

AGENDA



Date: May 8, 2020

The first of two annual public meetings of the Dallas Police and Fire Pension System Board of Trustees as required by Section 3.01 (j-9) of Article 6243a-1 of Vernon's Revised Civil Statutes will be held at **8:30 a.m. on Thursday, May 14, 2020, via telephone conference for audio at 214-271-5080 access code 588694 or Toll-Free (US & CAN):1-800-201-5203 and Zoom meeting for visual <https://us02web.zoom.us/j/83191137970?pwd=ZDJMbVdydUNxbnR0WUJ0ZDIHOXg3UT09>. Password: 960272.** Items of the following agenda will be presented to the Board:

1. Report on the health and performance of the Pension System

- a.** Actuarial Review and Actuarial Valuation Assumptions
 - Actuarial Experience Study
 - January 1, 2020 Actuarial Valuation Assumptions
- b.** Quarterly Financial Reports
- c.** Monthly Contribution Report

2. Public comment

The term "possible action" in the wording of any Agenda item contained herein serves as notice that the Board may, as permitted by the Texas Government Code, Section 551, in its discretion, dispose of any item by any action in the following non-exclusive list: approval, disapproval, deferral, table, take no action, and receive and file. At the discretion of the Board, items on this agenda may be considered at times other than in the order indicated in this agenda.

At any point during the consideration of the above items, the Board may go into Closed Executive Session as per Texas Government Code, Section 551.071 for consultation with attorneys, Section 551.072 for real estate matters, Section 551.074 for personnel matters, and Section 551.078 for review of medical records.



DISCUSSION SHEET

ITEM #1

Topic: Report on the health and performance of the Pension System

- a. Actuarial Review and Actuarial Valuation Assumptions
 - Actuarial Experience Study
 - January 1, 2020 Actuarial Valuation Assumptions
- b. Quarterly Financial Reports
- c. Monthly Contribution Report

Attendees: Jeff Williams, Vice President and Actuary, Segal Consulting
Caitlin Grice, Consulting Actuary, Segal Consulting

Discussion:

- a. Segal has completed an actuarial experience study for DPF as of January 1, 2020. The primary purpose of an experience study is to compare the reasonableness of the demographic and economic assumptions used in preparing the Actuarial Valuation to the actual historical experience as well as expectations for the future. Segal will present the results of their study and may recommend the Board consider modifying certain assumptions.

An actuarial valuation is performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and it is an important part of the annual financial audit. Segal Consulting is preparing

*Sec. 3.01 (j-9) of Article 6243a-1 of Vernon's Revised Civil Statutes
Required Public Meeting – Thursday, May 14, 2020*



DISCUSSION SHEET

ITEM #1 (continued)

the January 1, 2020 actuarial valuation reports for the Regular Plan (Combined Plan) and the Supplemental Plan. Many economic and demographic assumptions are required to prepare the valuation.

Pursuant to Article 16, Section 67 (f)(3) of the Texas Constitution, the Board determines the assumptions used in the valuation.

- b. The Chief Financial Officer will present the first quarter 2020 financial statements.
- c. Staff will review the Monthly Contribution Report.

*Sec. 3.01 (j-9) of Article 6243a-1 of Vernon's Revised Civil Statutes
Required Public Meeting – Thursday, May 14, 2020*



Dallas Police and Fire Pension System

Review of Actuarial Experience

For the Period January 1, 2015 to December 31, 2019

May 14, 2020

Jeffrey S. Williams
Vice President and Actuary

Caitlin Grice
Consulting Actuary

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| Agenda

Overview

Changes in Recent Years

Experience Gains and Losses in Study Period

Summary of Findings

Summary of Proposed Assumption Changes

Impact on Proposed Assumption Changes

Demographic Assumptions

Economic Assumptions

Actuarial Methods

Overview: Purpose of an Experience Study

Why Conduct an Experience Study?

- Review funding and asset methods
- Review recent experience and trends;
compare against current actuarial assumptions and methods
- Develop information to establish recommended assumptions and methods
for use in future valuations
- Avoid unnecessary contribution and accounting volatility
- Mitigate chances of inadequate funding
- Meet current industry standards
- Fiduciary responsibilities



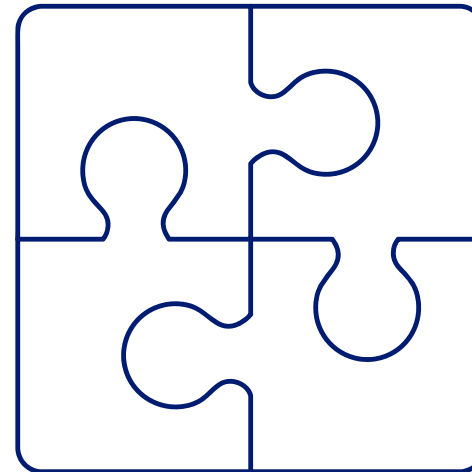
Overview: Purpose of an Experience Study

- An experience study provides the basis for developing recommended assumptions to be used in the annual actuarial valuation
 - Performed on a periodic basis
 - Last full experience study was conducted in 2016 for the five-year period ended December 31, 2014
 - Current study is based on the period January 1, 2015 through December 31, 2019
- Actuarial Standards of Practice Statements 27 and 35 provide guidance on best practices for performing assumption-setting analysis
 - Each assumption should be the actuary's best estimate
- Segal's role is to make appropriate "best estimate" recommendations to the Board for each assumption
- The assumptions that are adopted will apply to both the Combined and Supplemental Plans


The assumptions are the Board's assumptions, and the Board can adopt all, none or some of the recommendations of the actuary.

Overview: How Assumptions Are Set

- Review past experience
- Compare past experience (“actual”) with assumptions (“expected”)
- Determine trends – make judgments about future
- Develop component parts of each assumption
 - Maintain linkage with investments
 - Maintain internal consistency
- Keep in mind
 - No “right” answer – best estimate
 - Assumptions are long-term




Overview: Actuarial Assumptions and Methods




Demographic

- Death in active service
- Death after retirement
 - Non-disabled
 - Disabled
 - Contingent survivor
- Withdrawal
- Disability
- Retirement
 - DROP
 - Non-DROP
- Percent Married/Spouse Age



Economic

- Inflation
- Discount rate (Investment rate of return)
- Salary increases
- Payroll growth rate
- Administrative expenses
- COLA
- DROP annuitization rate



Methods

- Cost method
- Amortization method
- Asset method

Changes In Recent Years

Changes With Last Experience Study

- The last experience study was completed for the period January 1, 2010 to December 31, 2014; changes were implemented in the January 1, 2016 valuation.

Valuation	Assumption/Method Changes
January 1, 2016	Updated mortality tables and added generational projection Changed to service-based turnover rates Revised disability rates, changed to one set for all Revised retirement rates, changed to separate rates for Police & Fire Percent married lowered from 80% to 75% Youngest child age raised from 1 to 10 years old Revised salary scale; changed to separate rates for Police & Fire Payroll growth assumption lowered from 4% to 2.75% Added explicit assumption for administrative expenses of \$10 million per year Asset smoothing period transitioned from 10 years to 5 years

Changes In Recent Years

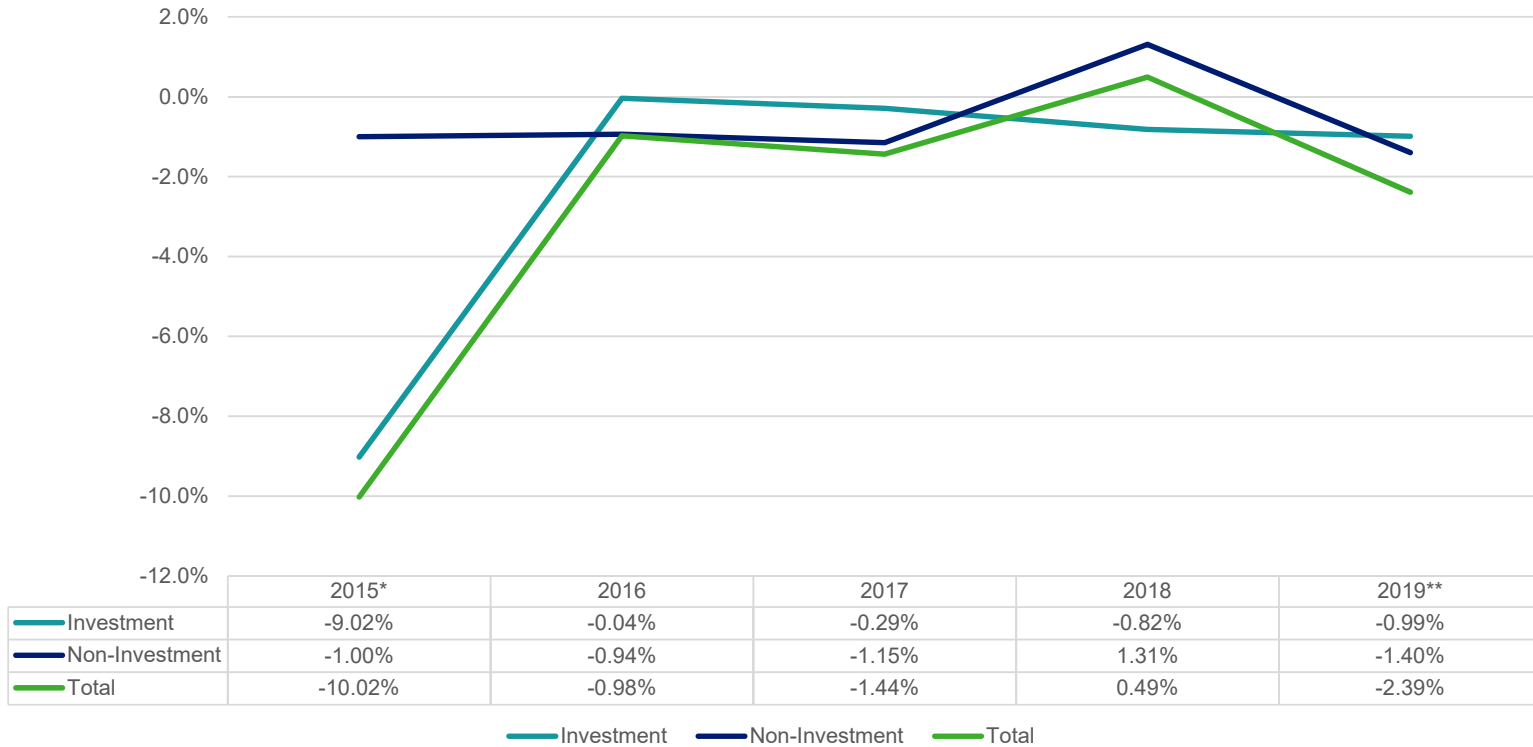
Changes Since Last Experience Study

- The following summarizes the assumption, plan, and method changes implemented since January 1, 2017.

Valuation	Assumption/Method Changes	Plan Changes
January 1, 2017	<p>Revision to retirement rates, change to separate rates for DROP and non-DROP</p> <p>DROP utilization assumed to be 0% for future retirees</p> <p>Separate retirement age added for new terminated vested participants</p> <p>Revision to salary scale</p> <p>Administrative expenses updated to be the greater of \$10 million per year or 1% of computation pay</p> <p>Interest on DROP account balances as of September 1, 2017 decreased from 6% to 2.75%</p> <p>COLA assumed to begin October 1, 2049</p>	<p>NRA increased to age 58</p> <p>ERA increased to age 53</p> <p>Benefit multiplier for future service lowered from 3% to 2.5%</p> <p>Benefit multiplier retroactively increased to 2.5% for members hired on or after March 1, 2011</p> <p>Benefit multipliers for 20 & Out benefit lowered and begin at later ages</p> <p>Maximum benefit reduced from 96% of computation pay to 90%</p> <p>Average computation pay changed from 36 months to 60 months for future service</p> <p>COLA discontinued for all members</p> <p>Restructured DROP benefit</p> <p>Member contribution rate increased to 13.5%</p> <p>City's contribution rate increased to minimum of 34.5%</p>
January 1, 2018	<p>Administrative expenses lowered to the greater of \$8.5 million per year or 1% of computation pay</p> <p>Interest on DROP account balances as of September 1, 2017 increased from 2.75% to 3%</p> <p>COLA beginning date moved back to October 1, 2053</p>	<p>DROP revocation window opened from September 1, 2017 through February 28, 2018</p>
January 1, 2019	<p>Revision to salary scale</p> <p>COLA beginning date moved forward to October 1, 2050</p>	<p>None</p>

Experience Gains and Losses in Study Period

Gain/(Loss) Experience for Years Ending December 31, 2015 to 2019



*2015 investment results reflect one-time write-downs in asset values

**2019 results based on preliminary financial statements

Summary of Findings

- Preliminary December 31, 2019 market value of assets were used for purposes of the study; results will change once assets are finalized.
- Due to the plan changes implemented in 2017 and the run-up to those changes in 2016 and 2017, turnover and retirement experience during that timeframe was greater than normal.
- Over the five-year period, DROP retirement experience was close to expected, with DROP retirements in 2016 and 2017 much greater than expected, and DROP retirements in 2018 and 2019 much less than expected.
- Mortality experience in total was close to expected.
- Prior to any assumption or method changes, preliminary January 1, 2020 actuarial valuation results show a 2.85% increase in the actuarial accrued liability (AAL), a 9.58% increase in the total normal cost (NC), and a 5.64% (\$8.6M) increase in the actuarially determined contribution (ADC).
- If all assumption and method changes recommended in this experience review are adopted, *prior to any discount rate changes*, the AAL increases by 1.69% and the NC increases by 3.97%. With the current 2.75% payroll growth assumption, the ADC increases by 4.15% (\$6.7M); once the payroll growth assumption drops to 2.50%, the ADC increases by an additional 2.54% (\$4.2M).
- The 2019 ADC was \$152.1M, the preliminary 2020 ADC is \$160.7M, and the ADC with all recommended assumption changes, *prior to any discount rate changes*, is \$171.6M.
- Each 25 basis point drop in the discount rate equates to approximately a \$124 - \$136 Million increase in AAL, a \$4.1 - \$4.8 Million increase in Total Normal Cost, and a \$7.4 - \$8.1 Million increase in the ADC.

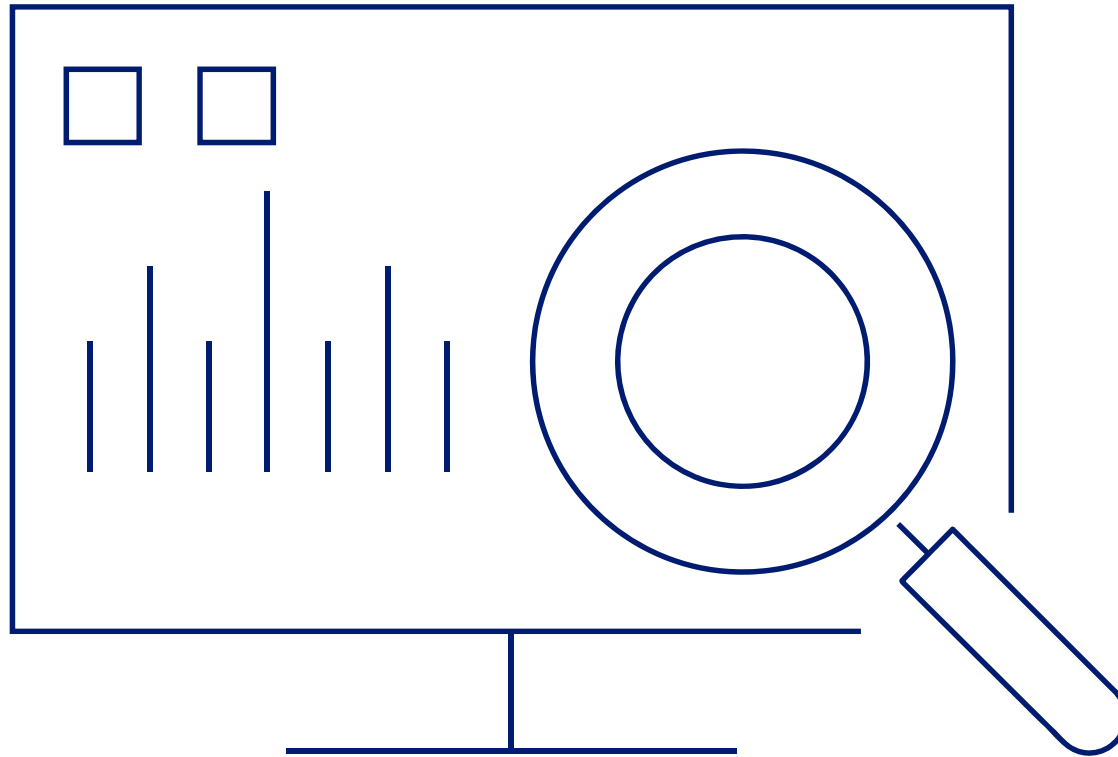
Summary of Proposed Assumption Changes

Assumption	Current Assumption	Proposed Assumption
Healthy Retiree & Dependent Spouse Mortality	RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward two years for females	Pub-2010 Public Safety Retiree Amount-weighted Mortality Table, set back one year for females
Contingent Beneficiary Mortality	RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward two years for females	Pub-2010 Public Safety Contingent Survivor Amount-weighted Mortality Table, set back one year for females
Disabled Life Mortality	RP-2014 Disabled Retiree Mortality Table, set back three years for males and females	Pub-2010 Public Safety Disabled Retiree Amount-weighted Mortality Table, set forward four years for males and females
Pre-Retirement Mortality	RP-2014 Employee Mortality Table, set back two years for males	Pub-2010 Public Safety Employee Amount-weighted Mortality Table, set forward five years for males
Mortality Improvement	Projected generationally with Scale M-2015	Projected generationally with Scale M-2019
Turnover	Separate service-based rates for Fire and Police; rates zero out after 37 years of service	Modify existing service-based rates for both Fire and Police; new rates zero out after 24 years of service
Disability	Age-based rates; rates zero out after age 54	No change
Service-Related Disability	100% of disabilities assumed service-related	No change
DROP Retirement	Separate age-based rates for Fire and Police, with 100% retirement at age 67 or after eight years in DROP	Increase existing age-based rates for most ages, move up 100% retirement to age 65 and move back 100% retirement to ten years in DROP
DROP Utilization	No members are assumed to elect to enter the DROP	No change

Summary of Proposed Assumption Changes

Assumption	Current Assumption	Proposed Assumption
DROP Annuitization Interest	3.00% on account balances as of September 1, 2017, payable upon retirement	2.75% on account balances as of September 1, 2017, payable upon retirement
Non-DROP Retirement	Three separate age-based rates based on hire date and service, with 100% retirement at age 62 or after benefit multiplier hits 90% maximum	Decrease the existing age-based rates for most ages; simplify rates from three separate rates to two
Terminated Vested Retirement	Age 50 if terminate pre-September 1, 2017; Age 58 if terminate on or after September 1, 2017	No change to retirement ages; in addition, an assumption has been added that 75% of those who terminate with a vested benefit prior to age 40 will take a cash out at age 40
Percent Married	75% for Males and Females	No change
Spousal Age Difference	Females three years younger than males	No change
Inflation	2.75%	2.50%
Investment Return	7.25%	Between 6.50% - 7.25%
Payroll Growth	2.75%	2.50%
Salary Scale	Separate service-based salary scales based on rank, with rates ranging from 0.00% to 5.00% with an ultimate rate of 2.00%	Separate salary scales based on rank as stated in the 2019 Meet and Confer agreement with an ultimate rate of 2.50%
Administrative Expenses	Greater of \$8,500,000 per year or 1% of computation pay	No change
Cost-of-Living Adjustment (COLA)	2.00% per year beginning the year System is projected to be 70% funded on a market value basis (currently, October 1, 2050)	No change; Segal will revisit once financials are finalized and funding projections are updated

Impact of Proposed Assumption Changes



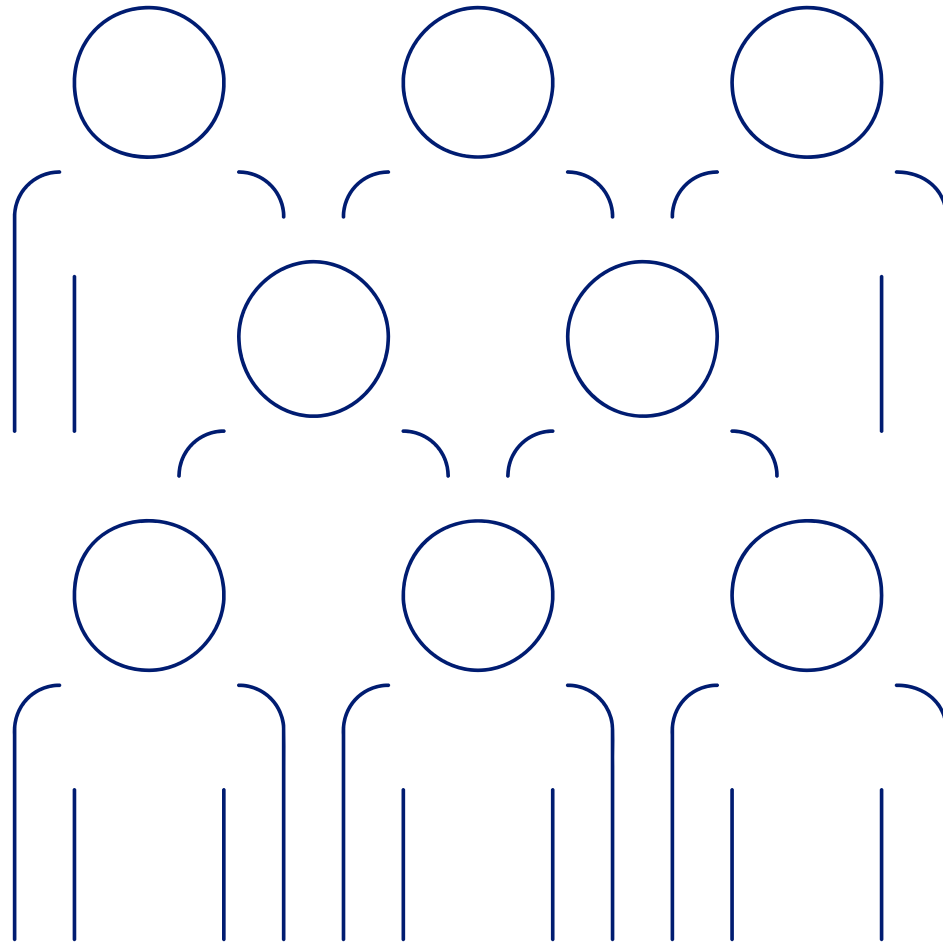
Impact of Proposed Assumption Changes

The following chart provides the estimated impact of the assumption and method changes, based on the preliminary January 1, 2020 valuation results; results will change once final assets are available.

Description	January 1, 2019 Valuation Results	January 1,2020 Preliminary Valuation Results	Recommended Demographic and Salary Scale Changes	Recommended Demographic, Salary Scale, and Inflation/Payroll Growth Changes	Recommended Changes with Discount Rate Change to 7.00%	Recommended Changes with Discount Rate Change to 6.75%	Recommended Changes with Discount Rate Change to 6.50%
1 Actuarial Accrued Liability (AAL)	\$4,494,822,503	\$4,622,977,965	\$4,700,999,452	\$4,700,999,452	\$4,825,477,065	\$4,955,810,580	\$5,092,348,320
2 Actuarial Value of Assets (AVA)	<u>2,161,899,662</u>	<u>2,160,773,330</u>	<u>2,160,773,330</u>	<u>2,160,773,330</u>	<u>2,160,773,330</u>	<u>2,160,773,330</u>	<u>2,160,773,330</u>
3 Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$2,332,922,841	\$2,462,204,635	\$2,540,226,122	\$2,540,226,122	\$2,664,703,735	\$2,795,037,250	\$2,931,574,990
4 Employer Normal Cost	11,579,396	12,369,896	14,280,748	14,280,748	18,353,799	22,774,772	27,577,091
5 Payment on UAAL	135,274,585	142,770,993	147,295,070	151,402,406	154,692,797	157,971,527	161,238,556
Total Recommended Contribution adjusted for Timing [(4) + (5) + Interest]	\$152,084,297	\$160,666,349	\$167,330,464	\$171,584,085	\$179,000,791	\$186,746,881	\$194,855,552
7 Recommended Contribution as a % of Projected Payroll	41.88%	40.73%	42.13%	43.20%	45.07%	47.02%	49.06%
8 Projected Payroll	\$363,117,415	\$394,431,301	\$397,161,078	\$397,161,078	\$397,161,078	\$397,161,078	\$397,161,078
9 Funded Ratio – AVA Basis	48.10%	46.74%	45.96%	45.96%	44.78%	43.60%	42.43%
10 Funded Ratio – MVA Basis*	45.43%	44.58%	43.84%	43.84%	42.71%	41.59%	40.47%

*Based on market value of assets of \$2,041,914,130 for 2019 and \$2,060,965,120 for 2020

Demographic Assumptions

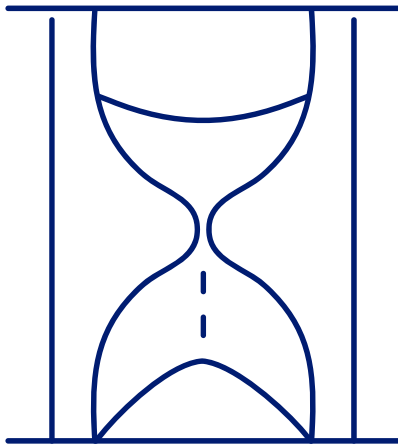


Demographic Assumptions

Mortality

➤ **Current Assumptions**

- **Healthy Pre-Retirement:** RP-2014 Employee Mortality Table, set back two years for males
- **Healthy Post-Retirement:** RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward two years for females
- **Disabled Lives:** RP-2014 Disabled Retiree Mortality Table, set back three years for males and females



Demographic Assumptions

Mortality

➤ Findings

• Post-Retirement Mortality

- Most important component of mortality assumptions; determines duration over which retirement benefits are paid
- **368 retiree deaths** compared to **368 expected deaths**; actual deaths were 100% of the expected count
- **168 beneficiary deaths** compared to **215 expected deaths**; actual deaths were 78% of the expected count

• Disabled Life Mortality

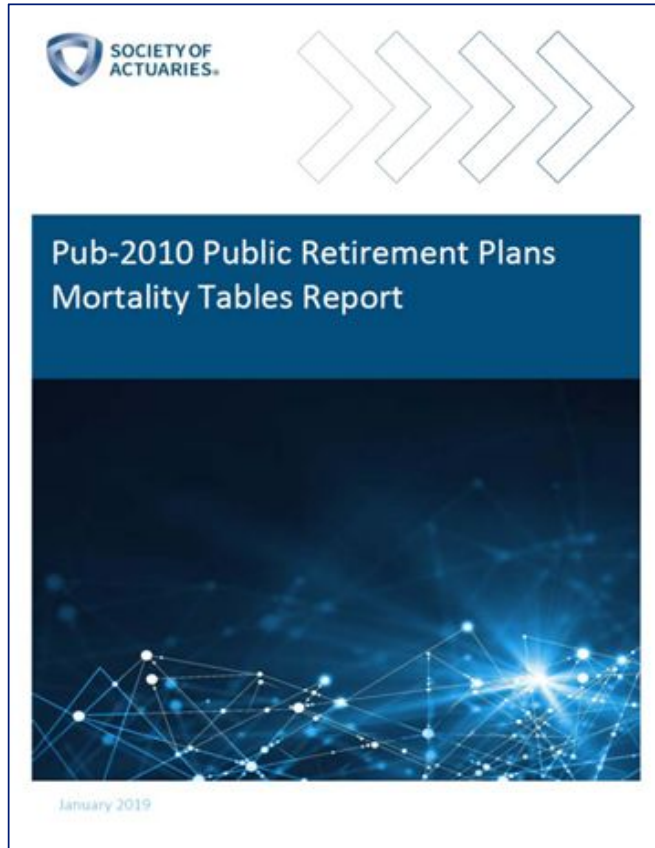
- **38 deaths** compared to **29 expected deaths**; actual deaths were 131% of the expected count

• Pre-Retirement Mortality

- **40 deaths** compared to **25 expected deaths**; actual deaths were 160% of the expected count

Demographic Assumptions

Mortality



- In January 2019, the Society of Actuaries released new mortality tables for public sector employees. This Pub-2010 family of tables includes separate mortality rates for General Employees, Teachers, and Public Safety.
- Within each Pub-2010 subgroup, there are separate tables for employees, retirees, disabled retirees, and contingent beneficiaries.

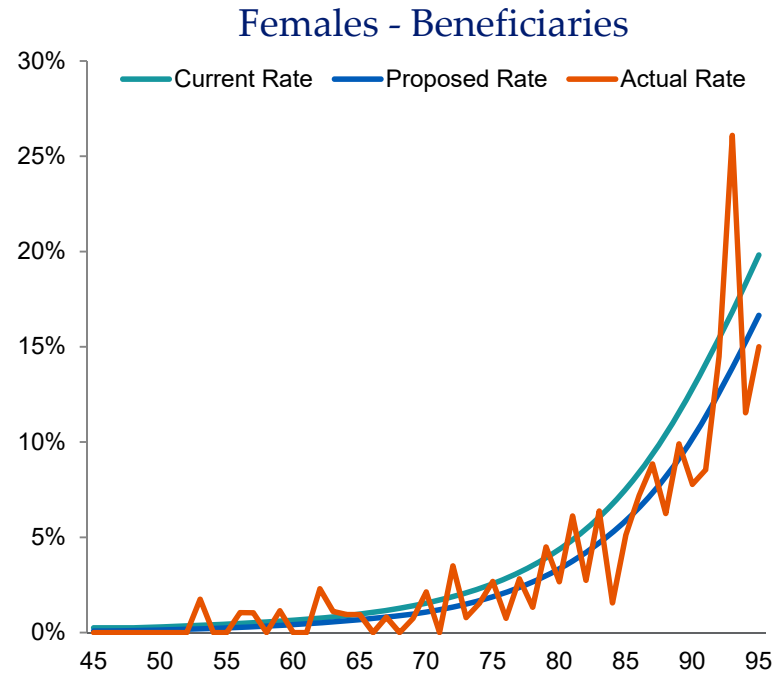
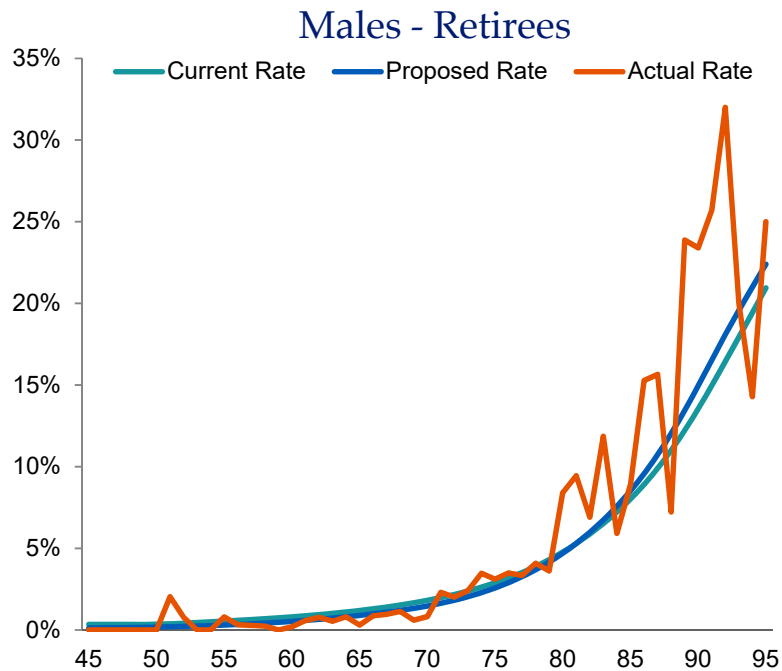
Demographic Assumptions

Mortality

- **Recommendations** – Updates to base mortality tables and generational projection scales
 - **Healthy Pre-Retirement:** Pub-2010 Public Safety Employee Amount-weighted Mortality Table, set forward five years for males
 - **Healthy Post-Retirement**
 - Retiree & Dependent Spouse: Pub-2010 Public Safety Retiree Amount-weighted Mortality Table, set back one year for females
 - Contingent Beneficiary: Pub-2010 Public Safety Contingent Survivor Amount-weighted Mortality Table, set back one year for females
 - **Disabled Lives:** Pub-2010 Public Safety Disabled Retiree Amount-weighted Mortality Table, set forward four years for males and females
- **Methodology for Setting Assumption**
 - Based on a Public Policy Practice Note released by the American Academy of Actuaries entitled “Selecting and Documenting Mortality Assumptions for Pensions,” Segal used the Pub-2010 Headcount-Weighted tables to establish a reasonable match of proposed mortality rates to actual death rates.
 - The corresponding Amount-Weighted tables are set as the assumptions upon which the liabilities are based.

Demographic Assumptions

Mortality – Illustration of current and proposed post-retirement assumptions



As noted previously, the post-retirement mortality assumption is the most crucial of the mortality assumptions, and for Dallas Police and Fire, most of the retirees are male. The new assumption for retirees takes the most current published tables into account, but does not differ significantly from the assumption already in use, which accurately predicted the number of deaths during the study period. The new retiree rates are lower at younger ages, and higher at later ages. The new beneficiary tables assume lower death rates, to better align with experience.

Demographic Assumptions

Mortality Improvement

➤ **Current Assumptions**

- Actuarial Standards of Practice require a provision to allow for improvements in mortality
- All assumed mortality tables for Dallas Police and Fire are projected generationally the MP-2015 projection scale
- Generational projection adjusts the mortality rates each year, so that participants with later birth dates are expected to live longer

➤ **Findings**

- The Society of Actuaries has updated the MP scales annually, based on updated national experience
- In general, the expectation for longevity improvement has declined over the last five years

➤ **Recommendation**

- We recommend that the MP-2019 projection scale be applied to the new Pub-2010 tables

Demographic Assumptions

Turnover Rates

- **Current Assumptions**

- Service-based rates with rates decreasing with longer service
- Rates differ for Fire and Police
- Rates for Police higher than for Fire
- No termination assumed for active participants in DROP
- Rates do not apply once eligible for normal retirement
- Terminating participants are assumed to take a deferred annuity if they are eligible unless their contribution refund has greater actuarial value



- **Findings**

- **Fire: 229 terminations** compared to **102 expected**
- **Police: 593 terminations** compared to **346 expected**
- Data continues to support a purely service-based assumption
- High turnover during 2016-2017 skews overall results
- The refund assumption has limited impact, due to the low level of turnover

Demographic Assumptions

Turnover Rates

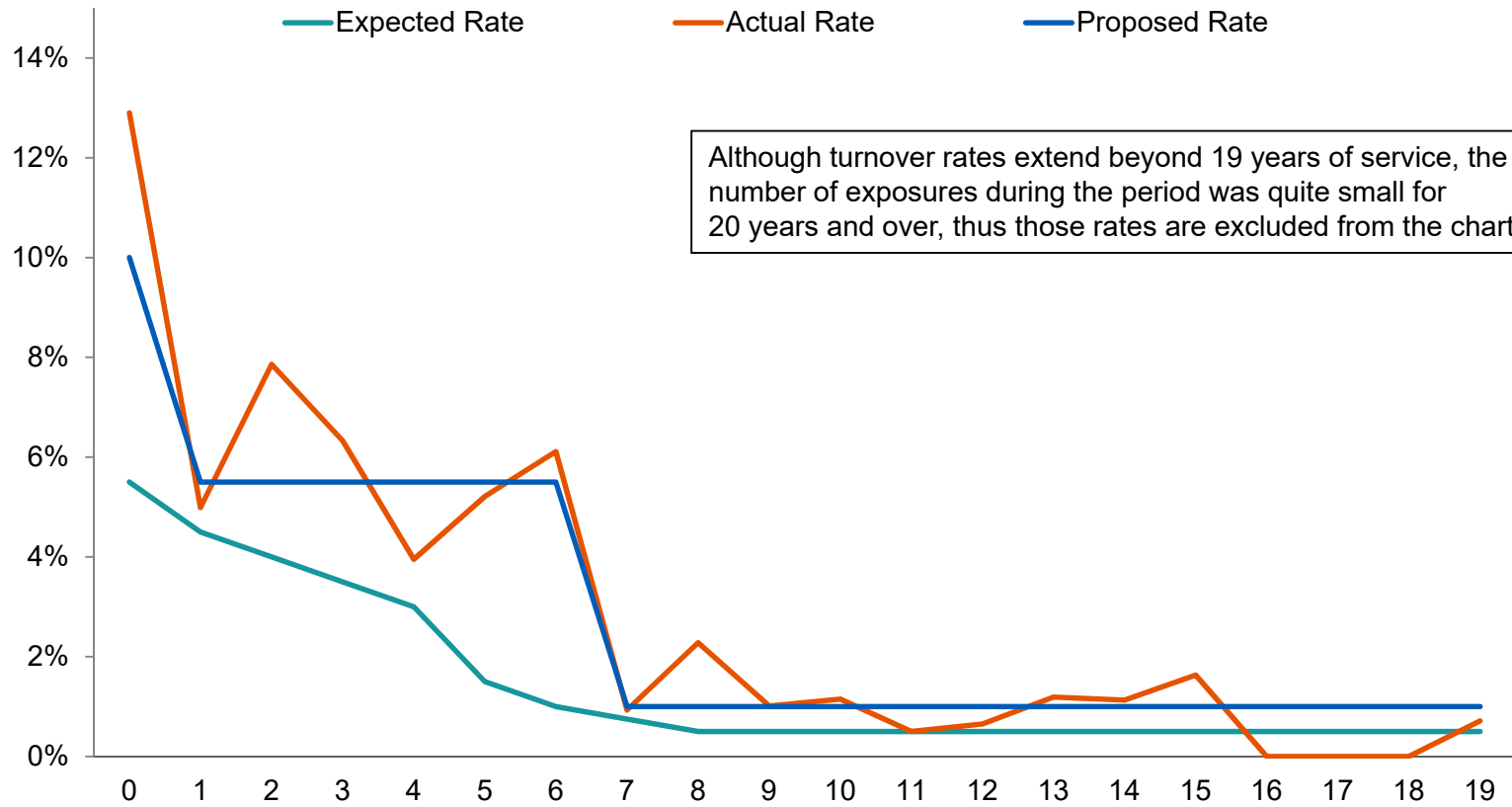
• Recommendations

- Maintain service-based format for the assumption
- For both groups, lower ultimate year turnover assumed from 38 years of service to 25 years of service
- For **Fire**, increase the rates for the first 24 years
- For **Police**, increase the rates for the first 15 years, with a slight decrease for participants with one year of service
- Maintain the current assumption that all terminated participants elect an annuity or refund based on which has the greater actuarial value
- The following graphs shows current expected rates, actual rates during the study period, and the proposed rates for the Fund for both Fire and Police

Service	Current Fire Rates	Proposed Fire Rates	Current Police Rates	Proposed Police Rates
0	5.50%	10.00%	14.00%	20.00%
1	4.50%	5.50%	6.00%	5.50%
2	4.00%	5.50%	5.50%	5.50%
3	3.50%	5.50%	5.00%	5.50%
4	3.00%	5.50%	4.50%	5.50%
5	1.50%	5.50%	4.00%	5.50%
6	1.00%	5.50%	3.50%	3.50%
7	0.75%	1.00%	3.00%	3.50%
8	0.50%	1.00%	2.50%	3.50%
9	0.50%	1.00%	2.00%	3.50%
10	0.50%	1.00%	1.00%	3.50%
11 – 14	0.50%	1.00%	1.00%	2.00%
15 – 24	0.50%	1.00%	1.00%	1.00%
25 – 37	0.50%	0.00%	1.00%	0.00%
38 & over	0.00%	0.00%	0.00%	0.00%

Demographic Assumptions

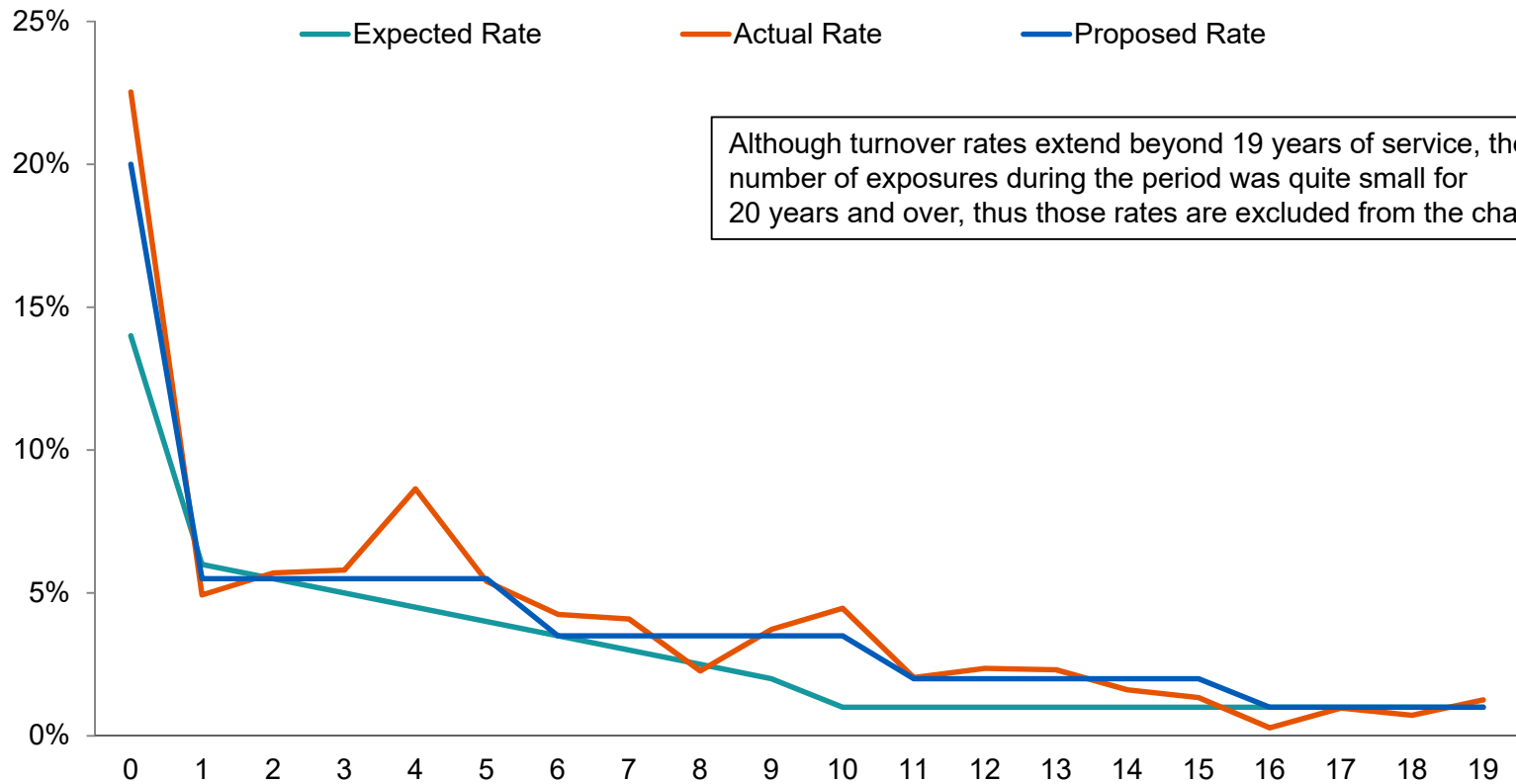
Turnover Rates by Service – Fire



Although turnover rates extend beyond 19 years of service, the number of exposures during the period was quite small for 20 years and over, thus those rates are excluded from the chart.

Demographic Assumptions

Turnover Rates by Service - Police



Demographic Assumptions

Disability Rates


- **Current Assumptions**

- The current rates are age-based
- 100% of disabilities are assumed to be service-related

- **Findings**

- The actual disability awards have been the same as expected
- 7 actual** disabilities compared to **7 expected**; actual 100% of expected

- **Recommendations**

- Maintain current disability rates and service-related percentage
- A summary of the current rates are listed 
- These rates are in line with disability rates for other Texas public safety plans, including San Antonio and Fort Worth

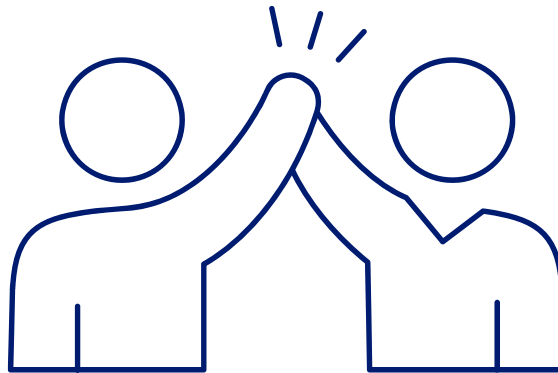
Age	Current Rates
20	0.010%
25	0.015%
30	0.020%
35	0.025%
40	0.030%
45	0.035%
50	0.040%

Demographic Assumptions

Retirement Rates

• Current Assumptions

- Five separate sets of retirement rates; separate rates for DROP and non-DROP participants
- Currently, applicable rates are age-based
- For DROP participants:
 - Separate rates for Fire and Police
 - The retirement rate is set to 100% after eight years in DROP
- For non-DROP participants:
 - Same rates for Fire and Police
 - The retirement rate is set to 100% once benefit multiplier hits 90% maximum



Demographic Assumptions

Retirement Rates

- **Findings for DROP participants**

- Retirement experience lower than expected for Fire but greater than expected for Police
 - **Fire: 346 actual** retirements compared to **392 expected**
 - **Police: 555 actual** retirements compared to **494 expected**
- Much greater than expected retirement in 2017 followed by much lower than expected retirement during 2018 and 2019 skewed overall results
- 35% of retirements during the five year period occurred during 2017
- Heavier emphasis placed on experience in 2018 and 2019 when setting rates

- **Findings for non-DROP participants**

- Retirement experience lower than expected
 - **228 actual** retirements compared to **282 expected**
- Much greater than expected retirement in 2016 skewed overall results
- 45% of retirements during the five-year period occurred during 2016

Demographic Assumptions

Retirement Rates

- **Recommendations for DROP participants**

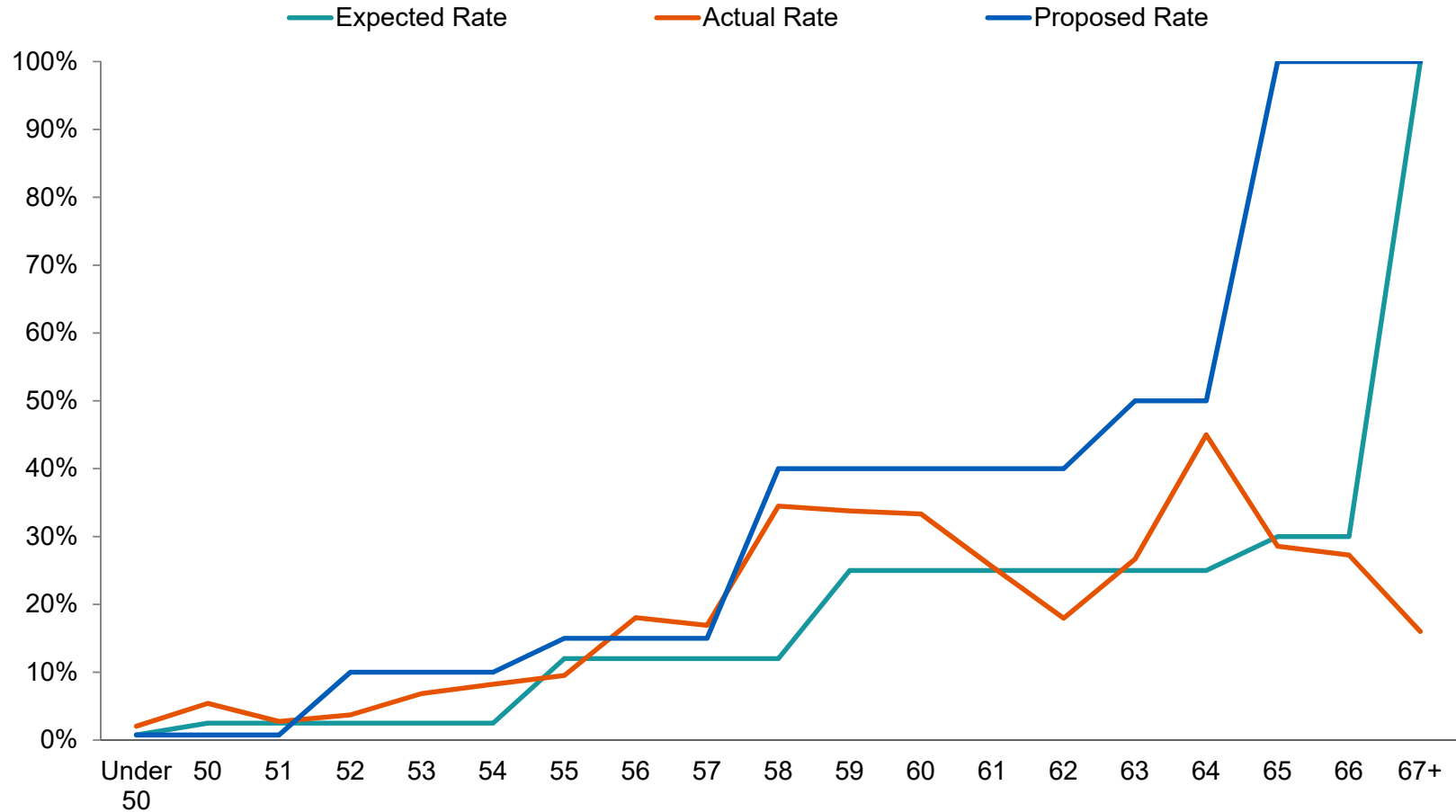
- Increase retirement rates for most ages and move up 100% retirement to age 65
- Move back 100% retirement rate from eight years in DROP to ten years in DROP
- The current and proposed assumed retirement rates for active participants in DROP are provided below

Age	Current Fire Rates	Proposed Fire Rates
Under 50	0.75%	0.75%
50 – 51	2.50%	0.75%
52 – 54	2.50%	10.00%
55 – 57	12.00%	15.00%
58	12.00%	40.00%
59 – 62	25.00%	40.00%
63 – 64	25.00%	50.00%
65 – 66	30.00%	100.00%
67	100.00%	100.00%

Age	Current Police Rates	Proposed Police Rates
Under 50	1.00%	1.00%
50	3.00%	10.00%
51 – 52	3.00%	15.00%
53	7.00%	15.00%
54	7.00%	25.00%
55	15.00%	25.00%
56 – 57	20.00%	25.00%
58 – 62	25.00%	30.00%
63	25.00%	40.00%
64	25.00%	50.00%
65-66	50.00%	100.00%
67	100.00%	100.00%

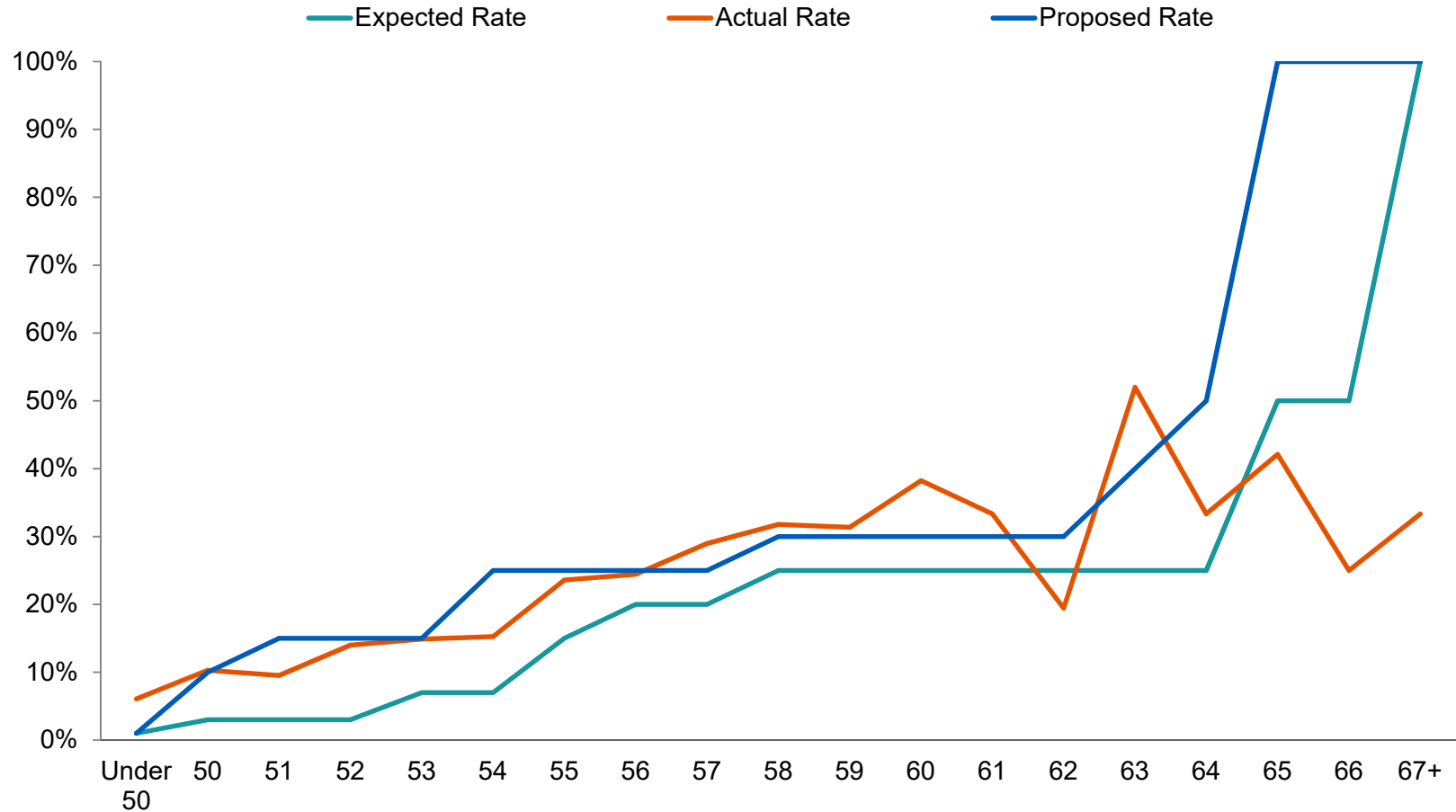
Demographic Assumptions

Retirement Rates – Fire in DROP



Demographic Assumptions

Retirement Rates – Police in DROP



Demographic Assumptions

DROP Utilization and Annuitization Interest



- **DROP Utilization**

- Current Assumption: No members are assumed to elect to enter the DROP
- In 2018 and 2019, new DROP entrants were primarily participants who have already reached their maximum years of pensionable service
- **Recommendation: Maintain current assumption**

- **DROP Annuitization Interest**

- Current Assumption: 3.00% on account balances as of September 1, 2017, payable upon retirement
- **Recommendation: Change to 2.75%; assumption reviewed annually and changed as necessary based on feedback from the Fund Office**

Demographic Assumptions

Retirement Rates

- **Recommendations for non-DROP participants**

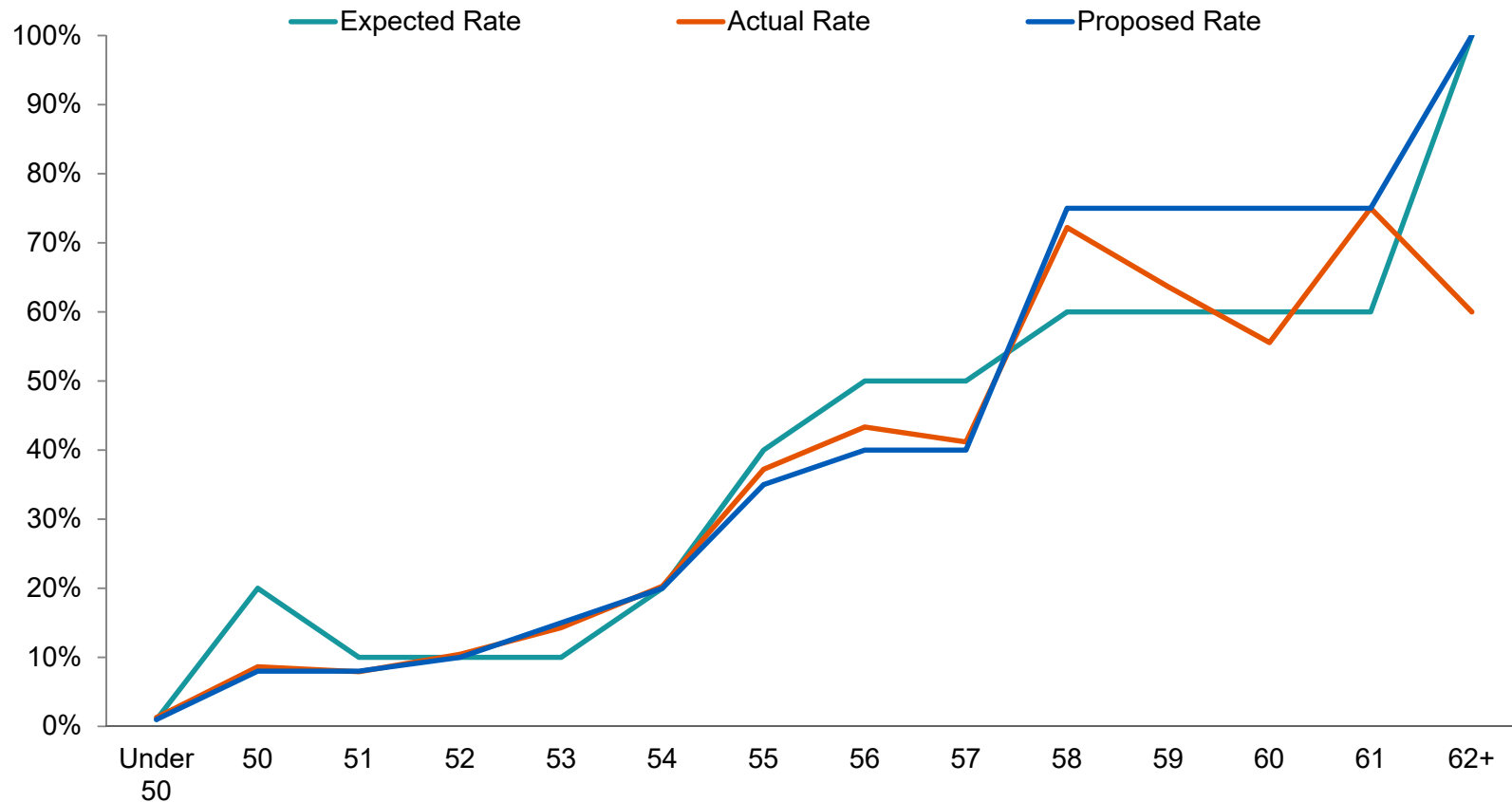
- Decrease retirement rates for most ages
- The current and proposed assumed retirement rates for active participants not in the DROP are provided below; no one hired on or after March 1, 2011 retired during the study period

Members hired prior to March 1, 2011 with at least 20 years of service as of September 1, 2017		
Age	Current Rates	Proposed Rates
Under 50	1.00%	1.00%
50	20.00%	8.00%
51	10.00%	8.00%
52	10.00%	10.00%
53	10.00%	15.00%
54	20.00%	20.00%
55	40.00%	35.00%
56 – 57	50.00%	40.00%
58 – 61	60.00%	75.00%
62	100.00%	100.00%

Members hired prior to March 1, 2011 with less than 20 years of service as of September 1, 2017 & Members hired on or after March 1, 2011			
Age	Hired prior to March 1, 2011 Current Rates	Hired on or after March 1, 2011 Current Rates	Proposed Rates
Under 50	0.00%	1.00%	1.00%
50	10.00%	5.00%	2.00%
51 – 53	5.00%	5.00%	2.00%
54	5.00%	10.00%	2.00%
55	15.00%	20.00%	2.00%
56	10.00%	30.00%	2.00%
57	5.00%	40.00%	2.00%
58	60.00%	50.00%	25.00%
59 – 60	50.00%	50.00%	25.00%
61	50.00%	50.00%	50.00%
62	100.00%	100.00%	100.00%

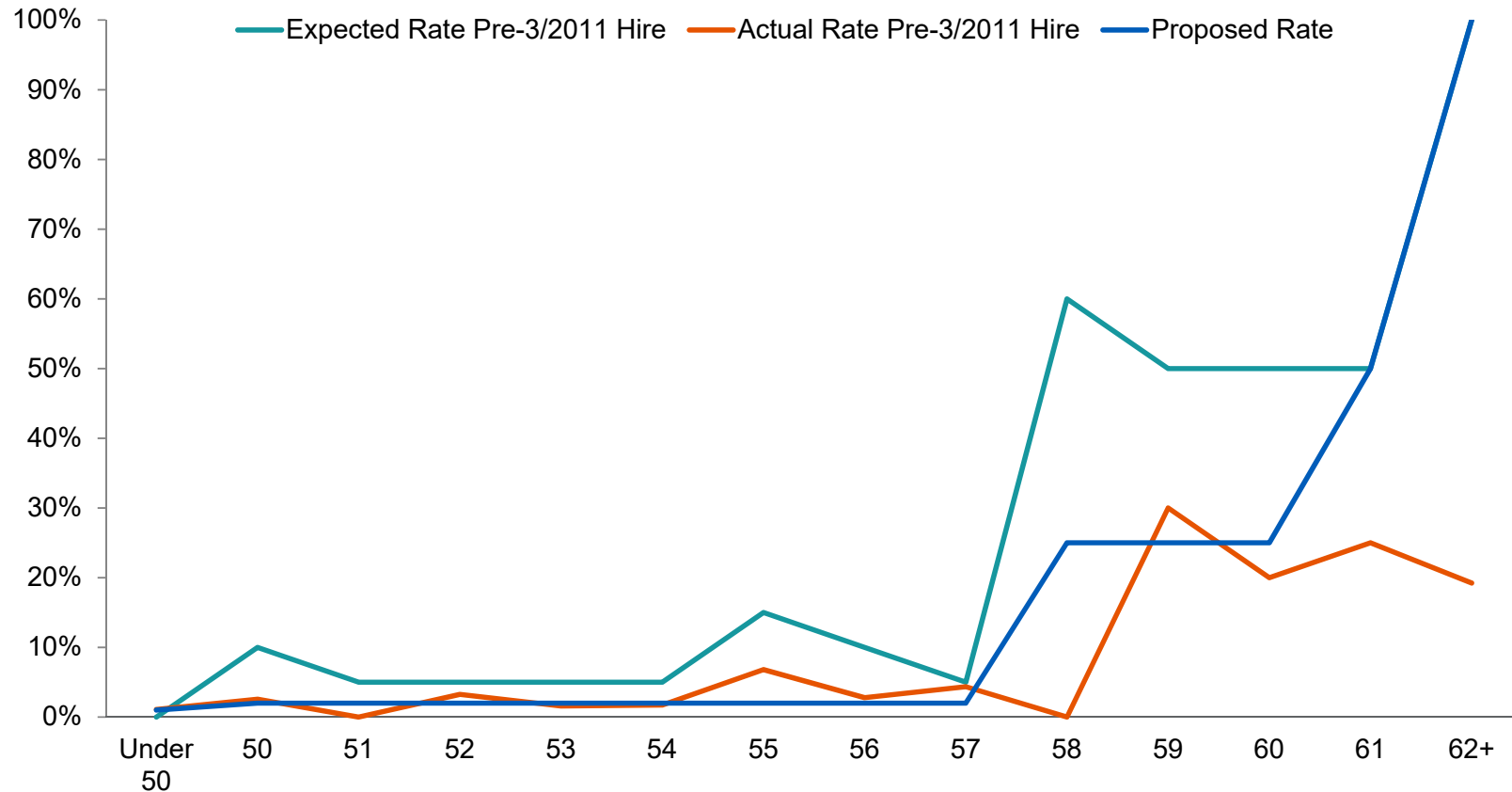
Demographic Assumptions

Retirement Rates – Members hired prior to March 1, 2011 with at least 20 years of service as of September 1, 2017



Demographic Assumptions

Retirement Rates – Members hired prior to March 1, 2011 with less than 20 years of service as of September 1, 2017



Demographic Assumptions

Retirement Rates – Terminated Vested Participants

• **Current Assumptions**

- Members who terminated prior to September 1, 2017 retire at age 50
- Members who terminated on or after September 1, 2017 retire at age 58

• **Findings**

- 147 terminated vested participants either retired or cashed out during the study period
 - 39, or 26.5%, retired at average age 50
 - 108, or 73.5%, cashed out at average age 38

• **Recommendations**

- Maintain same age 50 and 58 retirement assumptions
- As participants begin to terminate with a vested benefit with most of their service earned beginning on or after September 1, 2017, it is believed they will retire at a later age in accordance with the plan provisions that were effective September 1, 2017
- Add an assumption that 75% of those who terminate with a vested benefit prior to age 40 take a lump sum cash out at age 40

Demographic Assumptions

Spousal Assumptions

• **Current Assumptions**

- 75% of participants, regardless of sex, are assumed to have a spouse upon retirement or death from active status
- Males are assumed to be three years older than their spouses at retirement

• **Findings**

- Approximately 78% of participants were married at the time of retirement
- The beneficiaries of male participants were approximately 2.6 years younger, while the beneficiaries of female participants were approximately 0.5 years older
- The 2017 results appear to be an anomaly; the beneficiaries of female participants were 2.3 years older, on average, for the other four years
- The number of female exposures is significantly lower than male exposures

• **Recommendations**

- Maintain the percent married assumption of 75%
- Maintain the assumption males are three years older than their spouses at retirement



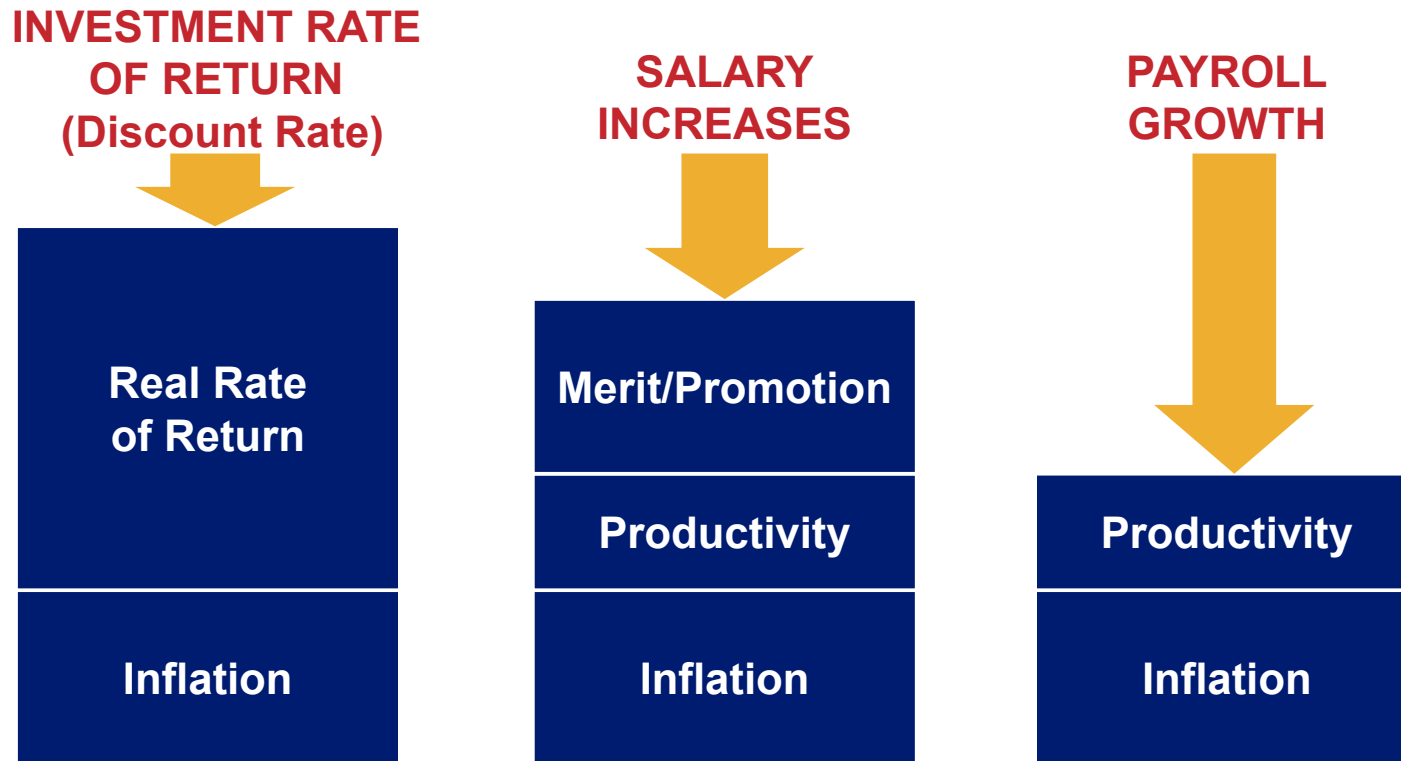
Economic Assumptions



Economic Assumptions

Building Blocks

These economic assumptions have two or three components (or building blocks).



Building blocks must be consistent across all economic assumptions.

Economic Assumptions

Inflation

- **Current Assumption:** 2.75%
- 2019 OASDI Trustees Report: 2.0% for high-cost projection and 3.2% for low-cost projection
- Historical (through December 2019):

Average Annual Change in CPI-U	
Last 5 Years	1.82%
Last 10 Years	1.75%
Last 20 Years	2.14%
Last 30 Years	2.40%
Last 100 Years	2.64%



–Reasonable Range Based on OASDI Study and Other Public Sector Plans:
2.00% – 2.75%

- **Recommendation**

–Lower to 2.50%

Economic Assumptions

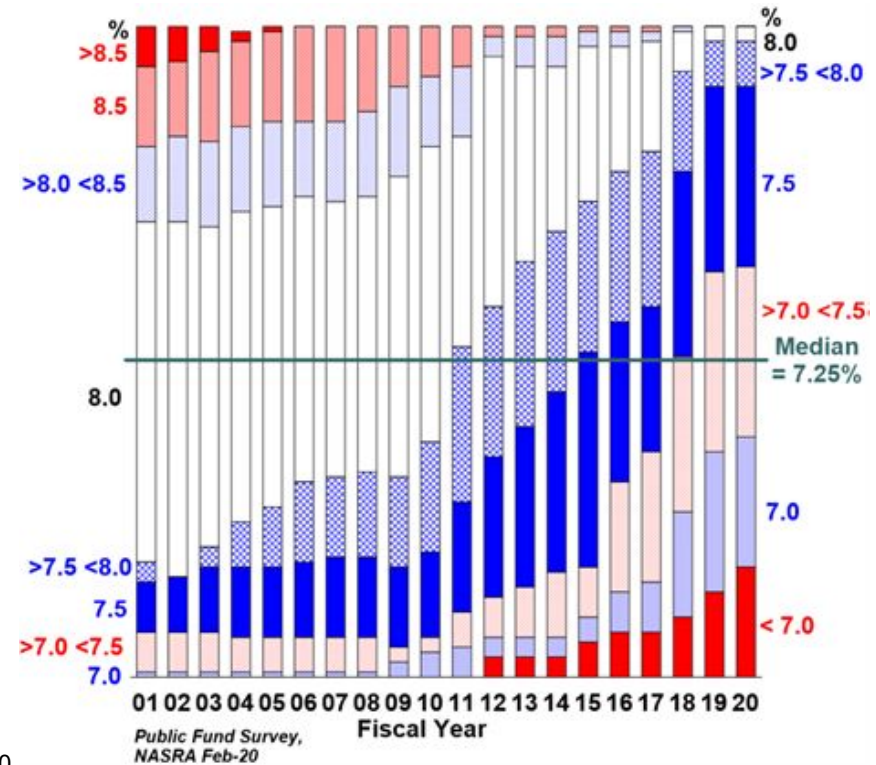
Investment Return

- **Current Assumption:** 7.25%
- NASRA Survey, February 2020
 - Less than 35% now have assumptions at 7.50% or above (was 50% two years ago)
 - Median has decreased to 7.25% (was 7.50% two years ago and 8.00% in 2010)
 - Average assumption is 7.22%

NASRA Issue Brief: Public Pension Plan Investment Return Assumptions

Updated February 2020

Change in Distribution of Public Pension Investment Return Assumptions, FY 01 to FY 20



Source: Compiled by NASRA based on Public Fund Survey, February 2020

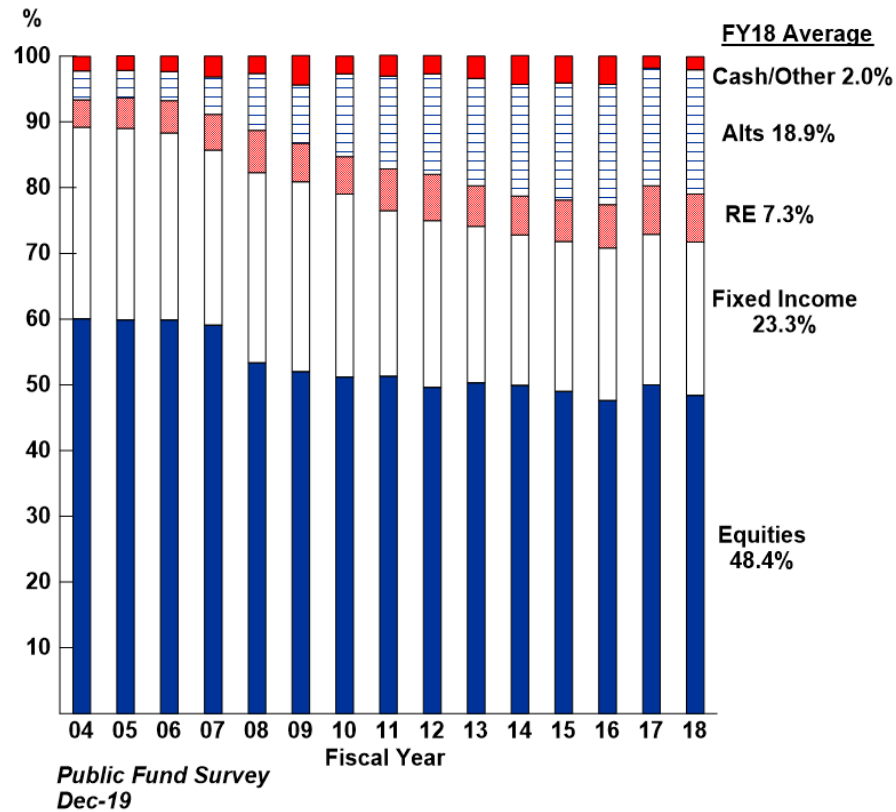
Economic Assumptions

Investment Return

NASRA Public Fund Survey: Summary of Findings for FY 2018

Updated December 2019

Change in Average Asset Allocations, FY 04 to FY 18



Source: Compiled by NASRA based on Public Fund Survey, December 2019

Economic Assumptions

Investment Return

- The chart below shows actuarial value and market value investment returns over the five-year period ending December 31, 2019
- As shown below, the Fund's returns as recognized under the asset smoothing method have generally fallen short of return expectations over the prior five years

Year Ended	Actuarial Value Investment Return	Market Value Investment Return	Assumed Return
December 31, 2015	-24.03%*	-8.47%	7.25%
December 31, 2016	7.16%	6.82%	7.25%
December 31, 2017	6.63%	4.74%	7.25%
December 31, 2018	5.48%	2.09%	7.25%
December 31, 2019	5.08%	6.41%	7.25%
Average	-7.17%	1.51%	

*Includes re-setting of actuarial value of assets to market value of assets as of December 31, 2015; prior to the re-set, the actuarial value investment return was -9.24%.

Economic Assumptions

Investment Return

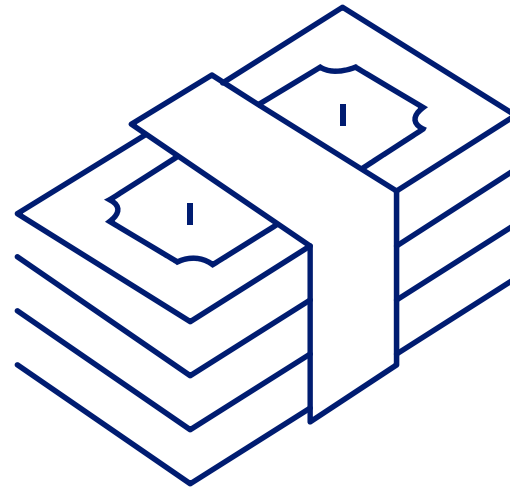
- Reasonable range based on inflation assumption of 2.00% to 2.75% and target asset allocation is 6.50% to 7.25%
- There is currently a 4.50% point spread between the inflation assumption of 2.75% and the return assumption of 7.25%
- This spread does not have to be maintained; however, note that if the spread increases this implies the real rate of return on assets has increased
- **Recommendation**
 - Based on target asset allocation and projected future earnings, we recommend a discount rate between 6.50% and 7.25%



Economic Assumptions

Payroll Growth

- **Current Assumption:** 2.75% overall payroll growth
- **Comments**
 - Used to determine the amortization payment on the Unfunded Actuarial Accrued Liability (UAAL)
 - Payment on UAAL expected to increase at payroll growth rate
 - Usually equivalent to inflation assumption or inflation plus productivity
- **Recommendation**
 - Decrease long-term payroll growth assumption to 2.50% alongside reduction in inflation assumption



Economic Assumptions

Payroll Growth

Valuation Date	City's Hiring Plan Payroll	Percent Change in Hiring Plan Payroll	Projected Valuation Payroll	Percent Change in Valuation Payroll
January 1, 2015			\$383,006,330	
January 1, 2016			365,210,426	-4.65%
January 1, 2017	\$372,000,000		357,414,472	-2.13%
January 1, 2018	364,000,000	-2.15%	346,036,690	-3.18%
January 1, 2019	383,000,000	5.22%	363,117,415	4.94%
January 1, 2020	396,000,000	3.39%	397,161,078	9.38%
Average growth over past five years				0.73%

Economic Assumptions

Salary Scale

- **Current Assumptions**

- Service-based table with rates ranging from 0.00% to 5.00% with an ultimate rate of 2.00%
- Separate rates for each rank
- Based on 2016 Meet and Confer Agreement, as amended in 2018

- **Recommendation**

- Updated rates based on 2019 Meet and Confer agreement
- Tables on the next page show the current assumption and the proposed assumption
- Bargaining assumed to occur again after three years, and the long-term rates are assumed to be lower than the current agreement for some members



Economic Assumptions

Salary Scale

Current Rates						
Years of Service	Officers & Officer Trainees	Corporals, Drivers & Senior Officers	Sergeants, Lieutenants, Captains & Majors	Deputy Chiefs	Assistant Chiefs	Chiefs
1	0.00%	0.00%	5.00%	5.00%	5.00%	5.00%
2	0.00%	2.75%	5.00%	5.00%	5.00%	5.00%
3	2.75%	5.00%	5.00%	5.00%	5.00%	5.00%
4 – 6	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
7	5.00%	5.00%	5.00%	2.00%	5.00%	5.00%
8	2.00%	5.00%	2.00%	2.00%	5.00%	5.00%
9 – 11	2.00%	2.00%	2.00%	2.00%	5.00%	5.00%
12 – 14	2.00%	2.00%	2.00%	2.00%	2.00%	5.00%
15+	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Proposed Rates			
Year	Officers	Corporals, Drivers, Senior Officers & Chiefs	Sergeants, Lieutenants, Captains, Majors, Deputy Chiefs & Assistant Chiefs
2020 – 2022	3.25%	3.00%	2.50%
2023+	2.50%	2.50%	2.50%

Economic Assumptions

Administrative Expenses

- **Current Assumption:** Greater of \$8,500,000 per year or 1% of computation pay
- **Comments**
 - GASB Statements 67 and 68 require an explicit assumption for accounting purposes
 - Administrative expenses have been lower than assumed over the past four years
- **Recommendation**
 - Maintain the current assumption, based on feedback from the Fund Office

Four-year administrative expense history

Year Ended	Administrative Expenses	Assumption
December 31, 2016	\$9,492,445	\$10,000,000
December 31, 2017	8,089,584	Greater of \$10M or 1% comp. pay
December 31, 2018	5,861,410	Greater of \$8.5M or 1% comp. pay
December 31, 2019	6,413,696	Greater of \$8.5M or 1% of comp. pay

Economic Assumptions

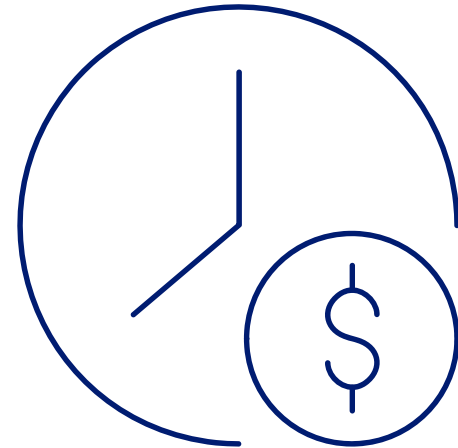
Cost-of-Living Adjustment (COLA)

- **Current Assumption**

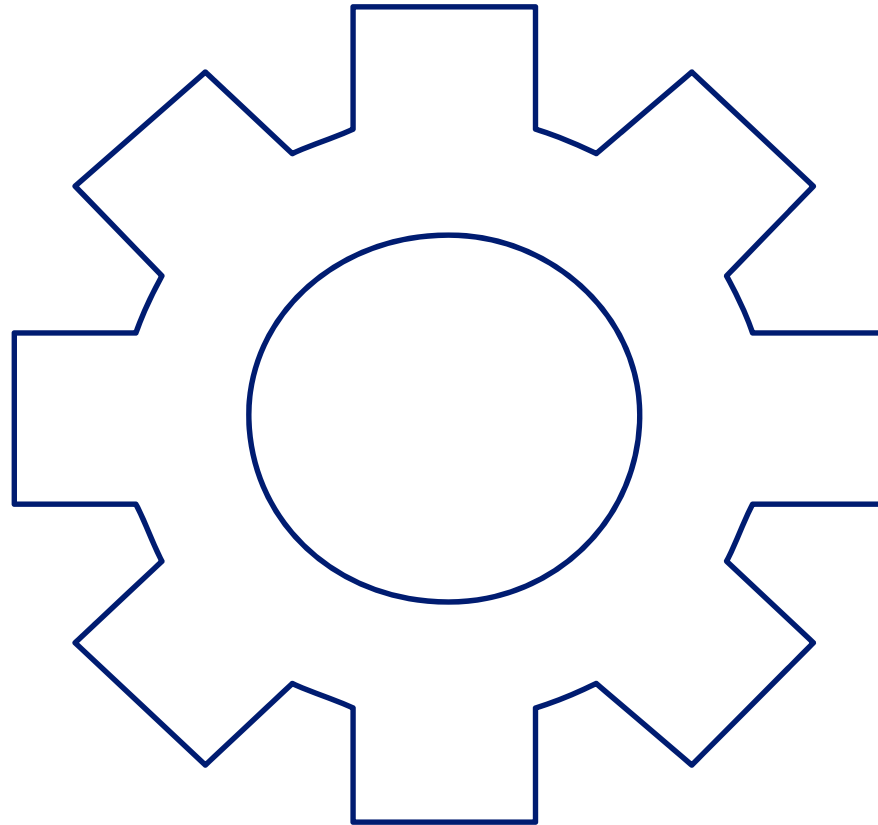
- 2.00% increase per year beginning in the year the System is projected to be 70% funded on a market value basis after the COLA is reflected (currently, October 1, 2050)
- Updated annually

- **Recommendation**

- Current assumption maintained for purposes of the experience study
- Will update once financials are finalized and funding projections are updated



Actuarial Methods



Actuarial Methods

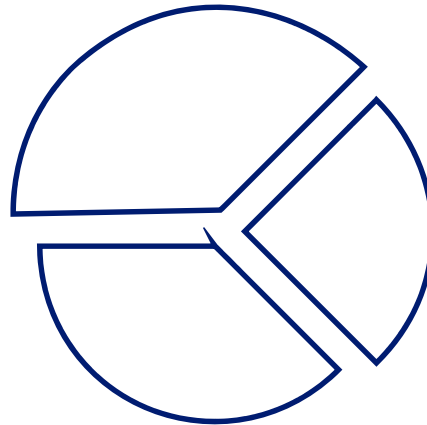
Funding Method

- **Current Method**

- Current method is Traditional Entry Age
- Traditional Entry Age is the most common method used for public sector plans in the U.S., and is required for GASB 67 and 68 calculations

- **Recommendation**

- Maintain current method



Actuarial Methods

Asset Smoothing Method

- **Current Method**

- 5-year straight-line amortization of each year's market investment gain or loss
- 20% corridor around market
- Treats realized and unrealized losses equally
 - Sale of assets does not affect actuarial value

- GFOA funding policy guidelines recommend a recognition period of five years or less with recognition occurring over fixed periods.

- A corridor is recommended by GFOA if the period is greater than five years.

- Actuarial Standard of Practice No. 44 requires the use of a method that is “rational, systematic, and produces an actuarial value of assets that is expected to converge toward market value...assuming constant asset returns in future periods.”

- The current asset method follows these recommendations.

- **Recommendation**

- Maintain current method

Actuarial Methods

Amortization Method

• Current Method

- The Pension System is funded based on statutory contributions, rather than the results of the actuarial valuation.
- However, Texas Code Section 802.101 requires actuarial valuations of public sector retirement systems to include a recommended contribution rate based on an amortization period not to exceed 30 years.
- The actuarially determined contribution (ADC) shown in the valuation is calculated based on a 30-year amortization period using the level percent-of-payroll method.

- GFOA funding policy guidelines recommend that amortization periods should not exceed 25 years and ideally fall in the 15-20 year range.

- GFOA funding policy guidelines recommend a “layered” amortization approach with different periods for changes in liability incurred in different years.

• Recommendation

- Maintain current method for purposes of satisfying Texas Code Section 802.101
- If the City chooses to fund the System based on the ADC, or the System’s effective amortization period based on the statutory contributions drops below 30 years, a change in method will be considered.

Thank You!

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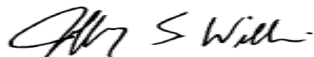
Actuarial Certification

We are pleased to submit this presentation on the actuarial experience of the Dallas Police and Fire Pension System for the period January 1, 2015 through December 31, 2019. This investigation is the basis for our recommendation of the assumptions and methods to be used for the January 1, 2020 actuarial valuation. The experience review was completed under our supervision, with the assistance of Caitlin Grice.

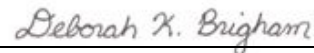
All current actuarial assumptions and methods were reviewed as part of this study. The study was based on data provided by the System for the last six actuarial valuations. Our analysis was conducted in accordance with generally accepted actuarial principles as prescribed by the Actuarial Standards Board (ASB) and the American Academy of Actuaries. Additionally, the development of all assumptions contained herein is in accordance with ASB Actuarial Standard of Practice (ASOP) No. 27 (*Selection of Economic Assumptions for Measuring Pension Obligations*) and ASOP No. 35 (*Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations*).

The undersigned actuaries are experienced with performing experience studies for large public-sector pension plans and are qualified to render the opinions contained in this report.

Sincerely,



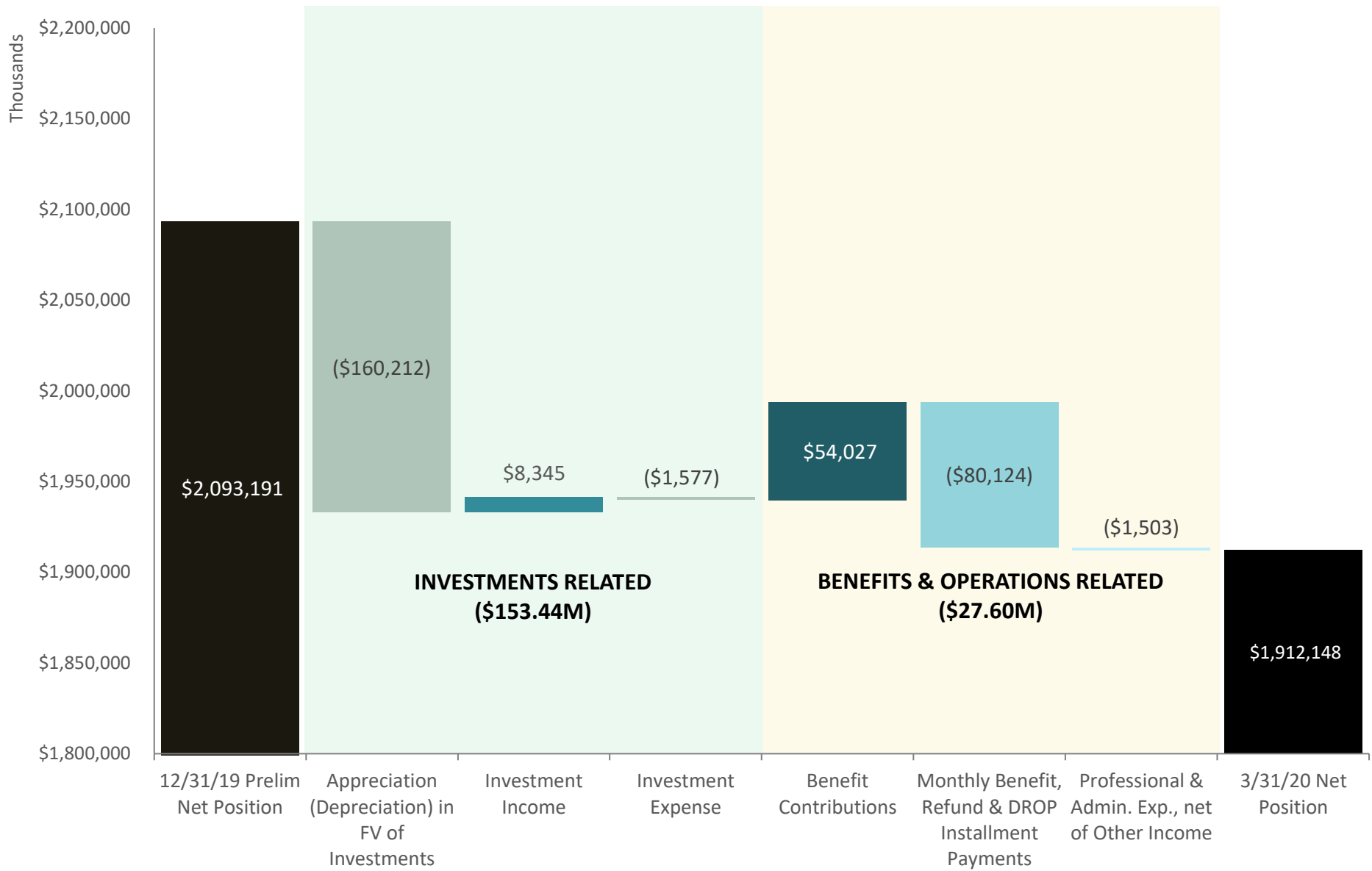
Jeffrey S. Williams, FCA, ASA, MAAA, EA
Vice President and Actuary



Deborah K. Brigham, FCA, ASA, MAAA, EA
Senior Vice President and Actuary

Change in Net Fiduciary Position

PRELIMINARY - December 31, 2019 – March 31, 2020



Components may not sum exactly due to rounding.

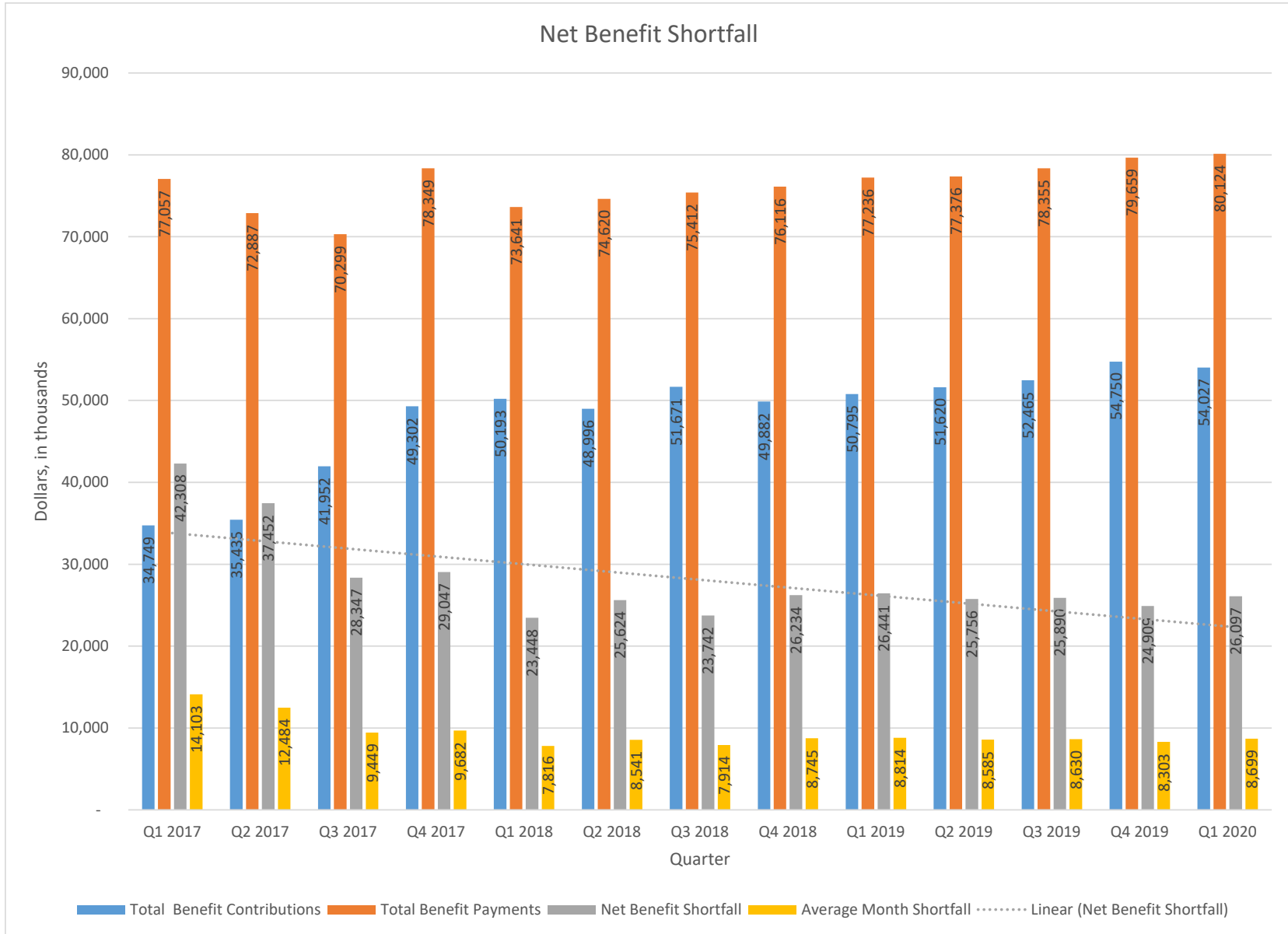
DALLAS POLICE & FIRE PENSION SYSTEM
Combined Statements of Fiduciary Net Position

	March 31, 2020	PRELIMINARY December 31, 2019 (unaudited)	\$ Change	% Change
Assets				
Investments, at fair value (NOTE)				
Short-term investments	\$ 22,535,385	\$ 25,311,029	\$ (2,775,644)	-11%
Fixed income securities	515,188,786	555,703,407	(40,514,621)	-7%
Equity securities	467,738,111	555,230,589	(87,492,478)	-16%
Real assets	556,081,563	559,667,854	(3,586,291)	-1%
Private equity	292,794,990	292,802,830	(7,840)	0%
Alternative investments	-	-	-	0%
Forward currency contracts	(2,130,145.00)	652,498.00	(2,782,643)	-426%
Total investments (NOTE)	1,852,208,690	1,989,368,207	(137,159,517)	-7%
Invested securities lending collateral	3,690,858	13,025,117	(9,334,259)	-72%
Receivables				
City	6,224,000	3,035,500	3,188,500	105%
Members	2,134,416	1,055,869	1,078,547	102%
Interest and dividends	4,557,055	4,459,663	97,392	2%
Investment sales proceeds	65,792,737	52,570,414	13,222,323	25%
Other receivables	188,628	186,104	2,524	1%
Total receivables	78,896,836	61,307,550	17,589,286	29%
Cash and cash equivalents	44,769,038	89,461,720	(44,692,682)	-50%
Prepaid expenses	805,699	402,596	403,103	100%
Capital assets, net	12,268,537	12,328,774	(60,237)	0%
Total assets	\$ 1,992,639,658	\$ 2,165,893,964	\$ (173,254,306)	-8%
Liabilities				
Payables				
Securities lending obligations	3,690,858	13,025,117	(9,334,259)	-72%
Securities purchased	73,154,681	54,957,185	18,197,496	33%
Accounts payable and other accrued liabilities	3,646,240	4,720,285	(1,074,045)	-23%
Total liabilities	80,491,779	72,702,587	7,789,192	11%
Net position				
Net investment in capital assets	12,268,537	12,328,774	(60,237)	0%
Unrestricted	1,899,879,342	2,080,862,603	(180,983,261)	-9%
Net position held in trust - restricted for pension benefits	\$ 1,912,147,879	\$ 2,093,191,377	\$ (181,043,498)	-9%

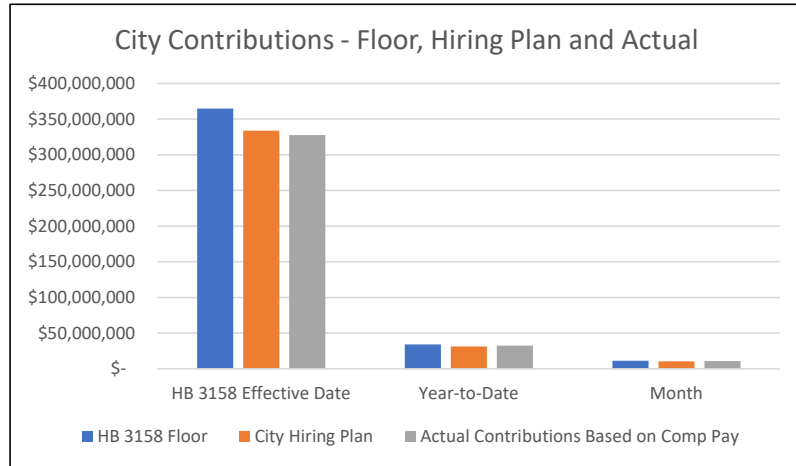
(NOTE) Private asset values have not yet been reported for Q4 19. Values will be updated as final reporting is received.

DALLAS POLICE & FIRE PENSION SYSTEM
Combined Statements of Changes in Fiduciary Net Position

	3 Months Ended 3/31/2020	3 Months Ended 3/31/2019	\$ Change	% Change
Contributions				
City	\$ 40,201,428	\$ 38,188,135	\$ 2,013,293	5%
Members	13,825,495	12,606,670	1,218,825	10%
Total Contributions	54,026,923	50,794,805	3,232,118	6%
Investment income				
Net appreciation (depreciation) in fair value of investments	(160,211,559)	69,972,836	(230,184,395)	-329%
Interest and dividends	8,335,128	8,409,783	(74,655)	-1%
Total gross investment income	(151,876,431)	78,382,619	(230,259,050)	-294%
less: investment expense	(1,576,521)	(1,758,510)	181,989	10%
Net investment income	(153,452,952)	76,624,109	(230,077,061)	-300%
Securities lending income				
Securities lending income	53,028	224,427	(171,399)	-76%
Securities lending expense	(43,440)	(197,109)	153,669	-78%
Net securities lending income	9,588	27,318	(17,730)	-65%
Other income	88,503	87,947	556	1%
Total additions	(99,327,938)	127,534,179	(226,862,117)	-178%
Deductions				
Benefits paid to members	79,471,578	76,515,531	2,956,047	4%
Refunds to members	652,638	720,746	(68,108)	-9%
Legal expense	85,806	48,042	37,764	79%
Legal expense reimbursement	-	-	-	0%
Legal expense, net of reimbursement	85,806	48,042	37,764	79%
Staff Salaries and Benefits	936,628	890,068	46,560	5%
Professional and administrative expenses	568,910	566,970	1,940	0%
Total deductions	81,715,560	78,741,357	2,974,203	4%
Net increase (decrease) in net position	(181,043,498)	48,792,822		
Beginning of period	2,093,191,377	2,060,232,023		
End of period	\$ 1,912,147,879	\$ 2,109,024,845		



Contribution Tracking Summary - May 2020 (March 2020 Data)



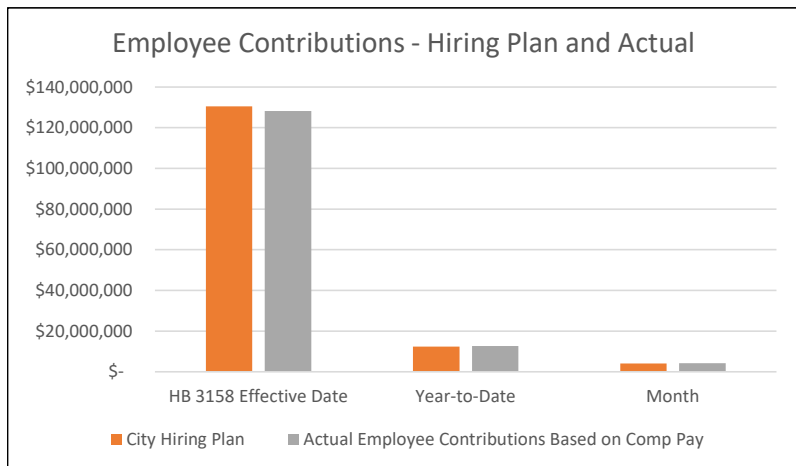
Actual Comp Pay was 98% of the Hiring Plan estimate since the effective date of HB 3158.

In the most recent month Actual Comp Pay was 103% of the Hiring Plan estimate and 95% of the floor amount.

The Hiring Plan Comp Pay estimate increased by 3.39% in 2020. The Floor increased by 2.75%.

Through 2024 the HB 3158 Floor is in place so there is no City Contribution shortfall.

The combined actual hiring was 30 higher than the Hiring Plan for the pay period ending March 31, 2020. Fire was over the estimate by 77 fire fighters and Police was short 47 officers.



Since the effective date of HB 3158 actual employee contributions have been \$2.4 million less than the Hiring Plan estimate. Potential earnings loss due to the contribution shortfall is \$467k at the Assumed Rate of Return.

Employee contributions exceeded the Hiring Plan estimate for the month and the year.

There is no Floor on employee contributions.

Contribution Summary Data

City Contributions							
Mar-20	Number of Pay Periods Beginning in the Month	HB 3158 Floor	City Hiring Plan	Actual Contributions Based on Comp Pay	Additional Contributions to Meet Floor Minimum	Comp Pay Contributions as a % of Floor Contributions	Comp Pay Contributions as a % of Hiring Plan Contributions
Month	2	\$ 11,448,000	\$ 10,509,231	\$ 10,865,004	\$ 582,996	95%	103%
Year-to-Date		\$ 34,344,000	\$ 31,527,692	\$ 32,498,576	\$ 1,845,424	95%	103%
HB 3158 Effective Date		\$ 364,691,000	\$ 333,668,077	\$ 327,555,784	\$ 37,135,216	90%	98%
<p><i>Due to the Floor through 2024, there is no cumulative shortfall in City Contributions Does not include the flat \$13 million annual City Contribution payable through 2024. Does not include Supplemental Plan Contributions.</i></p>							

Employee Contributions							
Mar-20	Number of Pay Periods Beginning in the Month	City Hiring Plan	Actual Employee Contributions Based on Comp Pay	Actual Contribution Shortfall Compared to Hiring Plan	Actuarial Valuation Contribution Assumption	Actual Contributions as a % of Hiring Plan Contributions	Actual Contributions as a % of Actuarial Val Assumption
Month	2	\$ 4,112,308	\$ 4,258,871	\$ 146,564	\$ 4,112,308	104%	104%
Year-to-Date		\$ 12,336,923	\$ 12,723,613	\$ 386,690	\$ 12,336,924	103%	103%
HB 3158 Effective Date		\$ 130,565,769	\$ 128,192,694	\$ (2,373,075)	\$ 125,456,562	98%	102%
Potential Earnings Loss from the Shortfall based on Assumed Rate of Return				\$ (467,846)			
<p><i>Does not include Supplemental Plan Contributions.</i></p>							

Reference Information

City Contributions: HB 3158 Bi-weekly Floor and the City Hiring Plan Converted to Bi-weekly Contributions						
	HB 3158 Bi-weekly Floor	City Hiring Plan-Bi-weekly	HB 3158 Floor Compared to the Hiring Plan	Hiring Plan as a % of the Floor	% Increase/ (decrease) in the Floor	% Increase/ (decrease) in the Hiring Plan
2017	\$ 5,173,000	\$ 4,936,154	\$ 236,846	95%		
2018	\$ 5,344,000	\$ 4,830,000	\$ 514,000	90%	3.31%	-2.15%
2019	\$ 5,571,000	\$ 5,082,115	\$ 488,885	91%	4.25%	5.22%
2020	\$ 5,724,000	\$ 5,254,615	\$ 469,385	92%	2.75%	3.39%
2021	\$ 5,882,000	\$ 5,413,846	\$ 468,154	92%	2.76%	3.03%
2022	\$ 6,043,000	\$ 5,599,615	\$ 443,385	93%	2.74%	3.43%
2023	\$ 5,812,000	\$ 5,811,923	\$ 77	100%	-3.82%	3.79%
2024	\$ 6,024,000	\$ 6,024,231	\$ (231)	100%	3.65%	3.65%

The HB 3158 Bi-weekly Floor ends after 2024

Employee Contributions: City Hiring Plan and Actuarial Val. Converted to Bi-weekly Contributions				
		City Hiring Plan Converted to Bi-weekly Employee Contributions	Actuarial Valuation Assumption Converted to Bi-weekly Employee contributions	Actuarial Valuation as a % of Hiring Plan
2017		\$ 1,931,538	\$ 1,931,538	100%
2018		\$ 1,890,000	\$ 1,796,729	95%
2019		\$ 1,988,654	\$ 1,885,417	95%
2020		\$ 2,056,154	\$ 2,056,154	100%
2021		\$ 2,118,462	\$ 2,118,462	100%
2022		\$ 2,191,154	\$ 2,191,154	100%
2023		\$ 2,274,231	\$ 2,274,231	100%
2024		\$ 2,357,308	\$ 2,357,308	100%

The information on this page is for reference. The only numbers on this page that may change before 2025 are the Actuarial Valuation Employee Contributions Assumptions for the years 2020-2024 and the associated percentage.

Reference Information - Actuarial Valuation and GASB 67/68 Contribution Assumptions

Actuarial Assumptions Used in the Most Recent Actuarial Valuation - These assumptions will be reevaluated annually & may change.

City Contributions are based on the Floor through 2024, the Hiring Plan from 2025 to 2037, after 2037 an annual growth rate of 2.75% is assumed
 Employee Contributions for 2018 are based on the 2017 actual employee contributions inflated by the growth rate of 2.75% and the Hiring Plan for subsequent years until 2038, when the 2037 Hiring Plan is increased by the 2.75 growth rate for the next 10 years

Actuarial/GASB Contribution Assumption Changes Since the Passage of HB 3158

	Actuarial Valuation	GASB 67/68
YE 2017 (1/1/2018 Valuation)		
2018 Employee Contributions Assumption - based on 2017 actual plus growth rate not the Hiring Plan Payroll	\$ (2,425,047)	*
2019 Estimate (1/1/2019 Valuation)		
2019 Employee Contribution Assumption	\$ 9,278	*

**90% of Hiring Plan was used for the Cash Flow Projection for future years in the 12/31/2017 GASB 67/68 calculation. At 12-31-17 and 12-31-18 this did not impact the pension liability or the funded percentage.*

The information on this page is for reference. It is intended to document contribution related assumptions used to prepare the Actuarial Valuation and changes to those assumptions over time, including the dollar impact of the changes. Contribution changes impacting the GASB 67/68 liability will also be included.

City Hiring Plan - Annual Computation Pay and Numbers of Employees						
Year	Computation Pay			Number of Employees		
	Hiring Plan	Actual	Difference	Hiring Plan	Actual EOY	Difference
2017	\$ 372,000,000	Not Available	Not Available	5,240	4,935	(305)
2018	\$ 364,000,000	\$ 349,885,528	\$ (14,114,472)	4,988	4,983	(5)
2019	\$ 383,000,000	\$ 386,017,378	\$ 3,017,378	5,038	5,104	66
2020	\$ 396,000,000			5,063		
2021	\$ 408,000,000			5,088		
2022	\$ 422,000,000			5,113		
2023	\$ 438,000,000			5,163		
2024	\$ 454,000,000			5,213		
2025	\$ 471,000,000			5,263		
2026	\$ 488,000,000			5,313		
2027	\$ 507,000,000			5,363		
2028	\$ 525,000,000			5,413		
2029	\$ 545,000,000			5,463		
2030	\$ 565,000,000			5,513		
2031	\$ 581,000,000			5,523		
2032	\$ 597,000,000			5,523		
2033	\$ 614,000,000			5,523		
2034	\$ 631,000,000			5,523		
2035	\$ 648,000,000			5,523		
2036	\$ 666,000,000			5,523		
2037	\$ 684,000,000			5,523		

Comp Pay by Month - 2020	Annual Divided by 26 Pay Periods	Actual	Difference	2020 Cumulative Difference	Number of Employees EOM	Difference
January	\$ 30,461,538	\$ 31,291,360	\$ 829,821	\$ 829,821	5136	73
February	\$ 30,461,538	\$ 31,355,435	\$ 893,897	\$ 1,723,718	5114	51
March	\$ 30,461,538	\$ 31,414,646	\$ 953,108	\$ 2,676,826	5093	30
April	\$ 45,692,308					
May	\$ 30,461,538					
June	\$ 30,461,538					
July	\$ 30,461,538					
August	\$ 30,461,538					
September	\$ 45,692,308					
October	\$ 30,461,538					
November	\$ 30,461,538					
December	\$ 30,461,538					



DISCUSSION SHEET

ITEM #2

Topic: Public comment

Discussion: This is an open forum for the public to provide input regarding DPFP to the Board and staff.

*Sec. 3.01 (j-9) of Article 6243a-1 of Vernon's Revised Civil Statutes
Required Public Meeting – Thursday, May 14, 2020*