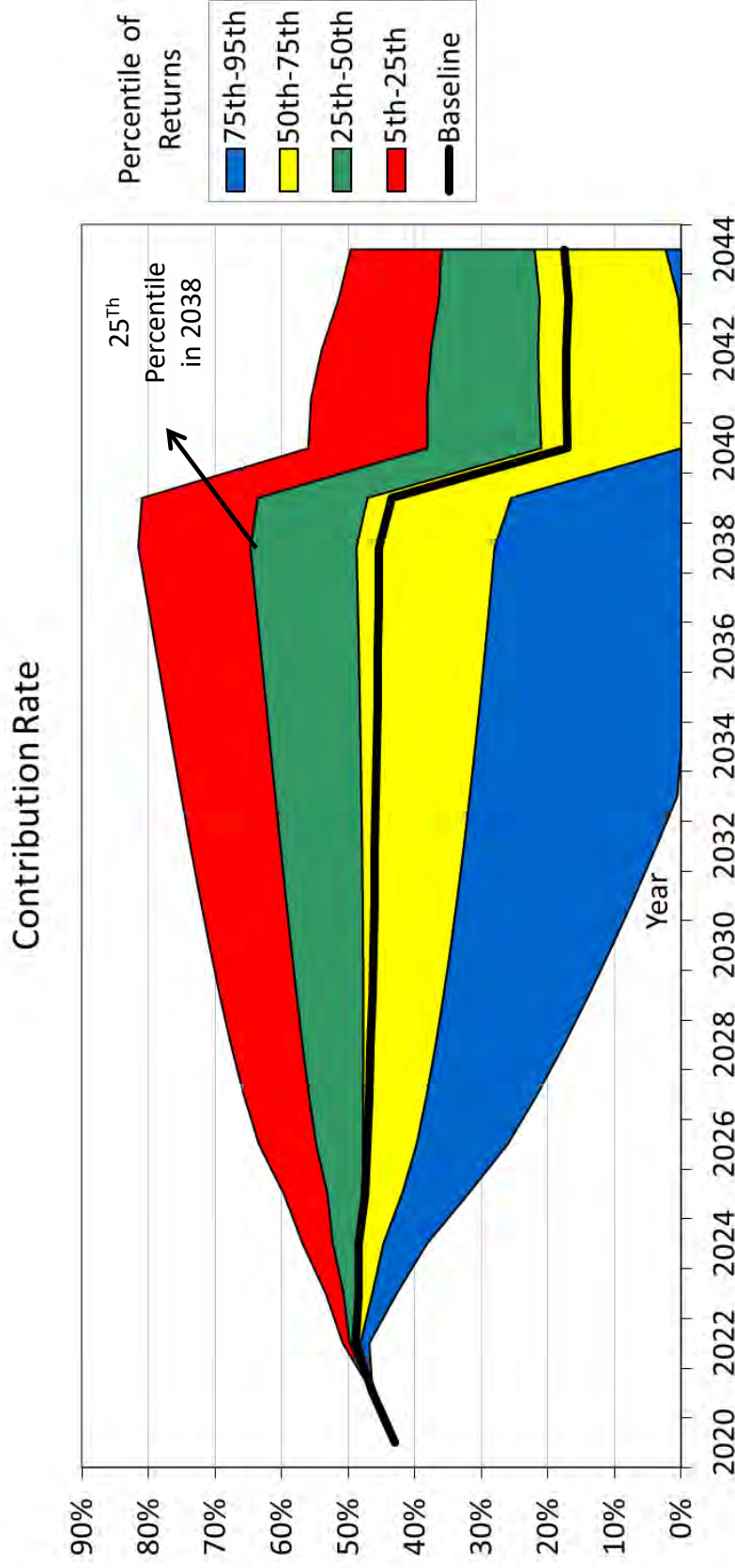


B-1-46

- In the past, we have described the 25<sup>th</sup> percentile as the “downside risk,” i.e., there is a 25% chance that we will see this outcome

# Cone of Uncertainty

## *Projected Contribution Rates*

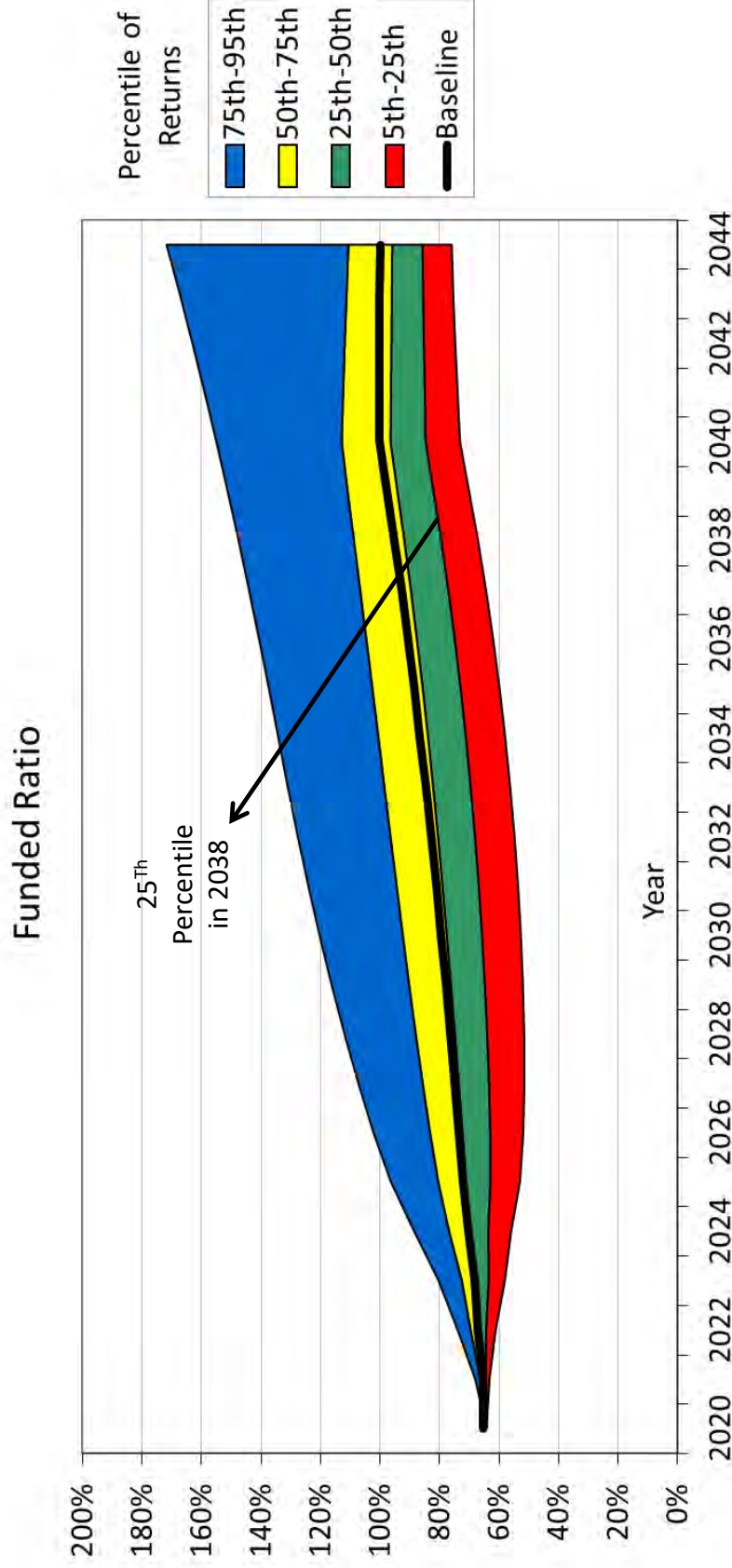


B-1-47

- The downside projected contribution rate risk (25<sup>th</sup> percentile) under this model is close to 65% in 2038
- That means, if our returns are in the bottom quartile, the long term projected contribution rate is expected to be at or above 65% by 2038

# Cone of Uncertainty

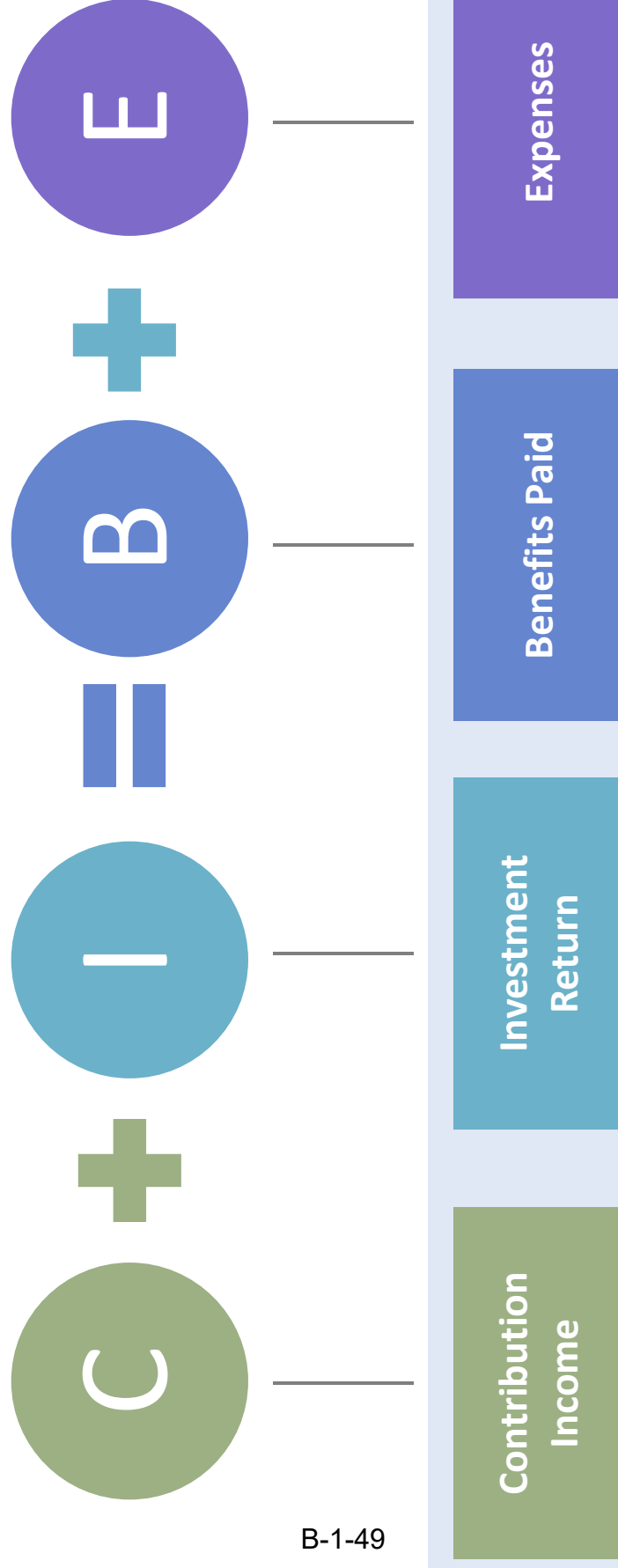
## Projected *Funded Ratios*



- The downside funded ratio risk (25<sup>th</sup> percentile) under this model is 80% in 2038
- That means, if our returns are in the bottom quartile, the long term projected funded ratio is expected to be at or below 80% by 2038

# Why Do We Take on Investment Risk?

## *Basic Retirement Funding Equation*



B-1-49

**Money In = Money Out**

# Why Do We Take on Investment Risk?

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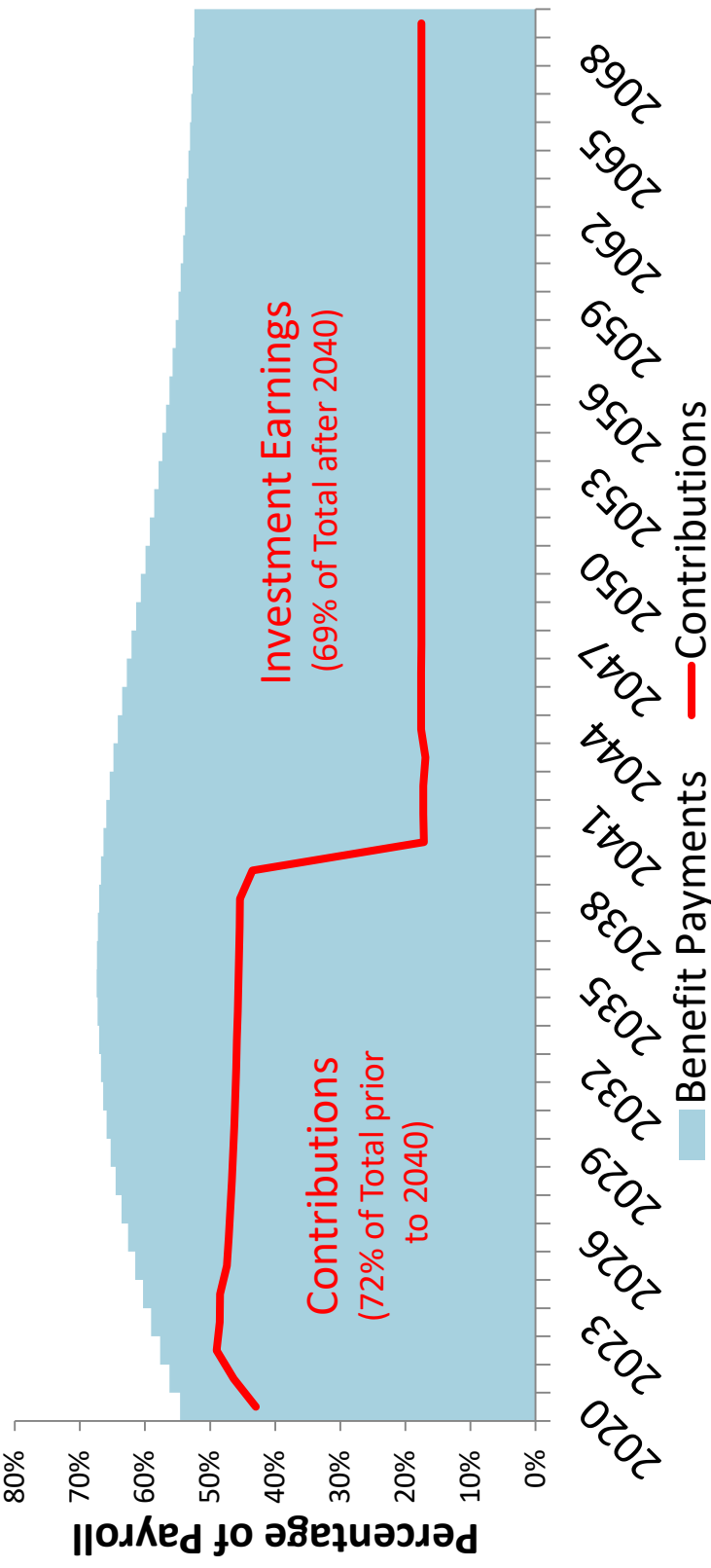
- Prefunding and taking on investment risk is a way to fulfill a promise to the taxpayer; that their money will be used to efficiently provide retirement benefits to the public sector worker
- There is a “most efficient” way to use taxpayer dollars to fulfill the retirement promise, and there is a “least efficient” way to do so
- The least efficient way will require more taxpayer dollars to fulfill the same promise



# Why Do We Take on Investment Risk?

## SLOCPT - Prefunded Plan

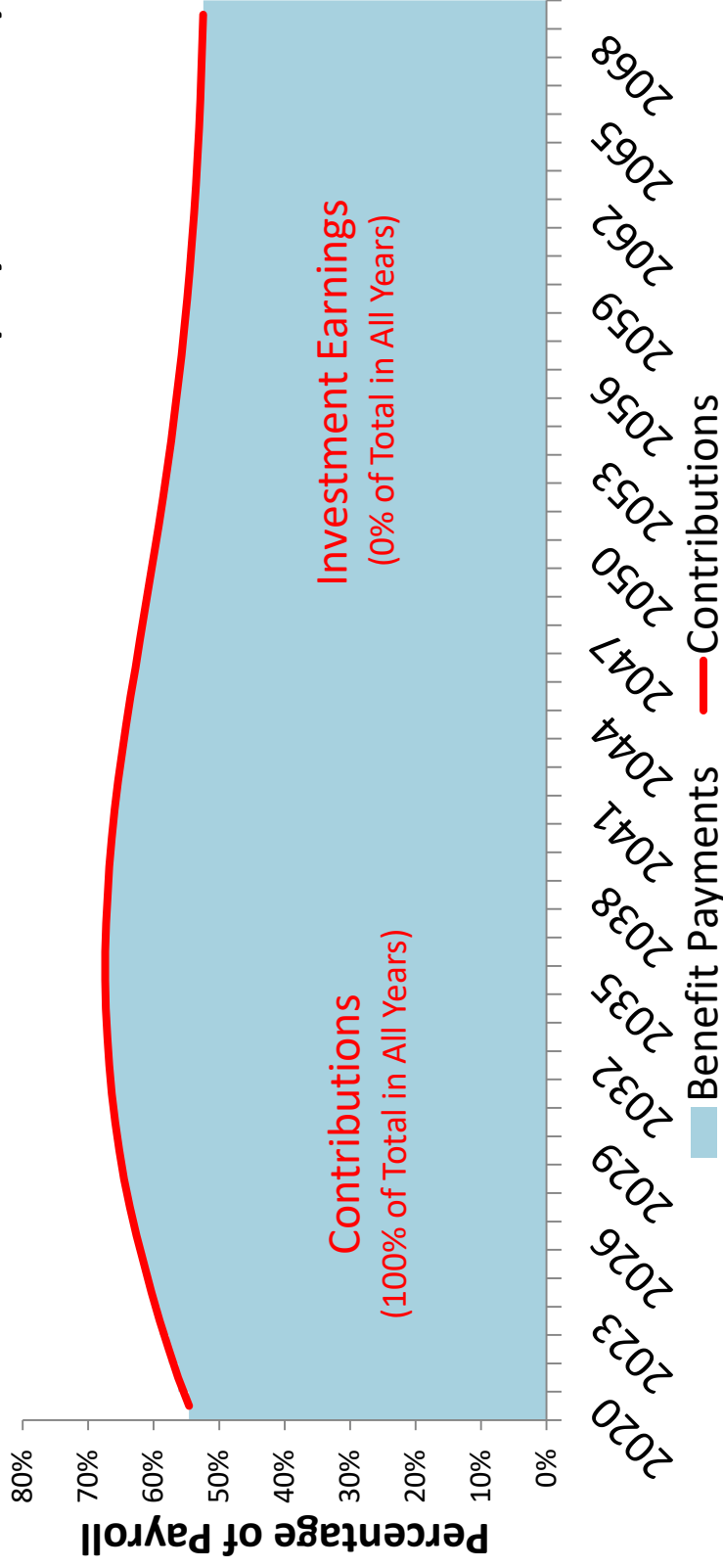
- Prefunding and taking on investment risk means a vast majority of the retiree's benefit check could be paid through investment income
- Over the next 50 years, close to 60% of benefit payments will be made via investment income



# Why Do We Take on Investment Risk?

## *Pay-as-you-go Plan*

- If the benefits were not prefunded, then 100% of the benefit checks would be paid from contributions
- This would be a much less efficient use of taxpayer money



B-1-52



# Thank You!

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B-1-53



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# **2020 Annual Actuarial Valuation and Supplementary Exhibits**

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# San Luis Obispo County Pension Trust

Actuarial Valuation Report  
As of January 1, 2020





June 26, 2020

San Luis Obispo County Pension Trust  
1000 Mill Street  
San Luis Obispo, CA 93408

Members of the Board:

Submitted in this report are the results of the regular Annual Actuarial Valuation as of January 1, 2020 of the San Luis Obispo County Pension Trust (SLOCPT). The valuation is intended to provide a measure of the funding status of the SLOCPT. This valuation provides information relative to the employer appropriation rates for the County's fiscal year beginning July 1, 2020.

The member statistical data on which the valuation was based was furnished by the staff of the SLOCPT, together with pertinent data on financial operations. Data was reviewed for reasonableness, but was not audited by the actuary.

The valuation results are developed using the Entry Age Cost Method. Under this method, normal cost is calculated as a constant percentage of the member's year-by-year projected, covered pay. The amortization of the unfunded actuarial accrued liabilities is done as a level percent of payroll over 20 years (30 year closed amortization period beginning with the January 1, 2010 valuation) for funding computations. Effective with the January 1, 2019 valuation, new gains and losses generated each year are amortized over their own 20 year closed period.

In the January 1, 2020 valuation, the Trust's funded status decreased from 67.1% to 65.3%. The total actuarially determined contribution rate is 47.92% of pay as of January 1, 2020, compared to the total charged rates of 44.32% (this includes a scheduled changes increase of 2.68% as of July 1, 2020). Therefore, due to the difference between the charged rate and the Actuarially Determined Contribution rate, an increase in the charged rate is recommended at this time.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

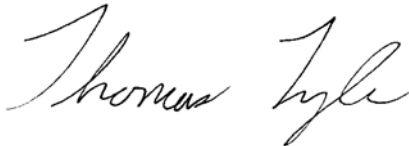
All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code and ERISA. The undersigned are independent actuaries and consultants. Paul Wood and Thomas Lyle are Members of the American Academy of Actuaries, and meet all the Qualification Standards of the American Academy of Actuaries.

The cooperation of the SLOCPT Office in furnishing materials requested for this valuation is acknowledged with appreciation.

Respectfully submitted,  
**Gabriel, Roeder, Smith & Company**



Paul Wood, ASA, FCA, MAAA  
Consultant



Thomas A. Lyle, ASA, FCA, EA, MAAA  
Consultant

	<b>Cover Letter</b>
<b>Section A</b>	<b>Valuation Comments &amp; Recommendations</b>
<b>Section B</b>	<b>Executive Summary &amp; Rate Reconciliation</b>
<b>Section C</b>	<b>Valuation Results</b>
<b>Section D</b>	<b>Summary of Member Data</b>
<b>Section E</b>	<b>Valuation Methods &amp; Assumptions</b>
<b>Section F</b>	<b>Summary of Benefit Provisions</b>
<b>Section G</b>	<b>Definitions of Technical Terms</b>



## SECTION A

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### VALUATION COMMENTS & RECOMMENDATIONS

## Valuation Comments & Recommendations

**Benefits:** As of January 1, 2013, Tier 2 was effectively closed and most new hires enter under the provisions of Tier 3 (known as AB 340; some new members enter Tier 2 by virtue of reciprocity). As of January 1, 2020, there are 1,321 active members covered under Tier 3 compared to 1,163 active members covered as of the prior valuation. See Section D for additional details regarding the active membership in each tier.

**Assumptions:** This valuation includes assumption changes adopted by the Board based on the Experience Study performed for the five-year period ending December 31, 2019. These changes include changing the discount rate, inflation rate, mortality rates, retirement rates, and termination rates. The net impact of these changes is a \$53 million increase in the accrued liability and a 0.69% of pay increase in the normal cost.

**Discount Rate:** The Board adopted a lower discount rate based on the Experience Study performed for the five-year period ending December 31, 2019. The discount rate effective January 1, 2020 is equal to 6.875%.

**Normal Cost and Amortization Payment:** The total normal cost increased from 20.60% to 21.04% of pay mainly as a result of the changes in assumptions. Employee contribution rates were increased since the prior valuation for most members in all Tiers. This increase is larger than the expected decrease as Tier 3 members entered the plan, therefore the weighted average employee rate increased from 16.04% to 16.31%. The net result is the County share of the normal cost increased from 4.56% to 4.73%. Investment losses, liability losses and assumption changes, increased the amortization payment, and overall, the January 1, 2020 computed County Employer actuarial appropriation rate increased from 28.48% to 31.61%. The cost for the Tier 3 members is expected to bring down the total normal cost of the plan in future years.

**Contribution Rate:** The total charged rate as of December 31, 2019 was 41.64% (based on the last six months of the year, which included the schedule rate increase as of July 1, 2019). Adding to that the 2.68% increase that was effective July 1, 2020 creates a charged rate for 2020 of 44.32%. The total actuarially determined contribution rate is 47.92% as of January 1, 2020. Since the margin between the charged rate and the actuarially determined contribution rate has grown to 3.60%, an increase in the charged rate is recommended. Please note that the 3.60% increase assumes the charged rate is changed January 1, 2020. Delaying that change will result in a higher increase.

**Changes to Assets & Liabilities:** Assumption changes increased the accrued liability by \$53 million. Furthermore, the plan experienced a loss from investments and a net loss from demographic sources. The key sources of the gains and losses were an actuarial loss of \$17.9 million from investments (described as the return on the actuarial value of assets less than the assumed 7.00%). The actuarial asset return of 5.68% did not exceed the 7.00% expected rate of return for the prior year. The return on the market value of assets as calculated by the SLOCPT investment consultants was 15.21%.

- A \$1.2 million gain due to compensation increases for continuing active members being less than the expected increase. A continuing active member is a member who was active as of the last valuation date, and is active as of this valuation date. The average increase for continuing active members was 4.15% while assumed increases range from 2.75% to 8.00%.
- A \$2.9 million loss due to retirement. This loss reflects more retirements than anticipated.
- A \$6.4 million loss due to cost of living adjustments (COLA). This loss reflects an actual COLA that was higher than anticipated.
- A \$11.1 million loss on retiree mortality, meaning that retired participants in pay status lived longer than assumed.

**Funding Policy:** The SLOCPT adopted a 30 year closed amortization period of as of January 1, 2010. Payments on the initial bases of the unfunded accrued liability established on or after January 1, 2019 are based on their own 20 year amortization periods. Future gains and losses will be amortized over 20 year closed period layers. This process is commonly referred to as “layering.”

**Reserves:** We recommend that the reserve for Retirees and Beneficiaries be updated to reflect the computed liability in the most recent valuation. With the Trust’s current accounting (the County pays for all COLA benefits), this can only be done for non-COLA benefits. The COLA reserve includes amounts attributable to current active and deferred vested members. According to the financial statements as of December 31, 2019, the reserve for retirees and beneficiaries is \$1,096,148,832. The non-COLA liabilities calculated were \$1,129,589,623. Accordingly, we recommend that the Trust transfer this \$33,440,791 difference out of the Current Reserve and back into the Retiree Reserve. A large source of this trust transfer is the change in assumptions.

**Member Rates:** Member rates change regularly because of collective bargaining negotiations. See Section F for a complete description of these rates for all bargaining units.

**Pension Obligation Bond:** Total pension costs also include the debt financing related to the 2003 pension obligation bond of \$135 million. The annual debt financing payment for calendar year 2020 is approximately \$9.0 million, which is approximately 4.39% of active member payroll. When this percent is added to the valuation computed appropriation rate of 31.61%, the total rate of 36.00% more accurately reflects total County pension costs.

**Assets:** There is approximately \$22.2 million in deferred asset gains yet to be recognized. This puts some downward pressure on the actuarially determined contribution rate in future valuations.

## **SECTION B**

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### **EXECUTIVE SUMMARY AND RATE RECONCILIATION**

## Executive Summary

Valuation Date:	January 1, 2020	January 1, 2019
	(1)	(2)
<b>Membership</b>		
• Number of		
- Active Members	2,752	2,725
- Retirees and Beneficiaries	2,968	2,868
- Inactive, Vested	531	489
- Total	6,251	6,082
• Total Payroll (000s)	\$ 205,694	\$ 200,537
• Average Pay	\$ 74,743	\$ 73,592
<b>Assets</b>		
• Market Value (000s)	\$ 1,439,004	\$ 1,271,620
• Actuarial Value (000s)	\$ 1,416,763	\$ 1,362,562
• Return on Market Value	15.21%	-3.72%
• Return on Actuarial Value	5.68%	3.69%
<b>Actuarial Liabilities and Funded Ratio</b>		
• Actuarial Accrued Liability (000s)		
- Active Members	\$ 637,693	\$ 614,177
- Retirees and Beneficiaries	1,460,305	1,343,131
- Inactive, Vested	72,074	72,621
- Total*	\$ 2,170,071	\$ 2,029,929
• Unfunded Actuarial Accrued Liability (UAAL) (000s)	\$ 753,309	\$ 667,368
• Funded Ratio	65.3%	67.1%
• UAAL based on Market Value	\$ 731,067	\$ 758,309
• Funded Ratio Based on Market Value	66.3%	62.6%
<b>Actuarially Determined Contribution**</b>		
• Total Normal Cost	21.04%	20.60%
• Member Contributions	16.31%	16.04%
• County Normal Cost	4.73%	4.56%
• Amortization Payment	26.88%	23.92%
• Total County Cost (ADC)	31.61%	28.48%
• Total Combined ADC	47.92%	44.52%

\* Total may not add due to rounding.

\*\*Percentage of active payroll



## Calculation of the UAAL Amortization Payment

UAAL as of January 1, 2020		\$753,308,880		
Total Prior Remaining Amortization Bases as of January 1, 2020		664,470,329		
<b>2020 Amortization Base as of January 1, 2020</b>		<b>\$88,838,551</b>		
<b>2020 Payment (20 years, level percent of pay amortization)</b>		<b>\$6,505,439</b>		
		<b>As of January 1, 2020</b>		
<b>Base Year</b>	<b>Initial Base</b>	<b>Remaining Base</b>	<b>Years Remaining</b>	<b>Amortization Payment</b>
2020	\$ 88,838,551	\$ 88,838,551	20	6,505,439
2019	50,735,419	50,404,612	19	3,819,068
2018	616,930,482	614,065,717	20	44,966,591
<b>Total</b>		<b>\$ 753,308,880</b>		<b>\$ 55,291,098</b>

## Reconciliation of Charged Rates and the Actuarially Determined Contribution

Valuation Date	January 1, 2020	January 1, 2019
Actuarially Determined Contribution (ADC)	47.92%	44.52%
County Charged Rate	25.16%	23.15%
Member Charged Rate	<u>16.48%</u>	<u>16.27%</u>
Total Charged Rate	41.64%	39.42%
Increase to Charged Rate*	2.68%	2.80%
Total Charged Rate as of January 1	44.32%	42.22%
Difference between the ADC and the Charged Rate	3.60%	2.30%
Recommended Rate Increase as of January 1	3.60%	2.30%

\*The recommended rate increase as of January 1, 2019 was 2.30%. However, the rate increase was implemented on July 1, 2020 and therefore was increased to 2.68%.

## SECTION C

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### VALUATION RESULTS



## Funding Objective

The funding objective of the SLOCPT is to establish and receive contributions, expressed as a percent of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens.

### CONTRIBUTION RATES

The SLOCPT is supported by member contributions, County appropriations, and investment income from Pension Trust assets.

Contributions and appropriations which satisfy the funding objective are determined by the annual actuarial valuation and are intended to finance over a period of future years the actuarial present value of benefits not covered by valuation assets as a level percentage of future payroll. The allocation of the contributions and appropriations between the County and employees is determined by negotiations between the County and the recognized bargaining units.

Computed contributions and appropriations as of the January 1, 2020 valuation are shown in the following exhibits.

### FUNDING POLICY

The policy adopted by the Board is to recommend the full funding of the Total Actuarially Determined Contribution. This includes a 30 year closed amortization of the unfunded accrued liability that was effective as of January 1, 2010. This base has 20 years remaining as of January 1, 2020. Future gains and losses, including the loss from this year, will be amortized over 20 year closed period layers.

## Elements of Normal Cost

### January 1, 2020

#### MISCELLANEOUS VALUATION GROUPS

	Other	Management				SLOCEA				TOTAL MISC.
		Non Court	Court BU #18	Court BU #24-27	Total Mgmt	Non Court	Court BU #19	Court BU #20	Total SLOCEA	
	<b>BU #14, 21-22</b>									
Service Retirement	9.78%	13.46%	13.74%	14.44%	13.53%	11.95%	12.37%	11.07%	11.92%	12.42%
Vesting	4.63%	5.24%	4.64%	5.68%	5.26%	4.61%	5.81%	4.98%	4.63%	4.84%
Death-In-Service	0.14%	0.20%	0.13%	0.19%	0.20%	0.17%	0.11%	0.11%	0.16%	0.18%
Disability	0.23%	0.25%	0.24%	0.28%	0.25%	0.22%	0.24%	0.22%	0.22%	0.23%
Refunds	<u>1.98%</u>	<u>2.24%</u>	<u>1.77%</u>	<u>1.91%</u>	<u>2.21%</u>	<u>2.08%</u>	<u>2.65%</u>	<u>2.35%</u>	<u>2.09%</u>	<u>2.13%</u>
<b>Total Normal Cost</b>	16.76%	21.39%	20.52%	22.50%	21.45%	19.03%	21.18%	18.73%	19.02%	19.80%
<b>Less</b>										
Employee Contribution Rate	13.74%	16.78%	15.55%	16.14%	16.72%	15.39%	15.81%	14.73%	15.36%	15.79%
<b>Equals</b>										
<b>County Normal Cost</b>	3.02%	4.61%	4.97%	6.36%	4.73%	3.64%	5.37%	4.00%	3.66%	4.01%

## Elements of Normal Cost

### January 1, 2020

	Probation			Safety						GRAND TOTAL
	Mgmt	Non		Management		Non-Mgmt		Total		
		Mgmt	Probation	Sworn	Non-Sworn	Sworn	Non-Sworn	Sworn	Non-Sworn	
Service Retirement	23.03%	19.75%	19.99%	26.87%	20.07%	20.79%	19.57%	20.54%	13.93%	
Vesting	2.54%	1.91%	1.96%	2.51%	2.83%	2.11%	1.97%	2.07%	4.31%	
Death-In-Service	0.28%	0.22%	0.22%	0.40%	0.28%	0.36%	0.32%	0.34%	0.20%	
Disability	0.37%	0.31%	0.31%	2.84%	2.62%	2.88%	2.80%	2.83%	0.60%	
Refunds	<u>3.08%</u>	<u>2.38%</u>	<u>2.43%</u>	<u>1.55%</u>	<u>1.71%</u>	<u>1.05%</u>	<u>1.05%</u>	<u>1.09%</u>	<u>2.00%</u>	
Total Normal Cost	29.30%	24.57%	24.91%	34.17%	27.51%	27.19%	25.71%	26.87%	21.04%	
Employee Contribution Rate	25.13%	18.56%	19.06%	25.80%	23.52%	17.61%	18.23%	18.47%	16.31%	
County Normal Cost	4.17%	6.01%	5.85%	8.37%	3.99%	9.58%	7.48%	8.40%	4.73%	

**Pension Costs Summary - 2020**  
**Normal Cost by Tier**  
(Expressed as Percentage of Active Payroll)

<b>NORMAL COST (NC)</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>	<b>2020 Combined</b>
<b>MISCELLANEOUS</b>				
Member Contributions *	19.91%	13.25%	12.15%	15.79%
Employer Paid Normal Cost	<u>3.85%</u>	<u>5.51%</u>	<u>3.77%</u>	<u>4.01%</u>
Total Normal Cost	23.76%	18.76%	15.92%	19.80%
Note: COLA portion of NC	5.25%	3.33%	2.57%	4.11%
<b>PROBATION</b>				
Member Contributions *	21.88%	NA	12.65%	19.06%
Employer Paid Normal Cost	<u>5.21%</u>	NA	<u>7.40%</u>	<u>5.85%</u>
Total Normal Cost	27.09%	NA	20.05%	24.91%
Note: COLA portion of NC	6.43%	NA	3.73%	5.73%
<b>SAFETY</b>				
Member Contributions *	22.39%	15.76%	15.29%	18.47%
Employer Paid Normal Cost	<u>7.30%</u>	<u>11.46%</u>	<u>8.39%</u>	<u>8.40%</u>
Total Normal Cost	29.69%	27.22%	23.68%	26.87%
Note: COLA portion of NC	7.52%	5.48%	4.64%	6.29%
<b>TOTAL</b>				
Member Contributions *	20.37%	13.73%	12.58%	16.31%
Employer Paid Normal Cost	<u>4.42%</u>	<u>6.69%</u>	<u>4.53%</u>	<u>4.73%</u>
Total Normal Cost	24.79%	20.42%	17.11%	21.04%
Note: COLA portion of NC	5.63%	3.75%	2.91%	4.49%

\* Average of all active members in group

Note - Member Contributions may include a portion of Employer Paid for Employee Contribution for applicable bargaining units.

## Actuarial Balance Sheet January 1, 2020

### Present Resources and Expected Future Resources

	(thousands)			
	<u>Miscellaneous</u>	<u>Probation</u>	<u>Safety</u>	<u>Grand</u>
A. Actuarial value of system assets	\$1,092,274	\$60,501	\$263,988	\$1,416,763
B. Present value of expected future County appropriations				
1. Unfunded past service	580,774	32,169	140,366	753,309
2. Expected future service	<u>37,317</u>	<u>4,691</u>	<u>20,794</u>	<u>62,801</u>
3. Total future County	\$618,091	\$36,860	\$161,160	\$816,110
C. Present value of expected future member contributions	<u>175,755</u>	<u>15,440</u>	<u>45,994</u>	<u>237,190</u>
D. Total Present and Expected Future Resources	<u>\$1,886,120</u>	<u>\$112,801</u>	<u>\$471,142</u>	<u>\$2,470,063</u>

### Present Value of Expected Future Benefit Payments and Reserve

	(thousands)			
	<u>Miscellaneous</u>	<u>Probation</u>	<u>Safety</u>	<u>Grand</u>
				<u>Total*</u>
A. To Retirees and Beneficiaries	\$1,109,542	\$54,301	\$296,462	\$1,460,305
B. To Deferred and Reciprocal	62,539	2,029	7,506	72,074
C. Active members				
1. Service rendered prior to valuation date	500,967	36,340	100,386	637,693
2. Expected future service	<u>213,072</u>	<u>20,131</u>	<u>66,788</u>	<u>299,991</u>
D. Total Present Value of Expected Future Benefits	<u>\$1,886,120</u>	<u>\$112,801</u>	<u>\$471,142</u>	<u>\$2,470,063</u>

\* Grand Total may not add due to rounding.



## Summary of Reported Asset Information Submitted for the January 1, 2020 Valuation

### Market Value of Reported Assets as of January 1, 2020

Cash/Short-term	\$ 46,396,399
Receivables	5,009,970
Equities	622,179,565
Bonds	414,155,133
Mortgages	5,983,103
Alternative Investments	165,992,908
Real Estate	204,950,456
Other	7,482,644
	\$ 1,472,150,178
Liabilities	(33,145,975)
Total Market Value	\$ 1,439,004,203

### Reserves as of January 1, 2020

Member Deposit Reserve	\$ 375,633,777
Appropriation Reserves	55,922,115
Retired Members Reserve	1,096,148,832
Cost-of Living	423,021,791
Contingency Reserves	(873,921,605)
Market Value Adjustments	362,199,293
Total Reserves	\$ 1,439,004,203

## Summary of Reported Asset Information Submitted for the January 1, 2020 Valuation

Total Reserves	
<b>Beginning of Year</b>	<b>\$ 1,271,620,084</b>
<b>Revenues</b>	
Employer Contributions	\$ 48,957,564
Employee Contributions	32,983,211
Interest	4,450,180
Dividends	11,371,561
Real Estate Income	11,549
Realized and Unrealized Gains and Losses	181,520,905
Investment Expenses	(3,632,547)
Other Income	18,930
<b>Total Revenues</b>	<b>\$ 275,681,353</b>
<b>Disbursements</b>	
Benefit Payments	\$ 101,220,652
Refunds of Member Contributions	3,291,865
Death Benefits	118,337
Administration	3,666,380
<b>Total Disbursements</b>	<b>\$ 108,297,234</b>
Net Increase	\$ 167,384,119
<b>Total Reserves - End of year</b>	<b>\$ 1,439,004,203</b>

## Development of Funding Value of Assets January 1, 2020

	Plan Year Ended December 31, 2015	Plan Year Ended December 31, 2016	Plan Year Ended December 31, 2017	Plan Year Ended December 31, 2018	Plan Year Ended December 31, 2019
A. Funding Value Beginning of Year	\$1,231,473,577	\$1,248,327,560	\$1,268,404,900	\$1,328,750,029	\$1,362,561,581
B. Gross Market Value End of Year	1,135,802,704	1,181,242,858	1,340,471,022	1,271,620,084	1,439,004,203
C. Gross Market Value Beginning of Year	1,173,336,063	1,135,802,704	1,181,242,858	1,340,471,022	1,271,620,084
D. Non-Investment Cash Flow	(20,827,506)	(23,509,152)	(15,849,141)	(15,432,525)	(22,671,149)
E. Investment Income					
E1. Market Total =B-C-D	(16,705,853)	68,949,306	175,077,305	(53,418,413)	190,055,268
E2. Immediate Recognition	<u>88,526,837</u>	<u>88,105,825</u>	<u>89,809,223</u>	<u>92,481,499</u>	<u>94,599,241</u>
E3. Phased-in Recognition	(\$105,232,690)	(\$19,156,519)	\$85,268,082	(\$145,899,912)	\$95,456,027
F. Phased-in Recognition					
F1. Current Year=E3x20%*	(21,046,538)	(3,831,304)	17,053,616	(29,179,982)	19,091,205
F2. First Prior Year	(6,715,969)	(21,046,538)	(3,831,304)	17,053,616	(29,179,982)
F3. Second Prior Year	10,167,841	(6,715,969)	(21,046,538)	(3,831,304)	17,053,616
F4. Third Prior Year	6,442,404	10,167,841	(6,715,969)	(21,046,538)	(3,831,304)
F5. Fourth Prior Year	(10,690,006)	6,442,404	10,167,841	(6,715,969)	(21,046,538)
F6. Continued Recognition of 2008 Asset Loss	(29,936,396)	(29,936,396)	(9,936,396)	0	0
F7. Additional Recognition of 2008 Asset Loss	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
F8. Total Recognized Gain/(Loss)	(\$51,778,664)	(\$44,919,962)	(\$14,308,750)	(\$43,720,177)	(\$17,913,003)
G. Preliminary Funding Value					
=A+D+E2+F8	\$1,247,394,244	\$1,268,004,271	\$1,328,056,232	\$1,362,078,826	\$1,416,576,670
H. Excludable Assets					
H1. End of Year	4,362,000	3,961,371	3,267,574	2,784,819	2,598,886
H2. Beginning of Year	5,295,316	4,362,000	3,961,371	3,267,574	2,784,819
H3. Change=H1-H2	(933,316)	(400,629)	(693,797)	(482,755)	(185,933)
I. Final Funding Value=G-H3	\$1,248,327,560	\$1,268,404,900	\$1,328,750,029	\$1,362,561,581	\$1,416,762,603
J. Investment Return=(E2+F8)/(A+D/2)	3.01%	3.49%	5.99%	3.69%	5.68%

\*The Board originally decided to recognize the 2008 asset loss over 10 years with acceleration of the recognition in future years when the funding margin allowed it. The Board elected to accelerate recognition of an additional \$10 million of the 2008 loss base for the year ending December 31, 2010 and another additional \$10 million for the year ending December 31, 2013. This base is now fully recognized.



## Allocation of Valuation Assets January 1, 2020

	<u>Miscellaneous</u>	<u>Probation</u>	<u>Safety</u>	<u>Grand Total</u>
1) Valuation Assets as of December 31, 2018	\$1,054,963,693	\$57,052,247	\$250,545,641	\$1,362,561,581
2) Preliminary member contributions including pickups by group	\$25,818,675	\$1,713,899	\$5,393,307	\$32,925,880
3) Member contributions from financials, subgroups split in proportion to (2)	\$25,863,631	\$1,716,883	\$5,402,697	\$32,983,211
4) Preliminary employer contributions by group	\$37,200,210	\$1,930,575	\$9,609,726	\$48,740,511
5) Employer contributions from financials, subgroups split in proportion to (4)	\$37,365,871	\$1,939,173	\$9,652,520	\$48,957,564
6) Benefit Payments based on data - avg LY & TY	\$78,132,567	\$3,607,893	\$17,904,274	\$99,644,734
7) Benefit payments from financials, subgroups split in proportion to (6)	\$82,042,240	\$3,788,428	\$18,800,186	\$104,630,854
8) Subtotal = (1) + (3) + (5) - (7)	\$1,036,150,955	\$56,919,875	\$246,800,672	\$1,339,871,502
9) Valuation Assets as of December 31, 2019				\$1,416,762,603
10) Residual to allocate among groups (9) - (8)				\$76,891,101
11) Allocation of residual to equalize funded ratios	\$56,122,775	\$3,580,818	\$17,187,508	\$76,891,101
12) Valuation Assets Allocated by group: (8) + (11)	\$1,092,273,730	\$60,500,693	\$263,988,180	\$1,416,762,603

## Development of Unfunded Actuarial Accrued Liability January 1, 2020

	Miscellaneous	Probation	Safety	Total
	(1)	(2)	(3)	(4)
1. Actuarial Accrued Liability for active members				
a. PVB	\$ 714,039,723	\$ 56,470,395	\$ 167,174,314	\$ 937,684,432
b. Less: PVFNC	(213,072,442)	(20,130,639)	(66,788,162)	(299,991,243)
c. Actuarial accrued liability (AAL)	\$ 500,967,281	\$ 36,339,756	\$ 100,386,152	\$ 637,693,189
2. Total AAL for:				
a. Retirees and beneficiaries	\$ 1,109,542,174	\$ 54,300,656	\$ 296,461,894	\$ 1,460,304,724
b. Inactive members	62,538,710	2,029,192	7,505,668	72,073,570
c. Active members (Item 1c)	500,967,281	36,339,756	100,386,152	637,693,189
d. Total AAL	\$ 1,673,048,165	\$ 92,669,604	\$ 404,353,714	\$ 2,170,071,483
3. Actuarial value of assets	\$ 1,092,273,730	\$ 60,500,693	\$ 263,988,180	\$ 1,416,762,603
4. Funded ratio	65.3%	65.3%	65.3%	65.3%
5. UAAL (Item 2d - Item 3)	\$ 580,774,435	\$ 32,168,911	\$ 140,365,534	\$ 753,308,880

## Pension Costs Summary - 2020 (Expressed as Percentage of Active Payroll)

<b>UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) AMORTIZATION* &amp; TOTAL ADC **</b>	<b>2020 Combined</b>	<b>2019 Combined</b>
<b>MISCELLANEOUS</b>		
Total Normal Cost	19.80%	19.54%
UAAL Amortization	25.45%	22.56%
Total ADC - Miscellaneous	45.25%	42.10%
UAAL attributable to Miscellaneous (000's)	\$ 580,774	\$ 516,710
<b>PROBATION</b>		
Total Normal Cost	24.91%	22.52%
UAAL Amortization	24.94%	22.70%
Total ADC - Probation	49.85%	45.22%
UAAL attributable to Probation (000's)	\$ 32,169	\$ 27,944
<b>SAFETY</b>		
Total Normal Cost	26.87%	26.26%
UAAL Amortization	36.09%	32.60%
Total ADC - Safety	62.96%	58.86%
UAAL attributable to Safety (000's)	\$ 140,366	\$ 122,715
<b>TOTAL</b>		
Total Normal Cost	21.04%	20.60%
UAAL Amortization	26.88%	23.92%
<b>Total ADC - Combined</b>	<b>47.92%</b>	<b>44.52%</b>
UAAL Total (000's)	\$ 753,309	\$ 667,368

\* UAAL Amortization calculated on 30 year closed period with 20 years remaining as of January 1, 2020, with new bases beginning in 2019 amortized over a closed 20 year period.

\*\* Liabilities can be allocated to various Classes and Tiers of active members.  
Assets are not allocable to Tiers therefore allocation of the UAAL and its amortization as a component of pension cost by Tier is not available.

## Development of Experience Gain/(Loss)

### December 31, 2019

The actuarial gains or losses realized in the operation of the SLOCPT provide an experience test. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) and sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain/(loss) is shown below.

(1) UAAL at beginning of the year	\$667,367,732
(2) County normal cost	9,277,192
(3) Actuarially determined contribution for prior year	56,736,789
(4) Interest accrual	45,082,749
(5) Increase/(Decrease) in UAAL due to assumption changes	53,371,279
(6) Increase in UAAL due to provision changes	0
(7) Expected UAAL at end of year	\$718,362,163
[(1) + (2) - (3) + (4) + (5) + (6)]	
(8) Actual UAAL at end of year	\$753,308,880
(9) Experience Gain/(Loss): (7) - (8)	(\$34,946,717)
(10) Gain (loss) as percentage of actuarial accrued liabilities at beginning of year	
\$2,029,929,312	-1.72%

## Components of Experience Gain/(Loss) December 31, 2019

Detail on the components of the actuarial gain/(loss) are shown below.

### Components of Experience Gain/(Loss)

Gain/(Loss) due to:

Compensation increases	\$1,189,459
Investment experience	(17,913,003)
Contribution timing experience	(7,996,277)
Retirement incidence	(2,941,181)
Termination experience	1,812,654
Active mortality experience	737,801
Disability experience	(677,808)
Retiree & beneficiary mortality	
experience and miscellaneous retiree data changes	(11,060,199)
COLAs	(6,374,103)
Other data changes and miscellaneous factors	8,275,940
Total Experience Gain/(Loss)	(\$34,946,717)

## Funding Progress Indicators Historic Comparison

Valuation Date	Valuation Assets <sup>1</sup>	Actuarial Liability <sup>1</sup>	Funded Ratio	Unfunded Actuarial Liability	Member Payroll	Ratio to Payroll
12/31/2010	\$1,000,169	\$1,282,058	78.0%	\$281,889	\$161,783	174.2%
12/31/2011	1,057,922	1,334,545	79.3%	276,623	161,055	171.8%
12/31/2011 <sup>2,3</sup>	1,057,922	1,378,549	76.7%	320,627	161,055	199.1%
12/31/2012 <sup>3</sup>	1,122,151	1,468,001	76.4%	345,850	164,299	210.5%
12/31/2013 <sup>4</sup>	1,182,924	1,518,751	77.9%	335,827	164,704	203.9%
12/31/2014	1,231,474	1,605,591	76.7%	374,117	167,695	223.1%
12/31/2015	1,248,328	1,686,497	74.0%	438,169	177,004	247.5%
12/31/2015 <sup>2</sup>	1,248,328	1,749,342	71.4%	501,014	177,004	283.1%
12/31/2016	1,268,405	1,827,342	69.4%	558,937	185,020	302.1%
12/31/2017	1,328,750	1,937,173	68.6%	608,423	196,848	309.1%
12/31/2017 <sup>2</sup>	1,328,750	1,945,681	68.3%	616,930	196,848	313.4%
12/31/2018	1,362,562	2,029,929	67.1%	667,368	200,537	332.8%
12/31/2019	1,416,763	2,116,700	66.9%	699,938	205,694	340.3%
12/31/2019 <sup>2</sup>	1,416,763	2,170,071	65.3%	753,309	205,694	366.2%

<sup>1</sup> Assets and liabilities do not include Employee Additional Reserve amounts (in \$) of:

12/31/2019	\$2,598,886	12/31/2014	\$5,295,316
12/31/2018	2,784,819	12/31/2013	5,942,492
12/31/2017	3,267,574	12/31/2012	6,606,149
12/31/2016	3,961,371	12/31/2011	7,462,567
12/31/2015	4,362,000	12/31/2010	8,558,571

<sup>2</sup> Reflects assumption changes.

<sup>3</sup> Reflects benefit provisions under Tier 2 for certain new members.

<sup>4</sup> Reflects benefit provisions under Tier 3 for new members and assumption changes.

## Risk Metrics

### January 1, 2020

As a plan matures, the retiree population is projected to grow, the active population to stabilize, and the total liabilities of the plan are projected to become more leveraged in relation to the active member payroll. As a result, contribution requirements may become more volatile due to possible future adverse experience. The following ratios give some indication of the possible future volatility:

(\$ in Thousands)

Volatility Ratios:

a. Payroll	\$ 205,694
b. Market value of assets	\$ 1,439,004
c. Accrued Liability	\$ 2,170,071
d. Funded ratio, market value basis	66.31%
e. Asset volatility ratio (MVA / Payroll)	7.00
f. Liability volatility ratio (AAL / Payroll)	10.55

**Asset Volatility Ratio:** MVA/Payroll – This ratio provides an indication of the potential contribution volatility for any given level of investment volatility. The asset volatility ratio is intended to help plan sponsors anticipate the impact of investment volatility of the actuarially determined contribution. A lower ratio means that plan assets are relatively small compared with payroll; this implies that a single year variance in asset performance may not have as large an impact on contribution rates. As the plan has matured a greater amount of assets have accumulated. With such large retiree liabilities and assets, a change in the asset value becomes a much greater factor relative to payroll.

For SLOCPT, using this volatility measure, an asset loss of 10% (a loss of \$144 million) is 70.0% of payroll. This 70.0% of payroll does not need to be contributed in one year. Five-year asset smoothing as well as the amortization of experience losses would spread the contributions toward that loss over time. The following exhibit provides an estimate of the impact on the contribution rate for a 10% loss, assuming 20-year amortization, with and without the five-year asset smoothing.

Asset Volatility Ratio (in Thousands)					
Fiscal Year ending 12/31/-	2019	2018	2017	2016	2015
Market Value of Assets	\$1,439,004	\$1,271,620	\$1,340,471	\$1,181,243	\$1,135,803
Covered Payroll	\$205,694	\$200,537	\$196,848	\$185,020	\$177,004
Asset Volatility Ratio=Assets/Payroll	7.00	6.34	6.81	6.38	6.42
Increase in contribution rate resulting from a 10% asset loss (using 20-year level percent of pay amortization and five-year asset smoothing)	1.03%	0.94%	1.01%	0.95%	0.96%
Increase in contribution rate resulting from a 10% asset loss (using 20-year level percent of pay amortization without asset smoothing)	5.15%	4.72%	5.07%	4.75%	5.21%

If a plan has an asset volatility ratio of 10, a 10% gain or loss on assets translates to 100% of payroll. This will have a substantial impact on determined contributions regardless of the asset smoothing or UAAL amortization mechanisms in use. However, for a plan with an asset volatility ratio of 5, a 10% gain or loss on assets translates to 50% of payroll and would only have half the impact on contributions of a plan with an asset volatility ratio of 10. This is a current measure since it is based on the current level of assets.

**Liability Volatility Ratio:** AAL/Payroll – This ratio provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because the assets should track the liabilities over an extended period. If a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded. In addition, this ratio provides an indication of the potential contribution volatility due to liability experience (gains and losses) and liability re-measurements (assumption changes).

For SLOCPT, the liability volatility measure has stayed fairly constant over the last five years. The liabilities and the assets have grown at similar rates. To illustrate the sensitivity of liability losses, the following chart shows a possible change in the amortization payment due to an experience loss of 1% for a given year.

Liability Volatility Ratio (in Thousands)					
Fiscal Year ending 12/31/-	2019	2018	2017	2016	2015
Accrued Liability	\$2,170,071	\$2,029,929	\$1,945,681	\$1,827,342	\$1,749,342
Covered Payroll	\$205,694	\$200,537	\$196,848	\$185,020	\$177,004
Liability Volatility Ratio=Liability/Payroll	10.55	10.12	9.88	9.88	9.88
Increase in contribution rate resulting from a 1% liability loss (using 20-year level percent of pay amortization )	0.78%	0.75%	0.74%	0.74%	0.74%



## SECTION D

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### SUMMARY OF MEMBER DATA

## Reconciliation of Members From January 1, 2019 to January 1, 2020

	Actives	Disability	Terminated Vested	Retiree	DROP	Beneficiary	Total
Counts as of January 1, 2019	2,725	141	489	2,421	83	223	<b>6,082</b>
Actives	5		(4)	(1)			0
Disability	(4)	7		(1)	(2)		0
Terminated Vested	(69)		69				0
Terminated Nonvested	(69)		(2)				(71)
Retiree	(70)		(24)	126	(32)		0
DROP	(27)				27		0
Beneficiary							0
Deceased	(3)	(3)		(34)		(13)	(53)
Refund	(73)		(9)				(82)
New Beneficiaries						18	18
New Actives	324						324
Return to Work	13						13
Missing							0
Not included last year			12	10			22
Data Corrections				(2)			(2)
Counts as of January 1, 2020	<b>2,752</b>	<b>145</b>	<b>531</b>	<b>2,519</b>	<b>76</b>	<b>228</b>	<b>6,251</b>

# **Summary of Active Members Included January 1, 2020 Valuation By Attained Ages and Years of Service Total Membership**

Age Group	Years of Accrued Service							No.	Compensation Totals
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>		
<20	0							0	0
20-24	52	0						52	2,927,267
25-29	244	21	0					265	15,847,478
30-34	235	100	21	0				356	24,288,410
35-39	185	125	101	24	1			436	31,801,744
40-44	103	86	95	69	11	0		364	29,028,126
45-49	83	53	71	54	52	7	0	320	25,891,599
50-54	67	47	56	61	71	25	9	336	27,155,105
55-59	59	46	53	58	47	42	23	328	26,058,692
60-64	49	37	43	38	29	23	10	229	17,617,148
65-69	8	12	10	10	8	2	2	52	4,124,494
70-74	4	2	2	2	0	1	0	11	678,746
75+	0	0	2	1	0	0	0	3	275,226
Totals	1,089	529	454	317	219	100	44	2,752	\$205,694,036

While not used in the financial computations, the following averages are computed and shown for their general interest.

## Averages

Age: 44.4  
Service: 8.9  
Compensation: \$74,743



## Summary of Active Members Included in the January 1, 2020 Valuation

			Averages		
	<u>No.</u>	<u>Total Payroll</u>	<u>Annual Compensation</u>	<u>Age</u>	<u>Service</u>
<b>Miscellaneous Members</b>					
1/1/2020	2,334	\$167,651,501	\$71,830	45.4	8.8
1/1/2019	2,324	\$164,634,676	\$70,841	45.5	8.9
Percent Increase	0.4%	1.8%	1.4%		
<b>Probation Members</b>					
1/1/2020	120	\$9,476,688	\$78,972	39.6	9.3
1/1/2019	116	\$8,848,590	\$76,281	38.8	9.1
Percent Increase	3.4%	7.1%	3.5%		
<b>Safety Members</b>					
1/1/2020	298	\$28,565,846	\$95,859	38.9	8.8
1/1/2019	285	\$27,054,206	\$94,927	40.0	10.1
Percent Increase	4.6%	5.6%	1.0%		
<b>All Active Members</b>					
1/1/2020	2,752	\$205,694,036	\$74,743	44.4	8.9
1/1/2019	2,725	\$200,537,472	\$73,592	44.7	9.1
Percent Increase	1.0%	2.6%	1.6%		

For affected Management employees, pick-ups are not included as valuation compensation in these figures, even though such pick-ups are used to determine their benefits.

Payroll represents the total valuation pay of all covered members. Payroll changes year by year based on new hires, departures, and pay for continuing actives. The assumption for payroll growth is used in amortizing the UAL.

Salaries represent the pay earned by an individual member in the system. The salary growth assumption is an assumption for an individual member's increase in salary.

Pensionable compensation is capped at \$126,291 for 2020 for Tier 3 members.

## Summary of Active Members by Valuation Group

### January 1, 2020 Valuation

	Counts				Total Payroll (000s*)			
	Tier 1	Tier 2	Tier 3	Total	Tier 1	Tier 2	Tier 3	Total
<b>Miscellaneous Members</b>								
1/1/2020	941	250	1,143	2,334	\$ 76,213	\$20,607	\$70,832	\$167,652
1/1/2019	1,039	259	1,026	2,324	\$ 82,021	\$20,514	\$62,100	\$164,635
Percent Increase				0.4%				1.8%
<b>Probation Members</b>								
1/1/2020	75	0	45	120	\$ 6,604	\$ 0	\$ 2,872	\$ 9,477
1/1/2019	72	0	44	116	\$ 6,219	\$ 0	\$ 2,630	\$ 8,849
Percent Increase				3.4%				7.1%
<b>Safety Members</b>								
1/1/2020	117	48	133	298	\$ 12,542	\$ 4,855	\$11,169	\$ 28,566
1/1/2019	140	52	93	285	\$ 14,343	\$ 5,086	\$ 7,625	\$ 27,054
Percent Increase				4.6%				5.6%
<b>All Active Members</b>								
1/1/2020	1,133	298	1,321	2,752	\$ 95,359	\$25,461	\$84,873	\$205,694
1/1/2019	1,251	311	1,163	2,725	\$102,583	\$25,600	\$72,355	\$200,537
Percent Increase				1.0%				2.6%

\* Total may not add due to rounding.

## Summary of Deferred and Reciprocal members Included in the January 1, 2020 Valuation

			Averages			
	No.	Member Contributions	Contribution Balance	Attained Age	Age at Termination	Service
Miscellaneous						
Reciprocals	134	\$3,083,849	\$23,014	46.5	36.6	3.1
Deferred	336	\$36,975,401	110,046	50.2	41.7	9.8
Total	470	\$40,059,250	\$85,232	49.2	40.3	7.9
Probation						
Reciprocals	4	\$105,859	\$26,465	43.7	33.6	2.7
Deferred	11	\$1,201,477	\$109,225	45.0	36.2	9.6
Total	15	\$1,307,336	\$87,156	44.6	35.5	7.8
Safety						
Reciprocals	6	\$142,863	\$23,811	42.0	33.1	3.1
Deferred	40	\$5,564,124	\$139,103	44.9	37.2	9.3
Total	46	\$5,706,988	\$124,065	44.6	36.7	8.5
Total						
Reciprocals						
1/1/2020	144	\$3,332,572	\$23,143	46.2	36.4	3.1
1/1/2019	240	\$16,807,320	\$70,031	48.7	39.2	4.9
Percent Change	-40.0%	-80.2%	-67.0%			
Deferred						
1/1/2020	387	\$43,741,002	\$113,026	49.5	41.1	9.7
1/1/2019	249	\$26,148,859	\$105,015	49.5	40.1	9.1
Percent Change	55.4%	67.3%	7.6%			
Grand Total 1/1/2020	531	\$47,073,574	\$88,651	48.6	39.8	7.9
Grand Total 1/1/2019	489	\$42,956,179	\$87,845	49.1	39.7	7.0
Percent Change	8.6%	9.6%	0.9%			

## Summary of Retirees Included in the January 1, 2020 Valuation

		Averages				New Retirees Only		
		Annual	Annual	Attained	Age at		Average	Average
	<u>No.</u>	<u>Allowance</u>	<u>Allowance</u>	<u>Age</u>	<u>Retirement*</u>	<u>No.</u>	<u>Annual</u> <u>Allowance</u>	<u>Age at</u> <u>Retirement</u>
Miscellaneous								
1/1/2020	2,347	\$77,035,350	\$32,823	70.2	59.5	110	\$37,826	61.0
1/1/2019	2,279	\$71,578,729	\$31,408	69.8	59.3	144	\$36,657	61.7
Percent Change	3.0%	7.6%	4.5%				3.2%	
Probation								
1/1/2020	79	\$3,524,156	\$44,610	65.2	55.8	2	\$61,557	55.6
1/1/2019	78	\$3,324,873	\$42,627	64.3	55.8	8	\$47,767	55.3
Percent Change	1.3%	6.0%	4.7%				28.9%	
Safety								
1/1/2020	314	\$17,422,694	\$55,486	63.3	53.2	27	\$48,192	52.7
1/1/2019	288	\$15,880,657	\$55,141	63.3	52.7	16	\$39,796	51.6
Percent Change	9.0%	9.7%	0.6%				21.1%	
All Retirees								
1/1/2020	2,740	\$97,982,200	\$35,760	69.3	58.7	139	\$39,698	59.9
1/1/2019	2,645	\$90,784,259	\$34,323	68.9	58.5	168	\$37,326	60.4
Percent Change	3.6%	7.9%	4.2%				6.4%	

\* For retired and disabled members only; does not include beneficiaries.

## Summary of Beneficiaries Included in the January 1, 2020 Valuation

		<u>Averages</u>		
	<u>No.</u>	<u>Annual Allowance</u>	<u>Annual Allowance</u>	<u>Attained Age</u>
<b>Miscellaneous</b>				
1/1/2020	182	\$3,876,446	\$21,299	75.5
1/1/2019	184	\$3,774,609	\$20,514	76.0
Percent Change	-1.1%	2.7%	3.8%	
<b>Probation</b>				
1/1/2020	6	\$195,644	\$32,607	77.3
1/1/2019	5	\$171,113	\$34,223	75.2
Percent Change	20.0%	14.3%	-4.7%	
<b>Safety</b>				
1/1/2020	40	\$1,352,913	\$33,823	74.1
1/1/2019	34	\$1,152,283	\$33,891	73.3
Percent Change	17.6%	17.4%	-0.2%	
<b>All Beneficiaries</b>				
1/1/2020	228	\$5,425,003	\$23,794	75.3
1/1/2019	223	\$5,098,005	\$22,861	75.6
Percent Change	2.2%	6.4%	4.1%	



## Retirees and Beneficiaries January 1, 2020

### Total Tabulated by Type of Allowances Being Paid

<u>Type of Allowance</u>	<u>No.</u>	<u>Annual Allowances</u>
<b>SERVICE RETIREMENT</b>		
Unmodified	1,068	\$34,033,078
Cash Refund	172	\$5,387,909
100% Continuance	744	\$30,743,570
50% Continuance	261	\$11,328,433
Benefits Coordinated with Social Security		
Unmodified	167	\$5,227,983
Cash Refund	43	\$1,159,596
100% Continuance	80	\$3,400,164
50% Continuance	60	\$2,529,758
<b>Total Service Retirement</b>	<b>2,595</b>	<b>\$93,810,491</b>
<b>DISABILITY RETIREMENT</b>		
Unmodified	82	\$2,355,487
Cash Refund	13	287,149
100% Continuance	41	1,328,831
50% Continuance	9	200,242
<b>Total Disability Retirement</b>	<b>145</b>	<b>\$4,171,709</b>
<b>BENEFICIARIES</b>	<b>228</b>	<b>\$5,425,003</b>
<b>Total Allowances</b>	<b>2,968</b>	<b>\$103,407,203</b>

## SECTION E

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### VALUATION METHODS AND ASSUMPTIONS

## Actuarial Methods and Assumptions Used in the January 1, 2020 Valuation

### I. Valuation Date

The valuation date is December 31 of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

### II. Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- (i) the annual normal costs for each active member, payable from the date of entry into the system to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Deferred and Reciprocal Member Actuarial Accrued Liability. Data provided includes date of birth, service credit, reciprocal status, and hourly pay rates at termination. The estimated benefit was used to compute the liabilities for reserve members. For reciprocal members, the estimated benefits were projected with 2.75% wage inflation from their date of termination to their assumed retirement date to compute those liabilities.

Amortization of Unfunded Actuarial Accrued Liabilities is done as a level percent of payroll over a closed 30-year period (20 years as of January 1, 2020) for funding computations. Starting January 1, 2019, all new gains and losses, including the loss from this year, will be amortized over a closed 20-year layer each year.

### III. Actuarial Value of Assets

The funding value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Pursuant to Board policy, the asset losses that occurred in 2008 are smoothed over a ten-year period with recognition accelerated if a positive contribution margin develops. Expected investment income is determined using the assumed investment return rate and the actuarial value of assets (adjusted for receipts and disbursements during the year). Returns are measured net of all administrative expenses.

IV. Actuarial Assumptions (changes effective January 1, 2020, based on the December 31, 2019 experience study)

A. Economic Assumptions

1. Investment return: 6.875%, compounded annually, net of administrative expenses. This is made up of a 2.25% inflation rate and 4.625% real rate of return.
2. Salary increase rate: Inflation rate of 2.25% plus productivity increase rate of 0.50% plus an additional service-related merit component as shown below:

% Merit Increases in Salaries Next Year		% Total Increases in Salaries Next Year	
Service Index	Rate	Service Index	Rate
1	5.25%	1	8.00%
2	5.00%	2	7.75%
3	4.00%	3	6.75%
4	3.00%	4	5.75%
5	2.00%	5	4.75%
6	1.00%	6	3.75%
7	0.50%	7	3.25%
8 +	0.00%	8 +	2.75%

3. Cost-of-living increases:

Assumed to increase 2.50% each year (2% for Tier 2 and Tier 3)

4. Payroll growth:

2.75% per year (inflation 2.25%; productivity of 0.50%) for the January 1, 2020 actuarial valuation.

5. Increase to maximum earnings limit for Tier 3 members:

2.50% per year

6. Contribution accumulation: Contributions are credited with 6.00% interest, compounded biweekly.

**B. Demographic Assumptions**

1. Mortality projection – The projection calculation for MP-2019
2. Mortality after termination or retirement -
  - a. Healthy males – Pub-2010, Amount-Weighted, Above Median Income, with generational mortality improvements using scale MP-2019, a 99% multiplier
  - b. Healthy females – Pub-2010, Amount-Weighted, Above Median Income, with generational mortality improvements using scale MP-2019, a 101% multiplier

See sample rates for 2020 below:

Ages	% Dying Within Next Year Retirees	
	Men	Women
45	0.10%	0.06%
50	0.25%	0.21%
55	0.37%	0.29%
60	0.57%	0.40%
65	0.82%	0.58%
70	1.28%	0.94%
75	2.20%	1.69%
80	4.00%	3.10%
85	7.36%	5.83%

3. Mortality rates of active members – Pub-2010, Amount-Weighted, Above Median Income, General Employee mortality tables, with generational improvements using scale MP-2019, with a 100% multiplier for males and 100% multiplier for females, applied to Pub-2010, as shown below for selected ages:

See sample rates for 2020 below:

Ages	% of Active Members Dying Within Next Year	
	Men	Women
30	0.04%	0.02%
35	0.06%	0.03%
40	0.07%	0.04%
45	0.09%	0.05%
50	0.12%	0.07%
55	0.19%	0.12%
60	0.29%	0.18%
65	0.41%	0.26%
70	0.57%	0.40%

4. Disability mortality after termination or retirement- Pub-2010, Amount-Weighted, Above Median Income, General Disabled Retiree mortality tables, with generational improvements using scale MP-2019, with 100% multiplier for males and 100% multiplier for females, applied to Pub-2010, as shown below for selected ages:

See sample rates for 2020 below:

Ages	% of Disabled Members Dying Within Next Year	
	Men	Women
30	0.49%	0.35%
35	0.65%	0.54%
40	0.80%	0.73%
45	1.02%	0.97%
50	1.50%	1.43%
55	2.07%	1.83%
60	2.61%	2.08%
65	3.08%	2.18%
70	3.65%	2.59%

5. Retirement –

- a. As shown below for Tier 1 members for selected ages (rates are only applied to members eligible for retirement):

Age	Percent of Eligible Active Members Retiring Within Next Year		
	Miscellaneous	Probation	Safety
50	2.0%	7.5%	25.0%
51	2.0%	7.5%	20.0%
52	2.0%	7.5%	10.0%
53	2.0%	7.5%	10.0%
54	4.0%	7.5%	12.0%
55	6.0%	25.0%	40.0%
56	6.0%	25.0%	30.0%
57	8.0%	25.0%	30.0%
58	8.0%	12.0%	12.0%
59	8.0%	12.0%	18.0%
60	10.0%	15.0%	25.0%
61	10.0%	15.0%	30.0%
62	25.0%	20.0%	40.0%
63	20.0%	20.0%	50.0%
64	20.0%	20.0%	75.0%
65	40.0%	100.0%	100.0%
66	40.0%		
67	30.0%		
68	30.0%		
69	30.0%		
70	100.0%		

Current Reciprocal and Reserve members are assumed to retire at the later of age 60 (age 55 for Tier 1 Reserve Members) or attained age.

- b. As shown below for Tier 2 and future Tier 3 members for selected ages (rates are only applied to members eligible for retirement):

Age	Percent of Eligible Active Members Retiring Within Next Year		
	Miscellaneous	Probation	Safety
50	3.0%	7.5%	9.0%
51	3.0%	7.5%	9.0%
52	3.0%	7.5%	10.0%
53	3.0%	7.5%	10.0%
54	3.0%	7.5%	10.0%
55	6.0%	7.5%	10.0%
56	6.0%	7.5%	10.0%
57	6.0%	7.5%	10.0%
58	6.0%	9.0%	11.0%
59	6.0%	9.0%	15.0%
60	8.0%	10.0%	20.0%
61	8.0%	10.0%	25.0%
62	25.0%	20.0%	30.0%
63	20.0%	20.0%	40.0%
64	20.0%	20.0%	60.0%
65	40.0%	100.0%	100.0%
66	40.0%		
67	30.0%		
68	30.0%		
69	30.0%		
70	100.0%		



6. Rates of separation from active membership (for causes other than death or retirement) - As shown below for selected ages:

Sample Ages	% of Active Members Separating Within Next Year			
	Miscellaneous Members			
	Disability	Withdrawal < 5 years	Withdrawal ≥ 5 years	Vested Termination
20	0.00%	12.50%	8.50%	0.00%
25	0.00%	11.00%	7.75%	10.00%
30	0.01%	9.50%	3.75%	7.50%
35	0.04%	8.00%	2.00%	5.00%
40	0.06%	7.00%	1.25%	4.00%
45	0.09%	6.00%	0.50%	4.00%
50	0.11%	6.00%	0.00%	3.00%
55	0.14%	6.00%	0.00%	2.00%
60	0.16%	6.00%	0.00%	0.00%
64	0.18%	6.00%	0.00%	0.00%

Sample Ages	% of Active Members Separating Within Next Year			
	Safety and Probation Members			
	Disability	Withdrawal < 5 years	Withdrawal ≥ 5 years	Vested Termination
20	0.00%	5.20%	1.50%	3.00%
25	0.03%	5.00%	1.50%	2.00%
30	0.13%	4.70%	1.00%	1.50%
35	0.23%	4.00%	0.50%	1.50%
40	0.33%	3.50%	0.50%	1.50%
45	0.43%	2.50%	0.00%	1.50%
50	0.53%	1.50%	0.00%	1.50%
55	0.63%	0.00%	0.00%	0.00%
60	0.73%	0.00%	0.00%	0.00%
64	0.81%	0.00%	0.00%	0.00%

Vested termination rates and disability rates are applied after the member is eligible for reduced or unreduced retirement benefits. 100% of the Safety disabilities and 0% of the Miscellaneous and Probation disabilities are duty-related.

30% of Vested Terminations are assumed to be Reciprocal.

Based on Member Contribution Totals provided by SLOCPT, we are assuming that 1.00% of members' contribution account balances are for supplemental/additional benefits.

C. Other Assumptions

Member Refunds. All or part of the employee contribution rate is subject to potential "Pick Up" by the employer. Our understanding is that "Pick Ups", and related interest, are subject to refund.

Deferral Age. The assumed retirement age for future Reserve and Reciprocal members is age 57.

Active Death. 100% of active deaths are assumed to be duty related.

Survivor Benefits. Marital status and spouses' census data were imputed with respect to active and deferred members.

Marital Status. 80% of men and 60% of women were assumed married at retirement.

Spouse Census. Women were assumed 3 years younger than men for active employees.

Disability Benefits. Benefits are not assumed to be offset by Social Security benefits.

IRC Section 415 Limits. We are assuming that IRC Section 415 limits, although applicable to this plan, will not impact any individual benefits.

## Analysis of Selected Actuarial Assumptions Compared to Actual Experience

Assumed and actual changes experienced in areas related to the following assumptions are shown:

	Year Ended December 31					Averages		
	2019	2018	2017	2016	2015	3 Year	5 Year	10 Year
Inflation <sup>1</sup>	2.7%	3.9%	3.3%	2.8%	2.6%	3.3%	3.1%	2.5%
Current Assumption	2.250%							
Average Pay Increase	1.6%	1.8%	4.6%	1.9%	3.2%	2.6%	2.6%	1.6%
Current Assumption	2.750%							
Merit & Longevity Pay Increase	-1.1%	-2.1%	1.3%	-0.9%	0.6%	-0.7%	-0.5%	-0.9%
Current Assumption	0.500%							
Total Payroll	2.6%	1.9%	6.4%	4.5%	5.6%	3.6%	4.2%	1.8%
Current Assumption	2.750%							
Investment Return Rate <sup>2</sup>	5.7%	3.7%	6.0%	3.5%	3.0%	5.1%	4.4%	5.1%
Current Assumption	6.875%							
Real Rate of Investment Return	3.0%	-0.2%	2.7%	0.7%	0.4%	1.8%	1.3%	2.6%
Current Assumption	4.625%							

<sup>1</sup> Based on the average of the Consumer Price Index for Los Angeles – Long Beach – Anaheim and the San Francisco – Oakland – Hayward, All Items, 1982-84=100.

<sup>2</sup> Based on actuarial value of assets, NOT market value or book value

## SECTION F

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### **SUMMARY OF BENEFIT PROVISIONS AND CURRENT MEMBER CONTRIBUTION RATES**

Note: The member contribution rates are the rates submitted in the data and used in the valuation.

## Brief Summary of Benefit Provisions Evaluated Effective January 1, 2020

1. Membership Requirements – All regular permanent employees of the County or district covered by the County or agencies that have contracted with the County to participate in the SLOCPT
  
2. Tiers  
 Tier 1 generally includes new members hired before January 1, 2011.  
  
 Tier 2 generally includes new members hired on or after January 1, 2011 and before January 1, 2013. Tier 2 only applies to members hired after the date each particular bargaining unit adopted Tier 2. Members hired in a bargaining unit that did not adopt Tier 2 are considered Tier 1 members.  
  
 Tier 3 includes all new members hired on or after January 1, 2013.
  
3. Final Compensation – Highest one-year average for employees in Tier 1 and “Pick Up” included as compensation for various management employees. Bargaining Units #4, 7, 8, 9, 10, 11, 12, 17, 99

Pick Up Percentage included in final average  
compensation:

<u>Bargaining Unit</u>	<u>Pick Up</u>
4,7,8,9,11,12,99	9.29%
10	13.55%
17	13.59%

Highest three-year average for employees in Tier 2 and  
Tier 3

4. Member Contributions  
 Please refer to Appendix A. Employee contribution rates used in the January 1, 2020 valuation have increased since the January 1, 2019 valuation for most members.
  
5. Service Retirement
  - A. Eligibility                      - Age 50 with 5 years of service (Age 52 with 5 years of service for Miscellaneous members in Tier 3).
  
  - B. Benefit Formula                - Final Compensation multiplied by Years of Credited Service multiplied by Retirement Age Factor.



## Brief Summary of Benefit Provisions Evaluated Effective January 1, 2020

### C. Retirement Age Factors

Safety					
Age	Tier 1 <sup>1</sup>	Tier 1 <sup>2</sup>	Tier 2 <sup>3</sup>	Tier 2 <sup>4</sup>	Tier 3
50	2.300%	3.000%	2.000%	2.300%	2.000%
51	2.440	3.000	2.140	2.440	2.100
52	2.580	3.000	2.280	2.580	2.200
53	2.720	3.000	2.420	2.720	2.300
54	2.860	3.000	2.560	2.860	2.400
55	3.000	3.000	2.700	3.000	2.500
56	3.000	3.000	2.700	3.000	2.600
57+	3.000	3.000	2.700	3.000	2.700

Probation		
Age	Tier 1	Tier 3
50	2.300%	2.000%
51	2.440	2.100
52	2.580	2.200
53	2.720	2.300
54	2.860	2.400
55	3.000	2.500
56	3.000	2.600
57+	3.000	2.700

<sup>1</sup> Safety Bargaining Units 6 & 7 and Non-Sworn Bargaining Units 3, 14, 15

<sup>2</sup> Safety Bargaining Units 10 & 16 and Sworn Bargaining Units 15, 27, 28

<sup>3</sup> Non-Sworn Safety members

<sup>4</sup> Safety Bargaining Units 6 & 7 and Sworn Safety members

Miscellaneous			
Age	Tier 1	Tier 2	Tier 3
50	1.426%	1.092%	-
51	1.541	1.156	-
52	1.656	1.224	1.000%
53	1.770	1.296	1.100
54	1.885	1.376	1.200
55	2.000	1.460	1.300
56	2.117	1.552	1.400
57	2.233	1.650	1.500
58	2.350	1.758	1.600
59	2.466	1.874	1.700
60	2.583	2.000	1.800
61	2.699	2.134	1.900
62	2.816	2.272	2.000
63	2.932	2.418	2.100
64	3.049	2.458	2.200
65	3.165	2.500	2.300
66	3.165	2.500	2.400
67+	3.165	2.500	2.500

## Brief Summary of Benefit Provisions Evaluated Effective January 1, 2020

- D. Maximum Benefit
  - a. Tier 1
    - 80% of Final Compensation for SLOCEA and Misc. Other
    - 90% of Final Compensation for Safety and Probation
    - 100% of Final Compensation for Miscellaneous Management
  - b. Tier 2
    - 90% of Final Compensation for all of Tier 2
  - c. Tier 3
    - No maximum benefit applies but pensionable compensation is capped at \$126,291 for 2020 and adjusted annually based on CPI.
- 6. Ordinary Disability
  - A. Eligibility - Five years of service and less than 65 years old.
  - B. Benefit Formula - Greater of (1) 1.5% of Final Compensation times Credited Service, (2) 1/3 of Final Compensation if Credited Service is between 10 and 22.222 years, or (3) the earned Service Retirement Allowance (if eligible).
- 7. Line-of-Duty Disability
  - A. Eligibility - No age or service requirement for Safety members.
  - B. Benefit Formula - Greater of (1) 50% of Final Compensation, or (2) Service Retirement Allowance (if eligible).
- 8. Ordinary Death Before Eligible for Retirement (Basic Death Benefit)

Refund of employee contributions with interest plus lump sum of one and one-half month's compensation for each year of service to a maximum of eighteen months' Compensation.
- 9. Ordinary Death After Eligible for Retirement

50% of earned benefit payable to surviving eligible spouse or children until age 18, or benefit in (8) above if greater. Spouse can elect an actuarially-reduced 100% Joint and Survivor benefit.
- 10. Line-of-Duty Death (Safety only)

50% of Final Compensation. Benefit increased to 62.5%, 70% or 75%, respectively, if violent death and 1, 2, or 3 children.
- 11. Death After Retirement

50% of member's unmodified allowance continued to eligible spouse. Optional forms of payment are also available.  
\$1,000 payable in lump sum to the beneficiary or the estate of the retiree.

## Brief Summary of Benefit Provisions Evaluated Effective January 1, 2020

### 12. Withdrawal Benefits

#### A. Less than Five Years of Service

Refund of accumulated employee contributions with interest.

#### B. Five or More Years of Service

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire.

### 13. Post-Retirement Cost-of-Living Benefits

Based on changes in Consumer Price Index to a maximum of 3% per year (maximum of 2% per year for Tier 2 and Tier 3).

### 14. Deferred Retirement Option Program (DROP): A Tier 1 member (excluding Court employees) may elect to participate in the SLOCPT's DROP. A member age 50 or more with 5 or more years of service may participate. An amount equal to the amount that would have been paid had the member retired, is deposited into a DROP account. The annual addition to the DROP account is increased each year by the Cost-of-Living Adjustment approved by the Board of Trustees not to exceed 3% per year. Deposits into the DROP account and participation in DROP cease at the earlier of 5 years of DROP participation or separation from service. Upon actual retirement, the member may receive the DROP account balance in the form of a lump sum or as an annuity payment.

**NOTE:** The summary of major plan provisions is designed to outline principal plan benefits. If the County should find the plan summary not in accordance with the actual provisions, the County should alert the actuary **IMMEDIATELY** so proper provisions are valued.



# January 1, 2020 Actuarial Valuation

## Member Contribution Rates\*

MISCELLANEOUS - TIER 1

BU	14,21,22	7a (LAFCO)		7c (LAFCO)		4,7,8,9,10,11,17		17C (Interpreter)		18		20		24,26,27		25		1,5,13		2		19		98		99	
		Non-Court Management	Other	Non-Court Management	Other	Non-Court Management	Other	Court	Other	Court	Other	Court	Other	Court	Management	Court	Management	SLOCEA	Non-Court	SLOCEA	Non-Court	Court	SLOCEA	Non-Court	SLOCEA	Non-Court	Management
18	15.65%	14.56%	12.39%	19.32%	18.43%	19.19%	19.19%	16.67%	17.96%	16.97%	16.97%	16.67%	17.96%	16.97%	17.96%	16.97%	16.97%	19.01%	18.45%	18.45%	16.11%	16.11%	20.32%	20.32%	20.63%	20.63%	
19	15.72%	14.63%	12.46%	19.39%	18.50%	19.26%	19.26%	16.74%	18.03%	17.04%	17.04%	16.74%	18.03%	17.04%	18.03%	17.04%	17.04%	19.08%	18.52%	18.52%	16.18%	16.18%	20.39%	20.39%	20.70%	20.70%	
20	15.79%	14.70%	12.53%	19.46%	18.57%	19.33%	19.33%	16.81%	18.10%	17.11%	17.11%	16.81%	18.10%	17.11%	18.10%	17.11%	17.11%	19.15%	18.59%	18.59%	16.25%	16.25%	20.46%	20.46%	20.77%	20.77%	
21	15.85%	14.76%	12.59%	19.52%	18.63%	19.39%	19.39%	16.87%	18.16%	17.17%	17.17%	16.87%	18.16%	17.17%	18.16%	17.17%	17.17%	19.21%	18.65%	18.65%	16.31%	16.31%	20.52%	20.52%	20.83%	20.83%	
22	15.87%	14.78%	12.61%	19.54%	18.65%	19.41%	19.41%	16.89%	18.18%	17.19%	17.19%	16.89%	18.18%	17.19%	18.18%	17.19%	17.19%	19.23%	18.67%	18.67%	16.33%	16.33%	20.54%	20.54%	20.85%	20.85%	
23	15.89%	14.80%	12.63%	19.56%	18.67%	19.43%	19.43%	16.91%	18.20%	17.21%	17.21%	16.91%	18.20%	17.21%	18.20%	17.21%	17.21%	19.25%	18.69%	18.69%	16.35%	16.35%	20.56%	20.56%	20.87%	20.87%	
24	15.92%	14.83%	12.66%	19.59%	18.70%	19.46%	19.46%	16.94%	18.23%	17.24%	17.24%	16.94%	18.23%	17.24%	18.23%	17.24%	17.24%	19.28%	18.72%	18.72%	16.38%	16.38%	20.59%	20.59%	20.90%	20.90%	
25	15.96%	14.87%	12.70%	19.63%	18.74%	19.50%	19.50%	16.98%	18.27%	17.28%	17.28%	16.98%	18.27%	17.28%	18.27%	17.28%	17.28%	19.32%	18.76%	18.76%	16.42%	16.42%	20.63%	20.63%	20.94%	20.94%	
26	16.01%	14.92%	12.75%	19.68%	18.79%	19.55%	19.55%	17.03%	18.32%	17.33%	17.33%	17.03%	18.32%	17.33%	18.32%	17.33%	17.33%	19.37%	18.81%	18.81%	16.47%	16.47%	20.68%	20.68%	20.99%	20.99%	
27	16.06%	14.97%	12.80%	19.73%	18.84%	19.60%	19.60%	17.08%	18.37%	17.38%	17.38%	17.08%	18.37%	17.38%	18.37%	17.38%	17.38%	19.42%	18.86%	18.86%	16.52%	16.52%	20.73%	20.73%	21.04%	21.04%	
28	16.12%	15.03%	12.86%	19.79%	18.90%	19.66%	19.66%	17.14%	18.43%	17.44%	17.44%	17.14%	18.43%	17.44%	18.43%	17.44%	17.44%	19.48%	18.92%	18.92%	16.58%	16.58%	20.79%	20.79%	21.10%	21.10%	
29	16.19%	15.10%	12.93%	19.86%	18.97%	19.73%	19.73%	17.21%	18.50%	17.51%	17.51%	17.21%	18.50%	17.51%	18.50%	17.51%	17.51%	19.55%	18.99%	18.99%	16.65%	16.65%	20.86%	20.86%	21.17%	21.17%	
30	16.26%	15.17%	13.00%	19.93%	19.04%	19.80%	19.80%	17.28%	18.57%	17.58%	17.58%	17.28%	18.57%	17.58%	18.57%	17.58%	17.58%	19.62%	19.06%	19.06%	16.72%	16.72%	20.93%	20.93%	21.24%	21.24%	
31	16.34%	15.25%	13.08%	20.01%	19.12%	19.88%	19.88%	17.36%	18.65%	17.66%	17.66%	17.36%	18.65%	17.66%	18.65%	17.66%	17.66%	19.70%	19.14%	19.14%	16.80%	16.80%	21.01%	21.01%	21.32%	21.32%	
32	16.43%	15.34%	13.17%	20.10%	19.21%	19.97%	19.97%	17.45%	18.74%	17.75%	17.75%	17.45%	18.74%	17.75%	18.74%	17.75%	17.75%	19.79%	19.23%	19.23%	16.89%	16.89%	21.10%	21.10%	21.41%	21.41%	
33	16.52%	15.43%	13.26%	20.19%	19.30%	20.06%	20.06%	17.54%	18.83%	17.84%	17.84%	17.54%	18.83%	17.84%	18.83%	17.84%	17.84%	19.88%	19.32%	19.32%	16.98%	16.98%	21.19%	21.19%	21.50%	21.50%	
34	16.62%	15.53%	13.36%	20.29%	19.40%	20.16%	20.16%	17.64%	18.93%	17.94%	17.94%	17.64%	18.93%	17.94%	18.93%	17.94%	17.94%	19.98%	19.42%	19.42%	17.08%	17.08%	21.29%	21.29%	21.60%	21.60%	
35	16.72%	15.63%	13.46%	20.39%	19.50%	20.26%	20.26%	17.74%	19.03%	18.04%	18.04%	17.74%	19.03%	18.04%	19.03%	18.04%	18.04%	20.08%	19.52%	19.52%	17.18%	17.18%	21.39%	21.39%	21.70%	21.70%	
36	16.82%	15.73%	13.56%	20.49%	19.60%	20.36%	20.36%	17.84%	19.13%	18.14%	18.14%	17.84%	19.13%	18.14%	19.13%	18.14%	18.14%	20.18%	19.62%	19.62%	17.28%	17.28%	21.49%	21.49%	21.80%	21.80%	
37	16.93%	15.84%	13.67%	20.60%	19.71%	20.47%	20.47%	17.95%	19.24%	18.25%	18.25%	17.95%	19.24%	18.25%	19.24%	18.25%	18.25%	20.29%	19.73%	19.73%	17.39%	17.39%	21.60%	21.60%	21.91%	21.91%	
38	17.04%	15.95%	13.78%	20.71%	19.82%	20.58%	20.58%	18.06%	19.35%	18.36%	18.36%	18.06%	19.35%	18.36%	19.35%	18.36%	18.36%	20.40%	19.84%	19.84%	17.50%	17.50%	21.71%	21.71%	22.02%	22.02%	
39	17.16%	16.07%	13.90%	20.83%	19.94%	20.70%	20.70%	18.18%	19.47%	18.48%	18.48%	18.18%	19.47%	18.48%	19.47%	18.48%	18.48%	20.52%	19.96%	19.96%	17.62%	17.62%	21.83%	21.83%	22.14%	22.14%	
40	17.28%	16.19%	14.02%	20.95%	20.06%	20.82%	20.82%	18.30%	19.59%	18.60%	18.60%	18.30%	19.59%	18.60%	19.59%	18.60%	18.60%	20.64%	20.08%	20.08%	17.74%	17.74%	21.95%	21.95%	22.26%	22.26%	
41	17.41%	16.32%	14.15%	21.08%	20.19%	20.95%	20.95%	18.43%	19.72%	18.73%	18.73%	18.43%	19.72%	18.73%	19.72%	18.73%	18.73%	20.77%	20.21%	20.21%	17.87%	17.87%	22.08%	22.08%	22.39%	22.39%	
42	17.54%	16.45%	14.28%	21.21%	20.32%	21.08%	21.08%	18.56%	19.85%	18.86%	18.86%	18.56%	19.85%	18.86%	19.85%	18.86%	18.86%	20.90%	20.34%	20.34%	18.00%	18.00%	22.21%	22.21%	22.52%	22.52%	
43	17.68%	16.59%	14.42%	21.35%	20.46%	21.22%	21.22%	18.70%	19.99%	19.00%	19.00%	18.70%	19.99%	19.00%	19.99%	19.00%	19.00%	21.04%	20.48%	20.48%	18.14%	18.14%	22.35%	22.35%	22.66%	22.66%	
44	17.82%	16.73%	14.56%	21.49%	20.60%	21.36%	21.36%	18.84%	20.13%	19.14%	19.14%	18.84%	20.13%	19.14%	20.13%	19.14%	19.14%	21.18%	20.62%	20.62%	18.28%	18.28%	22.49%	22.49%	22.80%	22.80%	
45	17.96%	16.87%	14.70%	21.63%	20.74%	21.50%	21.50%	18.98%	20.27%	19.28%	19.28%	18.98%	20.27%	19.28%	20.27%	19.28%	19.28%	21.32%	20.76%	20.76%	18.42%	18.42%	22.63%	22.63%	22.94%	22.94%	
46	18.11%	17.02%	14.85%	21.78%	20.89%	21.65%	21.65%	19.13%	20.42%	19.43%	19.43%	19.13%	20.42%	19.43%	20.42%	19.43%	19.43%	21.47%	20.91%	20.91%	18.57%	18.57%	22.78%	22.78%	23.09%	23.09%	
47	18.27%	17.18%	15.01%	21.94%	21.05%	21.81%	21.81%	19.29%	20.58%	19.59%	19.59%	19.29%	20.58%	19.59%	20.58%	19.59%	19.59%	21.63%	21.07%	21.07%	18.73%	18.73%	22.94%	22.94%	23.25%	23.25%	
48	18.43%	17.34%	15.17%	22.10%	21.21%	21.97%	21.97%	19.45%	20.74%	19.75%	19.75%	19.45%	20.74%	19.75%	20.74%	19.75%	19.75%	21.79%	21.23%	21.23%	18.89%	18.89%	23.10%	23.10%	23.41%	23.41%	
49	18.59%	17.50%	15.33%	22.26%	21.37%	22.13%	22.13%	19.61%	20.90%	19.91%	19.91%	19.61%	20.90%	19.91%	20.90%	19.91%	19.91%	21.95%	21.39%	21.39%	19.05%	19.05%	23.26%	23.26%	23.57%	23.57%	
50	18.76%	17.67%	15.50%	22.43%	21.54%	22.30%	22.30%	19.78%	21.07%	20.08%	20.08%	19.78%	21.07%	20.08%	21.07%	20.08%	20.08%	22.12%	21.56%	21.56%	19.22%	19.22%	23.43%	23.43%	23.74%	23.74%	
51	18.93%	17.84%	15.67%	22.60%	21.71%	22.47%	22.47%	19.95%	21.24%	20.25%	20.25%	19.95%	21.24%	20.25%	21.24%	20.25%	20.25%	22.29%	21.73%	21.73%	19.39%	19.39%	23.60%	23.60%	23.91%	23.91%	
52	19.10%	18.01%	15.84%	22.77%	21.88%	22.64%	22.64%	20.12%	21.41%	20.42%	20.42%	20.12%	21.41%	20.42%	21.41%	20.42%	20.42%	22.46%	21.90%	21.90%	19.56%	19.56%	23.77%	23.77%	24.08%	24.08%	
53	19.28%	18.19%	16.02%	22.95%	22.06%	22.82%	22.82%	20.30%	21.59%	20.60%	20.60%	20.30%	21.59%	20.60%	21.59%	20.60%	20.60%	22.62%	22.06%	22.06%	19.74%	19.74%	23.95%	23.95%	24.26%	24.26%	
54	19.46%	18.37%	16.20%	23.13%	22.24%	23.00%	23.00%	20.48%	21.77%	20.78%	20.78%	20.48%	21.77%	20.78%	21.77%	20.78%	20.78%	22.82%	22.26%	22.26%	19.92%	19.92%	24.13%	24.13%	24.44%	24.44%	
55	19.65%	18.56%	16.39%	23.32%	22.43%	23.19%	23.19%	20.67%	21.96%	20.97%	20.97%	20.67%	21.96%	20.97%	21.96%	20.97%	20.97%	23.01%	22.45%	22.45%	20.11%	20.11%	24.32%	24.32%	24.63%	24.63%	
56	19.84%	18.75%	16.58%	23.51%	22.62%	23.38%	23.38%	20.86%	22.15%	21.16%	21.16%	20.86%	22.15%	21.16%	22.15%	21.16%	21.16%	23.20%	22.64%	22.64%	20.30%	20.30%	24.51%	24.51%	24.82%	24.82%	
57	20.03%	18.94%	16.77%	23.70%	22.81%	23.57%	23.57%	21.05%	22.34%	21.35%	21.35%	21.05%	22.34%	21.35%	22.34%	21.35%	21.35%	23.39%	22.83%	22.83%	20.49%	20.49%	24.70%	24.70%	25.01%	25.01%	
58	20.23%	19.14%	16.97%	23.90%	23.01%	23.77%	23.77%	21.25%	22.54%	21.55%	21.55%	21.25%	22.54%	21.55%	22.54%	21.55%	21.55%	23.59%	23.03%	23.03%	20.69%	20.69%	24.90%	24.90%	25.21%	25.21%	
59+	20.43%	19.34%	17.17%	24.10%	23.21%	23.97%	23.97%	21.45%	22.74%	21.75%	21.75%	21.45%	22.74%	21.75%	22.74%	21.75%	21.75%	23.79%	23.23%	23.23%	20.89%	20.89%	25.10%	25.10%	25.41%	25.41%	

\* Rates do not include Auto Allowance for certain individuals. These are the rates in effect at the time of the valuation.

## January 1, 2020 Actuarial Valuation Member Contribution Rates\*

BU Entry Age	PROBATION - TIER 1		
	8	9	31,32
	Management	Management	Non- Management
18	24.06%	24.06%	20.83%
19	24.14%	24.14%	20.91%
20	24.22%	24.22%	20.99%
21	24.29%	24.29%	21.06%
22	24.31%	24.31%	21.08%
23	24.33%	24.33%	21.10%
24	24.36%	24.36%	21.13%
25	24.41%	24.41%	21.18%
26	24.46%	24.46%	21.23%
27	24.52%	24.52%	21.29%
28	24.58%	24.58%	21.35%
29	24.66%	24.66%	21.43%
30	24.74%	24.74%	21.51%
31	24.83%	24.83%	21.60%
32	24.93%	24.93%	21.70%
33	25.03%	25.03%	21.80%
34	25.14%	25.14%	21.91%
35	25.25%	25.25%	22.02%
36	25.36%	25.36%	22.13%
37	25.48%	25.48%	22.25%
38	25.60%	25.60%	22.37%
39	25.73%	25.73%	22.50%
40	25.87%	25.87%	22.64%
41	26.01%	26.01%	22.78%
42	26.15%	26.15%	22.92%
43	26.31%	26.31%	23.08%
44	26.46%	26.46%	23.23%
45	26.62%	26.62%	23.39%
46	26.79%	26.79%	23.56%
47	26.96%	26.96%	23.73%
48	27.14%	27.14%	23.91%
49	27.32%	27.32%	24.09%
50	27.50%	27.50%	24.27%
51	27.69%	27.69%	24.46%
52	27.88%	27.88%	24.65%
53	28.08%	28.08%	24.85%
54	28.28%	28.28%	25.05%
55	28.49%	28.49%	25.26%
56	28.70%	28.70%	25.47%
57	28.91%	28.91%	25.68%
58	29.13%	29.13%	25.90%
59+	29.35%	29.35%	26.12%

\* Rates do not include Auto Allowance for certain individuals. These are the rates in effect at the time of the valuation.



# January 1, 2020 Actuarial Valuation

## Member Contribution Rates\*

SAFETY - TIER 1								
BU	6	3,14	27,28	7	10	15	15	16
Entry	Non-	Non-	Non-		(Sheriff-Coroner)	(non-sworn)	(sworn)	(sworn)
Age	Management	Management	Management	Management	Management	Management#	Management@	Management
18	20.56%	16.72%	21.35%	24.97%	29.62%	21.48%	26.23%	31.80%
19	20.67%	16.83%	21.46%	25.08%	29.73%	21.59%	26.34%	31.91%
20	20.78%	16.94%	21.57%	25.19%	29.84%	21.70%	26.45%	32.02%
21	20.89%	17.05%	21.68%	25.30%	29.95%	21.81%	26.56%	32.13%
22	21.00%	17.16%	21.79%	25.41%	30.06%	21.92%	26.67%	32.24%
23	21.12%	17.28%	21.91%	25.53%	30.18%	22.04%	26.79%	32.36%
24	21.24%	17.40%	22.03%	25.65%	30.30%	22.16%	26.91%	32.48%
25	21.36%	17.52%	22.15%	25.77%	30.42%	22.28%	27.03%	32.60%
26	21.48%	17.64%	22.27%	25.89%	30.54%	22.40%	27.15%	32.72%
27	21.60%	17.76%	22.39%	26.01%	30.66%	22.52%	27.27%	32.84%
28	21.72%	17.88%	22.51%	26.13%	30.78%	22.64%	27.39%	32.96%
29	21.84%	18.00%	22.63%	26.25%	30.90%	22.76%	27.51%	33.08%
30	21.96%	18.12%	22.75%	26.37%	31.02%	22.88%	27.63%	33.20%
31	22.08%	18.24%	22.87%	26.49%	31.14%	23.00%	27.75%	33.32%
32	22.20%	18.36%	22.99%	26.61%	31.26%	23.12%	27.87%	33.44%
33	22.32%	18.48%	23.11%	26.73%	31.38%	23.24%	27.99%	33.56%
34	22.44%	18.60%	23.23%	26.85%	31.50%	23.36%	28.11%	33.68%
35	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
36	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
37	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
38	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
39	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
40	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
41	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
42	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
43	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
44	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
45	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
46	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
47	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
48	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
49	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
50	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
51	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
52	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
53	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
54	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
55	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
56	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
57	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
58	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%
59+	22.56%	18.72%	23.35%	26.97%	31.62%	23.48%	28.23%	33.80%

\* Rates do not include Auto Allowance for certain individuals. These are the rates in effect at the time of the valuation.

# Includes Non-Sworn members of Bargaining Unit 15.

@ Includes Sworn members of Bargaining Unit 15.



# January 1, 2020 Actuarial Valuation

## Member Contribution Rates

Tier 2

BU	12	7 LAFCO	14, 21, 22	all others	3, 14	6	7	15 (non-sworn)	15 (sworn)	10, 16	27, 28
Entry Age	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Safety	Safety	Safety	Safety	Safety	Safety	Safety
18	9.54%	10.44%	7.26%	10.43%	10.95%	14.45%	17.20%	11.63%	12.32%	17.89%	11.88%
19	9.66%	10.56%	7.38%	10.55%	11.30%	14.80%	17.55%	11.98%	12.72%	18.29%	12.28%
20	9.78%	10.68%	7.50%	10.67%	11.65%	15.15%	17.90%	12.33%	13.12%	18.69%	12.68%
21	9.93%	10.83%	7.65%	10.82%	12.00%	15.50%	18.25%	12.68%	13.52%	19.09%	13.08%
22	10.04%	10.94%	7.76%	10.93%	12.35%	15.85%	18.60%	13.03%	13.92%	19.49%	13.48%
23	10.20%	11.10%	7.92%	11.09%	12.70%	16.20%	18.95%	13.38%	14.32%	19.89%	13.88%
24	10.32%	11.22%	8.04%	11.21%	13.05%	16.55%	19.30%	13.73%	14.73%	20.30%	14.29%
25	10.46%	11.36%	8.18%	11.35%	13.40%	16.90%	19.65%	14.08%	15.13%	20.70%	14.69%
26	10.66%	11.56%	8.38%	11.55%	13.75%	17.25%	20.00%	14.43%	15.53%	21.10%	15.09%
27	10.76%	11.66%	8.48%	11.65%	14.10%	17.60%	20.35%	14.78%	15.93%	21.50%	15.49%
28	10.95%	11.85%	8.67%	11.84%	14.45%	17.95%	20.70%	15.13%	16.33%	21.90%	15.89%
29	11.10%	12.00%	8.82%	11.99%	14.80%	18.30%	21.05%	15.48%	16.73%	22.30%	16.29%
30	11.40%	12.30%	9.12%	12.29%	15.15%	18.65%	21.40%	15.83%	17.13%	22.70%	16.69%
31	11.56%	12.46%	9.28%	12.45%	15.50%	19.00%	21.75%	16.18%	17.53%	23.10%	17.09%
32	11.85%	12.75%	9.57%	12.74%	15.85%	19.35%	22.10%	16.53%	17.94%	23.51%	17.50%
33	12.00%	12.90%	9.72%	12.89%	16.20%	19.70%	22.45%	16.88%	18.34%	23.91%	17.90%
34	12.18%	13.08%	9.90%	13.07%	16.55%	20.05%	22.80%	17.23%	18.74%	24.31%	18.30%
35	12.50%	13.40%	10.22%	13.39%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
36	12.65%	13.55%	10.37%	13.54%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
37	12.86%	13.76%	10.58%	13.75%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
38	13.09%	13.99%	10.81%	13.98%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
39	13.30%	14.20%	11.02%	14.19%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
40	13.50%	14.40%	11.22%	14.39%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
41	13.65%	14.55%	11.37%	14.54%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
42	13.68%	14.58%	11.40%	14.57%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
43	13.91%	14.81%	11.63%	14.80%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
44	14.14%	15.04%	11.86%	15.03%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
45	14.23%	15.13%	11.95%	15.12%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
46	14.51%	15.41%	12.23%	15.40%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
47	14.75%	15.65%	12.47%	15.64%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
48	14.85%	15.75%	12.57%	15.74%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
49	15.13%	16.03%	12.85%	16.02%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
50	15.17%	16.07%	12.89%	16.06%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
51	15.38%	16.28%	13.10%	16.27%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
52	15.44%	16.34%	13.16%	16.33%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
53	15.64%	16.54%	13.36%	16.53%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
54	15.83%	16.73%	13.55%	16.72%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
55	16.13%	17.03%	13.85%	17.02%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
56	16.19%	17.09%	13.91%	17.08%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
57	16.21%	17.11%	13.93%	17.10%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
58	16.23%	17.13%	13.95%	17.12%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
59	16.25%	17.15%	13.97%	17.14%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
60	16.27%	17.17%	13.99%	17.16%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
61	16.29%	17.19%	14.01%	17.18%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%
62+	16.31%	17.21%	14.03%	17.20%	16.90%	20.40%	23.15%	17.58%	19.14%	24.71%	18.70%



# January 1, 2020 Actuarial Valuation

## Member Contribution Rates

BU	Entry Age	Tier 3															27, 28	8, 9	31, 32
		all other	17C,18,19,20,24,26,27	12	14, 21, 22	25	Miscellaneous	98, 99	7 LAFCO	3, 14	6	7, 10, 16	15 (non-sworn and sworn)	Safety	10, 43	Safety	10, 43	11, 63	11, 63
		Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Safety	Safety	Safety	Safety	Safety	Safety	Safety	Safety	Probation	Probation
18		8.81%	10.21%	7.92%	5.64%	9.22%	10.12%	8.82%	9.75%	13.25%	16.00%	10.43%	9.99%	11.63%	9.59%	9.99%	11.63%	11.88%	9.59%
19		9.06%	10.46%	8.17%	5.89%	9.47%	10.37%	9.07%	10.25%	13.75%	16.50%	10.93%	10.49%	11.88%	9.84%	10.49%	11.88%	12.13%	10.09%
20		9.06%	10.46%	8.17%	5.89%	9.47%	10.37%	9.07%	10.50%	14.00%	16.75%	11.18%	10.74%	12.13%	10.09%	10.74%	11.18%	12.13%	10.09%
21		9.31%	10.71%	8.42%	6.14%	9.72%	10.62%	9.32%	10.75%	14.25%	17.00%	11.43%	10.99%	12.13%	10.09%	10.99%	11.43%	12.13%	10.09%
22		9.31%	10.71%	8.42%	6.14%	9.72%	10.62%	9.32%	11.00%	14.50%	17.25%	11.68%	11.24%	12.38%	10.34%	11.24%	11.68%	12.38%	10.34%
23		9.56%	10.96%	8.67%	6.39%	9.97%	10.87%	9.57%	11.50%	15.00%	17.75%	12.18%	11.74%	12.63%	10.59%	11.74%	11.99%	12.63%	10.59%
24		9.56%	10.96%	8.67%	6.39%	9.97%	10.87%	9.57%	11.75%	15.25%	18.00%	12.43%	11.99%	12.88%	10.84%	11.99%	12.43%	12.88%	10.84%
25		9.81%	11.21%	8.92%	6.64%	10.22%	11.12%	9.82%	12.00%	15.50%	18.25%	12.68%	12.24%	13.13%	11.09%	12.24%	12.68%	13.13%	11.09%
26		10.06%	11.46%	9.17%	6.89%	10.47%	11.37%	10.07%	12.50%	16.00%	18.75%	13.18%	12.74%	13.38%	11.34%	12.74%	13.18%	13.38%	11.34%
27		10.06%	11.46%	9.17%	6.89%	10.47%	11.37%	10.07%	12.75%	16.25%	19.00%	13.43%	12.99%	13.63%	11.59%	12.99%	13.43%	13.63%	11.59%
28		10.31%	11.71%	9.42%	7.14%	10.72%	11.62%	10.32%	13.00%	16.50%	19.25%	13.68%	13.24%	14.13%	12.09%	13.24%	13.68%	14.13%	12.09%
29		10.56%	11.96%	9.67%	7.39%	10.97%	11.87%	10.57%	13.50%	17.00%	19.75%	14.18%	13.74%	14.38%	12.34%	13.74%	14.18%	14.38%	12.34%
30		10.56%	11.96%	9.67%	7.39%	10.97%	11.87%	10.57%	13.75%	17.25%	20.00%	14.43%	13.99%	14.63%	12.59%	13.99%	14.43%	14.63%	12.59%
31		10.81%	12.21%	9.92%	7.64%	11.22%	12.12%	10.82%	14.00%	17.50%	20.25%	14.68%	14.24%	15.13%	13.09%	14.24%	14.68%	15.13%	13.09%
32		11.06%	12.46%	10.17%	7.89%	11.47%	12.37%	11.07%	14.50%	18.00%	20.75%	15.18%	14.74%	15.38%	13.34%	14.74%	15.18%	15.38%	13.34%
33		11.31%	12.71%	10.42%	8.14%	11.72%	12.62%	11.32%	14.75%	18.25%	21.00%	15.43%	14.99%	15.63%	13.59%	14.99%	15.43%	15.63%	13.59%
34		11.56%	12.96%	10.67%	8.39%	11.97%	12.87%	11.57%	15.00%	18.50%	21.25%	15.68%	15.24%	16.13%	14.09%	15.24%	15.68%	16.13%	14.09%
35		11.56%	12.96%	10.67%	8.39%	11.97%	12.87%	11.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
36		11.81%	13.21%	10.92%	8.64%	12.22%	13.12%	11.82%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
37		12.06%	13.46%	11.17%	8.89%	12.47%	13.37%	12.07%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
38		12.31%	13.71%	11.42%	9.14%	12.72%	13.62%	12.32%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
39		12.56%	13.96%	11.67%	9.39%	12.97%	13.87%	12.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
40		12.81%	14.21%	11.92%	9.64%	13.22%	14.12%	12.82%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
41		13.06%	14.46%	12.17%	9.89%	13.47%	14.37%	13.07%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
42		13.06%	14.46%	12.17%	9.89%	13.47%	14.37%	13.07%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
43		13.31%	14.71%	12.42%	10.14%	13.72%	14.62%	13.32%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
44		13.56%	14.96%	12.67%	10.39%	13.97%	14.87%	13.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
45		13.81%	15.21%	12.92%	10.64%	14.22%	15.12%	13.82%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
46		14.06%	15.46%	13.17%	10.89%	14.47%	15.37%	14.07%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
47		14.31%	15.71%	13.42%	11.14%	14.72%	15.62%	14.32%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
48		14.56%	15.96%	13.67%	11.39%	14.97%	15.87%	14.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
49		14.81%	16.21%	13.92%	11.64%	15.22%	16.12%	14.82%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
50		15.06%	16.46%	14.17%	11.89%	15.47%	16.37%	15.07%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
51		15.31%	16.71%	14.42%	12.14%	15.72%	16.62%	15.32%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
52		15.56%	16.96%	14.67%	12.39%	15.97%	16.87%	15.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
53		15.81%	17.21%	14.92%	12.64%	16.22%	17.12%	15.82%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
54		16.06%	17.46%	15.17%	12.89%	16.47%	17.37%	16.07%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
55		16.31%	17.71%	15.42%	13.14%	16.72%	17.62%	16.32%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
56		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
57		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
58		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
59		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
60		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
61		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%
62+		16.56%	17.96%	15.67%	13.39%	16.97%	17.87%	16.57%	15.50%	19.00%	21.75%	16.18%	15.74%	16.38%	14.34%	15.74%	16.18%	16.38%	14.34%

# Summary of Benefits by Collective Bargaining Unit As of January 1, 2020

## Tier 1

Collective Bargaining Unit	Valuation Group	Benefit % at age	FAC Period	Benefit Maximum
14	Miscellaneous Other	2% @ 55	One year	80%
21	Miscellaneous Other	2% @ 55	One year	80%
22	Miscellaneous Other	2% @ 55	One year	80%
4	Miscellaneous Management Non-Court	2% @ 55	One year	100%
7	Miscellaneous Management Non-Court	2% @ 55	One year	100%
8	Miscellaneous Management Non-Court	2% @ 55	One year	100%
9	Miscellaneous Management Non-Court	2% @ 55	One year	100%
10	Miscellaneous Management Non-Court	2% @ 55	One year	100%
11	Miscellaneous Management Non-Court	2% @ 55	One year	100%
12	Miscellaneous Management Non-Court	2% @ 55	One year	100%
17	Miscellaneous Management Non-Court	2% @ 55	One year	100%
99	Miscellaneous Management Non-Court	2% @ 55	One year	100%
17C	Miscellaneous Other Court	2% @ 55	One year	80%
18	Miscellaneous Other Court	2% @ 55	One year	80%
20	Miscellaneous Other Court	2% @ 55	One year	80%
24	Miscellaneous Management Court	2% @ 55	One year	100%
25	Miscellaneous Management Court	2% @ 55	One year	100%
26	Miscellaneous Management Court	2% @ 55	One year	100%
27	Miscellaneous Management Court	2% @ 55	One year	100%
1	SLOCEA Non Court	2% @ 55	One year	80%
2	SLOCEA Non Court	2% @ 55	One year	80%
5	SLOCEA Non Court	2% @ 55	One year	80%
13	SLOCEA Non Court	2% @ 55	One year	80%
98	SLOCEA Non Court	2% @ 55	One year	80%
19	SLOCEA Court	2% @ 55	One year	80%
8	Probation Management	3% @ 55	One year	90%
9	Probation Management	3% @ 55	One year	90%
31	Probation Non Management	3% @ 55	One year	90%
32	Probation Non Management	3% @ 55	One year	90%
3	Non Sworn Safety Non Management	3% @ 55	One year	90%
27	Sworn Safety Non Management	3% @ 50	One year	90%
6	Non Sworn Safety Non Management	3% @ 55	One year	90%
7	Non Sworn Safety Management	3% @ 55	One year	90%
10	Sworn Safety Management	3% @ 50	One year	90%
14	Non Sworn Safety Non Management	3% @ 55	One year	90%
28	Sworn Safety Non Management	3% @ 50	One year	90%
15	Non Sworn Safety Management	3% @ 55	One year	90%
15	Sworn Safety Management	3% @ 50	One year	90%
16	Sworn Safety Management	3% @ 50	One year	90%

## Summary of Benefits by Collective Bargaining Unit As of January 1, 2020

Collective Bargaining Unit	Valuation Group	Benefit % at age	FAC Period	Benefit Maximum
Tier 2	Miscellaneous Non-Court	2% @ 60	Three year	90%
Tier 2	Non Sworn Safety	2.7% @ 55	Three year	90%
Tier 2	Sworn Safety	3.0% @ 55	Three year	90%
Tier 2	DAIA	3.0% @ 55	Three year	90%
Tier 3	Miscellaneous	2% @ 62	Three year	N/A*
Tier 3	Safety	2.7% @ 57	Three year	N/A*
Tier 3	Probation	2.7% @ 57	Three year	N/A*

\* No benefit maximum but pensionable compensation is capped at \$126,291 for 2020 and annually adjusted based on inflation.

## **SECTION G**

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### **DEFINITIONS OF TECHNICAL TERMS**



## Definitions of Technical Terms

**Actuarial Accrued Liability** – The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability".

**Actuarial Assumptions** – Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and Compensation increases. Actuarial assumptions (rates of mortality, disability, turnover and retirement) are generally based on experience, often modified for projected changes in conditions. Economic assumptions (Compensation increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Accrued Service** – Service credited under the system that was rendered before the date of the actuarial valuation.

**Actuarial Equivalent** – A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

**Actuarial Cost Method** – A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the SLOCPT benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

**Actuarial Gain (Loss)** – The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

**Actuarial Present Value** – The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

**Amortization** – Paying off an interest-discounted amount with periodic payments of interest and principal - as opposed to paying off with lump sum payment.

**Normal Cost** – The actuarial present value of the SLOCPT benefits allocated to the current year by the actuarial cost method.

**Unfunded Actuarial Accrued Liability** – The difference between actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability".

Most retirement systems have an unfunded actuarial accrued liability. A UAL arises each time new benefits are added and each time an actuarial loss occurs.



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Date: June 26, 2020

To: Carl Nelson, Executive Secretary, San Luis Obispo County Pension Trust

Re: **Supplemental Exhibits for the January 1, 2020 Actuarial Valuation**

Attached please find supplemental data exhibits, which relate to the January 1, 2020 actuarial valuation. These exhibits previously have been included in the actuarial valuation report. In 2017 the report was redesigned, with selected exhibits moving to this supplemental report.

**Summary of Active Members by Valuation Group in the January 1, 2020 Actuarial Valuation**

Miscellaneous Members

Probation and Safety Members

**Average Pay by Years of Service**

Miscellaneous Members

Probation Members

Safety Members

**Elements of Normal Cost**

Miscellaneous Tier 1 Members

Miscellaneous Tier 2 Members

Miscellaneous Tier 3 Members

Probation & Safety Tier 1 Members

Probation & Safety Tier 2 Members

Probation & Safety Tier 3 Members

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Wood". The signature is fluid and cursive, with a long horizontal line extending from the end.

Paul Wood, ASA, FCA, MAAA

CC: Thomas Lyle, ASA, FCA, EA, MAAA

## Summary of Active Members by Valuation Group In the January 1, 2020 Actuarial Valuation

		Averages			
	<u>No.</u>	<u>Total Payroll</u>	<u>Annual Compensation</u>	<u>Age</u>	<u>Service</u>
<b>Miscellaneous Members</b>					
1 Other - Units # 14, 21, 22					
1/1/2020	31	\$2,498,496	\$80,597	39.9	6.1
1/1/2019	32	\$2,487,659	\$77,739	40.5	5.7
2 Management Non-Court - Units # 4, 7, 8, 9, 10, 11, 12, 17, 99					
1/1/2020	503	\$51,477,616	\$102,341	47.5	10.7
1/1/2019	471	\$46,907,207	\$99,591	48.4	11.1
3 Management Court - Unit # 18					
1/1/2020	11	\$1,027,853	\$93,441	43.5	5.1
1/1/2019	10	\$929,198	\$92,920	46.0	5.6
4 Management Court - Units # 24, 25, 26, 27					
1/1/2020	29	\$3,254,486	\$112,224	50.0	13.7
1/1/2019	25	\$2,829,735	\$113,189	50.6	14.0
5 SLOCEA Non-Court - Units # 1, 2, 5, 13, 31, 98					
1/1/2020	1,678	\$104,458,874	\$62,252	44.8	8.1
1/1/2019	1,703	\$106,570,225	\$62,578	44.7	8.2
6 SLOCEA Court - Unit # 19					
1/1/2020	8	\$651,373	\$81,422	53.6	20.5
1/1/2019	10	\$765,232	\$76,523	52.4	19.3
7 SLOCEA Court - Unit # 20					
1/1/2020	74	\$4,282,803	\$57,876	45.0	10.7
1/1/2019	73	\$4,145,419	\$56,787	46.0	10.9

## Summary of Active Members by Valuation Group In the January 1, 2020 Actuarial Valuation

		Total Payroll	Averages		
	<u>No.</u>		<u>Annual Compensation</u>	<u>Age</u>	<u>Service</u>
Probation Members					
8 Probation Management - Units # 8, 9					
1/1/2020	5	\$726,232	\$145,246	52.8	23.1
1/1/2019	5	\$690,310	\$138,062	51.8	22.1
9 Probation Non-Management - Units # 31, 32					
1/1/2020	115	\$8,750,456	\$76,091	39.0	8.7
1/1/2019	111	\$8,158,280	\$73,498	38.2	8.6
Safety Members					
10 Safety Management - Units # 7, 10, 15, 16					
1/1/2020	14	\$2,140,611	\$152,901	51.0	18.7
1/1/2019	12	\$1,792,377	\$149,365	50.8	18.3
11 Safety Non-Management - Units # 3, 6, 14, 27, 28					
1/1/2020	284	\$26,425,235	\$93,047	38.3	8.3
1/1/2019	273	\$25,261,829	\$92,534	39.5	9.7

## Average Pay by Years of Service

### Miscellaneous Members

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	50	114	164	\$8,441,160	\$51,470
1	59	133	192	10,487,797	54,624
2	66	112	178	11,201,362	62,929
3	41	122	163	10,279,416	63,064
4	52	108	160	10,824,237	67,651
5	49	102	151	10,180,414	67,420
6	35	92	127	8,835,549	69,571
7	21	66	87	6,811,542	78,294
8	32	46	78	5,764,907	73,909
9	20	50	70	5,500,997	78,586
10	13	25	38	3,182,804	83,758
11	23	50	73	5,930,496	81,240
12	30	57	87	7,102,514	81,638
13	20	67	87	6,432,171	73,933
14	32	59	91	6,866,012	75,451
15 & Up	211	377	588	49,810,124	84,711
Totals	754	1,580	2,334	\$167,651,501	\$71,830

## Average Pay by Years of Service

### Probation Members

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	2	2	4	\$223,995	\$55,999
1	4	2	6	349,877	58,313
2	3	7	10	611,437	61,144
3	5	3	8	505,003	63,125
4	2	3	5	318,198	63,640
5	3	4	7	483,933	69,133
6	3	2	5	379,954	75,991
7	2	4	6	485,389	80,898
8	2	5	7	552,947	78,992
9	2	1	3	238,202	79,401
10	1	3	4	316,659	79,165
11	2	1	3	238,368	79,456
12	4	5	9	731,058	81,229
13	2	1	3	241,842	80,614
14	4	1	5	407,222	81,444
15 & Up	20	15	35	3,392,605	96,932
Totals	61	59	120	\$9,476,688	\$78,972

## Average Pay by Years of Service

### Safety Members

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	13	5	18	\$1,037,779	\$57,654
1	23	2	25	1,842,487	73,699
2	23	2	25	1,931,136	77,245
3	10	4	14	833,689	59,549
4	12	4	16	967,974	60,498
5	13	1	14	1,225,724	87,552
6	13	3	16	1,210,251	75,641
7	11	2	13	1,096,349	84,335
8	11	2	13	1,071,306	82,408
9	5	1	6	611,708	101,951
10	2	1	3	204,070	68,023
11	7	0	7	692,058	98,865
12	17	1	18	1,682,742	93,486
13	13	2	15	1,252,308	83,487
14	7	1	8	741,355	92,669
15 & Up	77	10	87	12,164,911	139,827
Totals	257	41	298	\$28,565,846	\$95,859



## Elements of Normal Cost

### Miscellaneous Tier 1 Members

	Other	Management				SLOCEA				TOTAL MISC.
		Non Court	Court BU #18	Court BU #24-27	Total Mgmt	Non Court	Court BU #19	Court BU #20	Total SLOCEA	
	BU #21-22									
<b>Total Normal Cost</b>	21.52%	24.93%	24.27%	23.85%	24.83%	23.20%	21.18%	21.50%	23.05%	23.76%
<b>Less</b>										
Employee Contribution Rate	19.71%	20.40%	18.71%	17.00%	20.08%	20.08%	15.81%	16.59%	19.80%	19.91%
<b>Equals</b>										
<b>County Normal Cost</b>	1.81%	4.53%	5.56%	6.85%	4.75%	3.12%	5.37%	4.91%	3.25%	3.85%

## Elements of Normal Cost

### Miscellaneous Tier 2 Members

	Other	Management				SLOCEA				TOTAL MISC.
		Non Court	Court BU #18	Court BU #24-27	Total Mgmt	Non Court	Court BU #19	Court BU #20	Total SLOCEA	
	BU #21-22									
<b>Total Normal Cost</b>	16.32%	19.18%	0.00%	0.00%	19.18%	18.67%	0.00%	0.00%	18.67%	18.76%
<b>Less</b>										
Employee Contribution Rate	12.12%	13.12%	0.00%	0.00%	13.12%	13.41%	0.00%	0.00%	13.41%	13.25%
<b>Equals</b>										
<b>County Normal Cost</b>	4.20%	6.06%	0.00%	0.00%	6.06%	5.26%	0.00%	0.00%	5.26%	5.51%

## Elements of Normal Cost

### Miscellaneous Tier 3 Members

	Other	Management				SLOCEA				TOTAL MISC.
		Non Court	Court BU #18	Court BU #24-27	Total Mgmt	Non Court	Court BU #19	Court BU #20	Total SLOCEA	
	BU #21-22									
<b>Total Normal Cost</b>	13.95%	16.49%	17.10%	16.07%	16.50%	15.82%	0.00%	13.69%	15.77%	15.92%
<b>Less</b>										
Employee Contribution Rate	11.08%	12.37%	12.70%	11.94%	12.37%	12.12%	0.00%	11.28%	12.09%	12.15%
<b>Equals</b>										
<b>County Normal Cost</b>	2.87%	4.12%	4.40%	4.13%	4.13%	3.70%	0.00%	2.41%	3.68%	3.77%

## Elements of Normal Cost

### Probation & Safety Tier 1 Members

	Probation			Safety					GRAND TOTAL	
	Mgmt	Mgmt	Total	Management		Non-Mgmt		Total		
				Sworn	Non-Sworn	Sworn	Non-Sworn			
										Sworn
Total Normal Cost	29.30%	26.82%	27.09%	34.81%	27.51%	29.80%	28.35%	29.69%	24.79%	
Employee	Less									
	Contribution Rate	25.13%	21.48%	21.88%	27.73%	23.52%	22.22%	20.95%	22.39%	20.37%
	Equals									
County Normal Cost		4.17%	5.34%	5.21%	7.08%	3.99%	7.58%	7.40%	7.30%	4.42%

## Elements of Normal Cost

### Probation & Safety Tier 2 Members

	Probation			Safety					GRAND TOTAL
	Mgmt	Mgmt	Total	Management		Non-Mgmt		Total	
				Sworn	Non-Sworn	Sworn	Non-Sworn		
Total Normal Cost	0.00%	0.00%	0.00%	26.48%	0.00%	27.39%	26.96%	27.22%	20.42%
Employee Contribution Rate				Less					
	0.00%	0.00%	0.00%	14.08%	0.00%	15.13%	17.06%	15.76%	13.73%
				Equals					
County Normal Cost	0.00%	0.00%	0.00%	12.40%	0.00%	12.26%	9.90%	11.46%	6.69%

## Elements of Normal Cost

### Probation & Safety Tier 3 Members

	Probation			Safety					GRAND TOTAL	
	Mgmt	Mgmt	Total	Management		Non-Mgmt				
				Sworn	Non-Sworn	Sworn	Non-Sworn	Total		
										Sworn
Total Normal Cost	0.00%	20.05%	20.05%	37.09%	0.00%	23.85%	23.42%	23.68%	17.11%	
Employee	Less									
	Contribution Rate	0.00%	12.65%	12.65%	16.18%	0.00%	13.56%	16.49%	15.29%	12.58%
	Equals									
County Normal Cost	0.00%	7.40%	7.40%	20.91%	0.00%	10.29%	6.93%	8.39%	4.53%	

**2020 Deferred Implementation Dates for  
Contribution Rate Increases**

**and**

**Contribution Rate Increases by  
Class of Member  
(Miscellaneous, Probation, Safety)**

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Date: June 5, 2020

To: Board of Trustees

Re: **Delayed Implementation for Rate Increase**  
**Two dates for rate increase implementation-January 1, 2021 and July 1, 2021**

The purpose of this letter is to provide the rate increases required for two different implementation dates.

The January 1, 2020 actuarial valuation recommended a rate increase of 3.60%. This rate increase would be effective January 1, 2020. The Board has requested a recalculation of the recommended rate increase for a January 1, 2021 and a July 1, 2021 implementation date.

The contribution rate increase is adjusted for interest as well as for the underlying change in payroll.

For an implementation date of January 1, 2021 the rate increase would be 3.98% of pay. For an implementation date of July 1, 2020 the rate increase would be 4.13% of pay. The following chart illustrates the increase as well as the increase on the Miscellaneous, Probation and Safety divisions.

San Luis Obispo Pension Trust-Rate Increases for Alternate Implementation Dates							
	Total Charged Rates at 12/31/2019	2020 Val. Total Rate ADC Change		January 1, 2021 Total Rate ADC Change		July 1, 2021 Total Rate ADC Change	
ALL CATEGORIES	44.32%	47.92%	3.60%	48.30%	3.98%	48.45%	4.13%
All Miscellaneous	41.84%	45.25%	3.41%	45.61%	3.77%	45.75%	3.91%
All Probation	45.19%	49.85%	4.66%	50.25%	5.06%	50.40%	5.21%
All Safety	58.56%	62.96%	4.40%	63.46%	4.90%	63.66%	5.10%

Total Charged Rates at 12/31/2019 (plus 2.68% increase effective 7/1/2020)

The Total ADC is composed of a blended ER appropriation plus a distinct EE rate based on the individual normal cost of each member

These calculations are based upon assumptions regarding future events, which may or may not materialize. Please bear in mind that actual results could deviate from the assumptions, depending on actual plan experience.

Respectfully submitted,

Paul Wood, ASA, FCA, MAAA

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# **Pension Contribution Rate History**

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San Luis Obispo County Pension Trust  
Pension Contribution Rate Increases

	2014	2015	2016	2017	2018	2019	2020
	Valuation	Valuation	Valuation	Valuation	Valuation	Valuation	Valuation
<b>Total Rate Increases</b>							
Miscellaneous	0.00%	0.91%	4.51%	1.65%	1.99%	2.47%	3.41%
Probation	0.00%	9.90%	4.72%	2.25%	3.70%	2.26%	4.56%
Safety	0.00%	1.17%	6.71%	3.54%	5.63%	1.25%	4.40%
<b>COMBINED</b>	<b>0.00%</b>	<b>0.95%</b>	<b>4.85%</b>	<b>1.93%</b>	<b>2.51%</b>	<b>2.30%</b>	<b>3.60%</b>
<b>Total ADC</b>	34.23%	34.77%	38.90%	40.32%	42.19%	44.52%	47.92%
Significant Changes:							
Discount Rate	7.250%	7.250%	7.125%	7.125%	7.000%	7.000%	6.875%
Inflation	2.750%	2.750%	2.650%	2.650%	2.500%	2.500%	2.250%
Payroll Growth Rate	3.750%	3.750%	3.375%	3.375%	3.000%	2.750%	2.750%
Mortality			Updated (1st part of 2 step phased)	Updated (1st part of 2 step phased)	Updated (2nd part of 2 step phased)		Updated

As of Valuation date of Jan. 1 of the Valuation year  
Actual increase modified for delayed implementation (e.g. Jan. 1st or July 1st of following year)

Total pension contribution rate increase result of:  
Increases in the Actuarially Determined Contribution Rate (ADC)  
Increases to adjust for difference between planned ADC to be collected and the actual charged rate during the prior year.  
Increases allocated between Employer and Employee pursuant to various MOU provisions in the various bargaining units.

Note - prior to 2018 the ADC was referred to as the Annually Required Contribution or ARC.

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# **2020 Funding Projections (30 years)**

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# BASELINE

San Luis Obispo County Pension Trust San Luis Obispo County Pension Trust - 6.875% Discount Rate - 6.875% Projected Rate of Return															
Projection Results Based on the January 1, 2020 Actuarial Valuation															
Dollar Values Shown in Millions															
Valuation as of January 1, (1)	Fiscal Year Ending December 31, (2)	Market Return for Fiscal Year (3)	Actual Total Contribution Rate for Fiscal Year (4)	Compensation for Fiscal Year (5)	Total Contributions for Fiscal Year (6)	Total Benefit Payments for Fiscal Year (7)	Market Value of Assets as of Valuation Date (8)	Actuarial Accrued Liability (AAL) as of Valuation Date (9)	Actuarial Value of Assets(AVA) as of Valuation Date (10)	Unfunded Actuarial Accrued Liability (UAA) as of Valuation Date (11)	Funded Ratio (12)	Funded Ratio Using MVA (13)			
2020	2020	6.875%	42.98%	\$	206	\$	1439	\$	2,170	\$	1,417	\$	753	65.3%	66.3%
2021	2021	6.875%	46.39%		211		1,513		2,248		1,497		751	66.6%	67.3%
2022	2022	6.875%	47.46%		217		1,596		2,325		1,587		738	68.3%	68.6%
2023	2023	6.875%	46.88%		223		1,682		2,402		1,663		739	69.2%	70.0%
2024	2024	6.875%	46.85%		229		1,770		2,477		1,770		707	71.5%	71.5%
2025	2025	6.875%	45.83%		236		1,860		2,551		1,860		691	72.9%	72.9%
2026	2026	6.875%	45.55%		242		1,949		2,624		1,949		675	74.3%	74.3%
2027	2027	6.875%	45.31%		249		2,041		2,695		2,041		654	75.7%	75.7%
2028	2028	6.875%	45.09%		256		2,134		2,765		2,134		631	77.2%	77.2%
2029	2029	6.875%	44.89%		263		2,229		2,834		2,229		605	78.7%	78.7%
2030	2030	6.875%	44.72%		270		2,327		2,902		2,327		575	80.2%	80.2%
2031	2031	6.875%	44.56%		277		2,428		2,969		2,428		541	81.8%	81.8%
2032	2032	6.875%	44.43%		285		2,533		3,034		2,533		501	83.5%	83.5%
2033	2033	6.875%	44.31%		293		2,641		3,099		2,641		458	85.2%	85.2%
2034	2034	6.875%	44.19%		301		2,754		3,164		2,754		410	87.0%	87.0%
2035	2035	6.875%	44.09%		309		2,871		3,227		2,871		356	89.0%	89.0%
2036	2036	6.875%	44.00%		317		2,994		3,290		2,994		296	91.0%	91.0%
2037	2037	6.875%	43.92%		326		3,123		3,353		3,123		230	93.1%	93.1%
2038	2038	6.875%	43.86%		335		3,259		3,415		3,259		156	95.4%	95.4%
2039	2039	6.875%	41.94%		344		3,403		3,478		3,403		75	97.8%	97.8%
2040	2040	6.875%	16.62%		354		3,548		3,541		3,548	(7)		100.2%	100.2%
2041	2041	6.875%	16.73%		364		3,610		3,605		3,610	(5)		100.1%	100.1%
2042	2042	6.875%	16.84%		374		3,673		3,670		3,673	(3)		100.1%	100.1%
2043	2043	6.875%	16.47%		384		3,738		3,736		3,738	(2)		100.1%	100.1%
2044	2044	6.875%	17.15%		394		3,803		3,803		3,803	-		100.0%	100.0%
2045	2045	6.875%	17.13%		405		3,873		3,873		3,873	-		100.0%	100.0%
2046	2046	6.875%	17.11%		416		3,945		3,945		3,945	-		100.0%	100.0%
2047	2047	6.875%	17.10%		428		4,019		4,019		4,019	-		100.0%	100.0%
2048	2048	6.875%	17.09%		440		4,097		4,097		4,097	-		100.0%	100.0%
2049	2049	6.875%	17.08%		452		4,177		4,177		4,177	-		100.0%	100.0%
2050	2050	6.875%	17.08%		464		4,261		4,261		4,261	-		100.0%	100.0%

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San Luis Obispo County Pension Trust San Luis Obispo County Pension Trust - 6.875% Discount Rate - 6.750% Projected Rate of Return Projection Results Based on the January 1, 2020 Actuarial Valuation												
Dollar Values Shown in Millions												
Valuation as of January 1, (1)	Fiscal Year Ending December 31, (2)	Market Return for Fiscal Year (3)	Actual Total Contribution Rate for Fiscal Year (4)	Compensation for Fiscal Year (5)	Total Contributions for Fiscal Year (6)	Total Benefit Payments for Fiscal Year (7)	Market Value of Assets as of Valuation Date (8)	Actuarial Accrued Liability (AAL) as of Valuation Date (9)	Actuarial Value of Assets(AVA) as of Valuation Date (10)	Unfunded Actuarial Accrued Liability (UAA) as of Valuation Date (11)	Funded Ratio (12)	Funded Ratio Using MVA (13)
2020	2020	6.875%	42.98%	\$	88	\$	112	\$	2,170	\$	65.3%	66.3%
2021	2021	6.750%	46.39%		98		119		2,248		66.6%	67.3%
2022	2022	6.750%	47.46%		103		125		2,325		68.2%	68.6%
2023	2023	6.750%	46.90%		108		132		2,402		69.9%	69.9%
2024	2024	6.750%	46.89%		108		138		2,477		71.3%	71.2%
2025	2025	6.750%	45.92%		108		145		2,551		72.7%	72.6%
2026	2026	6.750%	45.70%		111		152		2,624		74.0%	73.9%
2027	2027	6.750%	45.54%		113		158		2,695		75.4%	75.2%
2028	2028	6.750%	45.40%		116		165		2,765		76.6%	76.6%
2029	2029	6.750%	45.28%		119		171		2,834		78.1%	78.0%
2030	2030	6.750%	45.19%		122		178		2,902		79.6%	79.4%
2031	2031	6.750%	45.12%		125		184		2,969		81.1%	80.9%
2032	2032	6.750%	45.07%		128		190		3,034		82.7%	82.5%
2033	2033	6.750%	45.03%		132		196		3,099		84.3%	84.2%
2034	2034	6.750%	45.01%		135		202		3,164		86.1%	85.9%
2035	2035	6.750%	44.99%		139		208		3,227		87.9%	87.8%
2036	2036	6.750%	44.99%		143		214		3,290		89.7%	89.7%
2037	2037	6.750%	45.01%		147		219		3,353		91.8%	91.8%
2038	2038	6.750%	45.03%		151		225		3,415		94.2%	94.0%
2039	2039	6.750%	43.21%		149		230		3,478		96.5%	96.3%
2040	2040	6.750%	17.99%		64		235		3,541		98.8%	98.6%
2041	2041	6.750%	18.19%		66		240		3,605		98.7%	98.5%
2042	2042	6.750%	18.39%		69		244		3,670		98.6%	98.4%
2043	2043	6.750%	18.09%		69		249		3,736		98.6%	98.3%
2044	2044	6.750%	18.81%		74		253		3,803		98.5%	98.2%
2045	2045	6.750%	18.83%		76		257		3,873		98.4%	98.2%
2046	2046	6.750%	18.83%		78		261		3,945		98.2%	98.2%
2047	2047	6.750%	18.84%		81		266		4,019		98.4%	98.2%
2048	2048	6.750%	18.84%		83		270		4,097		98.4%	98.1%
2049	2049	6.750%	18.85%		85		274		4,177		98.3%	98.1%
2050	2050	6.750%	18.86%		88		278		4,261		98.3%	98.1%

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San Luis Obispo County Pension Trust San Luis Obispo County Pension Trust - 6.750% Discount Rate - 6.750% Projected Rate of Return Projection Results Based on the January 1, 2020 Actuarial Valuation												
Dollar Values Shown in Millions												
Valuation as of January 1, (1)	Fiscal Year Ending December 31, (2)	Market Return for Fiscal Year (3)	Actual Total Contribution Rate for Fiscal Year (4)	Compensation for Fiscal Year (5)	Total Contributions for Fiscal Year (6)	Total Benefit Payments for Fiscal Year (7)	Market Value of Assets as of Valuation Date (8)	Actuarial Accrued Liability (AAL) as of Valuation Date (9)	Actuarial Value of Assets(AVA) as of Valuation Date (10)	Unfunded Actuarial Accrued Liability (UAA) as of Valuation Date (11)	Funded Ratio (12)	Funded Ratio Using MVA (13)
2020	2020	6.875%	42.98%	\$	88	\$	112	\$	2,170	\$	1,417	65.3%
2021	2021	6.750%	46.39%		98		119		2,283		1,486	66.3%
2022	2022	6.750%	49.00%		106		125		2,361		1,584	67.5%
2023	2023	6.750%	48.53%		108		132		2,438		1,662	69.0%
2024	2024	6.750%	48.47%		229		138		2,514		1,771	70.4%
2025	2025	6.750%	47.43%		236		145		2,588		1,863	72.0%
2026	2026	6.750%	47.14%		242		152		2,662		1,954	73.4%
2027	2027	6.750%	46.89%		249		158		2,734		2,047	74.9%
2028	2028	6.750%	46.67%		256		165		2,805		2,143	76.4%
2029	2029	6.750%	46.47%		263		171		2,874		2,240	77.9%
2030	2030	6.750%	46.29%		270		178		2,942		2,340	79.5%
2031	2031	6.750%	46.13%		277		184		3,010		2,444	81.2%
2032	2032	6.750%	46.00%		285		190		3,076		2,550	82.9%
2033	2033	6.750%	45.87%		293		196		3,141		2,661	84.7%
2034	2034	6.750%	45.76%		301		202		3,206		2,777	86.6%
2035	2035	6.750%	45.65%		309		208		3,270		2,898	88.6%
2036	2036	6.750%	45.56%		317		214		3,333		3,024	90.7%
2037	2037	6.750%	45.48%		326		219		3,396		3,156	92.9%
2038	2038	6.750%	45.41%		335		225		3,459		3,286	95.3%
2039	2039	6.750%	45.32%		344		230		3,522		3,443	97.8%
2040	2040	6.750%	17.17%		354		235		3,593		3,593	100.2%
2041	2041	6.750%	17.26%		364		240		3,656	(7)	3,656	100.2%
2042	2042	6.750%	17.27%		374		244		3,719	(6)	3,719	100.2%
2043	2043	6.750%	16.92%		384		249		3,785	(4)	3,785	100.1%
2044	2044	6.750%	17.60%		394		253		3,850	(3)	3,850	100.1%
2045	2045	6.750%	17.59%		405		257		3,920	-	3,920	100.0%
2046	2046	6.750%	17.57%		416		261		3,992	-	3,992	100.0%
2047	2047	6.750%	17.56%		428		266		4,067	-	4,067	100.0%
2048	2048	6.750%	17.55%		440		270		4,145	-	4,145	100.0%
2049	2049	6.750%	17.55%		452		274		4,226	-	4,226	100.0%
2050	2050	6.750%	17.54%		464		278		4,310	-	4,310	100.0%

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San Luis Obispo County Pension Trust San Luis Obispo County Pension Trust - 6.500% Discount Rate - 6.500% Projected Rate of Return Projection Results Based on the January 1, 2020 Actuarial Valuation												
Dollar Values Shown in Millions												
Valuation as of January 1, (1)	Fiscal Year Ending December 31, (2)	Market Return for Fiscal Year (3)	Actual Total Contribution Rate for Fiscal Year (4)	Compensation for Fiscal Year (5)	Total Contributions for Fiscal Year (6)	Total Benefit Payments for Fiscal Year (7)	Market Value of Assets as of Valuation Date (8)	Actuarial Accrued Liability (AAL) as of Valuation Date (9)	Actuarial Value of Assets(AVA) as of Valuation Date (10)	Unfunded Actuarial Accrued Liability (UAA) as of Valuation Date (11)	Funded Ratio (12)	Funded Ratio Using MVA (13)
2020	2020	6.875%	42.98%	\$	206	88	\$	1,439	\$	2,170	65.3%	66.3%
2021	2021	6.500%	46.39%		211	98		1,513		2,351	63.5%	64.4%
2022	2022	6.500%	52.13%		217	113		1,590		2,430	64.9%	65.4%
2023	2023	6.500%	51.84%		223	116		1,681		2,509	66.2%	67.0%
2024	2024	6.500%	51.73%		229	119		1,774		2,586	68.5%	68.6%
2025	2025	6.500%	50.66%		236	119		1,869		2,662	70.2%	70.2%
2026	2026	6.500%	50.32%		242	122		1,964		2,737	71.8%	71.7%
2027	2027	6.500%	50.06%		249	125		2,061		2,810	73.3%	73.3%
2028	2028	6.500%	49.83%		256	127		2,160		2,882	74.9%	74.9%
2029	2029	6.500%	49.61%		263	130		2,261		2,952	76.6%	76.6%
2030	2030	6.500%	49.43%		270	133		2,366		3,021	78.3%	78.3%
2031	2031	6.500%	49.26%		277	137		2,474		3,089	80.1%	80.1%
2032	2032	6.500%	49.12%		285	140		2,586		3,157	81.9%	81.9%
2033	2033	6.500%	48.99%		293	143		2,702		3,223	83.8%	83.8%
2034	2034	6.500%	48.86%		301	147		2,823		3,288	85.9%	85.9%
2035	2035	6.500%	48.75%		309	151		2,949		3,353	88.0%	88.0%
2036	2036	6.500%	48.66%		317	154		3,081		3,417	90.2%	90.2%
2037	2037	6.500%	48.57%		326	158		3,220		3,481	92.5%	92.5%
2038	2038	6.500%	48.50%		335	163		3,367		3,544	95.0%	95.0%
2039	2039	6.500%	48.64%		344	161		3,521		3,608	97.6%	97.6%
2040	2040	6.500%	18.37%		354	65		3,679		3,672	100.2%	100.2%
2041	2041	6.500%	18.42%		364	67		3,742		3,737	100.1%	100.1%
2042	2042	6.500%	18.21%		374	68		3,807		3,803	100.1%	100.1%
2043	2043	6.500%	17.90%		384	69		3,873		3,870	100.1%	100.1%
2044	2044	6.500%	18.58%		394	73		3,938		3,938	100.0%	100.0%
2045	2045	6.500%	18.60%		405	75		4,009		4,009	100.0%	100.0%
2046	2046	6.500%	18.58%		416	77		4,082		4,082	100.0%	100.0%
2047	2047	6.500%	18.57%		428	79		4,157		4,157	100.0%	100.0%
2048	2048	6.500%	18.56%		440	82		4,235		4,235	100.0%	100.0%
2049	2049	6.500%	18.55%		452	84		4,316		4,316	100.0%	100.0%
2050	2050	6.500%	18.55%		464	86		4,400		4,400	100.0%	100.0%

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## San Luis Obispo Regional Transit Authority

### Executive Committee Meeting

Minutes 06/03/2020

Draft C-1

Members Present: Fred Strong, City of Paso Robles, **President**  
Ed Waage, City of Pismo Beach  
John Peschong, District 1 Supervisor, **Vice President**

Members Absent: None

Staff Present: Geoff Straw, Executive Director  
Chelsea Sperakos, Administrative Assistant

#### **Call Meeting to Order, Roll Call**

**Public Comment:** The San Luis Obispo Regional Transit Authority Executive Committee reserves this portion of the agenda for members of the public to address any items not on the agenda and within the jurisdiction of the Committee. Comments are limited to three minutes per speaker. The Committee will listen to all communication, but in compliance with the Brown Act, will not take any action on items that are not on the agenda.

There was no public comment.

#### **1. Information Items**

##### **A-1 Executive Director's Report (Verbal; Receive)**

**Mr. Geoff Straw** stated that Mr. Andy Wyly is the new Maintenance Manager and started this week.

##### **A-2 Update on RTA Response to COVID-19 Pandemic (Verbal; Receive)**

**Mr. Straw** stated that ridership has increased in the last two weeks. A small cash fare of \$0.50 for regular riders and 0.25 for discounted riders has been implemented. This is to discourage sheltering on buses. The schedule will return to hourly services on June 28th. The agency is planning on returning to full fares when all the pass outlets are open, most likely two weeks after the last city opens up. Bus passes will be available via mail, ticket vending machine, and Token Transit. Staff is working to solve issue of minimal fare with agencies such as DSS. Public Health issued a mask ordinance on public transit until the end of July in Santa Barbara County, and RTA is asking SLO County Public Health to consider adopting this. There could be

discouragement on ride share services. The agency will continue to implement sanitizing systems. After June 28th, the agency will no longer have the COVID-19 administrative leave.

**A-3 Update on Rebid for Bus Maintenance Facility Construction Services (Verbal; Receive)**

**Mr. Straw** stated that construction bids are due June 4th at 2 PM. The subcontractor bids have slowed the bid process. Staff has worked closely with previous bidders and new bidders to make sure there is no future bid protest.

**2. Action Items--None**

**3. Consent Items**

**C-1 Executive Committee Meeting Minutes of April 8, 2020 (Approve)**

**Vice President John Peschong** made a motion to approve item C-1 and **Mr. Ed Waage** seconded the motion. The motion passed unanimously.

**July 8, 2020 Draft RTA Board Agenda:** The Executive Committee is asked to review and comment on the proposed agenda items.

**A. Information Items**

**A-1 Executive Director's Report (Receive)**

**B. Action Items**

**B-1 Approve TIFIA Loan Agreement for Construction of 253 Elks Lane**

**(Approve) Note: this item may be discussed at a Special June 15, 2020 meeting**

**C. Consent Items**

**C-1 Executive Committee Meeting Minutes of April 8, 2020 (Information)**

**C-2 RTA Board Meeting Minutes of May 6, 2020 (Approve)**

**C-3 Special RTA Board Meeting Minutes of May 22, 2020 (Approve)**

**C-4 Paso Robles Bus Parking Yard Mitigations Monitoring Report (Receive)**

Next RTA Executive Committee Meeting: August 12, 2020

Respectfully Submitted,

Acknowledged by,

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Chelsea Sperakos  
Administrative Assistant

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Fred Strong  
RTA President 2020