



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** Roberto L. Peña

**SUBJECT: OFFICE OF RETIREMENT  
SERVICES' FY20-21 PROPOSED  
ADMINISTRATIVE BUDGET**

**DATE:** May 8, 2020

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## **RECOMMENDATION**

Approve the Office of Retirement Services' (ORS) proposed administrative expense budget for Fiscal Year 2020-2021.

## **BACKGROUND**

In October 2017, the City Auditor issued Report 17-06, *Audit of Retirement Services: Greater Transparency Needed in the Budgeting Process, Interactions Among Stakeholders, Investment Policies, and Plan Administration*. The first finding that the City Auditor outlined in the report was that ORS' budget process was not well defined. Thus, the City Auditor provided several recommendations, which were related to the approval of the budget by City Council:

- Recommendation #2: The Office of Retirement Services should include its proposed personnel budget and staffing plan for City Council approval as part of the comprehensive annual budget outlined in Recommendation #3.
- Recommendation #3: The Office of Retirement Services should prepare a comprehensive annual budget document covering the entire aggregate expense of administering each plan.
- Recommendation #4: In compliance with the City Charter, the Office of Retirement Services should formally request each retirement board annually adopt the annual budget document that has also been approved by the City Council.

In order to comply with the recommendations by the City Auditor, ORS combined proposed administrative expense budget is being brought forward through the Manager's Budget Addendum (MBA) process to be approved as part of the Mayor's June Budget Message.

## **ANALYSIS**

*Administrative and Comprehensive Budget Analysis*

Historically, ORS prepared an annual administrative expense budget that was approved by both the Police and Fire Department Retirement Plan and Federated City Employees' Retirement System Boards individually at their March meetings (Attachments A and D). Due to the City Auditor's recommendations, last year was the second year that ORS prepared a comprehensive budget through the MBA process. During the first year, two MBAs were prepared: MBA #1 consisted of the comprehensive budget and MBA #2 consisted of the estimated investment fees for the upcoming fiscal year. Last year and going forward, both MBAs are combined into one.

The administrative expense budget is divided into four categories: personnel services, non-personnel/equipment, professional services, and medical providers. Table 1 below shows the combined ORS administrative expense budget for both plans. The forecasted amount is lower than the adopted budget for fiscal year 2019-2020 mainly due to the vacancies in personnel and savings in all the other categories due to planned projects not being completed from lack of resources and/or general costs savings.

The proposed budget for personnel services decreased mainly due to the elimination of the limited-date information systems analyst position which expires on June 30, 2020; while the proposed budget for non-personnel equipment decreased due to a reclassification of a portion of the analytical and research programs in the investments division. The proposed budget for professional services decreased slightly due to actuarial services performed in fiscal year 2019-2020 that will not be needed for fiscal year 2020-2021. The proposed budget for medical services decreased slightly due to reduced backlogs from prior years. The total proposed budget decreased by 5.7% to \$11.5 million, which is the amount that ORS is requesting the City Council to approve.

**TABLE 1 – Office of Retirement Services Proposed Administrative Budget**

<b>Expense Category</b>	<b>2019-2020 Adopted (A)</b>	<b>2019-2020 Forecast (B)</b>	<b>2020-2021 Proposed (C)</b>	<b>% Increase (Decrease) (A to C)</b>	<b>% Increase (Decrease) (B to C)</b>
Personnel Services	\$7,387,000	\$6,803,596	\$7,147,000	(3.2%)	5.0%
Non-personnel / Equipment	\$2,816,000	\$2,151,256	\$2,446,000	(13.1%)	13.7%
Professional Services	\$1,607,000	\$1,322,137	\$1,563,000	(2.7%)	18.2%
Medical Services	\$355,000	\$224,606	\$318,000	(10.4%)	41.6%
<b>TOTAL</b>	<b>\$12,165,000</b>	<b>\$10,501,595</b>	<b>\$11,474,000</b>	<b>(5.7%)</b>	<b>9.3%</b>

The amounts in the table above are included in the source and use statements, which are part of the City's operating budget documents. However, the source and use statements are shown for display purposes only, and the medical providers category is combined with the professional services in the source and use statements.

As part of recommendation #3 by the City Auditor, the ORS prepared a comprehensive proposed budget that encompassed both revenue and expenses of the plans described in Table 2 below. The budget documents consisted of the typical presentation that was historically presented to the Boards (Attachments A and D), as well as a memo explaining the various components of the budget and the proposed budget itself (Attachments B and E). These presentations, memos and

budgets were presented to the Boards individually at the April and March meetings for both the Federated and the Police and Fire Board, respectively. Based on discussions between the City Mayor's Office and ORS after the original budgets were presented, revised budgets were provided to the Boards. The revised Police and Fire budget was presented on May 7, 2020; while the revised Federated budget will be presented to the Board on May 21, 2020 (Attachments G and H). The table below combines both plans to represent the Office of Retirement Services' proposed comprehensive budget.

**TABLE 2 – Office of Retirement Services Proposed Comprehensive Budget**

	<b>2018-2019 Actual</b>	<b>2019-2020 Adopted</b>	<b>2019-2020 Forecast</b>	<b>2020-2021 Proposed</b>
<b>Source of Funds</b>				
Beginning Balance – Claims Reserve	\$6,005,301,000	\$6,201,019,000	\$6,201,019,000	\$6,513,405,251
COLAs	38,308	40,000	34,938	37,000
City Contributions	404,778,000	399,384,966	411,609,226	443,208,000
Participant Contributions	71,310,000	75,080,966	74,023,081	76,903,000
Investment Income, net of expenses*	208,413,000	354,208,635	332,890,784	352,039,000
<b>Total Source of Funds</b>	<b>\$6,689,840,308</b>	<b>\$7,029,733,567</b>	<b>\$7,019,577,029</b>	<b>\$7,385,592,251</b>
<b>Use of Funds</b>				
COLAs	38,308	40,000	34,938	37,000
Benefits	423,074,000	432,654,120	440,212,355	454,778,000
Health Insurance	55,229,000	56,662,277	55,403,990	57,311,000
VEBA Withdrawals	19,000	0	18,900	0
Personnel Service	6,295,319	7,387,000	6,803,596	7,147,000
Non-Personnel/ Equipment	2,334,666	2,816,000	2,151,256	2,446,000
Professional Fees	1,831,015	1,962,000	1,546,743	1,881,000
Ending Balance – Claims Reserve	\$6,201,019,000	\$6,528,212,170	\$6,513,405,251	\$6,861,992,251
<b>Total Use of Funds</b>	<b>\$6,689,840,308</b>	<b>\$7,029,733,567</b>	<b>\$7,019,577,029</b>	<b>\$7,385,592,251</b>

\* Based on the 2018 Annual Fee Reports, total management and incentive fees for the pension and healthcare trusts for the Police and Fire Plan was \$39.3 million and for the Federated System was \$23.1 million for a total of \$62.4 million.

It should be noted that the personnel services costs reflected in the above table can vary from the amount included in the Budget Office's 2020-2021 Proposed Budget due to them revising salary, retirement, and benefit costs when compared to those that were approved by the Federated Retirement Board and the Police and Fire Retirement Board in April and March, respectively.

This combined comprehensive budget nets the investment manager fees and other consultant expenses against investment income. Please see Attachments C and F for the most recent calendar year Comprehensive Annual Fee reports that were presented to the Boards. As indicated in the Fee reports for calendar year 2018, the management and incentive fees for the Police and Fire and Federated pension plans and healthcare trusts totaled \$39.3 million with a fee ratio of 1.04% and

\$23.1 million with a fee ratio of 0.94%, respectively, for a combined total of \$62.4 million. The Fee reports include management fees, incentive fees, consultant fees and other investment fees, some of which were based on calculations by the investment managers. Please note the Fee reports for calendar year 2019 are expected to be completed in August and will be presented to the City Council in September.

### *Investment Fee Analysis*

Since the Comprehensive Fee Report for calendar year 2019 will not be available until August and ORS' commitment to transparency and desire to meet the spirit of the City Auditor's recommendation #3, ORS has prepared a Pro Forma Investment Fee Analysis of potential investment fees for the 2020-2021 fiscal year.

Below are pro forma fee projections in dollar terms calculated by multiplying each plan's asset allocation policy targets as of April 2020 by calendar year 2018 fee ratios and plan assets as of April 2020. Unlike prior years, the pro forma calculations do not use fund type (passive, active, hedged, private) for each asset class for calculating the projections since they are not expected to be significantly different than fund types in calendar year 2018. **Please note these projections are based on many assumptions with a wide margin of error.**

### Notes on Methodology

- The Pro Forma fees shown are approximations of projected fees with a wide margin of error.
- Actual fund management fees will vary as the composition of underlying funds and fund types changes over time.
- Incentive fees do not reduce the Fund's income from investments. Such "fees" (carried interest) are a profit share that affords the fund manager an ownership alignment with the other equity partners. The IRS does not treat carried interest income the same as fee income to managers. Accordingly, while for convenient reference we refer to the managers' equity interest as a "fee", that reference needs to be understood in the context of aligning our interests with the managers. Unlike a fee, the manager only earns the incentive amount if we also earn a profit over a set hurdle amount.
- Actual incentive fees will vary from the values shown since incentive fees are calculated based on the actual performance of underlying funds which is uncertain and subject to change. Calendar year 2018 incentive fee ratios are used as the reference point for estimation purposes, but do not reflect the current performance or expected future performance of investments.
- The Federated and Police & Fire Boards adopted new asset allocation policy targets for the pension plans in March 2020 and April 2020, respectively. The new policy targets were used for calculating the fee projections, however, there could be delays in implementing the new asset allocations, primarily due to illiquidity of plan investments which would cause deviations in the actual asset allocation compared to the targets.

- Other investment-related costs include salary and benefits compensation for investment staff (including a 50% allocation for the CEO), cost of consultants (general, absolute return, risk), custodian bank, other third party vendors utilized by the investment program, and investment staff travel.
- Other investment-related costs are not expected to be materially different than calendar year 2018, although a \$0.4mm reduction in consultant costs is expected.
- The calendar year 2019 Fee Report is expected to be available by September 2020.
- Some values may not sum due to rounding.

A summary of the pro forma fees for a combination of all four retirement plans is below and followed by a breakdown of each plan individually. The total pro forma fund management fees, incentive fees, and operating expenses of \$59.2 million with a fee ratio of 0.97% compares to \$71.2 million with a fee ratio of 1.14% in calendar year 2018 as shown in the 2018 Fee Reports. Total pro forma other investment-related costs of \$4.5 million with a fee ratio of 0.07% compares to \$4.8 million with a fee ratio of 0.08% as shown in the 2018 Fee Reports.

All Retirement Plans - Pro Forma Estimated Fund Management Fees (\$ mm) by Asset Class:

Asset Class	Management Fees	Incentive Fees	Operating Expenses	Total Expenses
Global Equity	14.0	2.9	0.8	17.7
Private Equity	6.3	6.3	2.1	14.6
Global Fixed Income	5.3	1.3	0.6	7.2
Private Debt	1.6	0.6	0.9	3.1
Real Assets	7.5	2.5	1.6	11.5
Absolute Return	2.5	2.0	0.6	5.0
<b>Total Plan</b>	<b>37.1</b>	<b>15.5</b>	<b>6.6</b>	<b>59.2</b>

All Retirement Plans - Pro Forma Estimated Other Investment-Related Costs (\$ mm):

Investment Staff Salary and Benefits	Consultants	Custodian Bank	Other Vendors and Travel	Total Other Costs	Other Costs Fee Ratio
1.7	1.1	0.7	1.0	4.5	0.07%

Federated Pension Fund Management Fees by Asset Class:

Asset Class	Policy Target	2018 Fee Ratios				Pro Forma Fees (\$ mm)			
		Management Fees	Incentive Fees	Operating Expenses	Total Expense Ratio	Management Fees	Incentive Fees	Operating Expenses	Total Expenses
Global Equity	49%	0.51%	0.10%	0.03%	0.64%	5.2	1.0	0.3	6.6
Private Equity	12%	1.07%	0.50%	0.33%	1.91%	2.7	1.3	0.8	4.8
Global Fixed Income	22%	0.24%	0.03%	0.01%	0.29%	1.1	0.2	0.1	1.3
Private Debt	3%	1.16%	0.31%	0.69%	2.16%	0.7	0.2	0.4	1.4
Real Assets	11%	1.25%	0.41%	0.25%	1.91%	2.9	0.9	0.6	4.4
Absolute Return	3%	1.48%	1.13%	0.33%	2.94%	0.9	0.7	0.2	1.8
<b>Total Plan</b>						<b>13.6</b>	<b>4.3</b>	<b>2.5</b>	<b>20.3</b>

**Federated Health Care Trust Fund Management Fees by Asset Class:**

<i>Asset Allocation Policy Targets</i>		<i>2018 Fee Ratios</i>				<i>Pro Forma Fees (\$ mm)</i>			
<b>Asset Class</b>	<b>Policy Target</b>	<b>Management Fees</b>	<b>Incentive Fees</b>	<b>Operating Expenses</b>	<b>Total Expense Ratio</b>	<b>Management Fees</b>	<b>Incentive Fees</b>	<b>Operating Expenses</b>	<b>Total Expenses</b>
Global Equity	56%	0.28%	0.00%	0.01%	0.29%	0.5	-	0.0	0.5
Global Fixed Income	29%	0.03%	0.00%	0.01%	0.03%	0.0	-	0.0	0.0
Real Assets	15%	0.70%	0.11%	0.14%	0.95%	0.3	0.1	0.1	0.4
<b>Total Plan</b>						<b>0.8</b>	<b>0.1</b>	<b>0.1</b>	<b>1.0</b>

**Police & Fire Pension Fund Management Fees by Asset Class:**

<i>Asset Allocation Policy Targets</i>		<i>2018 Fee Ratios</i>				<i>Pro Forma Fees (\$ mm)</i>			
<b>Asset Class</b>	<b>Policy Target</b>	<b>Management Fees</b>	<b>Incentive Fees</b>	<b>Operating Expenses</b>	<b>Total Expense Ratio</b>	<b>Management Fees</b>	<b>Incentive Fees</b>	<b>Operating Expenses</b>	<b>Total Expenses</b>
Global Equity	46%	0.51%	0.12%	0.03%	0.65%	8.2	1.9	0.5	10.6
Private Equity	10%	1.01%	1.41%	0.35%	2.77%	3.6	5.0	1.2	9.8
Global Fixed Income	27%	0.44%	0.12%	0.05%	0.61%	4.2	1.1	0.5	5.8
Private Debt	3%	0.79%	0.34%	0.49%	1.62%	0.8	0.4	0.5	1.7
Real Assets	11%	1.08%	0.39%	0.24%	1.71%	4.2	1.5	0.9	6.7
Absolute Return	3%	1.47%	1.18%	0.34%	3.00%	1.6	1.3	0.4	3.2
<b>Total Plan</b>						<b>22.6</b>	<b>11.2</b>	<b>4.0</b>	<b>37.9</b>

**Police & Fire Health Care Trust Fund Management Fees by Asset Class:**

<i>Asset Allocation Policy Targets</i>		<i>2018 Fee Ratios</i>				<i>Pro Forma Fees (\$ mm)</i>			
<b>Asset Class</b>	<b>Policy Target</b>	<b>Management Fees</b>	<b>Incentive Fees</b>	<b>Operating Expenses</b>	<b>Total Expense Ratio</b>	<b>Management Fees</b>	<b>Incentive Fees</b>	<b>Operating Expenses</b>	<b>Total Expenses</b>
Global Equity	56%	0.03%	0.00%	0.00%	0.03%	0.0	-	-	0.0
Global Fixed Income	29%	0.03%	0.00%	0.00%	0.03%	0.0	-	0.0	0.0
Real Assets	15%	0.23%	0.00%	0.05%	0.28%	0.1	-	0.0	0.1
<b>Total Plan</b>						<b>0.1</b>	<b>-</b>	<b>0.0</b>	<b>0.1</b>

**COORDINATION**

This memorandum has been coordinated with the City Manager's Budget Office.

/s/  
ROBERTO L. PEÑA  
Chief Executive Officer

For more information on this memorandum, please contact Roberto L. Peña, CEO, 408-794-1000.

HONORABLE MAYOR AND CITY COUNCIL

May 8, 2020

**Subject: Office of Retirement Services' FY19-20 Proposed Administrative Budget**

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Attachment A: Police and Fire Department Retirement Plan Budget Proposal Presentation - ORIGINAL

Attachment B: Police and Fire Department Plan FY 20-21 Proposed Budget

Attachment C: Police and Fire Department Plan Comprehensive Annual Fee Report for Calendar Year 2018

Attachment D: Federated Retirement System Budget Proposal Presentation - ORIGINAL

Attachment E: Federated Retirement System FY20-21 Proposed Budget

Attachment F: Federated Retirement System Comprehensive Annual Fee Report for Calendar Year 2018

Attachment G: Police and Fire Department Retirement Plan Budget Proposal Presentation - REVISED

Attachment H: Federated Retirement System Budget Proposal Presentation - REVISED

ATTACHMENT A

**POLICE AND FIRE DEPARTMENT  
RETIREMENT PLAN  
FISCAL YEAR 2020-2021  
BUDGET PROPOSAL  
REVISED PERSONNEL**

April 2, 2020



# Police & Fire Proposed Administrative Budget for FY 2020–2021 – ORIGINAL

The following is a comparison of previous fiscal year actual figures, current year adopted budget and forecast, and proposed next year budget:

Expenses	2018– 2019 Actual (A)	2019– 2020 Adopted (B)	2019– 2020 Forecast (C)	2020–2021 Proposed <sup>(1)</sup> (D)	% Increase (Decrease) (B to D)	% Increase (Decrease) (C to D)
Personnel Services	\$3,334,302	\$3,898,000	\$3,608,216	\$4,188,000	7.44%	16.07%
Non–Personnel / Equipment	1,026,381	1,408,000	1,068,509	1,250,000	(11.22%)	16.99%
Professional Services	819,987	845,000	684,946	811,000	(4.02%)	18.40%
Medical Services	180,789	218,000	142,639	236,000	8.26%	65.45%
<b>Total</b>	<b>\$5,361,459</b>	<b>\$6,369,000</b>	<b>\$5,504,310</b>	<b>\$6,485,000</b>	<b>1.82%</b>	<b>17.82%</b>

<sup>(1)</sup> – Detail for changes provided in the following slides

# Police & Fire Proposed Administrative Budget for FY 2020–2021 – REVISED

The following is a comparison of previous fiscal year actual figures, current year adopted budget and forecast, and proposed next year budget:

Expenses	2018– 2019 Actual (A)	2019– 2020 Adopted (B)	2019– 2020 Forecast (C)	2020–2021 Proposed <sup>(1)</sup> (D)	% Increase (Decrease) (B to D)	% Increase (Decrease) (C to D)
Personnel Services	\$3,334,302	\$3,898,000	\$3,608,216	<b>\$4,071,000</b>	4.44%	12.83%
Non–Personnel / Equipment	1,026,381	1,408,000	1,068,509	1,250,000	(11.22%)	16.99%
Professional Services	819,987	845,000	684,946	811,000	(4.02%)	18.40%
Medical Services	180,789	218,000	142,639	236,000	8.26%	65.45%
Total	\$5,361,459	\$6,369,000	\$5,504,310	<b>\$6,368,000</b>	(0.02%)	15.69%

<sup>(1)</sup> – Detail for changes provided in the following slides

# Personnel Services Analysis – ORIGINAL

Expenses	2018–2019 Actual (1)	2019–2020 Adopted (2)	2019–2020 Forecast (3)	2020–2021 Proposed (4)	% Increase (Decrease) (2 to 4)	% Increase (Decrease) (3 to 4)
Personnel Services	\$3,334,302	\$3,898,000	\$3,608,216	\$4,188,000	7.44%	16.07%
Authorized positions for both plans	39.75	39.75	39.75	40.75	0	0
Full time employee (FTE) allocated to Plan	19.875	19.875	19.875	20.375	0	0
Actual filled FTEs for both plans	34.75		38.75			
FTEs allocated to Plan	17.375		19.375			

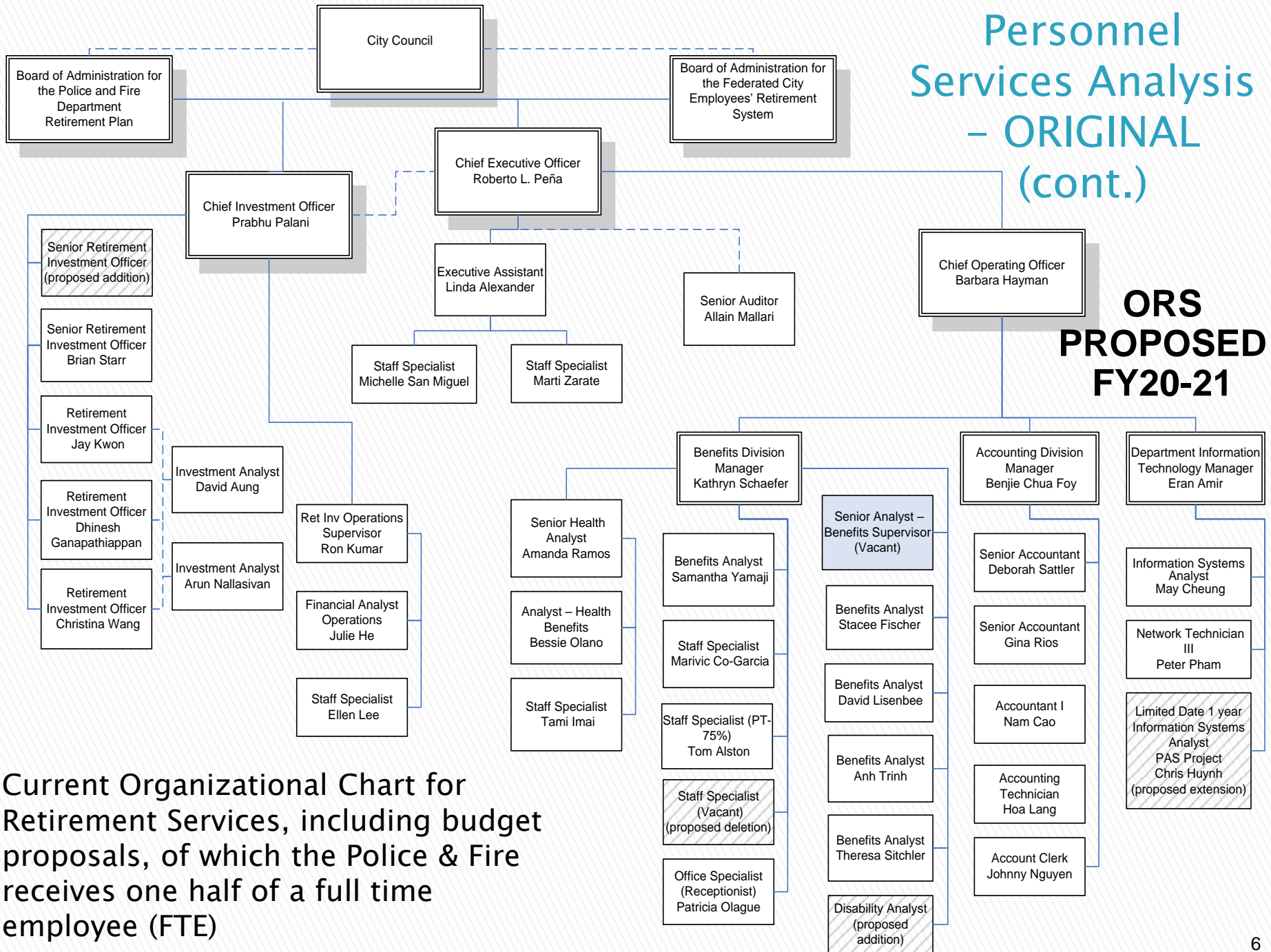
- ▶ Personnel Services increased from last year’s budget due to:
  - Planning on having ORS fully staffed, budgeting two return to work retirees for the full year and increased benefit rates
- ▶ Proposals for FY20–21 included in budget
  - Limited–date Information Systems Analyst will be renewed for another year
  - Add–delete a Disability Analyst from a Staff Specialist
  - Add a Senior Investment Officer

# Personnel Services Analysis – REVISED

Expenses	2018–2019 Actual (1)	2019–2020 Adopted (2)	2019–2020 Forecast (3)	2020–2021 Proposed (4)	% Increase (Decrease) (2 to 4)	% Increase (Decrease) (3 to 4)
Personnel Services	\$3,334,302	\$3,898,000	\$3,608,216	<b>\$4,071,000</b>	4.44%	12.83%
Authorized positions for both plans	39.75	39.75	39.75	<b>39.75</b>	0.5	0.5
Full time employee (FTE) allocated to Plan	19.875	19.875	19.875	<b>19.875</b>	0	0
Actual filled FTEs for both plans	34.75		38.75			
FTEs allocated to Plan	17.375		19.375			

- ▶ Personnel Services increased from last year’s budget due to:
  - Planning on having ORS fully staffed, budgeting two return to work retirees for the full year and increased benefit rates
- ▶ Proposals for FY20–21 included in budget
  - Add–delete a Disability Analyst from a Staff Specialist
  - Add a Senior Investment Officer

# Personnel Services Analysis – ORIGINAL (cont.)

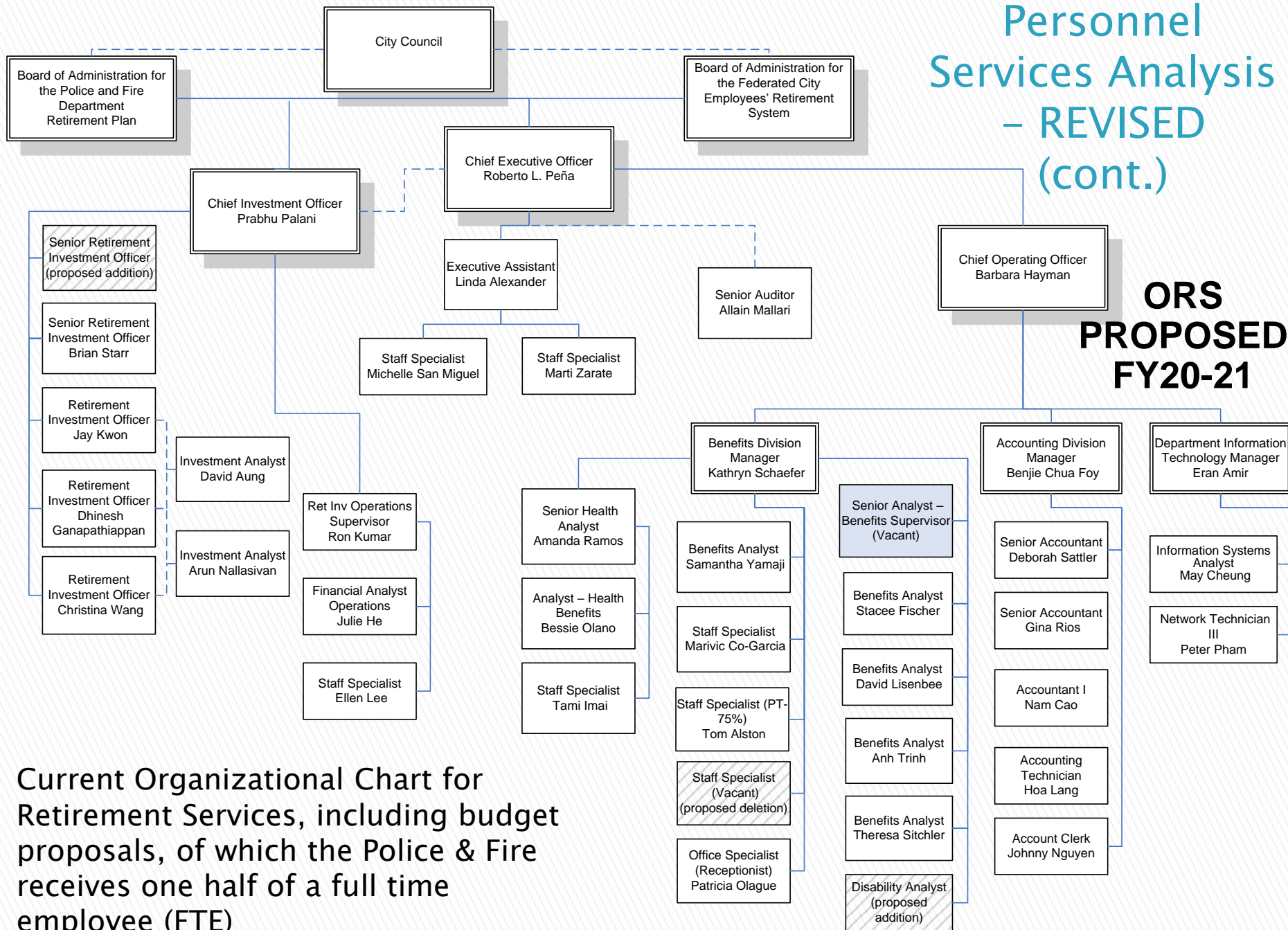


## ORS PROPOSED FY20-21

Current Organizational Chart for Retirement Services, including budget proposals, of which the Police & Fire receives one half of a full time employee (FTE)

# Personnel Services Analysis – REVISED (cont.)

## ORS PROPOSED FY20-21



Current Organizational Chart for Retirement Services, including budget proposals, of which the Police & Fire receives one half of a full time employee (FTE)



# Memorandum

**TO: Board of Administration for the  
Police and Fire Plan**

**FROM: Benjie Chua Foy**

**SUBJECT: Consideration of Proposed Budget  
for Fiscal Year 2020-2021 - REVISED**

**DATE: March 25, 2020**

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Approved

Date

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## **RECOMMENDATION**

Discussion and action on the proposed budget for fiscal year 2020-2021.

## **BACKGROUND**

The Board approves the contribution rates recommended by the actuary which is made by the City. The Board also approves the administrative expense budget for reporting on the Source and Use Statements submitted for inclusion in the City's operating budget. The amounts approved by the Board are the total category amounts and not the individual line items. If the individual line item goes over budget, no approval is required from the Board as long as the total category amount remains under budget. This proposed budget is provided to the Board for discussion and approval, and if necessary, a revised and final budget will be prepared for approval at the next meeting. Highlights of the proposed budget are as follows:

## **ANALYSIS**

### ***SOURCES OF FUNDS***

#### **CITY CONTRIBUTIONS**

The City contribution for the retirement and health benefit plan for the coming fiscal year is estimated to be \$231,282,000.

The actual contribution amount is based on the City contribution rates recommended by the actuary and adopted by the Board, applied as a factor against the City's total covered payroll. The FY21 contribution amounts assume the Board's adoption in April/May, as shown in the June 30, 2019 actuarial reports for pension and healthcare, using the middle of the year amounts and no prefunding.

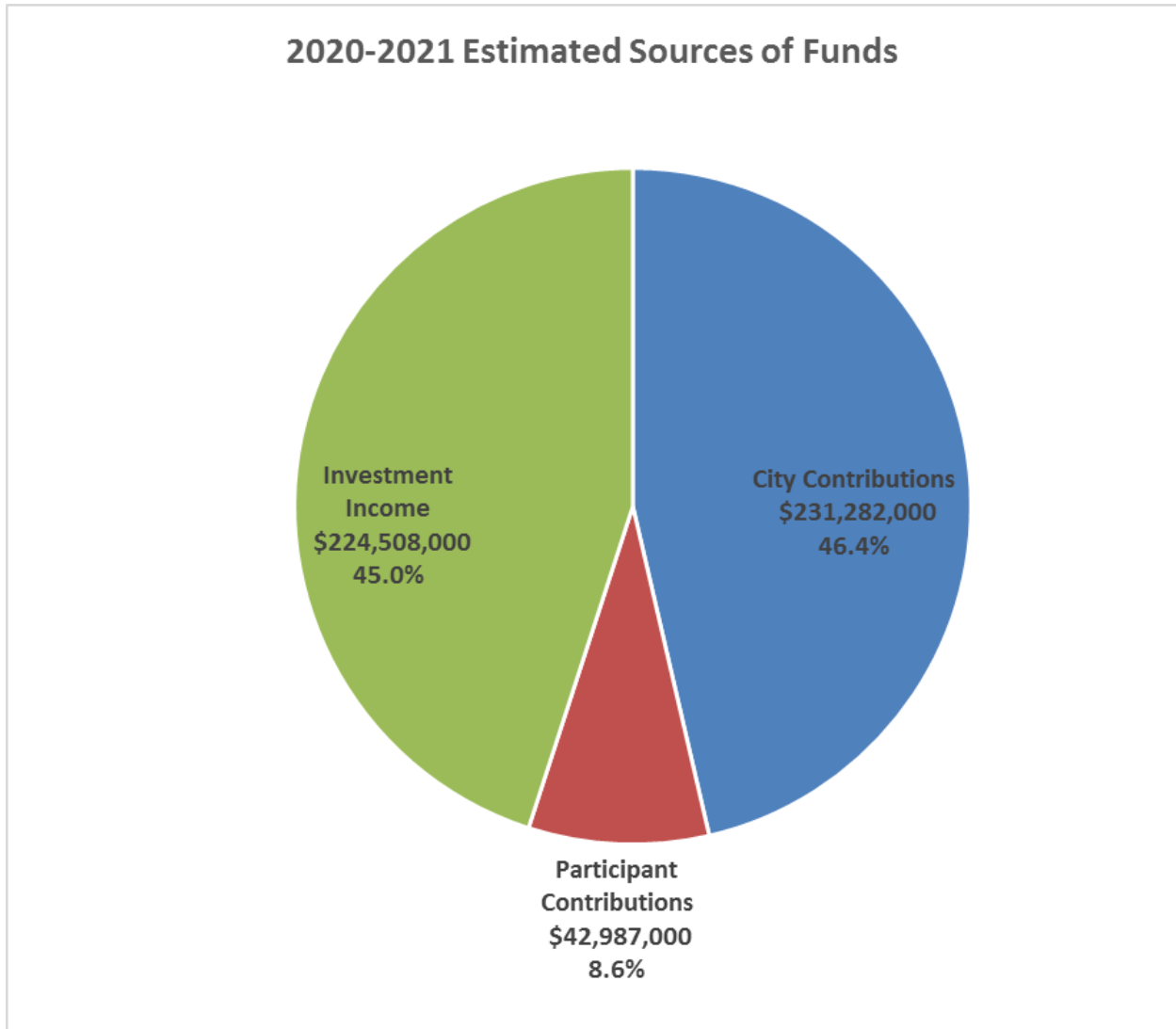
#### **PARTICIPANT CONTRIBUTIONS**

Total member contributions are estimated at \$42,987,000, a 3.90% increase from the 2019-2020 adopted amount. Member contributions are calculated based on the contribution rate for each tier. Police Tier 1 contribution rates for pension remained fairly steady going from 10.70% to 10.72% while their covered payroll increased from \$92.4 million to \$93.3 million. Fire Tier 1 contribution rates for pension increased slightly from 11.46% to 11.72% while covered payroll decreased slightly from \$72.7 million to \$71.2 million. Police Tier 2 contribution rates for pension increased from 14.06% to 14.18% and covered payroll increased from \$43.7 million to \$58.4 million, while Fire Tier 2 contribution rates for pension

increased from 15.39% to 15.53% while covered payroll increased from \$16.7 million to \$20.6 million. Healthcare contribution rates remain at 8.0% per the Municipal Code for Tier 1 members, while Tier 2 are required to go into the VEBA.

#### INVESTMENT INCOME

Investment earnings are calculated based on the actuarial assumed rate of return of 6.75%. The beginning fund balance, along with the City’s contributions and member contributions offset with the expenditures are expected to earn less than the full rate since these amounts will occur throughout the year.



#### ***USES OF FUNDS***

##### PENSION BENEFITS AND HEALTH INSURANCE

The pension benefits budget increased to \$234,580,000, an increase of \$10,927,000, or 4.89%, which is the average increase for the past five years. Pension benefits include service pensions, disability and survivorship pensions, death benefits and refunds of contributions.



The health insurance budget increased to \$26,703,000, an increase of \$472,000, or 1.80%, which is the average increase for the past five years. Health insurance includes health and dental insurance subsidies, as well as Medicare reimbursements.

VEBA withdrawals represent the funds taken out of the healthcare plan by Tier 1 members who opted out and the mandatory movement of Tier 2 members out of the healthcare plan. Fiscal year 2017-2018 had the largest amount since it was the first year of the opt-in to the VEBA and will continue through calendar year 2022 for rehired employees with healthcare contributions. There were no VEBA withdrawals in fiscal year 2018-2019 and future withdrawals are expected to be minimal, if any.

#### *ADMINISTRATIVE EXPENSE BUDGET*

The proposed administrative expenses budget of \$6,485,000 is a net increase of \$116,000 or 1.82% from the prior year proposed budget of \$6,369,000.

#### PERSONNEL SERVICES

The budget for personnel services was increased to \$4,071,000, an increase of \$173,000, or 4.44% over the prior year adopted budget of \$3,898,000. The Budget Office's labor distribution report drives the personnel budget, which covers all the staff in Retirement Services. The salaries and benefits of all staff, except for investment staff, is split 50/50 between the Plan and the Federated City Employees' Retirement System (System). The investment staff is split 60/40 between the Plan and the System, which is roughly based on asset size. The number of positions in Retirement Services will remain at 39.75 due to the proposals. The limited-date position for Information Systems Analyst that expires on June 30, 2020 will not be renewed. The other proposed personnel changes for FY20-21 are to add a Senior Investment Officer and to convert a Benefits Staff Specialist into a Benefits Disability Analyst. Besides the proposed changes, the other reasons for the increase in personnel services is due to the increased benefit rates, as well as having two reemployed retirees for the maximum time allowed per the Municipal Code.

#### NON-PERSONNEL / EQUIPMENT

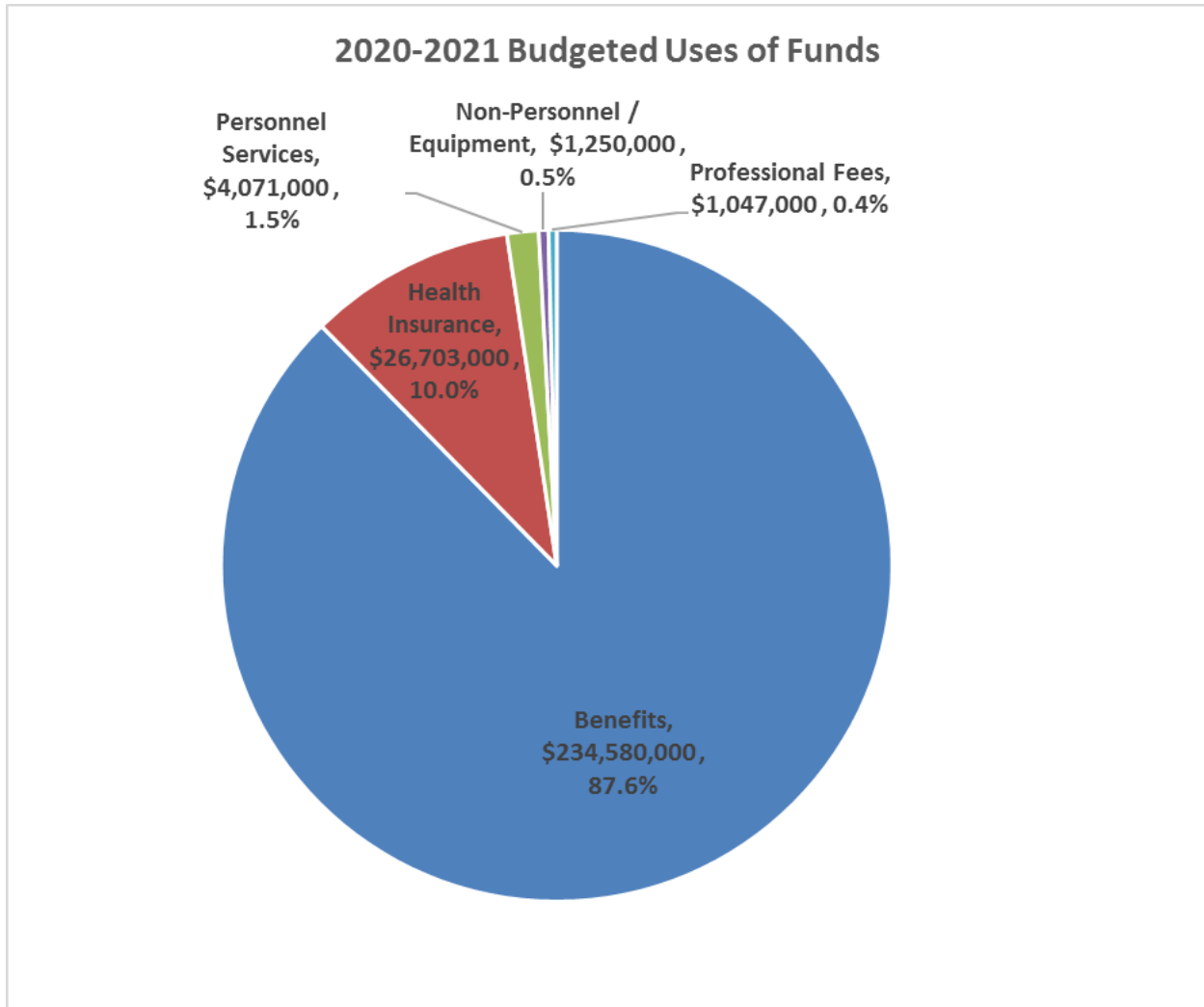
The budget for non-personnel / equipment was decreased to \$1,250,000, a decrease of \$158,000, or 11.22% from the prior year adopted budget of \$1,408,000. This category includes data processing costs for investments, rent, insurance, information technology hardware/software, pension administration annual maintenance fee, postage and printing, training, travel, and other office expenses. The decrease was mainly due to a decrease of \$134,000 in the investment analytics and research budget and a decrease of \$62,000 in the pension administration annual maintenance fee, offset by an increase in IT hardware/software of \$26,000. The decrease of \$134,000 was due to a reclassification of the services provided by State Street, the custodian bank, to align with how the expenses are recorded in the Comprehensive Annual Financial Report. The decrease of \$62,000 was due to the implementation of the new pension administration system, which had a lower annual maintenance fee. The increase of \$26,000 in IT hardware/software was due to the social media and phone center projects that are planned for the fiscal year.

#### PROFESSIONAL SERVICES

The budget for professional services was reduced to \$811,000, a slight decrease of \$34,000, or 4.02% from the prior year adopted budget of \$845,000. Core professional services comprise of actuarial services, financial audit services, legal services, and temporary staffing services. Decreases in budgetary amounts for core professional services resulted mainly from reducing the actuarial services by \$35,000, the approximate amount of the experience study that is being conducted in FY19-20 and not FY20-21.

### MEDICAL SERVICES

The budget for medical services was increased to \$236,000, a slight increase of \$18,000, or 8.26% over the prior year adopted budget of \$218,000. This category is for expenses related to the processing of disability applicants, which include costs for a medical advisor and medical services from independent medical examiners (IME). The main reason for the increase is due to an increase in the hourly rate of the medical advisor and the built-in contingency amount for special cases that cost more than the average amount.



**PROPOSED BUDGET**

**FISCAL YEAR 2020-2021**

**POLICE AND FIRE DEPARTMENT RETIREMENT PLAN**

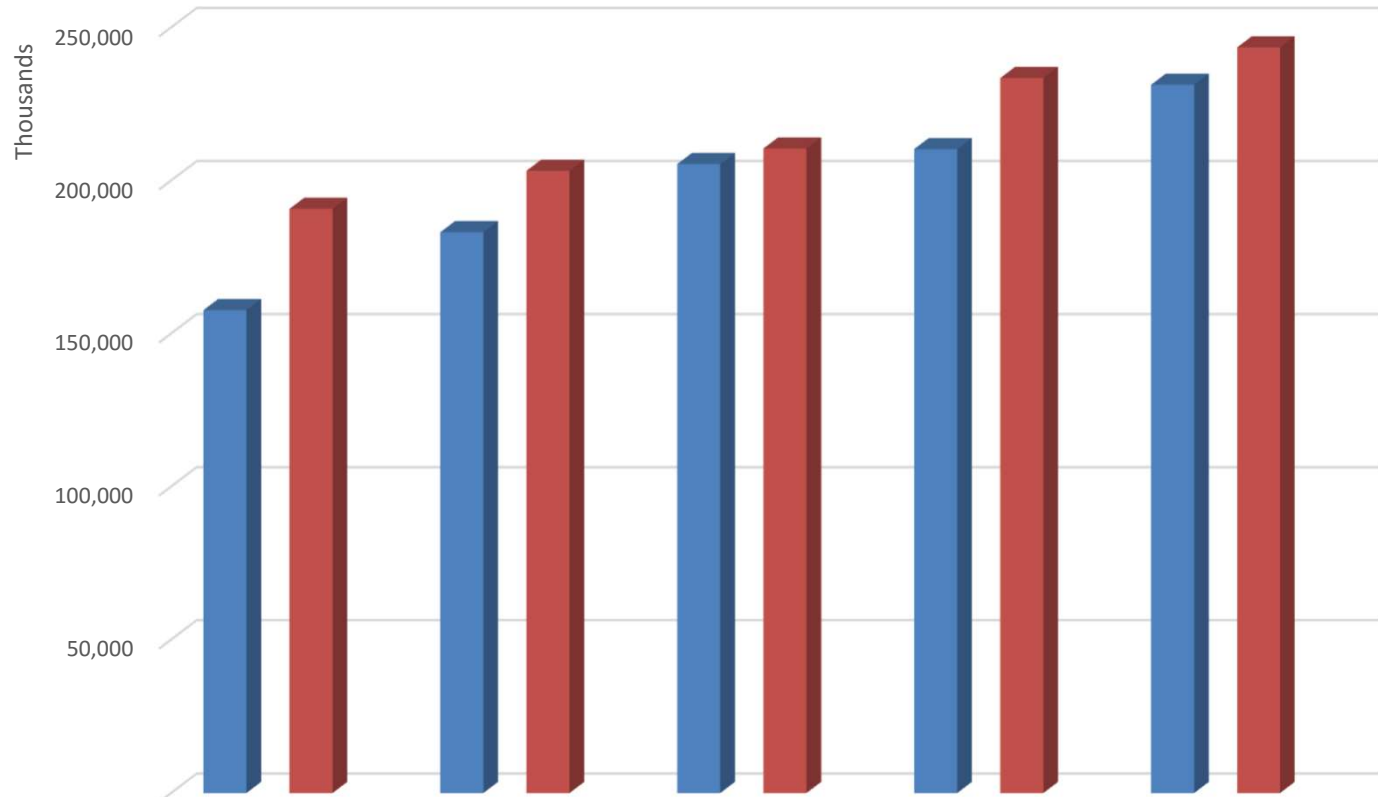
REVISED April 2, 2020

**POLICE & FIRE DEPARTMENT RETIREMENT PLAN**

**Statement of Source and Use of Funds**

	<b>(A)</b> <b>2018-2019</b> <b>Actual</b>	<b>(B)</b> <b>2019-2020</b> <b>Modified</b>	<b>(C)</b> <b>2019-2020</b> <b>Forecast</b>	<b>(D)</b> <b>2020-2021</b> <b>Proposed</b>	<b>(A) to (B)</b> <b>Increase</b> <b>(Decrease)</b>	<b>(B) - (C)</b> <b>Increase</b> <b>(Decrease)</b>	<b>(C) - (D)</b> <b>Increase</b> <b>(Decrease)</b>
<b>SOURCE OF FUNDS</b>							
Beginning Fund Balance							
Claims Reserve	3,658,711,000	3,774,379,000	3,774,379,000	<b>3,979,238,351</b>	115,668,000	0	204,859,351
Total Beginning Fund Balance	3,658,711,000	3,774,379,000	3,774,379,000	<b>3,979,238,351</b>	115,668,000	0	204,859,351
Transfers							
City Contributions	205,362,000	198,036,966	210,261,515	<b>231,282,000</b>	(7,325,034)	12,224,549	21,020,485
1970 COLA	534	535	534	<b>1,000</b>	1	(1)	466
1980 COLA	8,385	8,820	7,470	<b>9,000</b>	435	(1,350)	1,530
1990 COLA	3,801	3,800	3,801	<b>4,000</b>	(1)	1	199
Total Transfers	205,374,720	198,050,121	210,273,320	<b>231,296,000</b>	(7,324,599)	12,223,199	21,022,680
Revenue							
Participant Income	38,126,000	41,372,366	40,144,335	<b>42,987,000</b>	3,246,366	(1,228,031)	2,842,665
Investment Income, net of expenses	122,086,000	230,138,204	211,428,811	<b>224,508,000</b>	108,052,204	(18,709,393)	13,079,189
Total Revenue	160,212,000	271,510,570	251,573,146	<b>267,495,000</b>	111,298,570	(19,937,424)	15,921,854
<b>TOTAL SOURCE OF FUNDS</b>	<b>4,024,297,720</b>	<b>4,243,939,691</b>	<b>4,236,225,466</b>	<b>4,478,029,351</b>	<b>219,641,971</b>	<b>(7,714,225)</b>	<b>241,803,885</b>
<b>USE OF FUNDS</b>							
Expenditures							
Benefits	218,008,000	223,653,000	226,769,000	<b>234,580,000</b>	5,645,000	3,116,000	7,811,000
Health Insurance	26,403,000	26,231,000	24,702,000	<b>26,703,000</b>	(172,000)	(1,529,000)	2,001,000
VEBA withdrawals	0	0	0	<b>0</b>	0	0	0
Personnel Services (Ret.)	3,334,302	3,898,000	3,608,216	<b>4,071,000</b>	563,698	(289,784)	462,784
Non-Personnel/Equipment <sup>(1)</sup>	1,159,922	1,408,000	1,068,509	<b>1,250,000</b>	248,078	(339,491)	181,491
Professional Fees	1,000,776	1,063,000	827,585	<b>1,047,000</b>	62,224	(235,415)	219,415
1970 COLA	534	535	534	<b>1,000</b>	1	(1)	466
1980 COLA	8,385	8,820	7,470	<b>9,000</b>	435	(1,350)	1,530
1990 COLA	3,801	3,800	3,801	<b>4,000</b>	(1)	1	199
Total Expenditures	249,918,720	256,266,155	256,987,115	<b>267,665,000</b>	6,347,435	720,960	10,677,885
Ending Fund Balance							
Claims Reserve	3,774,379,000	3,987,673,536	3,979,238,351	<b>4,210,364,351</b>	213,294,536	(8,435,185)	231,126,000
Total Ending Fund Balance	3,774,379,000	3,987,673,536	3,979,238,351	<b>4,210,364,351</b>	213,294,536	(8,435,185)	231,126,000
<b>TOTAL USE OF FUNDS</b>	<b>4,024,297,720</b>	<b>4,243,939,691</b>	<b>4,236,225,466</b>	<b>4,478,029,351</b>	<b>219,641,971</b>	<b>(7,714,225)</b>	<b>241,803,885</b>
Amount not included in budget since no cash outlay:							
Amortization expense for PG3	\$ 133,809	\$ 390,007	\$ 396,998	\$ 396,998			
<sup>(1)</sup> Non-personnel equipment FY18-19	\$ 1,159,922						
Rounding in CAFR	268						
Amortization expense	(133,809)						
As shown in Administrative Expenses	\$ <b>1,026,381</b>						

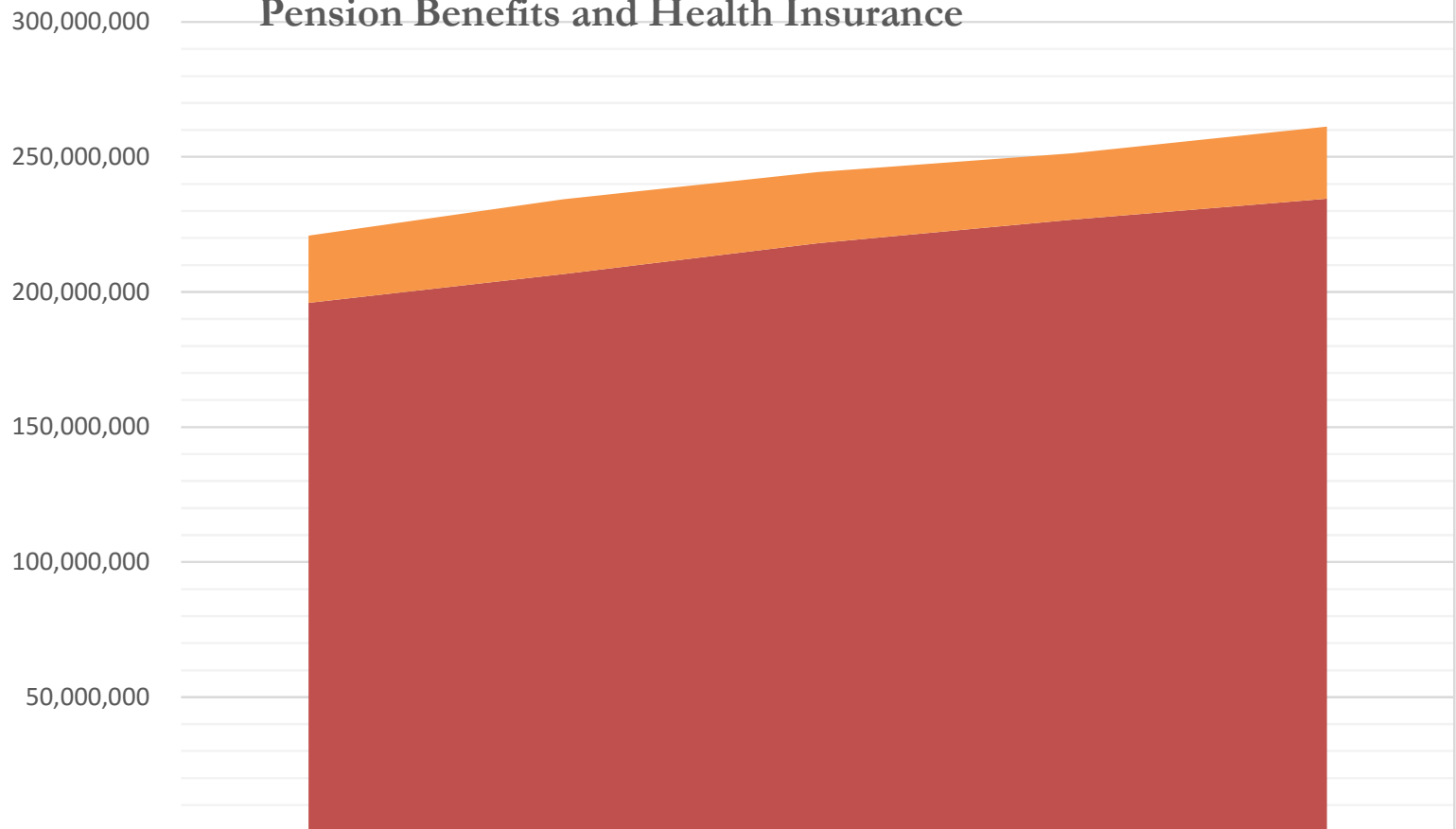
## POLICE & FIRE DEPARTMENT RETIREMENT PLAN Total City Contributions & Covered Payroll



	FY 16-17	FY 17-18	FY 18-19	FY 19-20 (Forecast)	FY 20-21 (Estimate)
<span style="color: blue;">■</span> Total City Contributions	157,624,000	183,094,000	205,362,000	210,261,515	231,282,000
Total City Contribution % Change	5.0%	16.2%	12.2%	2.4%	10.0%
<span style="color: red;">■</span> Total Covered Payroll	190,736,887	203,164,000	210,440,473	233,474,797	243,500,000
Total Covered Payroll % Change	1.3%	6.5%	3.6%	10.9%	4.3%

## POLICE & FIRE DEPARTMENT RETIREMENT PLAN

### Pension Benefits and Health Insurance



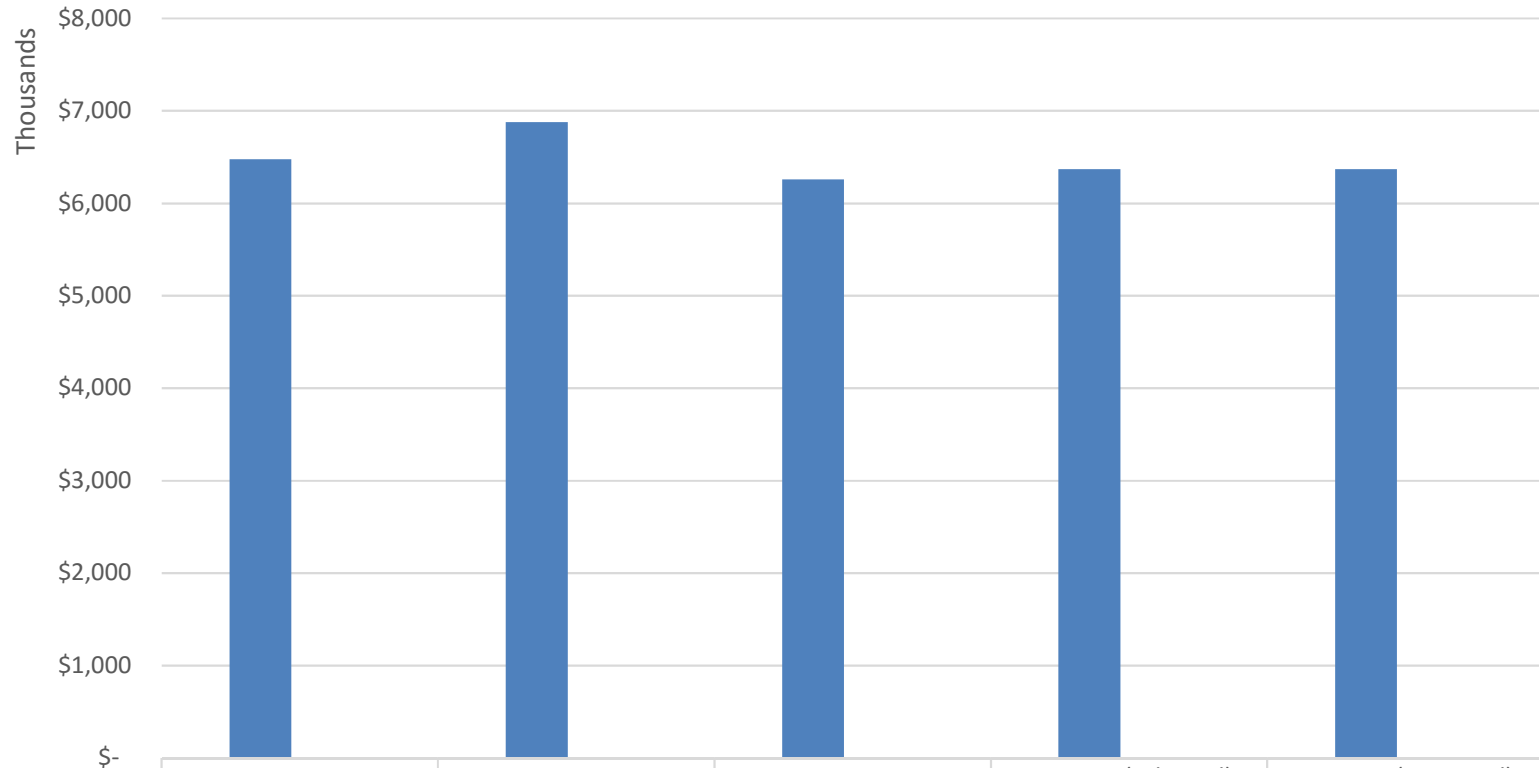
	FY 16-17 - Actual	FY 17-18 - Actual	FY 18-19 - Actual	FY 19-20 - Forecast	FY 20-21 - Proposed
Total Benefits	220,831,000	234,316,000	244,411,000	251,471,000	261,283,000
Health Insurance	24,799,000	27,686,000	26,403,000	24,702,000	26,703,000
Pension Benefits	196,032,000	206,630,000	218,008,000	226,769,000	234,580,000
Health Insurance % Change	5.8%	11.6%	-4.6%	-6.4%	8.1%
Pension Benefits % Change	4.9%	5.4%	5.5%	4.0%	3.4%

## POLICE & FIRE DEPARTMENT RETIREMENT PLAN

### Administrative Expenses: FY 2020-2021

	(A) 2018-2019 Actual	(B) 2019-2020 Adopted	(C) 2019-2020 Forecast	(D) 2020-2021 Proposed	(A) to (B) Increase (Decrease)	(B) - (C) Increase (Decrease)	(C) - (D) Increase (Decrease)
<b>PERSONNEL SERVICES</b>							
Salaries and employee benefits	3,334,302	3,898,000	3,608,216	<b>4,071,000</b>	563,698	(289,784)	462,784
Total Personnel Services	3,334,302	3,898,000	3,608,216	<b>4,071,000</b>	563,698	(289,784)	462,784
<b>NON-PERSONNEL / EQUIPMENT</b>							
Investment analytics and research	399,297	569,000	409,811	<b>435,000</b>	169,703	(159,189)	25,189
Rent	201,092	210,000	205,061	<b>212,000</b>	8,908	(4,939)	6,939
Insurance	169,141	193,000	170,622	<b>193,000</b>	23,859	(22,378)	22,378
IT hardware / software	81,738	97,000	94,744	<b>123,000</b>	15,262	(2,256)	28,256
Postage and printing	39,842	90,000	54,126	<b>90,000</b>	50,158	(35,874)	35,874
Training and travel	26,034	65,000	25,584	<b>65,000</b>	38,966	(39,416)	39,416
LRS - annual maintenance fee	49,476	110,000	45,540	<b>48,000</b>	60,524	(64,460)	2,460
Other non-personnel / equipment	33,141	44,000	34,187	<b>54,000</b>	10,859	(9,813)	19,813
Office supplies and board meeting expenses	26,620	30,000	28,834	<b>30,000</b>	3,380	(1,166)	1,166
Total Non-personnel / Equipment	1,026,381	1,408,000	1,068,509	<b>1,250,000</b>	381,619	(339,491)	181,491
<b>PROFESSIONAL SERVICES</b>							
Actuary	247,484	270,000	294,967	<b>235,000</b>	22,516	24,967	(59,967)
External auditor	101,343	80,000	55,427	<b>83,000</b>	(21,343)	(24,573)	27,573
Legal	221,633	326,000	208,413	<b>317,000</b>	104,367	(117,587)	108,587
Pension administration system	25,571	36,500	9,244	<b>21,000</b>	10,929	(27,256)	11,756
Temporary staffing agencies	185,687	44,000	70,922	<b>77,000</b>	(141,687)	26,922	6,078
Other professional services	38,269	88,500	45,973	<b>78,000</b>	50,231	(42,527)	32,027
Total Professional Services	819,987	845,000	684,946	<b>811,000</b>	25,013	(160,054)	126,054
<b>MEDICAL SERVICES</b>							
Independent medical examiners	58,325	112,000	50,588	<b>116,000</b>	53,675	(61,412)	65,412
Medical consultant	122,464	106,000	92,051	<b>120,000</b>	(16,464)	(13,949)	27,949
Total Medical Services	180,789	218,000	142,639	<b>236,000</b>	37,211	(75,361)	93,361
<b>TOTAL ADMINISTRATIVE EXPENSES</b>	<b>5,361,459</b>	<b>6,369,000</b>	<b>5,504,310</b>	<b>6,368,000</b>	<b>1,007,541</b>	<b>(864,690)</b>	<b>863,690</b>

**POLICE & FIRE DEPARTMENT RETIREMENT PLAN**  
**Administrative Expense Budget**  
**FY 2016-2017 to FY 2020-2021**



	FY 16-17	FY 17-18	FY 18-19	FY 19-20 (Adopted)	FY 20-21 (Proposed)
■ Admin Exp Budget*	\$6,479,200	\$6,876,800	\$6,259,000	\$6,369,000	\$6,368,000
■ % Change	12.3%	6.1%	-9.0%	1.8%	0.0%

\* Amount includes budget for operations only.

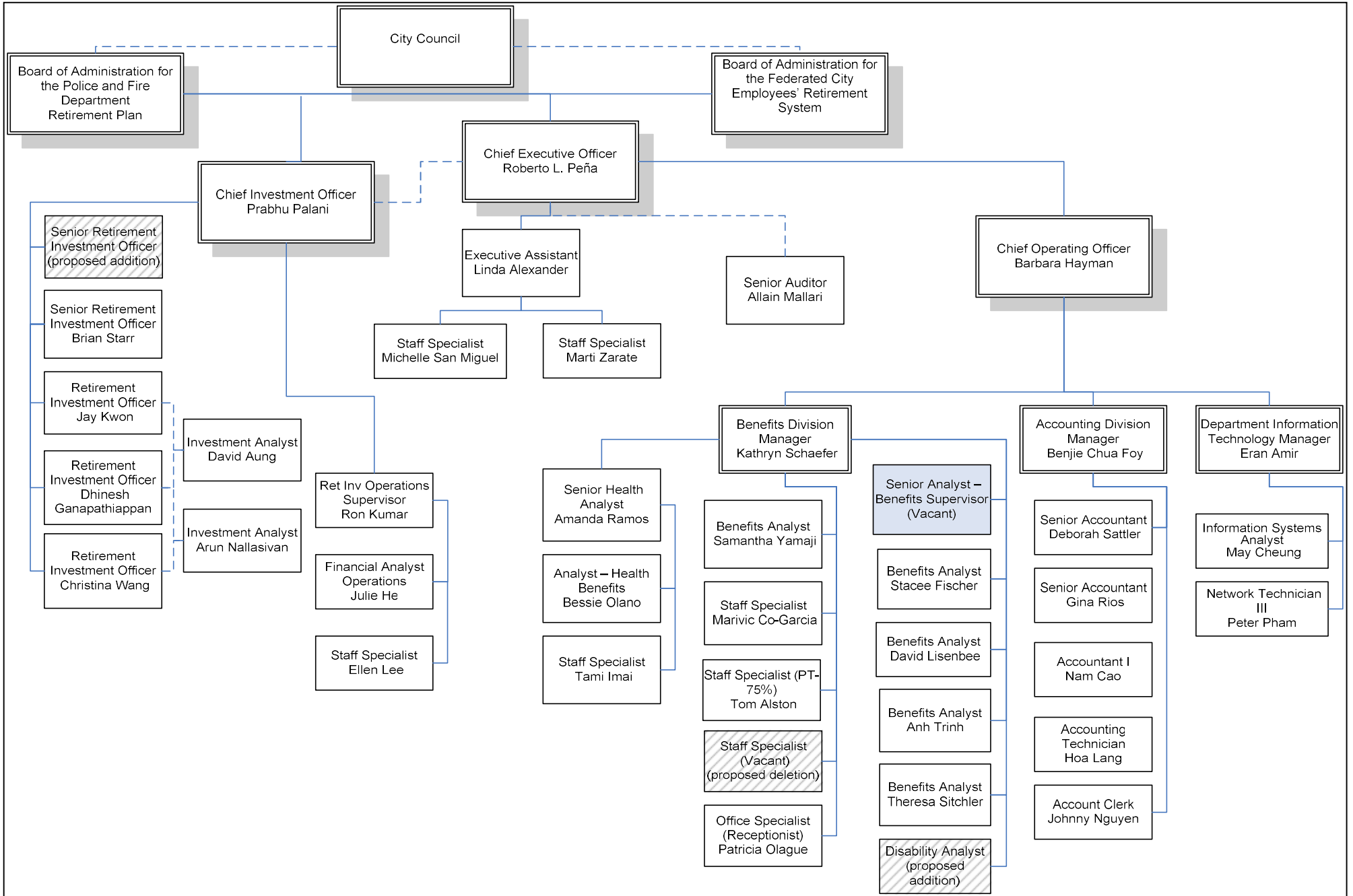


**OFFICE OF RETIREMENT SERVICES**

**Departmental Position Detail**

<b>Position</b>	<b>2018-2019 Adopted (1)</b>	<b>2019-2020 Adopted (2)</b>	<b>2019-2020 Forecast (3)</b>	<b>2020-2021 Proposed (4)</b>	<b>Increase / (Decrease) (2 to 4)</b>	<b>Increase / (Decrease) (3 to 4)</b>	<b>Explanation</b>
Account Clerk II	1.00	1.00	1.00	1.00	-	-	
Accountant I	0.00	1.00	1.00	1.00	-	-	
Accounting Technician	1.00	1.00	1.00	1.00	-	-	
Analyst I/II	6.00	6.00	6.00	7.00	1.00	1.00	Add-delete staff specialist to a Disability Analyst
Assistant Director and Chief Investment Officer	1.00	1.00	1.00	1.00	-	-	
Department Information Technology Manager	1.00	1.00	1.00	1.00	-	-	
Deputy Director	1.00	1.00	1.00	1.00	-	-	
Director of Retirement Services	1.00	1.00	1.00	1.00	-	-	
Division Manager	2.00	2.00	2.00	2.00	-	-	
Executive Assistant	0.00	1.00	1.00	1.00	-	-	
Financial Analyst	1.00	1.00	1.00	1.00	-	-	
Investments Operations Supervisor	1.00	1.00	1.00	1.00	-	-	
Information Systems Analyst	2.00	2.00	2.00	1.00	(1.00)	(1.00)	Limited Date position expires June 30, 2020
Network Technician I/II/III	1.00	1.00	1.00	1.00	-	-	
Office Specialist II	1.00	1.00	1.00	1.00	-	-	
Retirement Investment Analyst I/II	2.00	2.00	2.00	2.00	-	-	
Retirement Investment Officer	3.00	3.00	3.00	3.00	-	-	
Senior Account Clerk	1.00	0.00	0.00	0.00	-	-	
Senior Accountant	2.00	2.00	2.00	2.00	-	-	
Senior Analyst	2.00	2.00	2.00	2.00	-	-	
Senior Auditor	1.00	1.00	1.00	1.00	-	-	
Senior Retirement Investment Officer	1.00	1.00	1.00	2.00	1.00	1.00	Proposed addition
Staff Specialist	7.00	6.00	6.00	5.00	(1.00)	(1.00)	Add-delete staff specialist to a Disability Analyst
Staff Specialist PT	0.75	0.75	0.75	0.75	-	-	
<b>Total Positions</b>	<b>39.75</b>	<b>39.75</b>	<b>39.75</b>	<b>39.75</b>	<b>0.00</b>	<b>0.00</b>	

**OFFICE OF RETIREMENT SERVICES**  
**Proposed Organizational Chart**  
**FY20-21**



# ATTACHMENT C



## Police and Fire Annual Fee Report - 2018

## Executive Summary

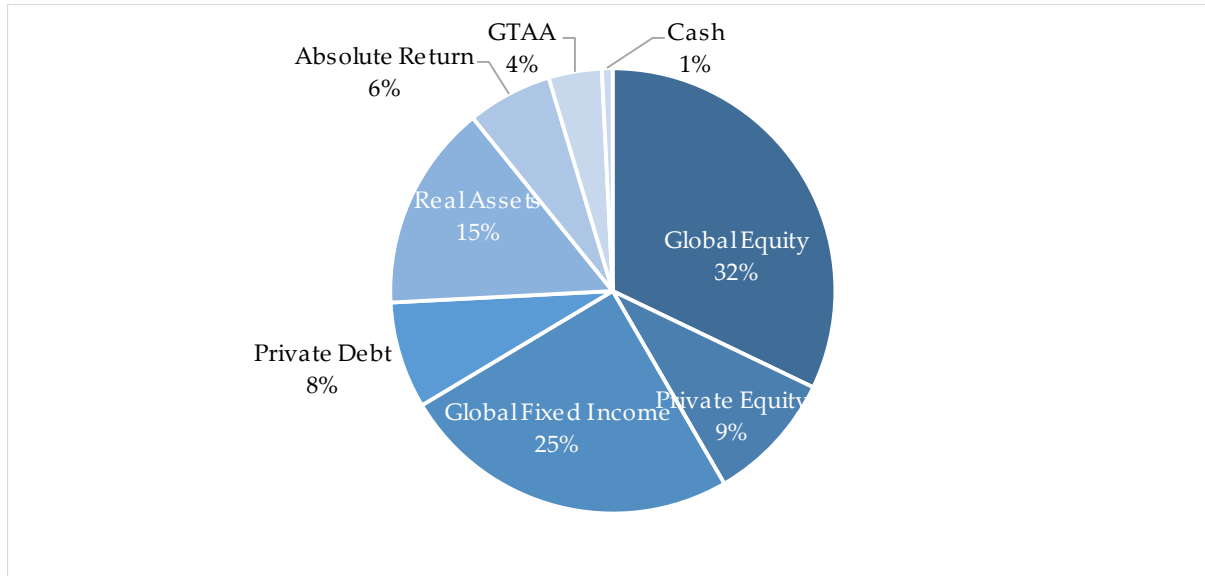
This report marks the fourth anniversary of our annual Fee Report for the Police and Fire Department Retirement Plan (“Police and Fire”, “Plan”). The goal of the report is to provide transparency and insight into the fees and expenses paid to investment managers along with the costs of operating the investment program. Pension plan fee data is generally underreported by peers, and typically represents only the portion of fees that are observable. This excludes often sizable embedded fees (such as incentive fees) that are deducted from account values of certain fund structures.

It is important to note that fees are a function of asset allocation and portfolio construction, which are byproducts of the Board’s objectives, investment beliefs, and risk tolerance. Each year, the Board typically reviews the asset allocation considering updated capital market assumptions and the expected return and volatility of the portfolio associated with those assumptions. The asset allocations in effect for the period covered by this report, as illustrated in tables 1 and 2.

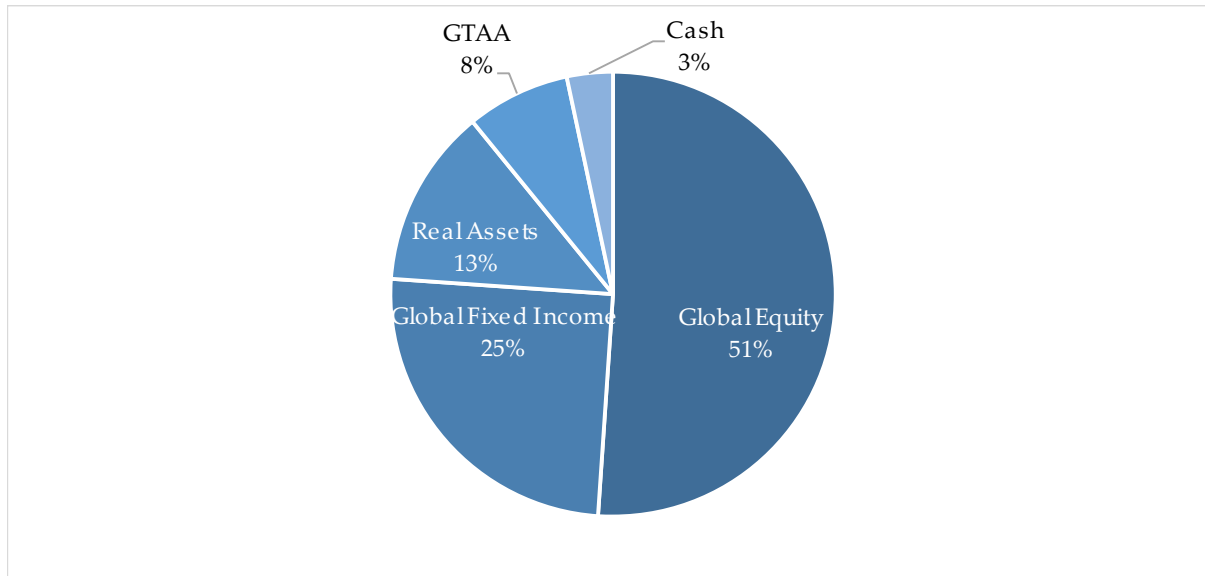
Asset allocation is typically one of the largest determinants of investment management fees at the portfolio level. Asset allocations that introduce alternative asset classes (Private Equity, Private Debt, Real Estate, Hedge Funds, etc.) will have higher levels of investment manager fees, because these asset classes or strategies have higher fee structures than traditional asset classes. In addition, asset class structuring can have a significant impact on fees. The use of active management versus passive management, as well as alternative strategies within traditional asset classes, will increase fees. When evaluating investment managers, staff places a significant emphasis on fees by negotiating for lower fees and analyzing that expected value or return is worth the expected cost.

**For calendar year 2018, management and incentive fees for the pension plan totaled \$39.1 million with a fee ratio of 1.07% as compared to \$43.4 million and 1.27% for 2017 and \$38.2 million and 1.21% for 2016. Fund operating expenses were \$5.5 million in 2018 for a fee ratio of 0.15% as compared to \$4.6 million and 0.14% for 2017. The health care trust management and incentive fees totaled \$0.2 million with a fee ratio of 0.13% as compared to \$0.3 million with a fee ratio of 0.25% in 2017 and \$0.2 million with a fee ratio of 0.28% in 2016. Other investment-related costs (staff, consultants, custodian bank, investment legal, etc.) for the pension plan has stayed relatively flat over the past 3 years at \$2.5 million with a fee ratio of 0.07%. Other investment-related costs for the health care trust totaled \$0.1 million with a fee ratio of 0.05% as compared to \$0.1 million and 0.08% for 2017 and \$0.1 million and 0.11% for 2016.**

**Table 1 - Pension Average Asset Allocation for 2018**



**Table 2 - Health Care Trust Average Asset Allocation for 2018**



## Introduction

The fees in this report represent management fees, incentive fees, fund operating expenses, and other investment-related costs that were incurred during the calendar year. These amounts may include fees that were accrued for the year, but not paid out.

Management fees are fees charged by fund managers to invest and manage assets. Incentive fees are performance-based fees for exceeding a hurdle return and are only applicable to certain fund structures. It is important to note that incentive fees are a form of shared economics that are only paid if the manager has produced positive returns or exceeded a predetermined hurdle rate. In some situations, incentive fees can be negative, reflecting the complexity of fee agreements. Operating expenses include overhead related to managing a fund that are indirectly borne by investors, which may include professional, administration, research, tax, legal, custodial and audit expenses for a fund. Trading expenses such as broker commissions are excluded from this report. Other costs include salary and benefits compensation for investment staff (including a 50% allocation for the CEO), cost of consultants (general, absolute return, risk), custodian, other third party vendors utilized by the investment program, and investment staff travel.

Though best efforts have been made to capture all material fees and expenses, this report may not include all indirect expenses and charges that may be paid to managers' affiliates, consultants, or entities for services rendered to the managers, the funds or portfolio entities held by certain funds. Future iterations of this report will continue to grow in sophistication, benefiting from industry-wide initiatives to gain additional transparency, such as the increasing adoption of the Institutional Limited Partners Association ("ILPA") fee reporting template.

## Data Sources

Staff compiled this fee report using the best available information for each fund manager in order to develop a comprehensive view of fees. Fee amounts were reviewed for reasonableness and reconciled to fee schedules. Fees for all managers active at any point during the year are included in this report, including those that were initially funded or terminated mid-year.

Fees for mutual funds, short term investment funds (Cash), and certain public markets commingled funds that deduct fees directly from the funds were calculated by multiplying each funds' fee ratio by the funds' average monthly balance for the year. The average balances were sourced from the Plan custodian bank, State Street.

Absolute Return management and incentive fees were provided by managers with independent re-calculations and reconciliations completed by Plan consultant Albourne. Operating expenses were calculated by Albourne using audited financial statements for each fund. Fees for Private funds were gathered by asking managers to complete the ILPA fee reporting template. The ILPA template is intended to standardize and codify the presentation of fees, expenses, and carried interest information by fund managers to Limited Partners. The remaining manager fees were obtained by having the fund managers fill out a fee template designed by staff.

Within the Other Costs section, consultants, custodian, and other vendor costs were sourced from fee invoices from the vendors. Investment staff salary and benefits were allocated to each of the four San Jose plans by pro-rating the total costs by the average balance of each plan. Similarly, legal costs incurred by Police and Fire were allocated between the pension plan and health care trust by pro-rating the total costs by the average monthly balance of each plan.

## Changes from 2017 Report

This year's report now breaks out yearly changes from four categories – weight changes, management fee ratio changes, incentive fee ratio changes and fund operating expense changes. The 2017 report attribution did not incorporate changes due to fund operating expenses as collection of the data only began in 2017.

## Total Portfolio Fee Summaries

The tables in this report present fees by asset class and management type. Fees by management type are presented by segregating investments into four “fund type” categories: passive, active, hedged, and private. Passive strategies are intended to generate a return that emulates an index. Active strategies include investment managers that attempt to outperform an index on a long only basis. Hedged strategies generally seek to achieve an absolute return (“alpha”) regardless of market direction (“beta”) by employing various strategies including long and short positions. Private strategies utilize a diverse set of approaches to invest in illiquid assets, such as equity of privately held companies or real estate.

## Year-over-Year Comparisons

The year-over-year comparison tables in this report present a time series of changes in average weights, fees, fee ratios, contribution to total plan fee ratios, and a year-over-year attribution. The year-over-year attribution uses the Brinson-Fachler methodology to decompose the change in contribution to total plan fee ratio into 1) impact due to weight changes, 2) impact due to management fee ratio changes, 3) impact due to incentive fee ratio changes and 4) impact due to fund operating expense ratio changes.

## California Government Code §7514.7 (AB 2833)

Assembly Bill 2833 (“AB 2833”) was approved on September 14, 2016 adding Section 7514.7 to California Government Code. The addition to the Code requires California public investment funds to make annual disclosures of fees for alternative investment vehicles at a public meeting.

Tables 15-18 of this report are intended to comply with the law.

*Note: Some values on the report may not sum due to rounding.*



**Table 3 - Pension Fees by Asset Class and Management Type**

Asset Class	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	Management and Incentive Fees		Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp		Contribution to Total Plan Fee Ratio
				Operating Expenses (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)							% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio	
Global Equity	6.0	1.4	0.3	7.3	7.7	1,176	32.1%	0.51%	0.12%	0.03%	0.62%	0.65%	17.2%	0.21%
Passive	0.2	-	0.1	0.2	0.3	499	13.6%	0.05%	0.00%	0.01%	0.05%	0.06%	0.7%	0.01%
Active	3.9	-	0.1	3.9	4.0	581	15.9%	0.67%	0.00%	0.02%	0.67%	0.69%	9.0%	0.11%
Hedged	1.8	1.4	0.1	3.2	3.3	96	2.6%	1.88%	1.45%	0.14%	3.32%	3.46%	7.4%	0.09%
Private Equity	3.5	4.9	1.2	8.4	9.7	348	9.5%	1.01%	1.41%	0.35%	2.42%	2.77%	21.6%	0.26%
Passive	0.0	-	0.0	0.0	0.0	159	4.3%	0.02%	0.00%	0.01%	0.02%	0.02%	0.1%	0.00%
Private	3.5	4.9	1.2	8.4	9.6	189	5.2%	1.84%	2.60%	0.64%	4.44%	5.08%	21.5%	0.26%
Global Fixed Income	4.0	1.1	0.5	5.0	5.5	906	24.8%	0.44%	0.12%	0.05%	0.56%	0.61%	12.4%	0.15%
Passive	0.2	-	-	0.2	0.2	468	12.8%	0.04%	0.00%	0.00%	0.04%	0.04%	0.4%	0.01%
Active	1.0	-	0.1	1.0	1.1	203	5.5%	0.51%	0.00%	0.04%	0.51%	0.55%	2.5%	0.03%
Hedged	2.8	1.1	0.4	3.8	4.2	235	6.4%	1.17%	0.46%	0.18%	1.63%	1.80%	9.5%	0.12%
Private Debt	2.2	1.0	1.4	3.2	4.6	284	7.8%	0.79%	0.34%	0.49%	1.13%	1.62%	10.3%	0.13%
Passive	0.1	-	-	0.1	0.1	82	2.2%	0.17%	0.00%	0.00%	0.17%	0.17%	0.3%	0.00%
Private	2.1	1.0	1.4	3.1	4.5	202	5.5%	1.04%	0.48%	0.69%	1.52%	2.21%	10.0%	0.12%
Real Assets	5.9	2.1	1.3	8.1	9.4	549	15.0%	1.08%	0.39%	0.24%	1.47%	1.71%	21.0%	0.26%
Passive	0.2	-	-	0.2	0.2	118	3.2%	0.13%	0.00%	0.00%	0.13%	0.13%	0.3%	0.00%
Active	0.6	-	0.2	0.6	0.8	157	4.3%	0.39%	0.00%	0.10%	0.39%	0.49%	1.7%	0.02%
Hedged	0.9	0.3	0.2	1.2	1.4	42	1.1%	2.17%	0.67%	0.42%	2.84%	3.26%	3.1%	0.04%
Private	4.3	1.9	1.0	6.1	7.1	232	6.3%	1.84%	0.80%	0.41%	2.64%	3.06%	15.9%	0.19%
Absolute Return	3.3	2.7	0.8	6.0	6.8	227	6.2%	1.47%	1.18%	0.34%	2.66%	3.00%	15.2%	0.19%
Hedged	3.3	2.7	0.8	6.0	6.8	227	6.2%	1.47%	1.18%	0.34%	2.66%	3.00%	15.2%	0.19%
GTAA	1.0	-	0.0	1.0	1.0	141	3.8%	0.69%	0.00%	0.03%	0.69%	0.72%	2.3%	0.03%
Active	1.0	-	0.0	1.0	1.0	141	3.8%	0.69%	0.00%	0.03%	0.69%	0.72%	2.3%	0.03%
Cash	0.0	-	-	0.0	0.0	29	0.8%	0.12%	0.00%	0.00%	0.12%	0.12%	0.1%	0.00%
Passive	0.0	-	-	0.0	0.0	29	0.8%	0.12%	0.00%	0.00%	0.12%	0.12%	0.1%	0.00%
<b>Total Plan</b>	<b>26.0</b>	<b>13.2</b>	<b>5.5</b>	<b>39.1</b>	<b>44.7</b>	<b>3,658</b>	<b>100.0%</b>	<b>0.71%</b>	<b>0.36%</b>	<b>0.15%</b>	<b>1.07%</b>	<b>1.22%</b>	<b>100.0%</b>	<b>1.22%</b>

The table above illustrates that management, incentive, and operating expenses for the pension plan totaled \$44.7 million for 2018 which equated to a total plan fee ratio of 1.22%. The Private Equity and Real Asset asset classes contributed the most to the total plan fee ratio with each contributing 0.26%. The GTAA and Private Debt asset classes contributed the least to the total plan fee ratio at 0.03% and 0.13%, respectively.

**Table 4 - Pension Fees by Management Type**

Fund Type	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	Management and Incentive		Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp		Contribution to Total Plan Fee Ratio
				Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)							Ratio	Ratio	
Passive	0.8	-	0.1	0.8	0.9	1,354	37.0%	0.06%	0.00%	0.01%	0.06%	0.06%	2.0%	0.02%
Active	6.5	-	0.4	6.5	6.9	1,082	29.6%	0.60%	0.00%	0.04%	0.60%	0.64%	15.5%	0.19%
Hedged	8.8	5.4	1.5	14.2	15.7	599	16.4%	1.47%	0.91%	0.25%	2.37%	2.62%	35.2%	0.43%
Private	9.8	7.8	3.6	17.6	21.2	623	17.0%	1.58%	1.24%	0.57%	2.82%	3.40%	47.3%	0.58%
Total Plan	26.0	13.2	5.5	39.1	44.7	3,658	100.0%	0.71%	0.36%	0.15%	1.07%	1.22%	100.0%	1.22%

For the total pension plan, private management strategies accounted for 0.58% of the total plan fee ratio and represented about 17% of average plan assets. Hedged management strategies were the next largest contributor to the total plan fee ratio accounting for 0.43% of the total plan fee ratio and represented 16% of average plan assets. Passive and active management strategies accounted for 0.02% and 0.19% of the total plan fee ratio and represented 37% and 30% of plan assets, respectively.

**Table 5 - Pension Other Investment Costs**

Investment Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel		Other Costs (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
			(\$ mm)	(\$ mm)			
1.0	0.7	0.3	0.5	0.5	2.5	0.07%	

Other investment costs for the pension plan equated to a total fee ratio of 0.07%. As previously discussed, other costs include salary and benefits compensation for investment staff, cost of consultants, custodian, third party vendors utilized by the investment program, and investment staff travel.

**Table 6 - Health Care Fees by Asset Class and Management Type**

Asset Class	Management				Mgmt, Incent, and Op Exp (\$ mm)	Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio -		Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)								Mgmt, Incent, and Op Exp	Mgmt, Incent, and Op Exp	
Global Equity	0.02	-	-	0.02	0.02	71	51.1%	0.03%	0.00%	0.00%	0.03%	0.03%	10.2%	0.01%
Passive	0.02	-	-	0.02	0.02	71	51.1%	0.03%	0.00%	0.00%	0.03%	0.03%	10.2%	0.01%
Global Fixed Income	0.01	-	0.00	0.01	0.01	35	25.0%	0.03%	0.00%	0.00%	0.03%	0.03%	6.0%	0.01%
Passive	0.01	-	0.00	0.01	0.01	35	25.0%	0.03%	0.00%	0.00%	0.03%	0.03%	6.0%	0.01%
Real Assets	0.04	-	0.01	0.04	0.05	18	13.0%	0.23%	0.00%	0.05%	0.23%	0.28%	24.6%	0.04%
Passive	0.01	-	-	0.01	0.01	11	7.7%	0.12%	0.00%	0.00%	0.12%	0.12%	6.2%	0.01%
Active	0.03	-	0.01	0.03	0.04	7	5.3%	0.39%	0.00%	0.11%	0.39%	0.51%	18.4%	0.03%
GTAA	0.10	-	0.01	0.10	0.11	11	7.5%	0.98%	0.00%	0.12%	0.98%	1.09%	56.5%	0.08%
Active	0.10	-	0.01	0.10	0.11	11	7.5%	0.98%	0.00%	0.12%	0.98%	1.09%	56.5%	0.08%
Cash	0.01	-	-	0.01	0.01	5	3.3%	0.12%	0.00%	0.00%	0.12%	0.12%	2.8%	0.00%
Passive	0.01	-	-	0.01	0.01	5	3.3%	0.12%	0.00%	0.00%	0.12%	0.12%	2.8%	0.00%
Total Plan	0.18	-	0.02	0.18	0.20	140	100.0%	0.13%	0.00%	0.02%	0.13%	0.15%	100.0%	0.15%

The table above illustrates that management, incentive, and operating expenses for the health care trust totaled \$0.2 million for 2018 which equated to a total plan fee ratio of 0.15%. The GTAA asset class contributed the most to the total plan fee ratio at 0.08%. The Global Fixed Income and Global Equity asset classes contributed the least to the total plan fee ratio at 0.01% each.

**Table 7 - Health Care Fees by Management Type**

Fund Type	Management				Mgmt, Incent, and Op Exp (\$ mm)	Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio -		Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)								Mgmt, Incent, and Op Exp	Mgmt, Incent, and Op Exp	
Passive	0.05	-	0.00	0.05	0.05	122	87.2%	0.04%	0.00%	0.00%	0.04%	0.04%	25.1%	0.04%
Active	0.13	-	0.02	0.13	0.15	18	12.8%	0.73%	0.00%	0.11%	0.73%	0.85%	74.9%	0.11%
Total Plan	0.18	-	0.02	0.18	0.20	140	100.0%	0.13%	0.00%	0.02%	0.13%	0.15%	100.0%	0.15%

For the total health care trust, active management strategies accounted for 0.11% of the total plan fee ratio and represented 13% of average plan assets. Passive strategies accounted for 0.04% of the total plan fee ratio and represented 87% of plan assets.

**Table 8 - Health Care Other Investment Costs**

<b>Investment Staff Salary and Benefits (\$ mm)</b>	<b>Consultants (\$ mm)</b>	<b>Custodian (\$ mm)</b>	<b>Other Vendors and Travel (\$ mm)</b>	<b>Total Other Costs (\$ mm)</b>	<b>Other Costs Fee Ratio</b>
0.01	0.02	0.03	0.01	0.07	0.05%

Other investment costs for the health care trust equated to a total fee ratio of 0.05%.

Table 9 - Pension Year-over-Year Comparison by Asset Class and Management Type

Asset Class	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution			
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio	Due to Opex Ratio
Global Equity	29.5%	32.1%	2.7%	5.7	6.0	0.2	2.4	1.4	-1.0	0.3	0.3	0.0	8.4	7.7	-0.7	0.83%	0.65%	-0.18%	0.24%	0.21%	-0.03%	-0.02%	-0.02%	-0.04%	0.00%
Passive	12.4%	13.6%	1.2%	0.2	0.2	0.0	-	-	-	0.1	0.1	0.0	0.3	0.3	0.0	0.07%	0.06%	-0.01%	0.01%	0.01%	0.00%	-0.02%	0.00%	0.00%	0.00%
Active	14.3%	15.9%	1.6%	3.6	3.9	0.3	-	-	-	0.1	0.1	0.1	3.6	4.0	0.4	0.74%	0.69%	-0.05%	0.11%	0.11%	0.00%	-0.01%	-0.01%	0.00%	0.00%
Hedged	2.8%	2.6%	-0.1%	1.9	1.8	-0.1	2.4	1.4	-1.0	0.2	0.1	-0.0	4.4	3.3	-1.1	4.68%	3.46%	-1.22%	0.13%	0.09%	-0.04%	0.00%	0.00%	-0.03%	0.00%
Private Equity	7.9%	9.5%	1.6%	2.9	3.5	0.6	3.3	4.9	1.6	1.1	1.2	0.1	7.3	9.7	2.3	2.72%	2.77%	0.05%	0.21%	0.26%	0.05%	0.02%	-0.01%	0.02%	-0.01%
Passive	0.0%	4.3%	4.3%	0.0	0.0	-0.0	-	-	-	0.0	0.0	0.0	0.0	0.0	-0.0	0.04%	0.02%	-0.01%	0.00%	0.00%	0.00%	-0.06%	0.00%	0.00%	0.00%
Private	4.7%	5.2%	0.5%	2.9	3.5	0.6	3.3	4.9	1.6	1.1	1.2	0.1	7.3	9.6	2.3	4.51%	5.08%	0.57%	0.21%	0.26%	0.05%	0.01%	0.00%	0.03%	0.00%
Global Fixed Income	16.7%	24.8%	8.1%	4.0	4.0	-0.0	2.3	1.1	-1.2	0.5	0.5	-0.0	6.8	5.5	-1.3	1.19%	0.61%	-0.58%	0.20%	0.15%	-0.05%	-0.02%	-0.06%	-0.07%	-0.01%
Passive	2.6%	12.8%	10.1%	0.0	0.2	0.1	-	-	-	-	-	-	0.0	0.2	0.1	0.05%	0.04%	-0.01%	0.00%	0.01%	0.00%	-0.14%	0.00%	0.00%	0.00%
Active	7.4%	5.5%	-1.9%	1.3	1.0	-0.3	-	-	-	0.1	0.1	-0.0	1.4	1.1	-0.3	0.56%	0.55%	-0.01%	0.04%	0.03%	-0.01%	0.02%	0.00%	0.00%	0.00%
Hedged	6.6%	6.4%	-0.2%	2.6	2.8	0.1	2.3	1.1	-1.2	0.4	0.4	0.0	5.3	4.2	-1.1	2.35%	1.80%	-0.55%	0.16%	0.12%	-0.04%	0.00%	0.00%	-0.04%	0.00%
Private Debt	6.9%	7.8%	0.8%	2.5	2.2	-0.3	-0.1	1.0	1.1	0.7	1.4	0.7	3.1	4.6	1.5	1.31%	1.62%	0.31%	0.09%	0.13%	0.04%	0.00%	-0.02%	0.03%	0.02%
Passive	0.0%	2.2%	2.2%	-	0.1	0.1	-	-	-	-	-	-	-	0.1	0.1	0.00%	0.17%	0.17%	0.00%	0.00%	0.00%	-0.03%	0.00%	0.00%	0.00%
Private	6.9%	5.5%	-1.4%	2.5	2.1	-0.4	-0.1	1.0	1.1	0.7	1.4	0.7	3.1	4.5	1.4	1.31%	2.21%	0.90%	0.09%	0.12%	0.03%	0.00%	0.00%	0.03%	0.02%
Real Assets	16.1%	15.0%	-1.1%	6.6	5.9	-0.7	2.9	2.1	-0.8	1.2	1.3	0.1	10.7	9.4	-1.3	1.93%	1.71%	-0.22%	0.31%	0.26%	-0.06%	-0.01%	-0.02%	-0.02%	0.00%
Passive	2.0%	3.2%	1.3%	0.1	0.2	0.1	-	-	-	-	-	-	0.1	0.2	0.1	0.15%	0.13%	-0.02%	0.00%	0.00%	0.00%	-0.02%	0.00%	0.00%	0.00%
Active	6.5%	4.3%	-2.2%	1.2	0.6	-0.6	-	-	-	0.2	0.2	-0.1	1.4	0.8	-0.6	0.64%	0.49%	-0.15%	0.04%	0.02%	-0.02%	0.02%	-0.01%	0.00%	0.00%
Hedged	1.8%	1.1%	-0.6%	1.6	0.9	-0.7	0.4	0.3	-0.1	0.3	0.2	-0.1	2.3	1.4	-0.9	3.79%	3.26%	-0.53%	0.07%	0.04%	-0.03%	-0.02%	-0.01%	0.00%	0.00%
Private	5.9%	6.3%	0.5%	3.7	4.3	0.6	2.5	1.9	-0.7	0.6	1.0	0.3	6.8	7.1	0.2	3.40%	3.06%	-0.35%	0.20%	0.19%	-0.01%	0.01%	0.00%	-0.03%	0.01%
Absolute Return	7.9%	6.2%	-1.7%	4.2	3.3	-0.9	3.8	2.7	-1.1	0.8	0.8	-0.1	8.9	6.8	-2.1	3.30%	3.00%	-0.30%	0.26%	0.19%	-0.07%	-0.03%	-0.01%	-0.01%	0.00%
Hedged	7.9%	6.2%	-1.7%	4.2	3.3	-0.9	3.8	2.7	-1.1	0.8	0.8	-0.1	8.9	6.8	-2.1	3.30%	3.00%	-0.30%	0.26%	0.19%	-0.07%	-0.03%	-0.01%	-0.01%	0.00%
GTAA	9.3%	3.8%	-5.4%	2.7	1.0	-1.7	-	-	-	0.0	0.0	0.0	2.7	1.0	-1.7	0.84%	0.72%	-0.12%	0.08%	0.03%	-0.05%	0.03%	-0.01%	0.00%	0.00%
Active	9.3%	3.8%	-5.4%	2.7	1.0	-1.7	-	-	-	0.0	0.0	0.0	2.7	1.0	-1.7	0.84%	0.72%	-0.12%	0.08%	0.03%	-0.05%	0.03%	-0.01%	0.00%	0.00%
Cash	5.8%	0.8%	-5.0%	0.2	0.0	-0.2	-	-	-	-	-	-	0.2	0.0	-0.2	0.12%	0.12%	0.00%	0.01%	0.00%	-0.01%	0.06%	0.00%	0.00%	0.00%
Passive	5.8%	0.8%	-5.0%	0.2	0.0	-0.2	-	-	-	-	-	-	0.2	0.0	-0.2	0.12%	0.12%	0.00%	0.01%	0.00%	-0.01%	0.06%	0.00%	0.00%	0.00%
Total Plan	100.0%	100.0%	0.0%	28.8	26.0	-2.9	14.6	13.2	-1.4	4.6	5.5	0.9	48.1	44.7	-3.4	1.40%	1.22%	-0.18%	1.40%	1.22%	-0.18%	0.05%	-0.14%	-0.10%	0.01%

Note: YoY attribution effects of fund types within assets classes may not sum to the asset class value

**Table 10 - Pension Year-over-Year Comparison by Management Type**

Type	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution			
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio	Due to Opex
Passive	26.0%	37.0%	11.0%	0.6	0.8	0.2	-	-	-	0.1	0.1	0.0	0.7	0.9	0.2	0.08%	0.06%	-0.02%	0.02%	0.02%	0.00%	-0.15%	0.00%	0.00%	0.00%
Active	37.5%	29.6%	-7.9%	8.7	6.5	-2.2	-	-	-	0.4	0.4	-0.0	9.1	6.9	-2.2	0.71%	0.64%	-0.07%	0.27%	0.19%	-0.08%	0.05%	-0.02%	0.00%	0.00%
Hedged	19.0%	16.4%	-2.6%	10.4	8.8	-1.6	8.9	5.4	-3.4	1.7	1.5	-0.2	20.9	15.7	-5.2	3.22%	2.62%	-0.60%	0.61%	0.43%	-0.18%	-0.05%	-0.02%	-0.07%	0.00%
Private	17.5%	17.0%	-0.5%	9.1	9.8	0.7	5.7	7.8	2.0	2.4	3.6	1.2	17.2	21.2	3.9	2.87%	3.40%	0.52%	0.50%	0.58%	0.07%	-0.01%	0.01%	0.05%	0.03%
<b>Total Plan</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>28.8</b>	<b>26.0</b>	<b>-2.9</b>	<b>14.6</b>	<b>13.2</b>	<b>-1.4</b>	<b>4.6</b>	<b>5.5</b>	<b>0.9</b>	<b>48.1</b>	<b>44.7</b>	<b>-3.4</b>	<b>1.40%</b>	<b>1.22%</b>	<b>-0.18%</b>	<b>1.40%</b>	<b>1.22%</b>	<b>-0.18%</b>	<b>-0.15%</b>	<b>-0.04%</b>	<b>-0.03%</b>	<b>0.03%</b>

**Table 11 - Pension Year-over-Year Comparison of Other Costs**

	Inv Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
2017	0.8	0.8	0.4	0.5	2.5	0.07%
2018	1.0	0.7	0.3	0.5	2.5	0.07%
Change	0.2	-0.0	-0.1	-0.0	0.1	0.00%

Table 12 - Health Care Year-over-Year Comparison by Asset Class and Management Type

Asset Class	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution			
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio	Due to Opex Fee Ratio
Global Equity	14.8%	51.1%	36.3%	0.03	0.02	-0.01	-	-	-	-	-	-	0.03	0.02	-0.01	0.09%	0.03%	-0.06%	0.03%	0.01%	-0.01%	-0.09%	-0.03%	0.00%	0.00%
Passive	14.8%	51.1%	36.3%	0.03	0.02	-0.01	-	-	-	-	-	-	0.03	0.02	-0.01	0.09%	0.03%	-0.06%	0.03%	0.01%	-0.01%	-0.09%	-0.03%	0.00%	0.00%
Global Fixed Income	10.9%	25.0%	14.1%	0.01	0.01	0.00	-	-	-	-	0.00	0.00	0.01	0.01	0.00	0.04%	0.03%	-0.01%	0.01%	0.01%	0.00%	-0.04%	0.00%	0.00%	0.00%
Passive	10.9%	25.0%	14.1%	0.01	0.01	0.00	-	-	-	-	0.00	0.00	0.01	0.01	0.00	0.04%	0.03%	-0.01%	0.01%	0.01%	0.00%	-0.04%	0.00%	0.00%	0.00%
Real Assets	7.0%	13.0%	6.1%	0.05	0.04	-0.01	-	-	-	0.01	0.01	-0.00	0.06	0.05	-0.01	0.38%	0.28%	-0.10%	0.05%	0.04%	-0.02%	0.00%	-0.01%	0.00%	0.00%
Passive	3.2%	7.7%	4.5%	0.01	0.01	0.00	-	-	-	-	-	-	0.01	0.01	0.00	0.12%	0.12%	0.00%	0.01%	0.01%	0.00%	-0.01%	0.00%	0.00%	0.00%
Active	3.8%	5.3%	1.5%	0.04	0.03	-0.01	-	-	-	0.01	0.01	-0.00	0.05	0.04	-0.01	0.60%	0.51%	-0.09%	0.05%	0.03%	-0.02%	0.00%	0.00%	0.00%	0.00%
GTAA	8.7%	7.5%	-1.1%	0.17	0.10	-0.06	-	-	-	0.00	0.01	0.01	0.17	0.11	-0.05	0.86%	1.09%	0.23%	0.15%	0.08%	-0.07%	-0.01%	0.01%	0.00%	0.01%
Active	8.7%	7.5%	-1.1%	0.17	0.10	-0.06	-	-	-	0.00	0.01	0.01	0.17	0.11	-0.05	0.86%	1.09%	0.23%	0.15%	0.08%	-0.07%	-0.01%	0.01%	0.00%	0.01%
Cash	7.8%	3.3%	-4.4%	0.02	0.01	-0.02	-	-	-	-	-	-	0.02	0.01	-0.02	0.12%	0.12%	0.00%	0.02%	0.00%	-0.02%	0.01%	0.00%	0.00%	0.00%
Passive	7.8%	3.3%	-4.4%	0.02	0.01	-0.02	-	-	-	-	-	-	0.02	0.01	-0.02	0.12%	0.12%	0.00%	0.02%	0.00%	-0.02%	0.01%	0.00%	0.00%	0.00%
Total Plan	100.0%	100.0%	0.0%	0.28	0.18	-0.09	-	-	-	0.02	0.02	0.01	0.29	0.20	-0.09	0.26%	0.15%	-0.11%	0.26%	0.15%	-0.11%	-0.13%	-0.03%	0.00%	0.00%

Note: YoY attribution effects of fund types within assets classes may not sum to the asset class value

Table 13 - Health Care Year-over-Year Comparison by Management Type

Type	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution			
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio	Due to Incent Fee Ratio
Passive	74.7%	87.2%	12.5%	0.07	0.05	-0.02	-	-	-	-	0.00	0.00	0.07	0.05	-0.02	0.08%	0.04%	-0.04%	0.06%	0.04%	-0.03%	-0.02%	-0.04%	0.00%	0.00%
Active	25.3%	12.8%	-12.5%	0.21	0.13	-0.07	-	-	-	0.02	0.02	0.01	0.22	0.15	-0.07	0.78%	0.85%	0.07%	0.20%	0.11%	-0.09%	-0.06%	0.00%	0.00%	0.01%
Total Plan	100.0%	100.0%	0.0%	0.28	0.18	-0.09	-	-	-	0.02	0.02	0.01	0.29	0.20	-0.09	0.26%	0.15%	-0.11%	0.26%	0.15%	-0.11%	-0.09%	-0.04%	0.00%	0.01%

Table 14 - Health Care Year-over-Year Comparison of Other Costs

	Inv Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
	2017	0.05	0.04	0.10	0.03	0.23
2018	0.08	0.05	0.05	0.03	0.22	0.08%
Change	0.03	0.01	-0.05	0.00	-0.01	-0.03%

## Analysis of Pension Year-over-Year Changes by Asset Class

As presented in Table 9, the pension total plan fee ratio decreased by -18 bps from 1.40% in 2017 to 1.22% in 2018.

The largest drivers of the decrease from an asset class perspective were Global Fixed Income (-16 bps), Global Equity (-7 bps), and Absolute Return (-5 bps), partially offset by Cash (+6 bps) and GTAA (+3 bps).

Asset class weight changes contributed +5 bps to the year-over-year change in total plan fee ratio. Cash was the largest contributor (+6bps) with Absolute Return being the largest detractor (-3bps).

Changes in management fee ratios detracted -14 bps to the year-over-year change in total plan fee ratio. This was spread relatively evenly across all asset classes with Global Fixed Income being the largest detractor (-6bps).

Changes in incentive fee ratios detracted -10 bps to the year-over-year change in total plan fee ratio. Global Fixed Income was the largest detractor (-7 bps) followed by Global Equity (-4 bps).

## Analysis of Pension Year-over-Year Changes by Management Type and Other Costs

As shown in the Table 10 YoY attribution section, the driver of the -18bps total plan fee ratio decrease was both passive strategies and hedged strategies (-15 bps each). The decrease from passive strategies is entirely attributed to the increase in weight from 26% to 37% while the decrease from hedged strategies is a combination of lower weight, reduced management fee and incentive fee ratios.

As displayed in Table 11, **Other Costs** remained constant (0.07%) in 2018.

## Analysis of Health Care Year-over-Year Changes by Asset Class, Management Type and Other Costs

As seen in Tables 12 and 13, the Health Care total plan fee ratio declined from 0.26% in 2017 to 0.15% due to a reduction in management fee ratio for passive funds (-4 bps) and reduction in active fund exposure (-6 bp).



As displayed in Table 14, **Other Costs** decreased from 0.08% to 0.05% in 2018.

Table 15 – California Government Code §7514.7 Disclosure, Private Equity

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018(\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Pantheon USA Fund VI, L.P.	600 Montgomery Street, 23rd Floor San Francisco, CA 94111	2005	40,000,000	38,600,000	13,361,980	1,160,000	14,521,980	79,924	7.10%	1.54	-	170,586	5,508	-	-	-	-	-
Portfolio Advisors Private Equity Fund III, L.P.	9 Old Kings Highway South Darien, CT 06820	2005	25,000,000	22,140,607	5,588,315	165,247	5,753,562	-	6.70%	1.52	-	15,623	-	-	256,054	-	-	-
HarbourVest Partners VII - 2005 Buyout Partnership Fund, L.P.	One Financial Center Boston, MA 02111	2005	15,000,000	14,027,840	-	-	-	-	6.50%	1.57	-	26,751	2,892	-	-	(8,880)	-	-
HarbourVest Partners VIII - Buyout Fund, L.P.	One Financial Center Boston, MA 02111	2006	15,000,000	14,325,000	6,052,191	1,054,332	7,106,523	-	10.40%	1.72	-	131,693	7,642	-	-	311,955	-	-
HarbourVest Partners VIII - Venture Fund, L.P.	One Financial Center Boston, MA 02111	2006	10,000,000	9,800,000	6,473,688	520,472	6,994,160	-	10.50%	1.85	-	141,315	5,876	-	-	63,914	-	-
Siguler Guff Distressed Opportunities Fund III, L.P.	825 Third Avenue, 10th Floor New York, NY 10022	2008	30,000,000	29,331,045	-	507,834	507,834	-	10.70%	1.60	4,000	86,919	8,978	-	-	625,994	-	666,518
TCW/Crescent Mezzanine Partners V, L.P.	11100 Santa Monica Boulevard, Suite 2000 Los Angeles, CA 90025	2008	20,000,000	13,230,694	2,287,718	-	2,287,718	-	8.60%	1.45	-	22,533	6,977	-	-	-	-	-
TPG Opportunities Partners II, L.P.	345 California St., Suite 3300 San Francisco, CA 94104	2012	15,000,000	12,250,794	3,964,271	2,021,899	5,986,170	-	16.60%	1.61	-	224,999	53,627	-	-	208,992	-	139,008
Crescent Mezzanine Partners VI, L.P.	11100 Santa Monica Boulevard, Suite 2000 Los Angeles, CA 90025	2013	20,000,000	19,091,740	8,432,804	2,105,619	10,538,423	152,505	8.50%	1.25	-	138,449	15,731	(23,999)	-	(81,372)	23,999	-
Warburg Pincus Private Equity XI, L.P.	450 Lexington Avenue New York, NY 10017	2013	20,000,000	20,770,000	18,366,243	948,780	19,315,023	780	13.50%	1.53	-	111,173	51,367	(3,848)	-	635,031	3,848	279,671
TPG Opportunities Partners III, L.P.	345 California St., Suite 3300 San Francisco, CA 94104	2013	15,000,000	8,216,997	8,190,432	466,982	8,657,414	-	10.70%	1.29	-	224,999	54,842	(4,906)	-	233,651	4,906	58,815
Industry Ventures Partnership Holdings III, L.P.	30 Hotaling Place, 3rd Floor, San Francisco, CA 94111	2013	15,000,000	12,015,611	15,041,193	-	15,041,193	-	20.30%	1.70	-	131,713	151,994	-	-	459,857	-	-
57 Stars Global Opportunity Fund 3, L.P.	616 H Street, N.W., Suite 450 Washington, D.C. 20001	2014	30,000,000	25,969,042	29,047,341	-	29,047,341	-	4.80%	1.15	-	216,713	320	-	-	(187,401)	-	-
CCMP Capital Investors III, L.P.	277 Park Avenue, 27th Floor New York, NY 10172	2014	20,000,000	17,278,434	17,478,435	73,019	17,551,454	73,019	8.00%	1.24	-	300,000	19,983	(4,555)	-	(674,056)	4,555	-
Francisco Partners IV, L.P.	One Letterman Drive, Bldg C - Suite 410 San Francisco, CA 94129	2015	15,000,000	12,292,500	15,628,162	-	15,628,162	-	26.30%	1.67	-	188,731	24,301	-	18,143	1,616,895	-	-
Dover Street IX, L.P.	One Financial Center Boston, MA 02111	2015	30,000,000	7,800,000	10,946,140	314,005	11,260,145	-	37.00%	1.25	-	326,367	40,616	-	-	617,061	-	-
SJPF Private Equity Strategic Partnership, L.P.	325 N. Saint Paul St., Ste. 4900 Dallas, TX 75201	2017	200,271,506	53,646,421	31,646,421	-	31,646,421	-	18.80%	1.10	-	1,129,512	509,420	-	-	430,425	-	-
Crestline Portfolio Financing	201 Main St, #1900 Fort Worth, TX 76102	2018	22,000,000	7,289,357	5,439,283	2,237,509	7,676,792	-	NM	1.05	-	39,819	3,564	-	-	-	-	-
Innovation Endeavors III	1845 El Camino Real Palo Alto, CA 94306	2018	4,200,000	638,402	554,782	35	554,817	-	NM	0.87	-	98,467	16,881	-	-	-	-	-

Source: Fund managers, Meketa Investment Group, Neuberger Berman

**Table 16 – California Government Code §7514.7 Disclosure, Private Debt**

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018(\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Medley Opportunity Fund II, L.P.	280 Park Avenue, 6th Floor East New York, NY 10017	2010	50,000,000	55,149,363	25,063,110	2,581,655	27,644,765	2,581,655	4.12%	1.19	-	356,910	351,461	(51,134)	-	2,760	-	-
GSO SJ Partners	345 Park Avenue New York, NY 10154	2010	50,000,000	44,151,480	8,481,265	4,645,589	13,126,854	3,965,089	7.58%	1.25	-	183,215	87,764	-	-	15,535	-	-
White Oak Direct Lending	3 Embarcadero Center, 5th Floor San Francisco, CA 94111	2010	50,000,000	85,220,954	10,847,687	7,570,661	18,418,348	-	2.03%	1.05	240,026	-	59,135	-	-	-	-	-
Marathon European Credit Opportunity Fund SPC	One Bryant Park, 38th Floor New York, NY 10036	2011	25,000,000	25,000,001	2,340,066	2,749,937	5,090,003	-	8.73%	1.24	-	-	35,635	-	-	216,409	-	564,246
Cross Ocean USD ESS Fund I, L.P.	11 Charles II St. London, SW1Y4QU	2013	90,000,000	75,956,859	8,864,913	20,670,397	29,535,310	-	7.10%	1.20	-	49,505	-	-	-	-	-	-
Park Square Capital Credit Opportunities II	2nd Floor, Stratton House, 5 Stratton St, London W1J8LA	2013	50,000,000	44,822,998	42,548,214	1,290,130	43,838,344	-	3.70%	1.11	-	664,597	171,863	-	-	224,115	-	-
Shoreline China Value III, L.P.	3 Jin Sui Road, Zhujiang New, Suite 1201A Guangzhou, 510623, China	2014	22,500,000	22,046,300	13,014,003	2,382,365	15,396,368	-	5.46%	1.15	-	142,590	18,918	-	-	(20,080)	-	-
Cross Ocean USD ESS Fund II, L.P.	11 Charles II St. London, SW1Y4QU	2016	75,000,000	52,500,000	56,900,567	1,954,395	58,854,962	-	9.55%	1.15	-	457,938	607,615	-	-	349,531	-	-
Arrowmark Co-Investment	100 Fillmore Street, Suite 325, Denver, CO 80206	2017	10,000,000	10,000,000	10,305,109	979,778	11,284,887	-	12.92%	1.13	-	-	-	-	-	195,473	-	195,473
Octagon CLO Opportunity Fund III, L.P.	250 Park Ave., 15th Floor, New York, NY 10177, USA	2018	25,000,000	-	-	-	-	-	N/A	N/A	-	-	-	-	-	-	-	-

Source: Fund managers, Meketa Investment Group

Table 17 – California Government Code §7514.7 Disclosure, Private Real Assets

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018(\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Brookfield Strategic Real Estate Partners	250 Vesey Street, 15th Floor New York, NY 10281	2012	10,000,000	11,510,400	8,080,860	3,990,154	12,071,014	88,562	21.26%	1.91	-	86,156	14,000	-	-	480,231	-	-
Orion European Real Estate Fund IV, C.V.	6th Floor, 2 Cavendish Square London W1G0PU	2013	8,360,027	6,042,964	2,698,390	183,214	2,881,604	167,436	3.44%	1.09	-	65,267	-	-	-	28,682	-	19,360
Realty Associates Fund X, L.P., The	28th State Street Boston, MA 02109	2013	10,000,000	10,000,000	5,805,377	1,023,092	6,828,469	79,929	10.87%	1.45	-	124,323	6,627	-	-	104,729	-	-
Och-Ziff Real Estate Fund III	9 West 57th Street, 39th Floor New York, NY 10019	2013	20,000,000	10,894,489	7,824,383	4,625,646	12,450,029	258,151	25.33%	1.51	-	300,000	54,094	-	-	450,711	-	175,225
European Property Investors Special Opportunities 3, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2013	8,807,339	8,496,599	5,733,851	1,164,288	6,898,138	11,649	11.13%	1.33	-	82,930	118,358	-	-	-	-	-
Blackstone Real Estate Debt Strategies II	345 Park Avenue New York, NY 10154	2013	12,500,000	12,750,627	1,003,238	2,626,090	3,629,328	145,317	9.25%	1.16	-	28,730	-	-	-	816	-	58,447
KSL Capital Partners IV, L.P.	100 St. Paul St., Suite 800 Denver, CO 80206	2015	20,000,000	12,483,496	10,737,196	2,513,471	13,250,667	-	17.70%	1.20	-	350,000	26,973	(11,191)	-	603,377	-	-
European Property Investors Special Opportunities 4, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2015	19,822,116	14,144,357	15,349,479	27,754	15,377,232	-	10.67%	1.14	-	224,102	130,848	-	-	-	-	-
European Property Investors Special Opportunities 5, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2018	21,700,000	-	-	-	-	-	NA	NA	-	-	-	-	-	-	-	-
Brookfield Strategic Real Estate Partners II	250 Vesey Street, 15th Floor New York, NY 10281	2015	20,000,000	16,384,147	17,102,000	1,608,000	18,710,000	352,000	10.67%	1.19	-	290,277	16,721	(4,669)	-	49,414	94,909	-
Global Infrastructure Partners III, L.P.	1345 Avenue of the Americas, 30th Floor, New York, NY 10105	2016	20,000,000	14,647,425	14,026,367	32,333	14,058,700	4,031	0.87%	1.01	-	350,000	30,908	(79,266)	-	-	-	-
DRA Growth and Income Fund IX, LLC	220 East 42nd Street, 27th Floor New York, NY 10017	2016	20,000,000	10,780,445	9,949,319	1,835,679	11,784,998	815,259	17.62%	1.17	-	208,418	44,472	-	-	-	-	-
Brookfield Infrastructure Fund III, L.P.	250 Vesey Street, 15th Floor New York, NY 10281	2016	20,000,000	12,313,860	12,191,219	1,113,512	13,304,732	-	14.88%	1.17	-	260,000	40,193	-	-	134,857	3,638	-
GEM Realty Fund VI, L.P.	900 North Michigan Avenue #1450, Chicago, IL 60611	2017	15,000,000	1,725,000	888,663	900,000	1,788,663	90,902	6.19%	1.04	-	194,063	19,595	-	-	-	2,308	-
Lime Rock Partners VIII, L.P.	1111 Bagby St, Suite 4600 Houston, TX 77002	2018	6,000,000	-	-	-	-	-	NM	NM	-	195,452	13,037	(3,971)	5,495	-	-	-
Torchlight Debt Opportunity Fund VI, L.P.	280 Park Avenue New York, NY 10017	2018	30,000,000	2,309,115	1,680,099	470,535	2,150,634	-	NM	0.93	-	450,122	105,911	-	-	-	-	-

Source: Fund managers, Meketa Investment Group

Table 18 – California Government Code §7514.7 Disclosure, Hedge Funds

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018(\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Beach Point Total Ret Fund II	1620 26th St Suite 6000N Santa Monica, CA 90404	N/A	N/A	75,000,000	67,452,862	-	67,452,862	N/A	3.13%	1.18	-	924,909	157,449	-	-	-	-	-
Claren Road Credit Master Fund Ltd	51 Astor Place, 12th Floor New York, NY 10003	N/A	N/A	30,000,000	127,983	3,370,909	3,498,892	N/A	-5.49%	0.75	-	-	544	-	-	-	-	-
Davidson Kempner Institutional Partners, L.P.	520 Madison Avenue, 30th Floor New York, NY 10022	N/A	N/A	20,000,000	25,926,827	-	25,926,827	N/A	6.00%	1.41	-	400,569	17,348	-	-	138,023	-	138,023
DE Shaw Composite International Fund	1166 Avenue of the Americas, 9th Floor	N/A	N/A	27,000,000	40,932,537	1,000,496	41,933,033	N/A	10.40%	1.77	-	853,690	39,090	-	-	1,231,211	-	1,231,211
Dymon Asia Macro	1 Temasek Avenue #11-01 Millenia Tower,	N/A	N/A	25,000,000	25,971,676	-	25,971,676	N/A	0.64%	1.02	-	394,981	32,264	-	-	-	-	-
Hudson Bay Cap Structure Arbitrage Enhanced Fund	777 Third Ave, 30th Floor, New York, NY 10017	N/A	N/A	30,000,000	30,424,416	-	30,424,416	N/A	5.18%	1.07	-	332,631	184,924	-	-	903,204	-	903,204
Iguazu Partners LP Fund	2 Embarcadero Center # 1645 San Francisco, CA 94111	N/A	N/A	50,000,000	64,406,750	-	64,406,750	N/A	6.21%	1.34	-	692,625	94,406	-	-	783,266	-	783,266
Kepos Alpha Fund	620 8th Ave., 44th Floor, New York, NY 10018	N/A	N/A	19,000,000	10,490,673	4,874,131	15,364,804	N/A	-2.21%	0.88	-	143,663	26,187	-	-	-	-	-
Keynes Leveraged Quantitative Strategies Fund	9th Floor Orion House, 5 Upper St Martin's	N/A	N/A	20,000,000	9,398,457	10,000,000	19,398,457	N/A	-0.19%	0.99	-	81,458	31,829	-	-	-	-	-
Man AHL Evolution Frontier	100 St. Paul Street, Suite 800, Denver, CO 80206	N/A	N/A	13,000,000	15,303,172	-	15,303,172	N/A	5.63%	1.15	-	299,395	135,982	-	-	524,547	-	524,547
MW Eureka Fund Ltd	350 Park Avenue, 18th Floor New York, NY 10022	N/A	N/A	37,500,000	42,721,237	-	42,721,237	N/A	7.03%	1.38	-	900,981	26,927	-	-	628,459	-	852,889
Pharo Macro Fund, Ltd	1370 Avenue of the Americas, 26th Floor	N/A	N/A	30,000,000	31,231,571	4,388,017	35,619,588	N/A	9.36%	1.28	-	626,279	30,941	-	-	176,650	-	176,650
Pine River Fund Ltd	580 California Street, San Francisco, CA 94104	N/A	N/A	20,000,000	6,218,397	16,520,018	22,738,415	N/A	2.38%	1.15	-	26,084	35,243	-	-	-	-	-
Pine River Volatility Arbitrage Fund	580 California Street, San Francisco, CA 94104	N/A	N/A	25,000,000	24,646,000	-	24,646,000	N/A	-2.31%	0.96	-	121,386	9,868	-	-	-	-	-
Pinnacle Natural Resources Fund	712 Fifth Avenue, 29th Floor New York, NY 10019	N/A	N/A	65,000,000	61,414,015	-	61,414,015	N/A	1.86%	1.05	-	911,991	176,222	-	-	281,116	-	281,116
Sandler Plus Fund	711 5th Ave #15, New York, NY 10022	N/A	N/A	15,000,000	20,590,807	-	20,590,807	N/A	8.54%	1.59	-	426,351	73,143	-	-	447,646	-	447,646
Senator Global Opportunity Offshore Fund Ltd	510 Madison Ave # 28, New York, NY 10022	N/A	N/A	19,300,000	25,063,867	-	25,063,867	N/A	4.31%	1.27	-	468,276	32,546	-	-	-	-	309,427
Symphony Long Short Credit LP	555 California St #2975 San Francisco, CA 94104	N/A	N/A	75,000,000	70,730,966	-	70,730,966	N/A	4.73%	1.25	-	732,924	143,151	-	-	156,677	-	156,677
Systematica Alternative Markets Master Fund	650 Fifth Ave New York, NY 10019	N/A	N/A	2,000,000	2,185,499	-	2,185,499	N/A	2.45%	1.04	-	45,886	4,562	-	-	46,375	-	46,375
Systematica Trend Following Fund	650 Fifth Ave New York, NY 10019	N/A	N/A	20,000,000	20,910,515	-	20,910,515	N/A	2.45%	1.04	-	61,508	74,411	-	-	-	-	-
Tempo Volatility Fund	1 Greenwich Plaza, Greenwich, CT 06830	N/A	N/A	20,000,000	21,123,071	-	21,123,071	N/A	6.11%	1.14	-	330,721	165,121	-	-	372,076	-	372,076

Source: Fund managers, Albourne, State Street, ORS

ATTACHMENT D

**FEDERATED CITY EMPLOYEES'  
RETIREMENT SYSTEM  
FISCAL YEAR 2020-2021  
BUDGET PROPOSAL**

April 16, 2020



# 2020–2021 Budget at a Glance

- ▶ Development of the budget
- ▶ Administrative expense breakdown
- ▶ Sources of funds
- ▶ Uses of funds
- ▶ Proposed administrative budget
- ▶ Personnel services analysis
- ▶ Non–personnel/equipment analysis
- ▶ Professional services analysis
- ▶ Medical services analysis
- ▶ Analysis and comparisons to other CA plans

# Development of the Federated City Employees' Retirement System's FY20-21 Proposed Budget

The Proposed Budget is broken down into the following categories:

## ▶ Sources of Funds

- **City contributions** – Estimated based on the contribution rates and total covered payroll shown in the actuarial reports for June 30, 2019
- **Participant income** – Estimated based on the contribution rates and total covered payroll shown in the actuarial reports for June 30, 2019
- **Investment income** – Calculated using the assumed rate of return based on reserve plus City's contributions for the whole year and other activities throughout the year

## ▶ Uses of Funds

- **Benefits and health insurance** – pension payments, health insurance subsidy, return of contributions and death benefits. Amounts were calculated based on the average increase for the past 5 years
- **Administrative expense** – this represents the operating expenses for the Office of Retirement Services. The detail is shown in the following slide.



# Administrative Expense Budget FY20–21

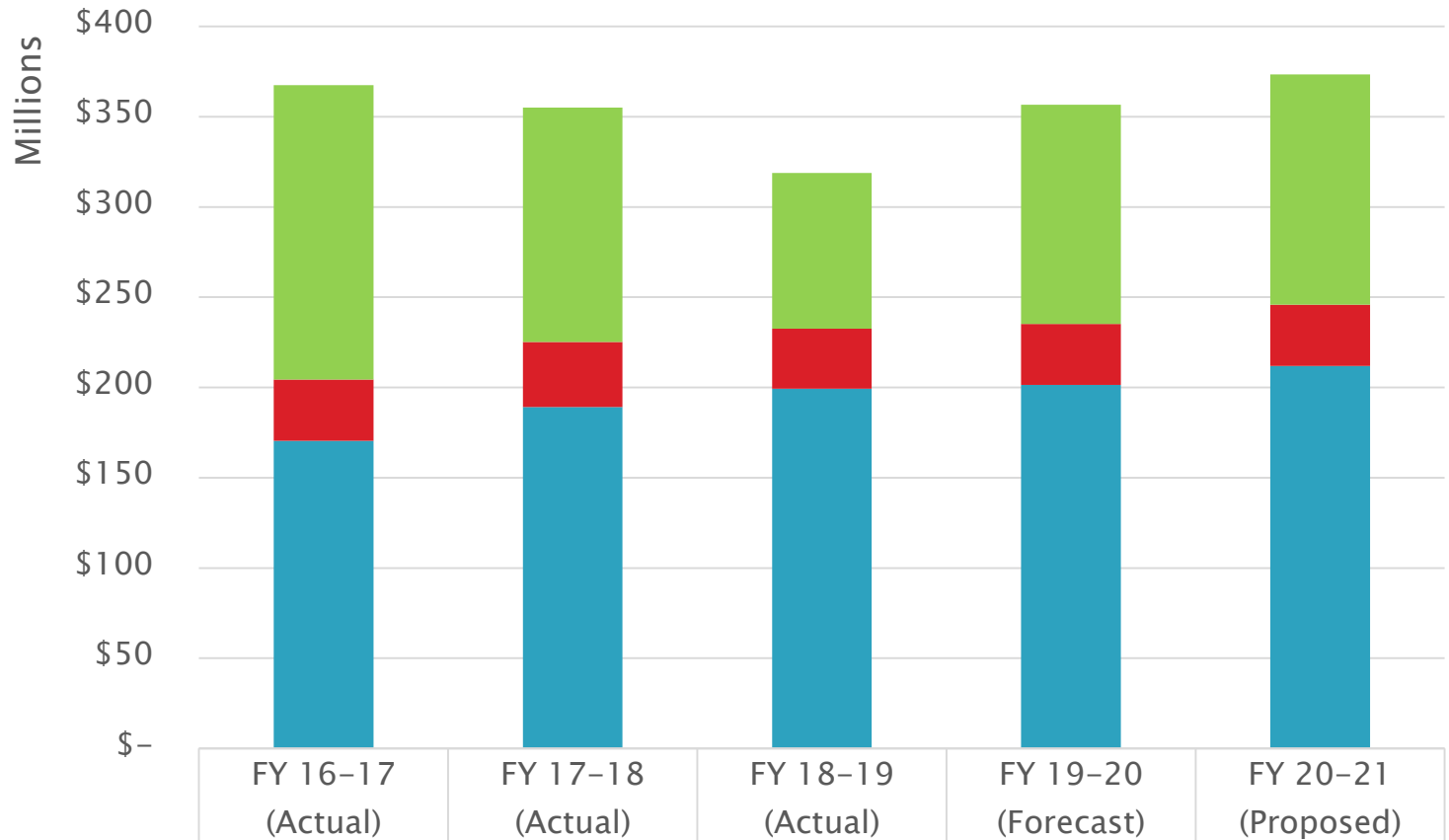
The Administrative Expense Budget portion is categorized into the following line items:

- ▶ **Personnel services** – 50% of the Office of Retirement Services direct staff labor costs including salary and benefits based on the City’s Budget Office labor reports, except for Investments staff which is split based on market value (40% Fed and 60% PF).
- ▶ **Non–personnel/equipment** – administrative overhead cost such as rent, supplies, equipment, etc., excluding professional services.
- ▶ **Professional services** – non–investment professional services including actuarial, legal, IT and other professional consulting services.
- ▶ **Medical services\*** – this represents an estimate for a contracted medical advisor and other independent medical examiners.

The Administrative Budget does **NOT** include investment professional services, consultants and investment manager fees and capitalized costs.

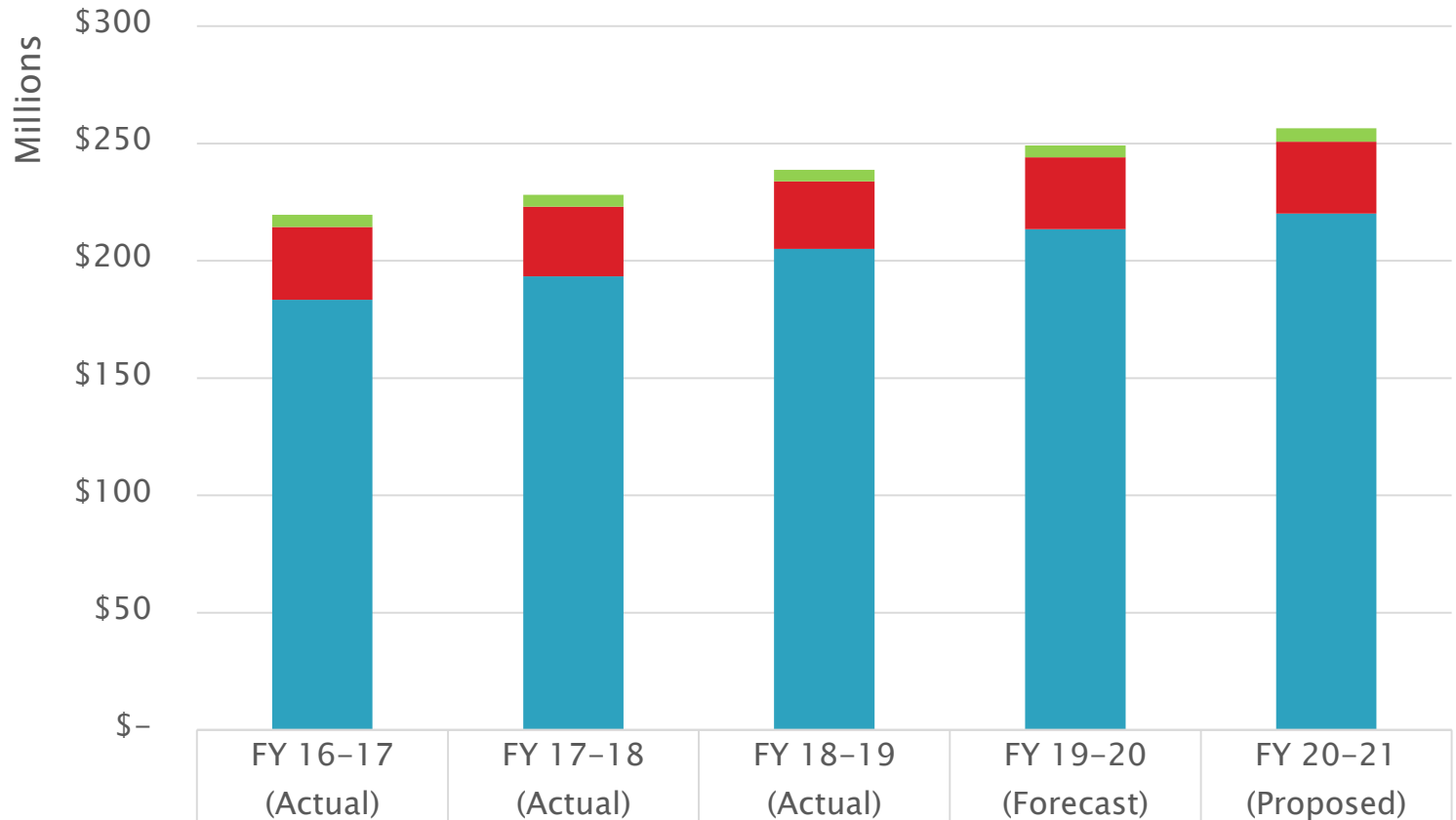
\* This was a medical director and staff prior to the FY16–17 budget.

# Sources of Funds



Investment Income	163,051,000	129,829,000	86,327,000	121,461,973	127,531,000
Participant Contributions	34,054,000	36,046,000	33,184,000	33,878,746	33,916,000
City Contributions	170,388,000	189,167,000	199,416,000	201,347,711	211,926,000

# Uses of Funds



Administrative Expense	5,161,000	4,993,000	4,832,301	4,997,285	5,697,000
Health Insurance	31,007,000	29,724,000	28,826,000	30,701,990	30,608,000
Pension Benefits	183,430,000	193,400,000	205,066,000	213,443,355	220,198,000

# Federated Proposed Administrative Budget for FY 2020–2021

The following is a comparison of previous fiscal year actual figures, current year adopted budget and forecast, and proposed next year budget:

Expenses	2018– 2019 Actual (A)	2019– 2020 Adopted (B)	2019– 2020 Forecast (C)	2020–2021 Proposed <sup>(1)</sup> (D)	% Increase (Decrease) (B to D)	% Increase (Decrease) (C to D)
Personnel Services	\$2,961,017	\$3,489,000	\$3,195,380	\$3,560,000	2.03%	11.41%
Non-Personnel / Equipment	1,041,045	1,408,000	1,082,747	1,246,000	(11.51%)	15.08%
Professional Services	753,251	762,000	637,191	752,000	(1.31%)	18.02%
Medical Services	76,988	137,000	81,967	139,000	1.46%	69.58%
<b>Total</b>	<b>\$4,832,301</b>	<b>\$5,796,000</b>	<b>\$4,997,285</b>	<b>\$5,697,000</b>	<b>(1.71)%</b>	<b>14.00%</b>

<sup>(1)</sup> – Detail for changes provided in the following slides

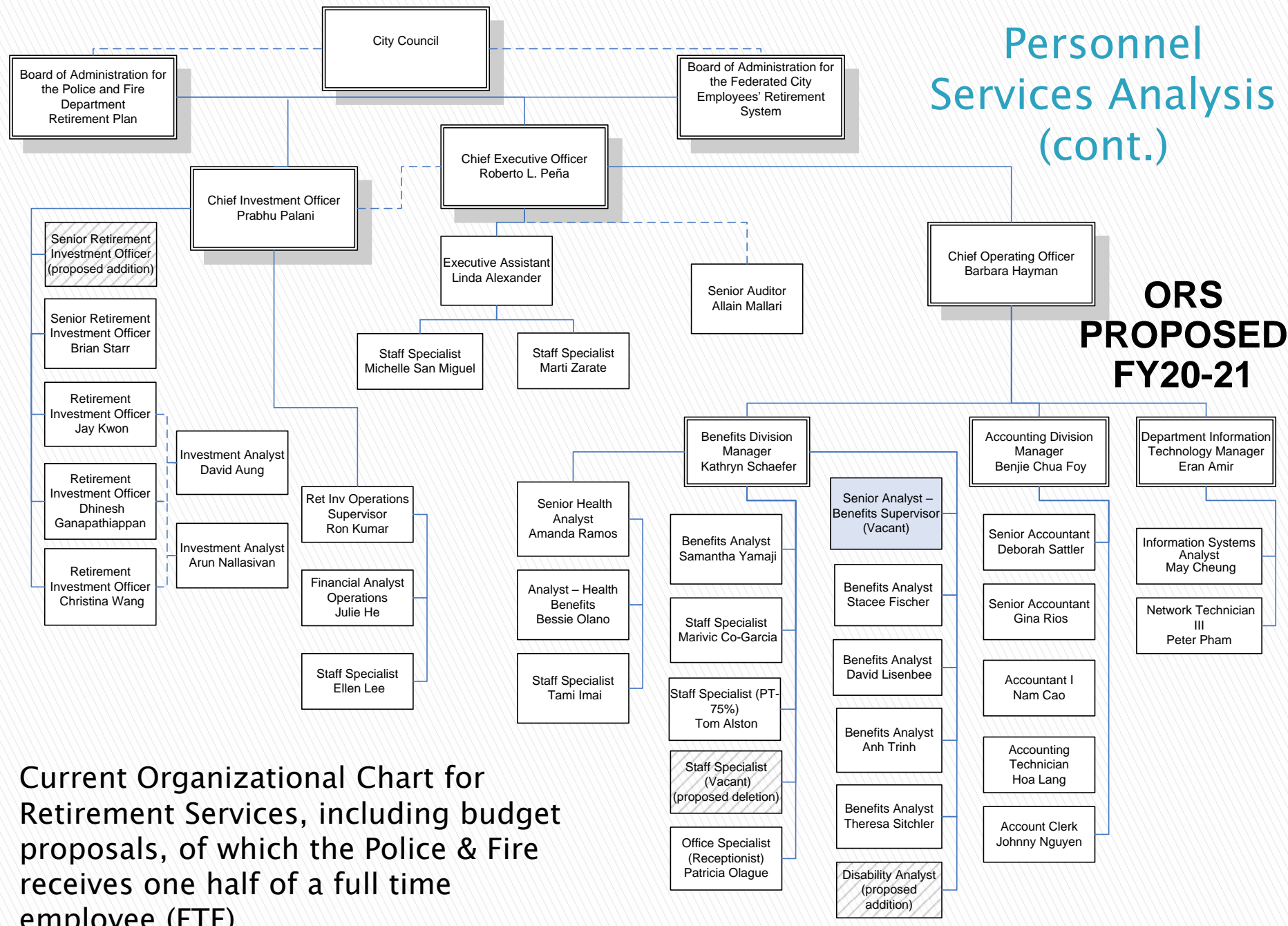
# Personnel Services Analysis

Expenses	2018–2019 Actual (1)	2019–2020 Adopted (2)	2019–2020 Forecast (3)	2020–2021 Proposed (4)	% Increase (Decrease) (2 to 4)	% Increase (Decrease) (3 to 4)
Personnel Services	\$2,961,017	\$3,489,000	\$3,195,380	<b>\$3,560,000</b>	2.03%	11.41%
Authorized positions for both plans	39.75	39.75	39.75	39.75	0	0
Full time employee (FTE) allocated to Plan	19.875	19.875	19.875	19.875	0	0
Actual filled FTEs for both plans	34.75		38.75			
FTEs allocated to Plan	17.375		19.375			

- ▶ Personnel Services increased from last year’s budget due to:
  - Planning on having ORS fully staffed, budgeting two return to work retirees for the full year and increased benefit rates
  
- ▶ Proposals for FY20–21 included in budget
  - Add–delete a Disability Analyst from a Staff Specialist
  - Add a Senior Investment Officer

# Personnel Services Analysis (cont.)

## ORS PROPOSED FY20-21



Current Organizational Chart for Retirement Services, including budget proposals, of which the Police & Fire receives one half of a full time employee (FTE)

# Non-Personnel/Equipment Analysis

Expenses	2018-2019 Actual (1)	2019-2020 Adopted (2)	2019-2020 Forecast (3)	2020-2021 Proposed (4)	% Increase (Decrease) (2 to 4)	% Increase (Decrease) (3 to 4)
Non-personnel/Equipment	\$1,041,045	\$1,408,000	\$1,082,747	\$1,246,000	(11.51%)	15.08%

- ▶ Non-Personnel/Equipment decreased from prior year budget by \$162,000 due to the following:
  - Investment analytics and research budget was reduced by \$131,000 for the State Street services for performance analytics in order to align with the recording in the CAFR
    - State Street services are not included as part of admin expenses in the CAFR
  - LRS – annual maintenance fee was reduced by \$62,000 due to implementation of V3
  - Increase in IT by \$26,000 due to planned projects: phone center and social media

# Non-Personnel/Equipment Analysis (cont.)

Below is a list of major non-personnel/equip. categories and budget amounts

Minor Budget Category	Budget Basis	FY20-21 Proposed Budget Amount
Investment analytics and research	Investments data processing Abel/Noser, Barra LLC, BCA Research, Bloomberg, Dynamo, eVestments and Klarifyfx, as well as risk analysis by Verus	\$435,000
Rent	Rent for Office of Retirement Services (ORS) based on lease amount, as well as Common Area Maintenance costs	212,000
Insurance	Fiduciary and commercial liability Insurance	208,000
IT hardware / software	Includes proposed phone center and social media projects, wireless microphone system for 5 <sup>th</sup> floor Board room and hosting service	123,000
Postage and printing	Postage, shipping and printing costs for open enrollment, contribution rate and newsletter mailings and other communication	90,000
Training/Travel	Board and staff travel including conferences, roundtables, due diligence, etc.	65,000
LRS - annual maintenance fee	Pension administration system annual maintenance fee based on contract amount	48,000
Other non-personnel and equipment	Includes lease, mileage, communication, dues and subscriptions, equipment/furniture, training, supplies, and a buffer for leasehold improvements for the building	65,000
<b>NON-PERSONNEL / EQUIPMENT TOTAL</b>		<b>\$1,246,000</b>



# Professional Services Analysis

Expenses	2018-2019 Actual (1)	2019-2020 Adopted (2)	2019-2020 Forecast (3)	2020-2021 Proposed (4)	% Increase (Decrease) (2 to 4)	% Increase (Decrease) (3 to 4)
Professional Services	\$753,251	762,000	637,191	752,000	(1.31%)	18.02%

- ▶ Professional Services decreased slightly from last year's budget mainly due to reducing actuarial services for the experience analysis that is being conducted in FY19-20 and FY20-21 and the increase in temporary staffing services to assist in the increased workload for the Benefits division
- ▶ Other considerations
  - Cost associated with the new pension administration system are NOT included in the budget as those costs are being capitalized.
- ▶ The following slide is a list major professional services categories, budget basis and budget amounts.

# Professional Services – Other Analysis (cont.)

Below is a list of major professional services categories and budget amounts

Minor budget category	Budget Basis	FY20–21 Budget Amount
Legal	Legal services provided by Reed Smith, Saltzman and Johnson and Ice Miller LLP – note this budget line excludes investment legal.	\$282,000
Actuary	Annual valuation and GASB reports for Pension & OPEB, benefit calculations, including 415 matters, and other miscellaneous consultations	210,000
Audit	Annual financial audit agreement amount plus other services	83,000
Other Professional Services	Includes retiree search agency, governance services and communications consultant	79,000
Temp Agencies	Temporary staffing to fill vacant positions and assist with open enrollment	77,000
Pension Admin System (PensionGold)	Ad hoc web changes billed per hour; disaster recovery; ad hoc change request enhancements; web hosting monthly charge	21,000
	<b>PROFESSIONAL SERVICES OTHER BUDGET TOTAL</b>	<b>\$752,000</b>

# Medical Services Analysis

Expenses	2018– 2019 Actual (1)	2019– 2020 Adopted (2)	2019– 2020 Forecast (3)	2020– 2021 Proposed (4)	% Increase (Decrease) (2 to 4)	% Increase (Decrease) (3 to 4)
Medical Services	76,988	137,000	81,967	139,000	1.46%	69.58%

- ▶ Medical services increased slightly compared to prior year:
  - Better handle on how many cases handled per month
  - Contingency for special cases that cost more
  
- ▶ Other considerations:
  - No longer having a City employee providing medical services
  - Outside advisor is more expensive
  - Based on estimate of having 2 cases per month for the medical advisor and 12 cases annually for the other independent medical examiners
  
- ▶ Below is a summary of medical services provided:
  - Obtain medical information from disability applicants, attorneys and workers' compensation
  - Review all medical reports received
  - Refer to independent medical examiners
  - Summarize relevant medical information and prepare medical report regarding causation, disability, and medical support of injury
  - Attend monthly Disability Committee hearings

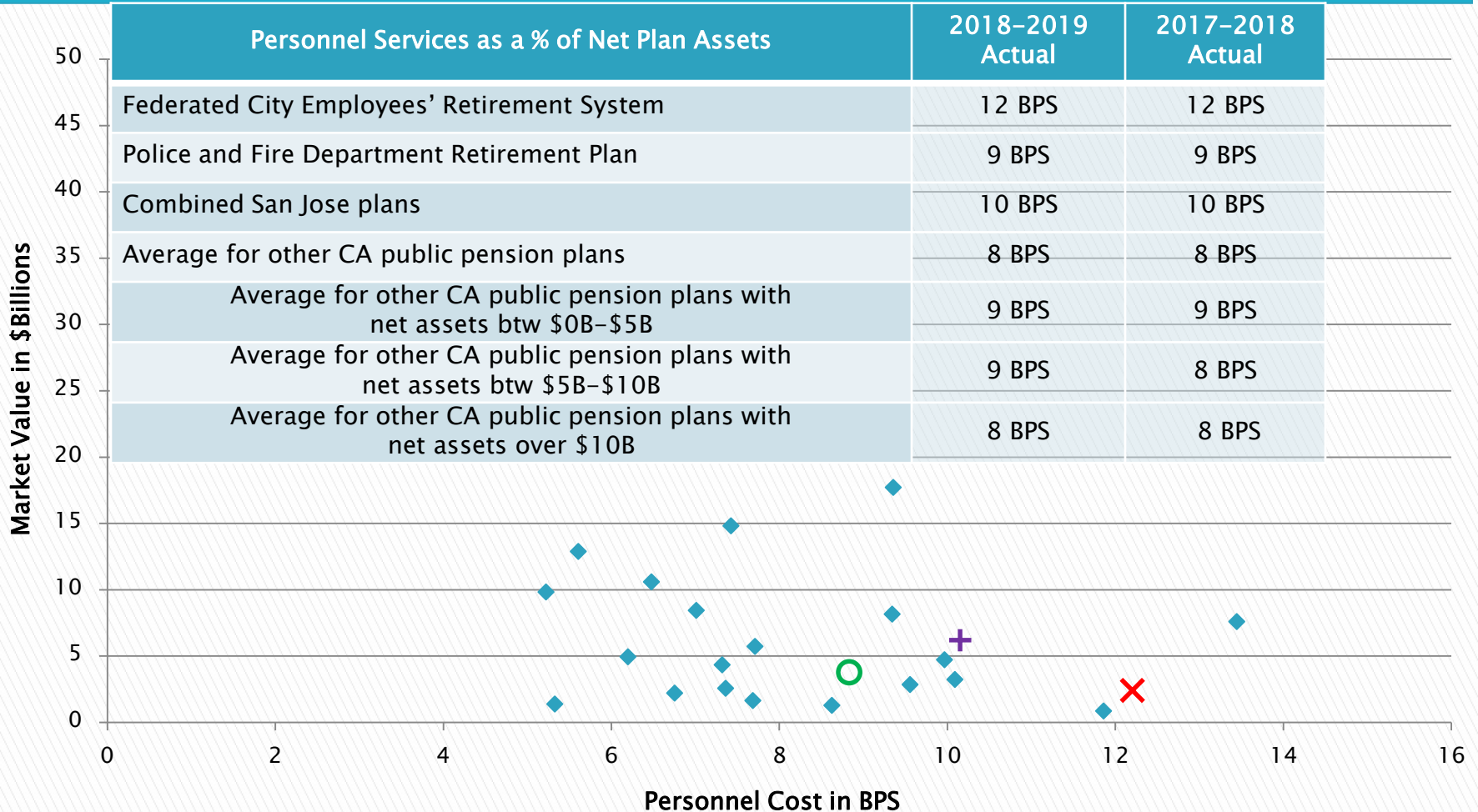
# Personnel Services Analysis – in BPS

Personnel Expense in BPS of Market Value of Assets – Actual as of 6/30/19 or most recent financial statement <sup>(1)</sup>

“X” below represents the Federated System, \$2,961,017

“O” below represents the Police and Fire Plan, \$3,334,302

“+” below represents the combined San Jose plans, \$6,295,319



<sup>1</sup> Retirement Services gathered and compiled most recent financial information from 23 public pension plans' CAFRs

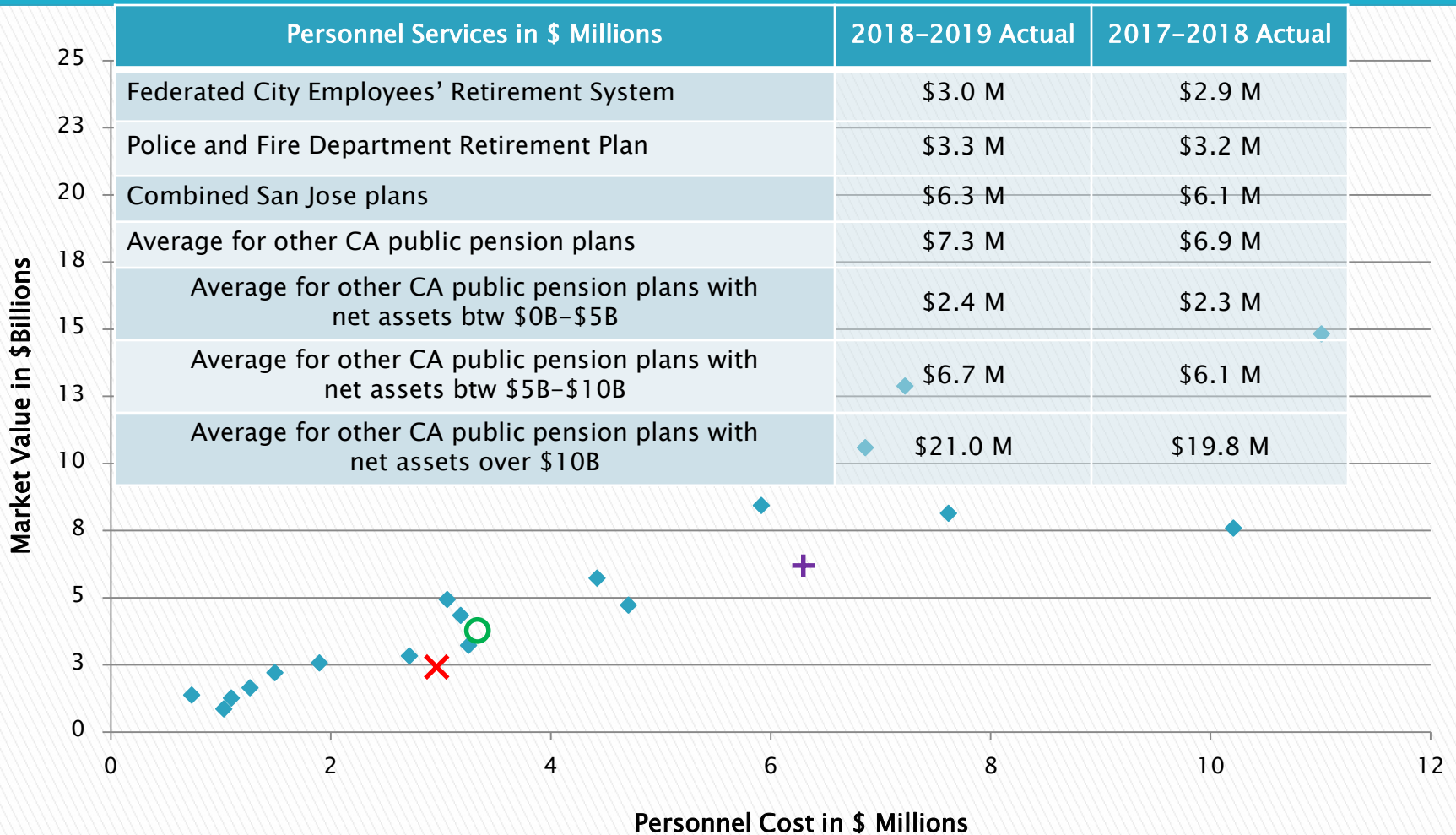
# Personnel Services Analysis – in \$

Personnel Expense in \$ Millions – Actual as of 6/30/19 or most recent financial statement <sup>(1)</sup>

“X” below represents the Federated System, \$2,961,017

“O” below represents the Police and Fire Plan, \$3,334,302

“+” below represents the combined San Jose plans, \$6,295,319



<sup>1</sup> Retirement Services gathered and compiled most recent financial information from 23 public pension plans' CAFRs

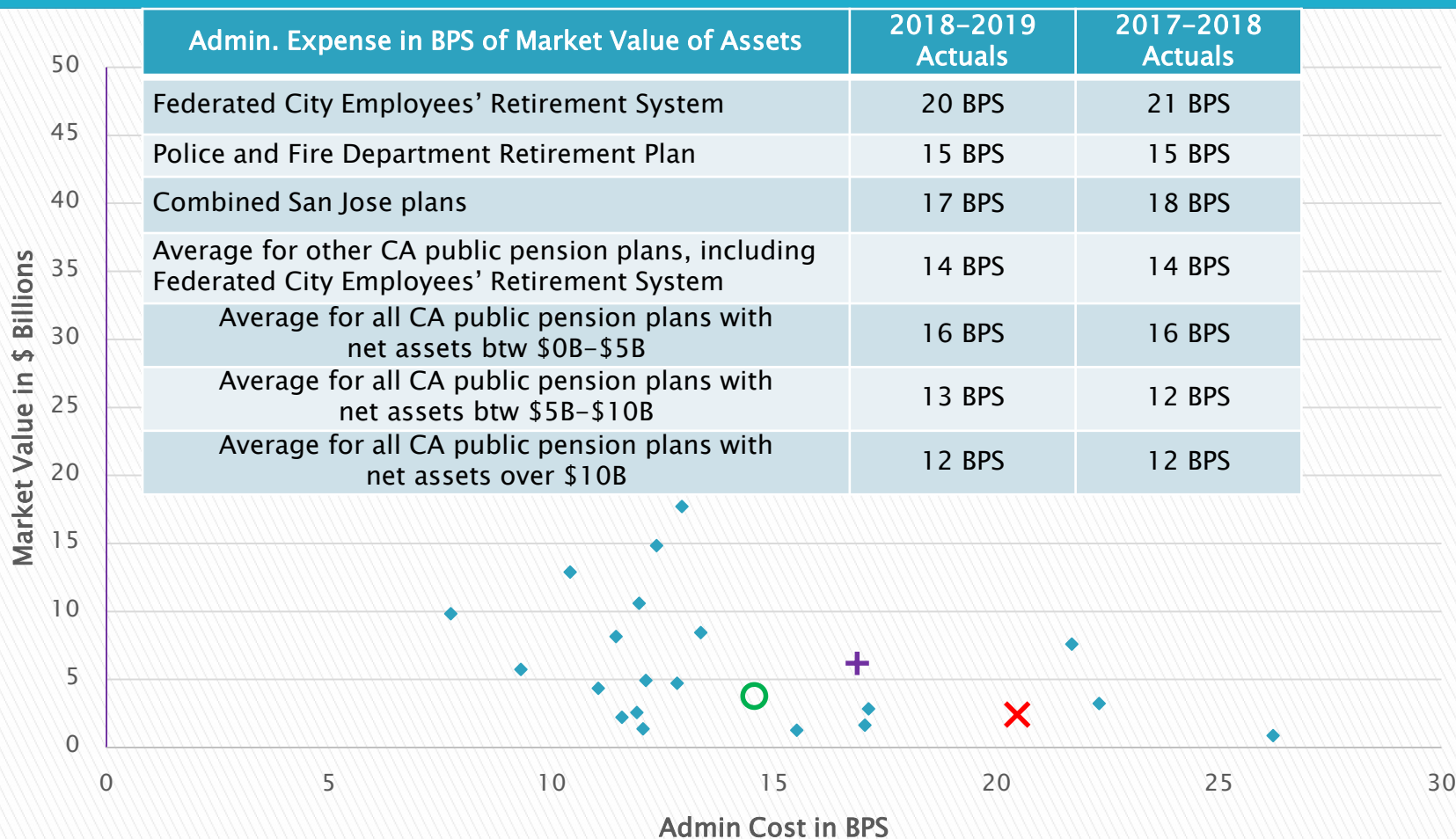
# Administrative Cost Comparison – in BPS

Administrative Expense in BPS of Market Value of Assets – Actual as of 6/30/19 or most recent financial statement <sup>(1)</sup>

“X” below represents the Federated System , \$4,966,000

“O” below represents the Police and Fire Plan, \$5,495,000

“+” below represents the combined San Jose plans, \$10,461,000



<sup>1</sup> Retirement Services gathered and compiled most recent financial information from 23 public pension plans' CAFRs

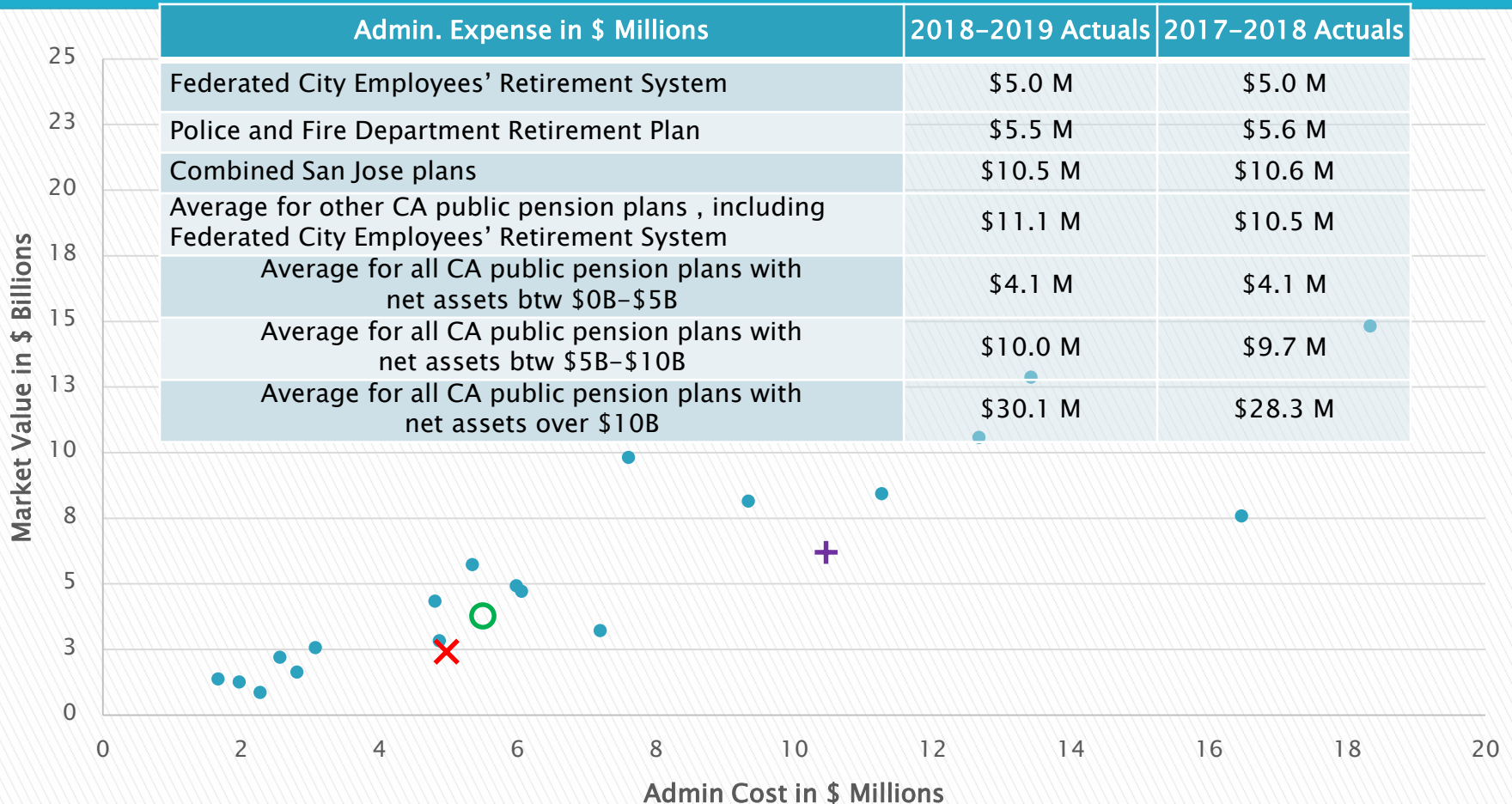
# Administrative Cost Comparison – in \$

Administrative Expense in BPS of Market Value of Assets – Actual as of 6/30/19 or most recent financial statement <sup>(1)</sup>

“X” below represents the Federated System , \$4,966,000

“O” below represents the Police and Fire Plan, \$5,495,000

“+” below represents the combined San Jose plans, \$10,461,000



<sup>1</sup> Retirement Services gathered and compiled most recent financial information from 23 public pension plans public information

# ATTACHMENT E



## Memorandum

**TO: Board of Administration for the Federated Retirement System**

**FROM: Benjie Chua Foy**

**SUBJECT: Consideration of Proposed Budget for Fiscal Year 2020-2021**

**DATE: April 6, 2020**

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Approved

Date

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### **RECOMMENDATION**

Discussion and action on the proposed budget for fiscal year 2020-2021.

### **BACKGROUND**

The Board approves the contribution rates recommended by the actuary which is made by the City. The Board also approves the administrative expense budget for reporting on the Source and Use Statements submitted for inclusion in the City's operating budget. The amounts approved by the Board are the total category amounts and not the individual line items. If the individual line item goes over budget, no approval is required from the Board, as long as the total category amount remains under budget. This proposed budget is provided to the Board for discussion and approval, and if necessary, a revised and final budget will be prepared for approval at the next meeting. Highlights of the proposed budget are as follows:

### **ANALYSIS**

#### ***SOURCES OF FUNDS***

##### **CITY CONTRIBUTIONS**

The City contribution for the retirement and health benefit plan for the coming fiscal year is estimated to be \$211,926,000.

The actual contribution amount is based on the City contribution rates recommended by the actuary and adopted by the Board, applied as a factor against the City's total covered payroll. The FY21 contribution amounts assume the Board's adoption in April/May, as shown in the June 30, 2019 actuarial reports for pension and healthcare, using the middle of the year amounts and no prefunding.

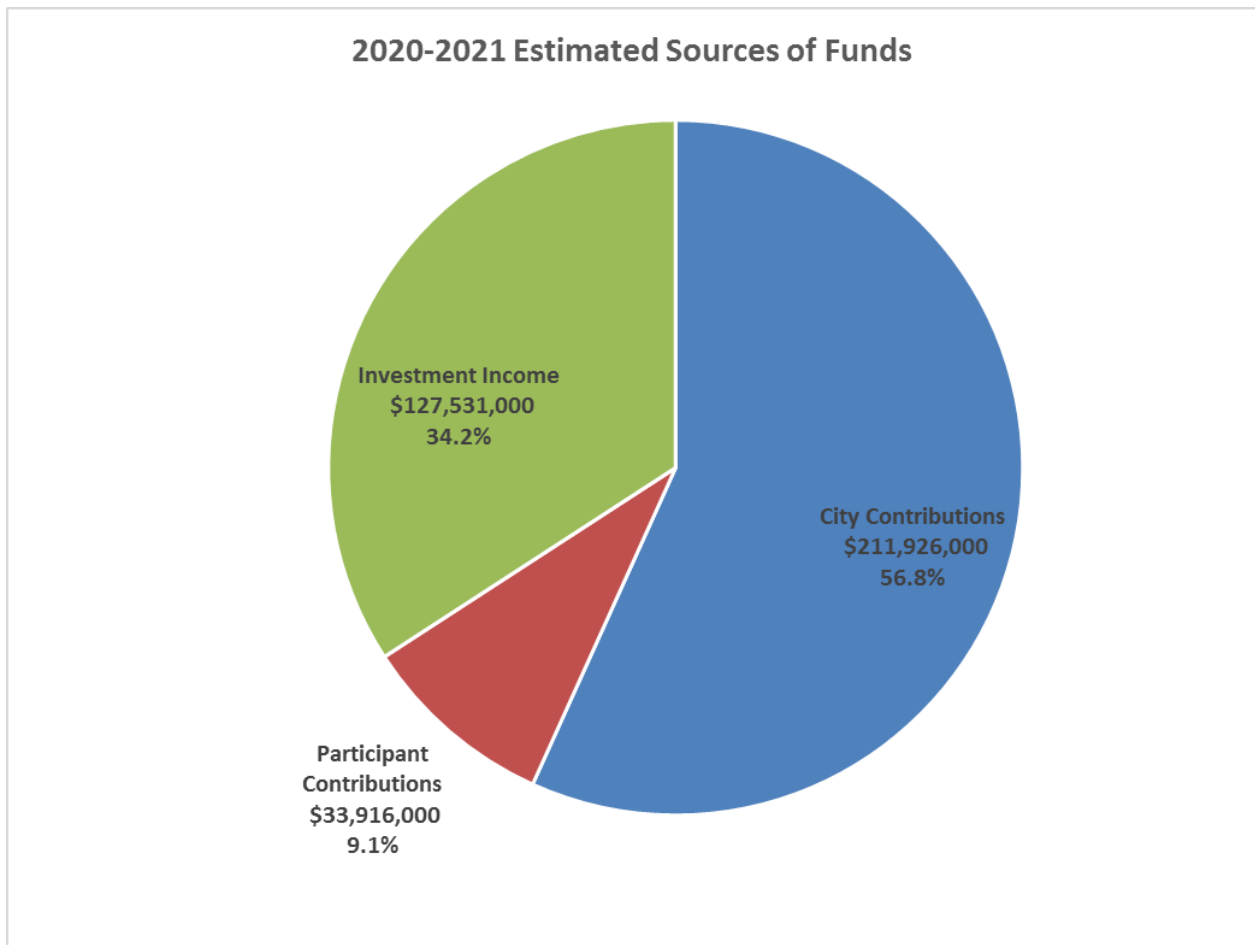
##### **PARTICIPANT CONTRIBUTIONS**

Total member contributions are estimated at \$33,916,000, a 0.6% increase from the 2019-2020 adopted amount. Member contributions are calculated based on the contribution rate for each tier. Tier 1 contribution rates for pension increased from 7.06% to 7.22% while their covered payroll decreased from \$149.3 million to \$142.1 million. Tier 2 contribution rates for pension decreased from 8.33% to 7.92% while covered payroll increased from \$159.4 million to \$180.6 million. Healthcare contribution rates remain at 7.5% per the Municipal Code for Tier 1 and some Tier 2 members, while the City's contribution is a flat dollar amount of approximately \$21 million.



## INVESTMENT INCOME

Investment earnings are calculated based on the actuarial assumed rate of return of 6.75%. The beginning fund balance, along with the City’s contributions and member contributions offset with the expenditures are expected to earn less than the full rate since these amounts will occur throughout the year.



## ***USES OF FUNDS***

### PENSION BENEFITS AND HEALTH INSURANCE

The pension benefits budget increased to \$220,198,000, an increase of \$10,021,000, or 4.77%, which is the average increase for the past five years. Pension benefits include service pensions, disability and survivorship pensions, death benefits and refunds of contributions.

The health insurance budget increased to \$30,608,000, an increase of \$177,000, or 0.58%, which is the average increase for the past five years. Health insurance includes health and dental insurance subsidies, as well as Medicare reimbursements.

VEBA withdrawals represent the funds taken out of the healthcare plan by Tier 1 and eligible Tier 2 members who opted out of the healthcare plan. Fiscal year 2017-2018 had the largest amount since it was the first year of the opt-in to the VEBA and will continue through calendar year 2022 for rehired employees with healthcare contributions. There was only one VEBA withdrawal in fiscal year 2018-2019 and future withdrawals are expected to be minimal, if any.

### *ADMINISTRATIVE EXPENSE BUDGET*

The proposed administrative expenses budget of \$5,697,000 is a net decrease of 1.71% or \$99,000 from the prior year proposed budget of \$5,796,000.

### PERSONNEL SERVICES

The budget for personnel services was increased to \$3,560,000, an increase of \$71,000, or 2.03% over the prior year adopted budget of \$3,489,000. The Budget Office's labor distribution report drives the personnel budget, which covers all the staff in Retirement Services. The salaries and benefits of all staff, except for investment staff, is split 50/50 between the System and the Police and Fire Department Retirement Plan (Plan). The investment staff is split 40/60 between the System and the Plan, which is roughly based on asset size. The number of positions in Retirement Services will remain at 39.75 due to the proposals. The limited-date position for Information Systems Analyst that expires on June 30, 2020 will not be renewed. The other proposed personnel changes for fiscal year 2020-2021 are to add a Senior Investment Officer and to convert a Benefits Staff Specialist into a Benefits Disability Analyst. Besides the proposed changes, the other reasons for the increase in personnel services is due to the increased benefit rates, as well as having two reemployed retirees for the maximum time allowed per the Municipal Code.

### NON-PERSONNEL / EQUIPMENT

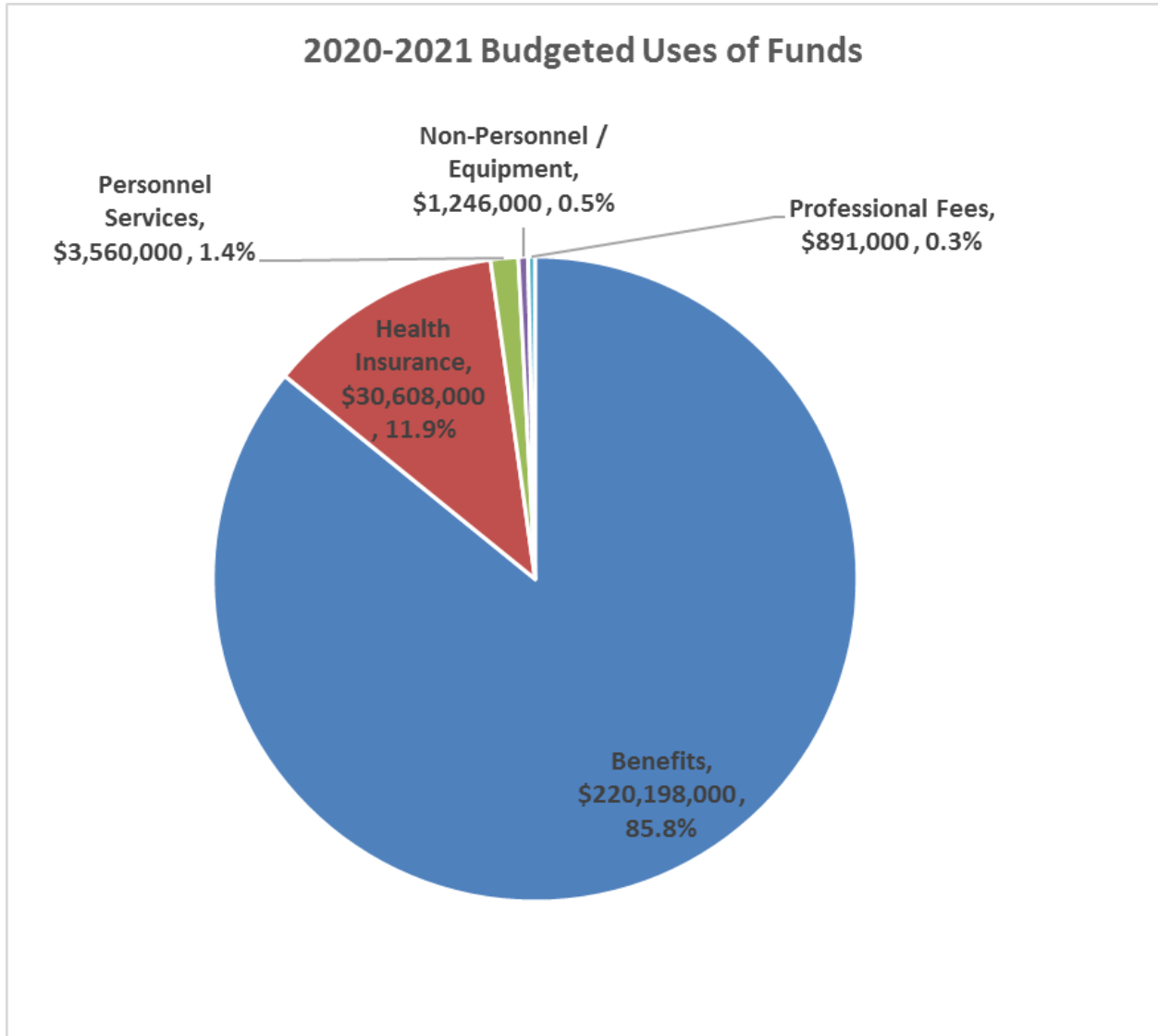
The budget for non-personnel / equipment was decreased to \$1,246,000, a decrease of \$162,000, or 11.5% from the prior year adopted budget of \$1,408,000. This category includes data processing costs for investments, rent, insurance, information technology hardware/software, pension administration annual maintenance fee, postage and printing, training, travel, and other office expenses. The decrease was mainly due to a decrease of \$134,000 in the investment analytics and research budget and a decrease of \$62,000 in the pension administration annual maintenance fee, offset by an increase in IT hardware/software of \$26,000. The decrease of \$134,000 was due to a reclassification of the services provided by State Street, the custodian bank, to align with how the expenses are recorded in the Comprehensive Annual Financial Report. The decrease of \$62,000 was due to the implementation of the new pension administration system, which had a lower annual maintenance fee. The increase of \$26,000 in IT hardware/software was due to the social media and phone center projects that are planned for the fiscal year.

### PROFESSIONAL SERVICES

The budget for professional services was reduced to \$752,000, a slight decrease of \$10,000, or 1.3% from the prior year adopted budget of \$762,000. Core professional services comprise of actuarial services, financial audit services, legal services, and temporary staffing services. Decreases in budgetary amounts for core professional services resulted from reducing actuarial services due to an experience study that is being conducted in FY19-20 and not FY20-21 offset by an increase in temporary staffing services due to increased workload in the Benefits division.

### MEDICAL SERVICES

The budget for medical services increased to \$139,000, a slight increase of \$2,000, or 1.5% over the prior year adopted budget of \$137,000. This category is for expenses related to the processing of disability applicants, which include costs for a medical advisor and medical services from independent medical examiners (IME).



Attachment: Proposed Budget for Fiscal Year 2020-2021

**PROPOSED BUDGET**

**FISCAL YEAR 2020-2021**

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM**

April 16, 2020

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM**

**Proposed Budget for Fiscal Year 2020-2021**

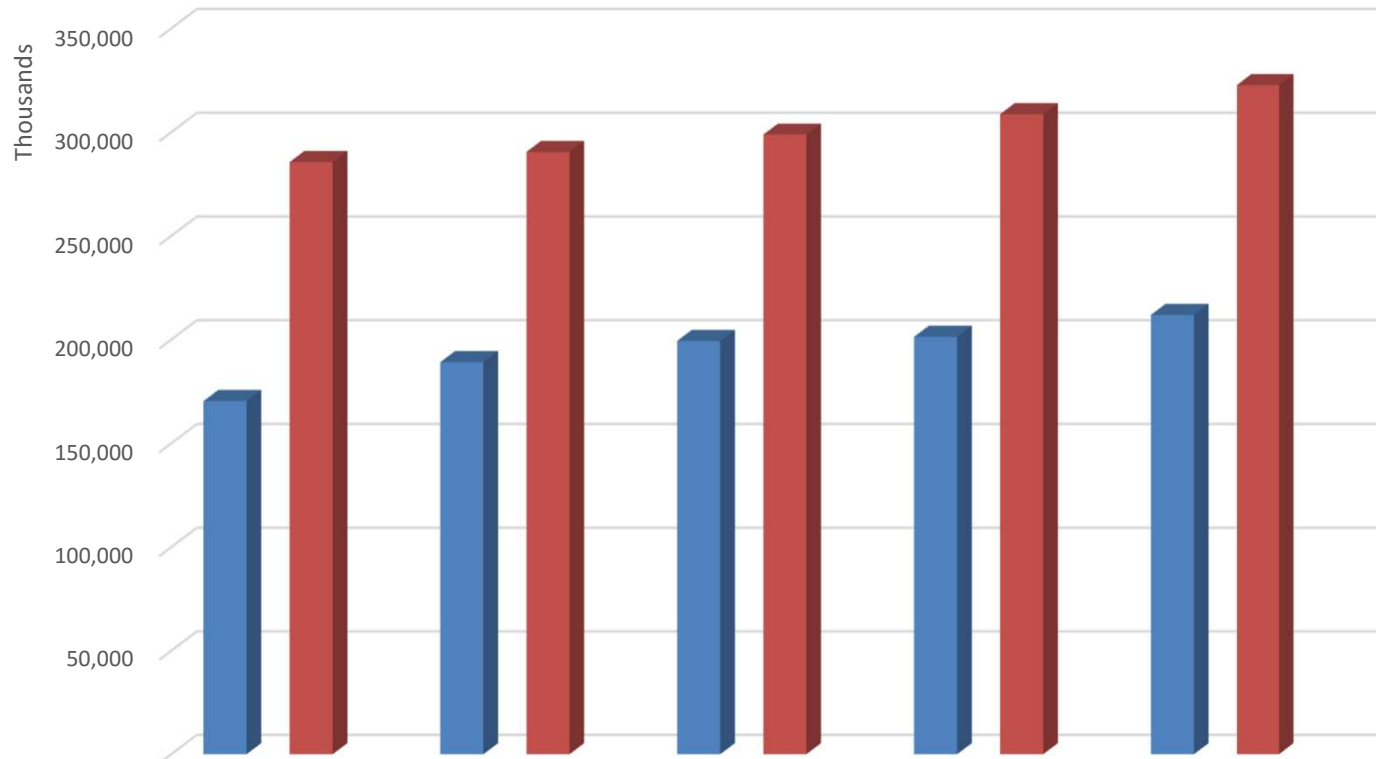
	<b>(A)</b> <b>2018-2019</b> <b>Actual</b>	<b>(B)</b> <b>2019-2020</b> <b>Modified</b>	<b>(C)</b> <b>2019-2020</b> <b>Forecast</b>	<b>(D)</b> <b>2020-2021</b> <b>Proposed</b>	<b>(A) to (B)</b> <b>Increase</b> <b>(Decrease)</b>	<b>(B) - (C)</b> <b>Increase</b> <b>(Decrease)</b>	<b>(C) - (D)</b> <b>Increase</b> <b>(Decrease)</b>
<b>SOURCE OF FUNDS</b>							
Beginning Fund Balance							
Claims Reserve	2,346,590,000	2,426,640,000	2,426,640,000	<b>2,534,166,900</b>	80,050,000	0	107,526,900
Total Beginning Fund Balance	2,346,590,000	2,426,640,000	2,426,640,000	<b>2,534,166,900</b>	80,050,000	0	107,526,900
Transfers							
COLAs	25,588	26,845	23,133	<b>23,000</b>	1,257	(3,712)	(133)
City Contributions	199,416,000	201,348,000	201,347,711	<b>211,926,000</b>	1,932,000	(289)	10,578,289
Total Transfers	199,441,588	201,374,845	201,370,844	<b>211,949,000</b>	1,933,257	(4,001)	10,578,156
Revenue							
Participant Contributions	33,184,000	33,708,600	33,878,746	<b>33,916,000</b>	524,600	170,146	37,254
Investment Income	86,327,000	124,070,431	121,461,973	<b>127,531,000</b>	37,743,431	(2,608,458)	6,069,027
Total Revenue	119,511,000	157,779,031	155,340,719	<b>161,447,000</b>	38,268,031	(2,438,312)	6,106,281
<b>TOTAL SOURCE OF FUNDS</b>	<b><u>2,665,542,588</u></b>	<b><u>2,785,793,876</u></b>	<b><u>2,783,351,563</u></b>	<b><u>2,907,562,900</u></b>	<b><u>120,251,288</u></b>	<b><u>(2,442,313)</u></b>	<b><u>124,211,337</u></b>
<b>USE OF FUNDS</b>							
Expenditures							
COLAs	25,588	26,845	23,133	<b>23,000</b>	1,257	(3,712)	(133)
Benefits	205,066,000	210,176,903	213,443,355	<b>220,198,000</b>	5,110,903	3,266,452	6,754,645
Health Insurance	28,826,000	30,431,277	30,701,990	<b>30,608,000</b>	1,605,277	270,713	(93,990)
VEBA Transfers	19,000	0	18,900	<b>0</b>	(19,000)	18,900	(18,900)
Personnel Services	2,961,017	3,489,000	3,195,380	<b>3,560,000</b>	527,983	(293,620)	364,620
Non-Personnel/Equipment <sup>(1)</sup>	1,174,744	1,408,000	1,082,747	<b>1,246,000</b>	233,256	(325,253)	163,253
Professional Fees	830,239	899,000	719,158	<b>891,000</b>	68,761	(179,842)	171,842
Total Expenditures	238,902,588	246,431,025	249,184,663	<b>256,526,000</b>	7,528,437	2,753,638	7,341,337
Ending Fund Balance							
Claims Reserve	2,426,640,000	2,539,362,851	2,534,166,900	<b>2,651,036,900</b>	112,722,851	(5,195,951)	116,870,000
Total Ending Fund Balance	2,426,640,000	2,539,362,851	2,534,166,900	<b>2,651,036,900</b>	112,722,851	(5,195,951)	116,870,000
<b>TOTAL USE OF FUNDS</b>	<b><u>2,665,542,588</u></b>	<b><u>2,785,793,876</u></b>	<b><u>2,783,351,563</u></b>	<b><u>2,907,562,900</u></b>	<b><u>120,251,288</u></b>	<b><u>(2,442,313)</u></b>	<b><u>124,211,337</u></b>

Amount not included in budget since no cash outlay:

Amortization expense for PG3	\$ 133,809	\$ 390,007	\$ 396,998	\$ 396,998
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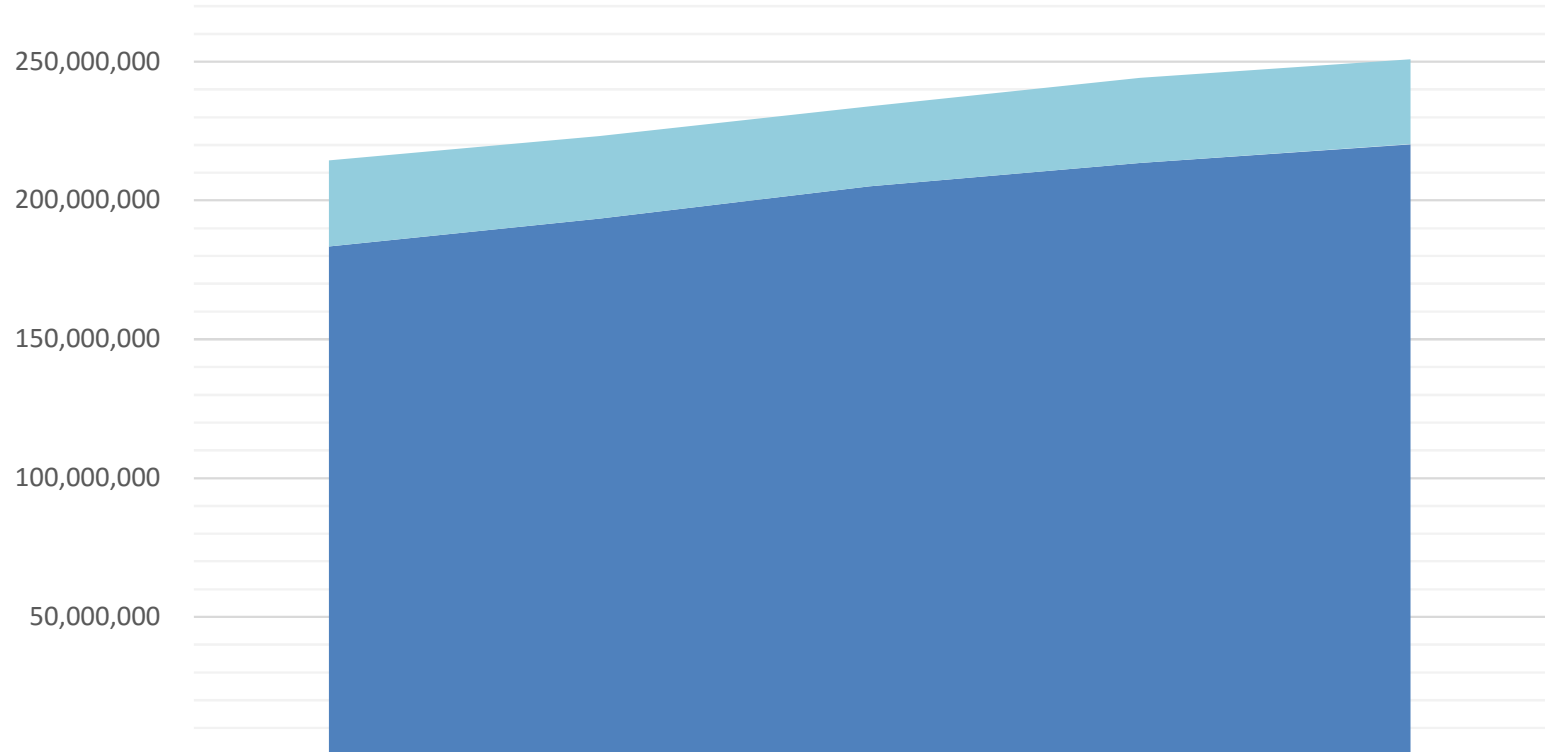
<sup>(1)</sup> Non-personnel equipment FY18-19	\$ 1,174,744
Rounding in CAFR	110
Amortization expense	(133,809)
As shown in Administrative Expenses	<b>\$ 1,041,045</b>

## FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM Total City Contributions & Covered Payroll



	FY 16-17	FY 17-18	FY 18-19	FY 19-20 (Forecast)	FY 20-21 (Proposed)
<span style="color: blue;">■</span> Total City Contributions	170,388,000	189,167,000	199,416,000	201,347,711	211,926,000
Total City Contribution % Change	6.5%	11.0%	5.4%	1.0%	5.3%
<span style="color: red;">■</span> Total Covered Payroll	285,595,469	290,504,000	298,824,000	308,702,000	322,709,000
Total Covered Payroll % Change	18.3%	1.7%	2.9%	3.3%	4.5%

## FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM Pension Benefits and Health Insurance



	FY 2017 - Actual	FY 2018 - Actual	FY 2019 - Actual	FY 2020 - Forecast	FY 2021 - Proposed
Total Benefits	214,437,000	223,124,000	233,892,000	244,145,345	250,806,000
Health Insurance % Change	4.8%	-4.1%	-3.0%	6.5%	-0.3%
Health Insurance	31,007,000	29,724,000	28,826,000	30,701,990	30,608,000
Pension Benefits % Change	5.8%	5.4%	6.0%	4.1%	3.2%
Pension Benefits	183,430,000	193,400,000	205,066,000	213,443,355	220,198,000

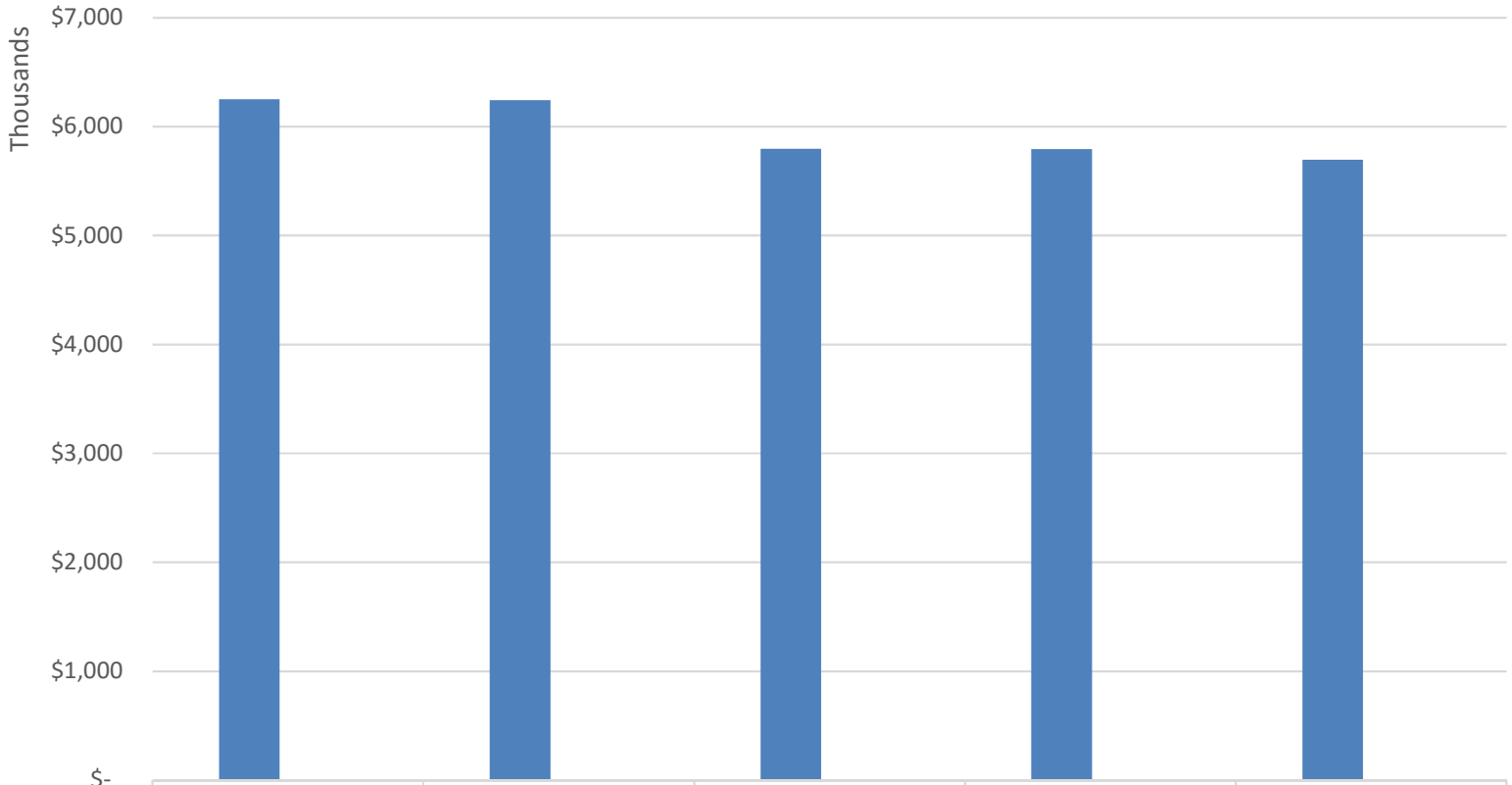
## FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM

### Administrative Expenses: FY 2020-2021

	(A) 2018-2019 Actual	(B) 2019-2020 Adopted	(C) 2019-2020 Forecast	(D) 2020-2021 Proposed	(A) to (B) Increase (Decrease)	(B) - (C) Increase (Decrease)	(C) - (D) Increase (Decrease)
<b>PERSONNEL SERVICES</b>							
Salaries and employee benefits	2,961,017	3,489,000	3,195,380	3,560,000	527,983	(293,620)	364,620
Total Personnel Services	2,961,017	3,489,000	3,195,380	3,560,000	527,983	(293,620)	364,620
<b>NON-PERSONNEL / EQUIPMENT</b>							
Investment analytics and research	399,297	569,000	409,811	435,000	169,703	(159,189)	25,189
Insurance	185,810	193,000	186,772	193,000	7,190	(6,228)	6,228
IT hardware / software	81,738	97,000	94,744	123,000	15,262	(2,256)	28,256
LRS - annual maintenance fee	49,476	110,000	45,540	48,000	60,524	(64,460)	2,460
Postage and printing	52,521	90,000	67,117	90,000	37,479	(22,883)	22,883
Rent	201,092	210,000	205,061	212,000	8,908	(4,939)	6,939
Training and travel	28,165	63,500	28,345	65,000	35,335	(35,155)	36,655
Office supplies and board meeting expense	15,589	30,000	17,053	30,000	14,411	(12,947)	12,947
Other non-personnel / equipment	27,357	45,500	28,304	50,000	18,143	(17,196)	21,696
Total Non-personnel / Equipment	1,041,045	1,408,000	1,082,747	1,246,000	366,955	(325,253)	163,253
<b>PROFESSIONAL SERVICES</b>							
Actuary	209,491	217,000	251,927	210,000	7,509	34,927	(41,927)
External auditor	101,343	80,000	55,427	83,000	(21,343)	(24,573)	27,573
Legal	183,156	295,000	197,439	282,000	111,844	(97,561)	84,561
Pension administration system	28,211	36,500	9,244	21,000	8,289	(27,256)	11,756
Temporary staffing agencies	185,687	44,000	70,922	77,000	(141,687)	26,922	6,078
Other professional services	45,363	89,500	52,232	79,000	44,137	(37,268)	26,768
Total Professional Services	753,251	762,000	637,191	752,000	8,749	(124,809)	114,809
<b>MEDICAL SERVICES</b>							
Independent medical examiners	21,950	66,000	27,098	54,000	44,050	(38,902)	26,902
Medical consultant	55,038	71,000	54,869	85,000	15,962	(16,131)	30,131
Total Medical Services	76,988	137,000	81,967	139,000	60,012	(55,033)	57,033
<b>TOTAL ADMINISTRATIVE EXPENSES</b>	<b>4,832,301</b>	<b>5,796,000</b>	<b>4,997,285</b>	<b>5,697,000</b>	<b>963,699</b>	<b>(798,715)</b>	<b>699,715</b>



### FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM Administrative Expense Budget



	FY 16-17	FY 17-18	FY 18-19	FY 19-20 (Adopted)	FY 20-21 (Proposed)
■ Admin Exp Budget*	\$6,251,200	\$6,244,800	\$5,799,000	\$5,796,000	\$5,697,000
% Change	9.4%	-0.1%	-7.1%	-0.1%	-1.7%

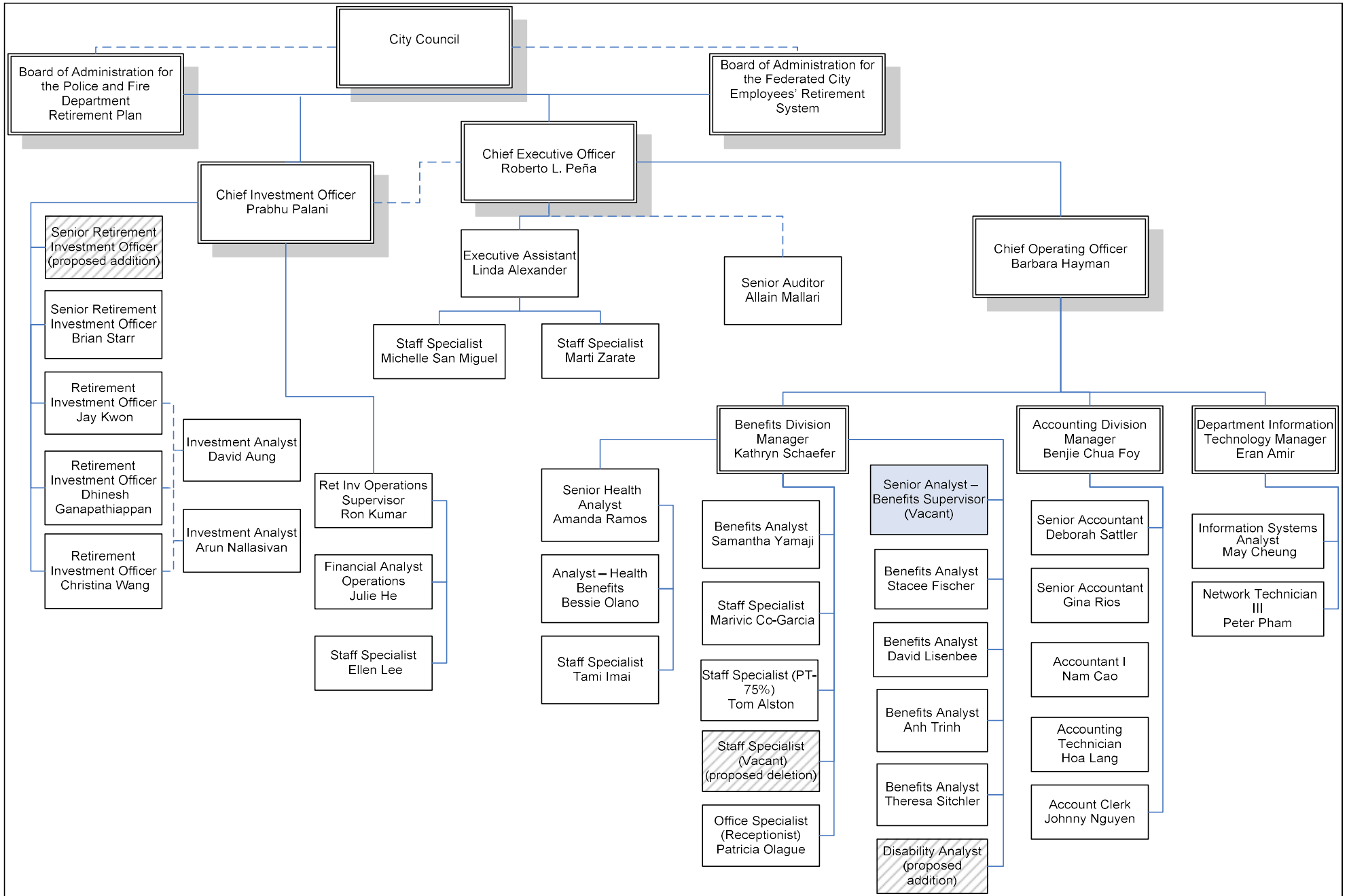
\* Amount includes budget for operations only.

**OFFICE OF RETIREMENT SERVICES**

**Departmental Position Detail**

<b>Position</b>	<b>2018-2019 Adopted (1)</b>	<b>2019-2020 Adopted (2)</b>	<b>2019-2020 Forecast (3)</b>	<b>2020-2021 Proposed (4)</b>	<b>Increase / (Decrease) (2 to 4)</b>	<b>Increase / (Decrease) (3 to 4)</b>	<b>Explanation</b>
Account Clerk II	1.00	1.00	1.00	1.00	-	-	
Accountant I	0.00	1.00	1.00	1.00	-	-	
Accounting Technician	1.00	1.00	1.00	1.00	-	-	
Analyst I/II	6.00	6.00	6.00	7.00	1.00	1.00	Add-delete staff specialist to a Disability Analyst
Assistant Director and Chief Investment Officer	1.00	1.00	1.00	1.00	-	-	
Department Information Technology Manager	1.00	1.00	1.00	1.00	-	-	
Deputy Director	1.00	1.00	1.00	1.00	-	-	
Director of Retirement Services	1.00	1.00	1.00	1.00	-	-	
Division Manager	2.00	2.00	2.00	2.00	-	-	
Executive Assistant	0.00	1.00	1.00	1.00	-	-	
Financial Analyst	1.00	1.00	1.00	1.00	-	-	
Investments Operations Supervisor	1.00	1.00	1.00	1.00	-	-	
Information Systems Analyst	2.00	2.00	2.00	1.00	(1.00)	(1.00)	Limited Date position expires June 30, 2020
Network Technician I/II/III	1.00	1.00	1.00	1.00	-	-	
Office Specialist II	1.00	1.00	1.00	1.00	-	-	
Retirement Investment Analyst I/II	2.00	2.00	2.00	2.00	-	-	
Retirement Investment Officer	3.00	3.00	3.00	3.00	-	-	
Senior Account Clerk	1.00	0.00	0.00	0.00	-	-	
Senior Accountant	2.00	2.00	2.00	2.00	-	-	
Senior Analyst	2.00	2.00	2.00	2.00	-	-	
Senior Auditor	1.00	1.00	1.00	1.00	-	-	
Senior Retirement Investment Officer	1.00	1.00	1.00	2.00	1.00	1.00	Proposed addition
Staff Specialist	7.00	6.00	6.00	5.00	(1.00)	(1.00)	Add-delete staff specialist to a Disability Analyst
Staff Specialist PT	0.75	0.75	0.75	0.75	-	-	
<b>Total Positions</b>	<b>39.75</b>	<b>39.75</b>	<b>39.75</b>	<b>39.75</b>	<b>0.00</b>	<b>0.00</b>	

**OFFICE OF RETIREMENT SERVICES  
PROPOSED ORGANIZATIONAL CHART  
FY 20-21**



# ATTACHMENT F



## Federated Annual Fee Report - 2018

## Executive Summary

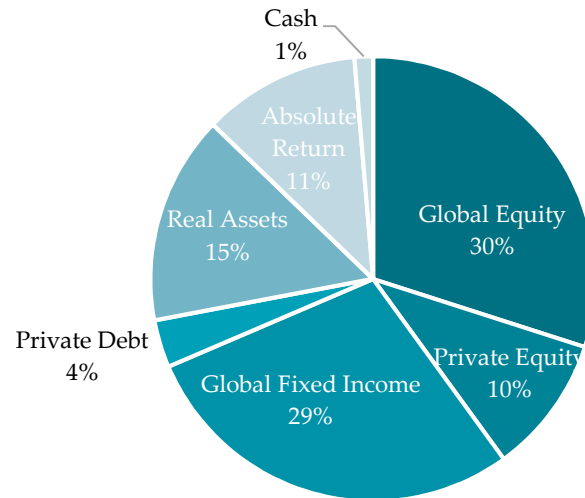
This report marks the fourth anniversary of our annual Fee Report for the Federated City Employees' Retirement System ("Federated", "Plan"). The goal of the report is to provide transparency and insight into the fees and expenses paid to investment managers along with the costs of operating the investment program. Pension plan fee data is generally underreported by peers, and typically represents only the portion of fees that are observable. This excludes often sizable embedded fees (such as incentive fees) that are deducted from account values of certain fund structures.

It is important to note that fees are a function of asset allocation and portfolio construction, which are byproducts of the Board's objectives, investment beliefs, and risk tolerance. Each year, the Board typically reviews the asset allocation considering updated capital market assumptions and the expected returns and volatility of the portfolio associated with those assumptions. The asset allocations in effect for the period covered by this report, as illustrated in tables 1 and 2.

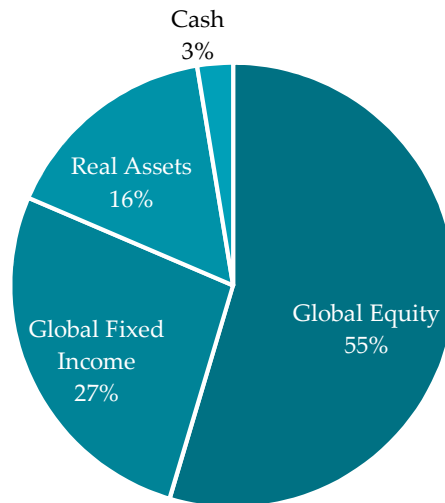
Asset allocation is typically one of the largest determinants of investment management fees at the portfolio level. Asset allocations that introduce alternative asset classes (Private Equity, Private Debt, Real Estate, Hedge Funds, etc.) will have higher levels of investment manager fees, because these asset classes or strategies have higher fee structures than traditional asset classes. In addition, asset class structuring can have a significant impact on fees. The use of active management versus passive management, as well as alternative strategies within traditional asset classes, will increase fees. When evaluating investment managers, staff places a significant emphasis on fees by negotiating for lower fees and analyzing that expected value or return is worth the expected cost.

**For calendar year 2018, management and incentive fees for the pension plan totaled \$22.2 million with a fee ratio of 1.02% as compared to \$24.2 million and 1.15% for 2017 and \$21.3 million and 1.07% for 2016. Fund operating expenses were \$3.2 million in 2018 for a fee ratio of 0.15% as compared to \$2.4 million and 0.11% for 2017. The health care trust management and incentive fees totaled \$0.9 million with a fee ratio of 0.29% as compared to \$0.7 million with a fee ratio of 0.32% in 2017 and \$0.6 million with a fee ratio of 0.36% in 2016. Other investment-related costs (staff, consultants, custodian bank, investment legal, etc.) for the pension plan in 2018 were \$2.0 million with a fee ratio of 0.09% as compared to \$1.9 million and 0.09% in 2017 and \$1.6 million and 0.08% in 2016. Other investment-related costs for the health care trust totaled \$0.2 million with a fee ratio of 0.08% as compared to \$0.2 million and 0.10% for 2017 and \$0.2 million and 0.12% for 2016.**

**Table 1 - Pension Average Asset Allocation for 2018**



**Table 2 - Health Care Trust Average Asset Allocation for 2018**



## Introduction

The fees in this report represent management fees, incentive fees, fund operating expenses, and other investment-related costs that were incurred during the calendar year. These amounts may include fees that were accrued for the year, but not paid out.

Management fees are fees charged by fund managers to invest and manage assets. Incentive fees are performance-based fees for exceeding a hurdle return and are only applicable to certain fund structures. It is important to note that incentive fees are a form of shared economics that are only paid if the manager has produced positive returns or exceeded a predetermined hurdle rate. In some situations, incentive fees can be negative, reflecting the complexity of fee agreements. Operating expenses include overhead related to managing a fund that are indirectly borne by investors, which may include professional, administration, research, tax, legal, custodial and audit expenses for a fund. Trading expenses such as broker commissions are excluded from this report. Other costs include salary and benefits compensation for investment staff (including a 50% allocation for the CEO), cost of consultants (general, absolute return, risk), custodian bank and other third party vendors utilized by the investment program, and investment staff travel.

Though best efforts have been made to capture all material fees and expenses, this report may not include all indirect expenses and charges that may be paid to managers' affiliates, consultants, or entities for services rendered to the managers, the funds or portfolio entities held by certain funds. Future iterations of this report will continue to grow in sophistication, benefiting from industry-wide initiatives to gain additional transparency, such as the increasing adoption of the Institutional Limited Partners Association ("ILPA") fee reporting template.

## Data Sources

Staff compiled this fee report using the best available information for each fund manager in order to develop a comprehensive view of fees. Fee amounts were reviewed for reasonableness and reconciled to fee schedules. Fees for all managers active at any point during the year are included in this report, including those that were initially funded or terminated mid-year.

Fees for mutual funds, short term investment funds (Cash), and certain public markets commingled funds that deduct fees directly from the funds were calculated by multiplying each funds' fee ratio by the funds' average monthly balance for the year. The average balances were sourced from the Plan custodian bank, State Street.

Absolute Return management and incentive fees were provided by managers with independent re-calculations and reconciliations completed by Plan consultant Albourne. Operating expenses were calculated by Albourne using audited financial statements for each fund. Fees for Private funds were gathered by asking managers to complete the ILPA fee reporting template. The ILPA template is intended to standardize and codify the presentation of fees, expenses, and carried interest information by fund managers to Limited Partners. The remaining manager fees were obtained by having the fund managers fill out a fee template designed by staff.

Within the Other Costs section, consultants, custodian banks, and other vendor costs were sourced from fee invoices from the vendors. Investment staff salary and benefits were allocated to each of the four San Jose plans by pro-rating the total costs by the average balance of each plan. Similarly, legal costs incurred by Federated were allocated between the pension plan and health care trust by pro-rating the total costs by the average monthly balance of each plan.

## Changes from 2017 Report

This year's report now breaks out yearly changes from four categories – weight changes, management fee ratio changes, incentive fee ratio changes and fund operating expense changes. The 2017 report attribution did not incorporate changes due to fund operating expenses as collection of the data only began in 2017.

## Total Portfolio Fee Summaries

The tables in this report present fees by asset class and management type. Fees by management type are presented by segregating investments into four “fund type” categories: passive, active, hedged, and private. Passive strategies are intended to generate a return that emulates an index. Active strategies include investment managers that attempt to outperform an index on a long only basis. Hedged strategies generally seek to achieve an absolute return (“alpha”) regardless of market direction (“beta”) by employing various strategies including long and short positions. Private strategies utilize a diverse set of approaches to invest in illiquid assets, such as equity of privately held companies or real estate.



## Year-over-Year Comparisons

The year-over-year comparison tables in this report present a time series of changes in average weights, fees, fee ratios, contribution to total plan fee ratios, and a year-over-year attribution. The year-over-year attribution uses the Brinson-Fachler methodology to decompose the change in contribution to total plan fee ratio into 1) impact due to weight changes, 2) impact due to management fee ratio changes, and 3) impact due to incentive fee ratio changes, and 4) impact due to fund operating expense ratio changes.

## California Government Code §7514.7 (AB 2833)

Assembly Bill 2833 (“AB 2833”) was approved on September 14, 2016 adding Section 7514.7 to California Government Code. The addition to the Code requires California public investment funds to make annual disclosures of fees for alternative investment vehicles at a public meeting.

Tables 15-18 of this report are intended to comply with the law.

*Note: Some values on the report may not sum due to rounding.*

**Table 3 - Pension Fees by Asset Class and Management Type**

Asset Class	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp	% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)									
Global Equity	3.3	0.6	0.2	4.0	4.2	650	30.0%	0.51%	0.10%	0.03%	0.61%	0.64%	16.5%	0.19%
Passive	0.2	-	0.0	0.2	0.2	273	12.6%	0.06%	0.00%	0.02%	0.06%	0.08%	0.9%	0.01%
Active	2.1	-	0.1	2.1	2.1	314	14.5%	0.66%	0.00%	0.02%	0.66%	0.68%	8.4%	0.10%
Hedged	1.1	0.6	0.1	1.7	1.8	64	2.9%	1.70%	1.02%	0.16%	2.71%	2.87%	7.2%	0.08%
Private Equity	2.3	1.1	0.7	3.4	4.2	218	10.0%	1.07%	0.50%	0.33%	1.58%	1.91%	16.4%	0.19%
Passive	0.1	-	0.0	0.1	0.1	149	6.9%	0.04%	0.00%	0.00%	0.04%	0.04%	0.2%	0.00%
Private	2.3	1.1	0.7	3.4	4.1	69	3.2%	3.29%	1.58%	1.04%	4.88%	5.92%	16.2%	0.19%
Global Fixed Income	1.5	0.2	0.1	1.7	1.8	620	28.6%	0.24%	0.03%	0.01%	0.27%	0.29%	7.0%	0.08%
Passive	0.2	-	0.0	0.2	0.2	427	19.7%	0.04%	0.00%	0.00%	0.04%	0.04%	0.6%	0.01%
Active	0.7	-	0.0	0.7	0.8	153	7.0%	0.48%	0.00%	0.03%	0.48%	0.51%	3.1%	0.04%
Hedged	0.6	0.2	0.0	0.8	0.8	40	1.8%	1.51%	0.52%	0.07%	2.03%	2.09%	3.3%	0.04%
Private Debt	0.9	0.2	0.5	1.1	1.6	75	3.5%	1.16%	0.31%	0.69%	1.47%	2.16%	6.4%	0.07%
Private	0.9	0.2	0.5	1.1	1.6	75	3.5%	1.16%	0.31%	0.69%	1.47%	2.16%	6.4%	0.07%
Real Assets	4.1	1.3	0.8	5.5	6.3	330	15.2%	1.25%	0.41%	0.25%	1.66%	1.91%	24.8%	0.29%
Passive	0.0	-	-	0.0	0.0	62	2.9%	0.07%	0.00%	0.00%	0.07%	0.07%	0.2%	0.00%
Active	0.2	-	0.1	0.2	0.3	62	2.9%	0.39%	0.00%	0.10%	0.39%	0.49%	1.2%	0.01%
Hedged	1.0	0.7	0.2	1.7	1.9	39	1.8%	2.59%	1.81%	0.57%	4.40%	4.97%	7.6%	0.09%
Private	2.8	0.6	0.5	3.5	4.0	167	7.7%	1.70%	0.38%	0.33%	2.09%	2.42%	15.9%	0.19%
Absolute Return	3.7	2.8	0.8	6.5	7.3	249	11.5%	1.48%	1.13%	0.33%	2.61%	2.94%	28.8%	0.34%
Hedged	3.7	2.8	0.8	6.5	7.3	249	11.5%	1.48%	1.13%	0.33%	2.61%	2.94%	28.8%	0.34%
Cash	0.0	-	-	0.0	0.0	29	1.3%	0.12%	0.00%	0.00%	0.12%	0.12%	0.1%	0.00%
Passive	0.0	-	-	0.0	0.0	29	1.3%	0.12%	0.00%	0.00%	0.12%	0.12%	0.1%	0.00%
<b>Total Plan</b>	<b>15.9</b>	<b>6.3</b>	<b>3.2</b>	<b>22.2</b>	<b>25.4</b>	<b>2,171</b>	<b>100.0%</b>	<b>0.73%</b>	<b>0.29%</b>	<b>0.15%</b>	<b>1.02%</b>	<b>1.17%</b>	<b>100.0%</b>	<b>1.17%</b>

The table above illustrates that management, incentive, and operating expenses for the pension plan totaled \$25.4 million for 2018 which equated to a total plan fee ratio of 1.17%. The Absolute Return and Real Asset asset classes contributed the most to the total plan fee ratio at 0.34% and 0.29%, respectively. The Private Debt and Global Fixed Income asset classes contributed the least to the total plan fee ratio at 0.07% and 0.08%, respectively.

**Table 4 - Pension Fees by Management Type**

Fund Type	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	Management and Incentive		Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp		Contribution to Total Plan Fee Ratio
				Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)							Plan Fee Ratio	to Total Plan Fee Ratio	
Passive	0.5	-	0.1	0.5	0.5	940	43.3%	0.05%	0.00%	0.01%	0.05%	0.05%	2.0%	0.02%
Active	3.1	-	0.2	3.1	3.2	529	24.4%	0.58%	0.00%	0.03%	0.58%	0.61%	12.7%	0.15%
Hedged	6.4	4.4	1.2	10.7	11.9	391	18.0%	1.63%	1.12%	0.30%	2.74%	3.04%	46.8%	0.55%
Private	6.0	2.0	1.8	8.0	9.8	311	14.3%	1.93%	0.63%	0.57%	2.56%	3.14%	38.4%	0.45%
Total Plan	15.9	6.3	3.2	22.2	25.4	2,171	100.0%	0.73%	0.29%	0.15%	1.02%	1.17%	100.0%	1.17%

For the total pension plan, hedged management strategies accounted for 0.55% of the total plan fee ratio and represented about 18% of average plan assets. Private management strategies were the next largest contributor to the total plan fee ratio accounting for 0.45% of the total plan fee ratio and represented 14% of average plan assets. Passive and active management strategies accounted for 0.02% and 0.15% of the total plan fee ratio and represented 43% and 24% of plan assets, respectively.

**Table 5 - Pension Other Investment Costs**

Investment Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
0.6	0.6	0.3	0.4	2.0	0.09%

Other investment costs for the pension plan equated to a total fee ratio of 0.09%. As previously discussed, other costs include salary and benefits compensation for investment staff, cost of consultants, custodian, third party vendors utilized by the investment program, and investment staff travel.

**Table 6 - Health Care Fees by Asset Class and Management Type**

Asset Class	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp	% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)									
Global Equity	0.46	-	0.01	0.46	0.47	161	54.6%	0.28%	0.00%	0.01%	0.28%	0.29%	49.4%	0.16%
Passive	0.05	-	0.01	0.05	0.06	122	41.3%	0.04%	0.00%	0.01%	0.04%	0.05%	6.6%	0.02%
Active	0.41	-	-	0.41	0.41	39	13.3%	1.04%	0.00%	0.00%	1.04%	1.04%	42.8%	0.14%
Global Fixed Income	0.02	-	0.01	0.02	0.03	79	26.8%	0.03%	0.00%	0.01%	0.03%	0.03%	2.9%	0.01%
Passive	0.02	-	0.01	0.02	0.03	79	26.8%	0.03%	0.00%	0.01%	0.03%	0.03%	2.9%	0.01%
Real Assets	0.33	0.05	0.06	0.38	0.45	47	16.0%	0.70%	0.11%	0.14%	0.81%	0.95%	46.7%	0.15%
Passive	0.01	-	-	0.01	0.01	12	4.0%	0.06%	0.00%	0.00%	0.06%	0.06%	0.7%	0.00%
Active	0.05	-	0.01	0.05	0.06	12	4.1%	0.39%	0.00%	0.11%	0.39%	0.51%	6.4%	0.02%
Hedged	0.08	0.05	0.02	0.13	0.14	3	1.0%	2.59%	1.81%	0.57%	4.40%	4.97%	15.1%	0.05%
Private	0.20	-	0.03	0.20	0.23	20	6.9%	0.98%	0.00%	0.17%	0.98%	1.15%	24.6%	0.08%
Cash	0.01	-	-	0.01	0.01	8	2.6%	0.12%	0.00%	0.00%	0.12%	0.12%	1.0%	0.00%
Passive	0.01	-	-	0.01	0.01	8	2.6%	0.12%	0.00%	0.00%	0.12%	0.12%	1.0%	0.00%
Total Plan	0.82	0.05	0.08	0.87	0.95	295	100.0%	0.28%	0.02%	0.03%	0.29%	0.32%	100.0%	0.32%

The table above illustrates that management, incentive, and operating expenses for the health care trust totaled \$1.0 million for 2018 which equated to a total plan fee ratio of 0.32%. The Global Equity asset class contributed the most to the total plan fee ratio at 0.16%. The Global Fixed Income asset class contributed the least to the total plan fee ratio at 0.01%.

**Table 7 - Health Care Fees by Management Type**

Fund Type	Management					Average Balance (\$ mm)	Average Weight	Fee Ratio - Management Fees	Fee Ratio - Incentive Fees	Fee Ratio - Operating Expenses	Fee Ratio - Mgmt and Incent Fees	Fee Ratio - Mgmt, Incent, and Op Exp	% of Total Plan Fee Ratio	Contribution to Total Plan Fee Ratio
	Management Fees (\$ mm)	Incentive Fees (\$ mm)	Operating Expenses (\$ mm)	and Incentive Fees (\$ mm)	Mgmt, Incent, and Op Exp (\$ mm)									
Passive	0.09	-	0.02	0.09	0.11	220	74.7%	0.04%	0.00%	0.01%	0.04%	0.05%	11.2%	0.04%
Active	0.46	-	0.01	0.46	0.47	51	17.4%	0.89%	0.00%	0.03%	0.89%	0.91%	49.2%	0.16%
Hedged	0.08	0.05	0.02	0.13	0.14	3	1.0%	2.59%	1.81%	0.57%	4.40%	4.97%	15.1%	0.05%
Private	0.20	-	0.03	0.20	0.23	20	6.9%	0.98%	0.00%	0.17%	0.98%	1.15%	24.6%	0.08%
Total Plan	0.82	0.05	0.08	0.87	0.95	295	100.0%	0.28%	0.02%	0.03%	0.29%	0.32%	100.0%	0.32%

For the total health care trust, active management strategies accounted for 0.16% of the total plan fee ratio and represented 17% of average plan assets. Passive strategies accounted for 0.04% of the total plan fee ratio and represented 75% of plan assets.

**Table 8 - Health Care Other Investment Costs**

<b>Investment Staff Salary and Benefits (\$ mm)</b>	<b>Consultants (\$ mm)</b>	<b>Custodian (\$ mm)</b>	<b>Other Vendors and Travel (\$ mm)</b>	<b>Total Other Costs (\$ mm)</b>	<b>Other Costs Fee Ratio</b>
0.08	0.05	0.05	0.03	0.22	0.08%

Other investment costs for the health care trust equated to a total fee ratio of 0.08%.

Table 9 - Pension Year-over-Year Comparison by Asset Class and Management Type

Asset Class	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution			
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio	Due to Opex
Global Equity	29.7%	30.0%	0.2%	4.1	3.3	-0.8	2.3	0.6	-1.6	0.2	0.2	0.0	6.6	4.2	-2.4	1.06%	0.64%	-0.42%	0.31%	0.19%	-0.12%	0.00%	-0.04%	-0.08%	0.00%
Passive	10.5%	12.6%	2.1%	0.1	0.2	0.1	-	-	-	0.0	0.0	0.0	0.1	0.2	0.1	0.07%	0.08%	0.01%	0.01%	0.01%	0.00%	-0.02%	0.00%	0.00%	0.00%
Active	14.9%	14.5%	-0.4%	2.2	2.1	-0.1	-	-	-	0.0	0.1	0.0	2.2	2.1	-0.1	0.71%	0.68%	-0.02%	0.10%	0.10%	-0.01%	0.00%	0.00%	0.00%	0.00%
Hedged	4.4%	2.9%	-1.5%	1.8	1.1	-0.8	2.3	0.6	-1.6	0.1	0.1	-0.0	4.3	1.8	-2.4	4.62%	2.87%	-1.75%	0.20%	0.08%	-0.12%	-0.05%	-0.01%	-0.04%	0.00%
Private Equity	2.8%	10.0%	7.2%	1.6	2.3	0.7	1.1	1.1	0.0	0.5	0.7	0.3	3.2	4.2	1.0	5.35%	1.91%	-3.44%	0.15%	0.19%	0.04%	0.29%	-0.17%	-0.13%	-0.05%
Passive	0.0%	6.9%	6.9%	-	0.1	0.1	-	-	-	-	0.0	0.0	-	0.1	0.1	0.00%	0.04%	0.04%	0.00%	0.00%	0.00%	-0.09%	0.00%	0.00%	0.00%
Private	2.8%	3.2%	0.4%	1.6	2.3	0.6	1.1	1.1	0.0	0.5	0.7	0.3	3.2	4.1	0.9	5.35%	5.92%	0.57%	0.15%	0.19%	0.04%	0.01%	0.02%	-0.01%	0.01%
Global Fixed Income	20.1%	28.6%	8.4%	1.3	1.5	0.2	0.6	0.2	-0.4	0.1	0.1	-0.0	2.0	1.8	-0.2	0.46%	0.29%	-0.18%	0.09%	0.08%	-0.01%	-0.07%	-0.02%	-0.03%	0.00%
Passive	12.5%	19.7%	7.2%	0.1	0.2	0.0	-	-	-	0.0	0.0	0.0	0.1	0.2	0.0	0.05%	0.04%	-0.01%	0.01%	0.01%	0.00%	-0.09%	0.00%	0.00%	0.00%
Active	5.6%	7.0%	1.4%	0.6	0.7	0.1	-	-	-	0.0	0.0	0.0	0.6	0.8	0.2	0.53%	0.51%	-0.01%	0.03%	0.04%	0.01%	-0.01%	0.00%	0.00%	0.00%
Hedged	2.0%	1.8%	-0.1%	0.6	0.6	0.0	0.6	0.2	-0.4	0.1	0.0	-0.0	1.2	0.8	-0.4	2.97%	2.09%	-0.87%	0.06%	0.04%	-0.02%	0.00%	0.00%	-0.02%	0.00%
Private Debt	3.8%	3.5%	-0.4%	1.0	0.9	-0.1	-0.8	0.2	1.0	0.1	0.5	0.4	0.4	1.6	1.3	0.45%	2.16%	1.72%	0.02%	0.07%	0.06%	0.00%	0.00%	0.04%	0.02%
Private	3.8%	3.5%	-0.4%	1.0	0.9	-0.1	-0.8	0.2	1.0	0.1	0.5	0.4	0.4	1.6	1.3	0.45%	2.16%	1.72%	0.02%	0.07%	0.06%	0.00%	0.00%	0.04%	0.02%
Real Assets	22.4%	15.2%	-7.2%	3.7	4.1	0.4	1.0	1.3	0.4	0.6	0.8	0.2	5.2	6.3	1.1	1.12%	1.91%	0.79%	0.25%	0.29%	0.04%	0.01%	0.07%	0.03%	0.02%
Passive	10.3%	2.9%	-7.5%	0.2	0.0	-0.1	-	-	-	-	-	-	0.2	0.0	-0.1	0.07%	0.07%	0.00%	0.01%	0.00%	-0.01%	0.09%	0.00%	0.00%	0.00%
Active	4.5%	2.9%	-1.6%	0.4	0.2	-0.1	-	-	-	0.1	0.1	-0.0	0.5	0.3	-0.2	0.49%	0.49%	0.00%	0.02%	0.01%	-0.01%	0.01%	0.00%	0.00%	0.00%
Hedged	1.7%	1.8%	0.1%	1.0	1.0	0.0	0.2	0.7	0.5	0.2	0.2	0.0	1.4	1.9	0.5	3.79%	4.97%	1.18%	0.07%	0.09%	0.02%	0.00%	0.00%	0.02%	0.00%
Private	5.8%	7.7%	1.9%	2.2	2.8	0.6	0.8	0.6	-0.1	0.3	0.5	0.3	3.3	4.0	0.8	2.67%	2.42%	-0.25%	0.15%	0.19%	0.03%	0.03%	-0.01%	-0.02%	0.01%
Absolute Return	13.0%	11.5%	-1.6%	4.3	3.7	-0.6	3.9	2.8	-1.1	0.9	0.8	-0.0	9.0	7.3	-1.7	3.29%	2.94%	-0.35%	0.43%	0.34%	-0.09%	-0.03%	-0.01%	-0.03%	0.00%
Hedged	13.0%	11.5%	-1.6%	4.3	3.7	-0.6	3.9	2.8	-1.1	0.9	0.8	-0.0	9.0	7.3	-1.7	3.29%	2.94%	-0.35%	0.43%	0.34%	-0.09%	-0.03%	-0.01%	-0.03%	0.00%
Cash	8.1%	1.3%	-6.8%	0.2	0.0	-0.2	-	-	-	-	-	-	0.2	0.0	-0.2	0.12%	0.12%	0.00%	0.01%	0.00%	-0.01%	0.08%	0.00%	0.00%	0.00%
Passive	8.1%	1.3%	-6.8%	0.2	0.0	-0.2	-	-	-	-	-	-	0.2	0.0	-0.2	0.12%	0.12%	0.00%	0.01%	0.00%	-0.01%	0.08%	0.00%	0.00%	0.00%
Total Plan	100.0%	100.0%	0.0%	16.2	15.9	-0.3	8.0	6.3	-1.7	2.4	3.2	0.8	26.6	25.4	-1.2	1.26%	1.17%	-0.09%	1.26%	1.17%	-0.09%	0.29%	-0.17%	-0.20%	-0.01%

Note: YoY attribution effects of fund types within assets classes may not sum to the asset class value

**Table 10 - Pension Year-over-Year Comparison by Management Type**

Type	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution			
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio	Due to Opex
Passive	41.4%	43.3%	1.9%	0.6	0.5	-0.1	-	-	-	0.0	0.1	0.0	0.6	0.5	-0.2	0.07%	0.05%	-0.02%	0.03%	0.02%	-0.01%	-0.02%	-0.01%	0.00%	0.00%
Active	25.0%	24.4%	-0.6%	3.1	3.1	-0.1	-	-	-	0.2	0.2	0.0	3.3	3.1	-0.2	0.63%	0.61%	-0.02%	0.16%	0.15%	-0.01%	0.00%	0.00%	0.00%	0.00%
Hedged	21.1%	18.0%	-3.1%	7.6	6.4	-1.3	7.0	4.4	-2.6	1.2	1.2	-0.1	15.9	10.7	-5.1	3.58%	3.04%	-0.54%	0.75%	0.55%	-0.21%	-0.07%	-0.02%	-0.08%	0.00%
Private	12.5%	14.3%	1.9%	4.9	6.0	1.1	1.0	2.0	0.9	0.9	1.8	0.9	6.8	8.0	1.2	2.60%	3.14%	0.54%	0.32%	0.45%	0.13%	0.02%	0.01%	0.03%	0.03%
<b>Total Plan</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>16.2</b>	<b>15.9</b>	<b>-0.3</b>	<b>8.0</b>	<b>6.3</b>	<b>-1.7</b>	<b>2.4</b>	<b>3.2</b>	<b>0.8</b>	<b>26.6</b>	<b>25.4</b>	<b>-1.2</b>	<b>1.26%</b>	<b>1.17%</b>	<b>-0.09%</b>	<b>1.26%</b>	<b>1.17%</b>	<b>-0.09%</b>	<b>-0.07%</b>	<b>-0.02%</b>	<b>-0.05%</b>	<b>0.04%</b>

**Table 11 - Pension Year-over-Year Comparison of Other Costs**

	Inv Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
2017	0.5	0.6	0.3	0.4	1.9	0.09%
2018	0.6	0.6	0.3	0.4	2.0	0.09%
Change	0.1	-0.0	0.1	-0.0	0.1	0.00%

Table 12 - Health Care Year-over-Year Comparison by Asset Class and Management Type

Asset Class	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio (Mgt/Incent/Opex)			Contrib to Total Plan Fee Ratio			YoY Attribution					
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio
Global Equity	38.9%	54.6%	15.7%	0.42	0.46	0.04	-	-	-	0.01	0.01	0.01	0.42	0.47	0.05	0.48%	0.29%	-0.18%	0.19%	0.16%	-0.03%	0.02%	-0.10%	0.00%	0.00%	0.00%	0.00%
Passive	22.5%	41.3%	18.8%	0.03	0.05	0.02	-	-	-	0.01	0.01	0.01	0.03	0.06	0.03	0.06%	0.05%	-0.01%	0.01%	0.02%	0.01%	-0.05%	0.00%	0.00%	0.00%	0.00%	
Active	16.5%	13.3%	-3.1%	0.39	0.41	0.02	-	-	-	-	-	-	0.39	0.41	0.02	1.04%	1.04%	0.00%	0.17%	0.14%	-0.03%	-0.02%	0.00%	0.00%	0.00%	0.00%	
Global Fixed Income	27.3%	26.8%	-0.5%	0.02	0.02	0.00	-	-	-	0.00	0.01	0.00	0.02	0.03	0.00	0.04%	0.03%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Passive	27.3%	26.8%	-0.5%	0.02	0.02	0.00	-	-	-	0.00	0.01	0.00	0.02	0.03	0.00	0.04%	0.03%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Real Assets	18.9%	16.0%	-2.9%	0.24	0.33	0.09	0.02	0.05	0.04	0.04	0.06	0.03	0.29	0.45	0.15	0.69%	0.95%	0.26%	0.13%	0.15%	0.02%	-0.01%	0.02%	0.01%	0.01%		
Passive	8.8%	4.0%	-4.8%	0.01	0.01	-0.01	-	-	-	-	-	-	0.01	0.01	-0.01	0.07%	0.06%	-0.02%	0.01%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%		
Active	4.1%	4.1%	0.0%	0.04	0.05	0.01	-	-	-	0.01	0.01	0.00	0.05	0.06	0.02	0.49%	0.51%	0.02%	0.02%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%		
Hedged	1.2%	1.0%	-0.2%	0.07	0.08	0.00	0.02	0.05	0.04	0.01	0.02	0.00	0.10	0.14	0.04	3.79%	4.97%	1.18%	0.05%	0.05%	0.00%	-0.01%	0.00%	0.01%	0.00%		
Private	4.8%	6.9%	2.1%	0.12	0.20	0.08	-	-	-	0.01	0.03	0.02	0.13	0.23	0.10	1.20%	1.15%	-0.05%	0.06%	0.08%	0.02%	0.02%	-0.01%	0.00%	0.00%		
Cash	14.9%	2.6%	-12.3%	0.04	0.01	-0.03	-	-	-	-	-	-	0.04	0.01	-0.03	0.12%	0.12%	0.00%	0.02%	0.00%	-0.01%	0.03%	0.00%	0.00%	0.00%		
Passive	14.9%	2.6%	-12.3%	0.04	0.01	-0.03	-	-	-	-	-	-	0.04	0.01	-0.03	0.12%	0.12%	0.00%	0.02%	0.00%	-0.01%	0.03%	0.00%	0.00%	0.00%		
Total Plan	100.0%	100.0%	0.0%	0.72	0.82	0.10	0.02	0.05	0.04	0.05	0.08	0.04	0.78	0.95	0.17	0.34%	0.32%	-0.02%	0.34%	0.32%	-0.02%	0.04%	-0.08%	0.01%	0.01%		

Note: YoY attribution effects of fund types within assets classes may not sum to the asset class value

Table 13 - Health Care Year-over-Year Comparison by Management Type

Type	Average Weight			Management Fees			Incentive Fees			Operating Expense			Total Fees (Mgt/Incent/Opex)			Fee Ratio			Contrib to Total Plan Fee Ratio			YoY Attribution					
	2017	2018	Change	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2018 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017 (\$ mm)	2018 (\$ mm)	Change (\$ mm)	2017	2018	Change	2017	2018	Change	2017	2018	Change	Due to Weight	Due to Mgmt Fee Ratio	Due to Incent Fee Ratio
Passive	73.4%	74.7%	1.2%	0.10	0.09	-0.01	-	-	-	0.01	0.02	0.01	0.11	0.11	-0.00	0.07%	0.05%	-0.02%	0.05%	0.04%	-0.01%	0.00%	-0.02%	0.00%	0.00%	0.00%	
Active	20.6%	17.4%	-3.1%	0.43	0.46	0.03	-	-	-	0.01	0.01	0.00	0.44	0.47	0.03	0.93%	0.91%	-0.02%	0.19%	0.16%	-0.03%	-0.02%	0.00%	0.00%	0.00%		
Hedged	1.2%	1.0%	-0.2%	0.07	0.08	0.00	0.02	0.05	0.04	0.01	0.02	0.00	0.10	0.14	0.04	3.79%	4.97%	1.18%	0.05%	0.05%	0.00%	-0.01%	0.00%	0.01%	0.00%		
Private	4.8%	6.9%	2.1%	0.12	0.20	0.08	-	-	-	0.01	0.03	0.02	0.13	0.23	0.10	1.20%	1.15%	-0.05%	0.06%	0.08%	0.02%	0.02%	-0.01%	0.00%	0.00%		
Total Plan	100.0%	100.0%	0.0%	0.72	0.82	0.10	0.02	0.05	0.04	0.05	0.08	0.04	0.78	0.95	0.17	0.34%	0.32%	-0.02%	0.34%	0.32%	-0.02%	-0.01%	-0.03%	0.01%	0.01%		

Table 14 - Health Care Year-over-Year Comparison of Other Costs

	Inv Staff Salary and Benefits (\$ mm)	Consultants (\$ mm)	Custodian (\$ mm)	Other Vendors and Travel (\$ mm)	Total Other Costs (\$ mm)	Other Costs Fee Ratio
2017	0.05	0.04	0.10	0.03	0.23	0.10%
2018	0.08	0.05	0.05	0.03	0.22	0.08%
Change	0.03	0.01	-0.05	0.00	-0.01	-0.03%



## Analysis of Pension Year-over-Year Changes by Asset Class

As presented in Table 9, the pension total plan fee ratio decreased by -9 bps from 1.26% in 2017 to 1.17% in 2018.

The largest drivers of the decrease from an asset class perspective were Global Fixed Income (-12 bps contribution), Global Equity (-12 bps contribution), and Absolute Return (-7 bps), partially offset by Real Assets (+13 bps) and Cash (+8 bps).

Asset class weight changes contributed +29 bps to the year-over-year change in total plan fee ratio. Private Equity was the largest contributor (+29bps) while Global Fixed Income was the largest detractor (-7bps).

Changes in management fee ratios detracted -17 bps to the year-over-year change in total plan fee ratio. The largest detractor was in Private Equity (-17 bps) which was partially offset by Real Assets (+7bps).

Changes in incentive fee ratios detracted -20 bps to the year-over-year change in total plan fee ratio. Private Equity (-13 bps), and Global Equity (-8 bps) were the largest detractors, partially offset by an increase in Private Debt (+4 bps) and Real Assets (+3 bps).

## Analysis of Pension Year-over-Year Changes by Management Type and Other Costs

As shown in the Table 10 contribution to total plan fee ratio change column, the largest driver of the -9 bps total plan fee ratio decrease was hedge funds (-17 bps change in contribution). The hedge fund decrease can be attributed to lower incentive fee ratios (-8 bps) as well as a smaller allocation in 2018 (-7bps).

As displayed in Table 11, **Other Costs** remained relatively constant (0.09%) in 2018.

## Analysis of Health Care Year-over-Year Changes by Asset Class, Management Type and Other Costs

As seen in Tables 12 and 13, the Health Care total plan fee ratio declined from 0.34% in 2017 to 0.32% in 2018 due to a reduction in weighting toward active funds (-2 bps) and reduction in management fee ratio for passive funds (-2 bp).

As displayed in Table 14, **Other Costs** decreased from 0.10% to 0.08% in 2018.

**Table 15 – California Government Code §7514.7 Disclosure, Private Equity**

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018 (\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Pathway Private Equity Fund VIII	2211 Michelson Drive, Ninth Floor Irvine, CA 92612	2004	40,000,000	39,713,457	5,051,203		5,051,203		6.8%	1.5	-	73,618	79,843	-	-	-	-	-
Pantheon Global Secondary Fund III 'B'	600 Montgomery Street, 23rd Floor San Francisco, CA 94111	2006	40,000,000	37,840,000	5,030,496	1,200,000	6,230,496		2.1%	1.1	-	234,801	11,798	-	-	-	-	-
Pantheon USA Fund VII	600 Montgomery Street, 23rd Floor San Francisco, CA 94111	2006	40,000,000	36,960,000	23,780,070	2,680,001	26,460,071	1,256,835	10.0%	1.7	-	243,000	6,718	-	-	23,388	-	-
Great Hill Equity Partners IV	One Liberty Square Boston, Massachusetts 02109	2008	5,000,000	4,983,750	3,460,060		3,460,060		24.1%	2.5	-	37,097	12,546	-	-	525,552	-	803,488
Partners Group Secondary 2008	1660 17th Street, Suite 201 Denver, CO 80202	2008	10,443,016	9,200,259	1,764,255		1,764,255		9.00%	1.5	-	70,649	13,128	-	-	7,924	-	29,329
Partners Group Secondary 2011, L.P.	1660 17th Street, Suite 201 Denver, CO 80202	2011	20,000,000	12,680,419	11,664,941		11,664,941		17.90%	1.7	-	225,000	(7,140)	-	-	55,480	-	-
SJFED Private Equity Strategic Partnership, L.P.	325 N. Saint Paul St., Ste. 4900 Dallas, TX 75201	2017	225,600,000	32,625,000	41,500,000		41,500,000		18.8%	1.1	-	1,262,957	171,076	-	-	485,170	-	-
Crestline Portfolio Financing	201 Main St, #1900 Fort Worth, TX 76102	2018	15,000,000	4,970,014	3,708,602	1,525,572	5,234,174		NM	1.1	-	27,149	2,430					
Innovation Endeavors III	1845 El Camino Real Palo Alto, CA 94306	2018	4,800,000	729,603	634,037	39	634,076		NM	0.9	-	112,533	19,294			-		

Source: Fund managers, Meketa Investment Group

**Table 16 – California Government Code §7514.7 Disclosure, Private Debt**

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018 (\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Octagon CLO Opportunity Fund III, L.P.	250 Park Ave., 15th Floor, New York, NY 10177, USA	2018	25,000,000	-	-	-	-	-	N/A	N/A	-	-	-	-	-	-	-	-
GSO SJ Partners	345 Park Avenue New York, NY 10154	2010	50,000,000	42,615,807	8,481,265	4,645,589	13,126,854	3,965,089	7.6%	1.3	-	183,215	87,764	-	-	15,535	-	-
Medley Opportunity Fund II, L.P.	280 Park Avenue, 6th Floor East New York, NY 10017	2010	50,000,000	51,718,681	25,063,110	2,581,655	27,644,765	2,581,655	3.7%	1.2	-	356,910	351,461	(51,134)	-	2,760	-	-
White Oak Direct Lending	3 Embarcadero Center, 5th Floor San Francisco, CA 94111	2010	50,000,000	88,171,628	10,847,682	7,570,661	18,418,343		2.1%	1.0	-	240,026	59,135	-	-	-	-	-
Cross Ocean USD ESS Fund II, L.P.	11 Charles II St. London, SW1Y4QU	2016	15,000,000	10,507,402	11,380,114	390,879	11,770,993		9.4%	1.1	-	91,589	69,906	-	-	121,522	-	-
Arrowmark Co-Investment	100 Fillmore Street, Suite 325, Denver, CO 80206	2017	5,000,000	5,000,000	5,152,555	489,889	5,642,444		12.92%	1.13	-	-	-	-	-	97,736	-	-

Source: Fund managers, Meketa Investment Group

Table 17 – California Government Code §7514.7 Disclosure, Private Real Assets

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018 (\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
European Property Investors Special Opportunities 5, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2018	12,600,000	-	-	-	-	-	N/A	N/A	-	-	-	-	-	-	-	
Lime Rock Partners VIII, L.P.	1111 Bagby St, Suite 4600 Houston, TX 77002	2018	3,200,000	1,809,115	1,639,911		1,639,911	-	NM	0.9	-	104,240	6,957	(2,118)	2,931			
Torchlight Debt Opportunity Fund VI, L.P.	280 Park Avenue New York, NY 10017	2018	30,000,000	2,309,115	1,680,099	470,535	2,150,634		NM	0.9	-	450,122	105,911					
DRA Growth and Income Fund V	220 East 42nd Street, 27th Floor New York, NY 10017	2005	20,000,000	30,475,996	-	161,140	161,140	161,140	5.3%	1.3	-	-	-	-	-	-	-	
DRA Growth and Income Fund VI	220 East 42nd Street, 27th Floor New York, NY 10017	2007	9,709,422	10,556,217	1,179,813	375,505	1,555,318	168,171	10.7%	1.7	-	12,682	1,198	-	-	(30,023)	41,891	
DRA Growth and Income Fund VII, LLC	220 East 42nd Street, 27th Floor New York, NY 10017	2011	15,000,000	16,209,101	8,591,663	5,228,476	13,820,139	3,485,492	20.7%	2.0	-	151,420	24,504	-	-	582,750	721,917	
DRA Growth and Income Fund VIII, LLC	220 East 42nd Street, 27th Floor New York, NY 10017	2014	15,000,000	17,799,668	12,487,076	2,908,198	15,395,274	1,567,412	11.6%	1.3	-	243,571	19,881	-	-	88,898	-	
European Property Investors Special Opportunities 4, L.P.	Berkeley Square House (8th Floor) Berkeley Square, London W1J6DB, UK	2015	14,306,285	10,300,964	11,085,601	20,044	11,105,645		10.7%	1.1	-	161,852	94,501	-	-	-	-	
DRA Growth and Income Fund IX, LLC	220 East 42nd Street, 27th Floor New York, NY 10017	2016	20,000,000	10,780,445	9,949,319	1,835,679	11,784,998	861,034	17.6%	1.2	-	208,418	44,472	-	-	-	-	
Global Infrastructure Partners III, L.P.	1345 Avenue of the Americas, 30th Floor, New York, NY 10105	2016	25,000,000	18,590,068	17,532,961	40,416	17,573,377	5,038	-1.0%	1.0	80,381	339,923	37,130	-	-	-	-	
GEM Realty Fund VI, L.P.	900 North Michigan Avenue #1450, Chicago, IL 60611	2017	10,000,000	1,150,000	592,442	600,000	1,192,442	252,300	6.2%	1.0	-	129,375	13,064	-	-	-	1,538	

Source: Fund managers, Meketa Investment Group

Table 18 – California Government Code §7514.7 Disclosure, Hedge Funds

Fund Name	Address	Vintage Year	Commitment Amount (\$)	Contributions Since Inception (\$)	Remaining Value (\$)	Distributions for Calendar year 2018 (\$)	2018 Distributions + Remaining Value of Partnership (\$)	Cash Profit Distributed for Calendar Year 2018 (\$)	Net IRR Since Incept (%)	Investment Multiple Since Incept	Fees and expenses paid directly to GP and related parties 2018 (\$)	Fees and expenses paid from the Fund to GP and related parties 2018 (\$)					Fees and expenses paid by all portfolio companies 2018 (\$)	Carried Interest Paid 2018 (\$)
												Management Fees	Partnership Expenses	Offsets	Other Expenses	Incentive/Carried Interest Allocation		
Claren Road Credit Master Fund Ltd	51 Astor Place, 12th Floor New York, NY 10003	N/A	N/A	50,000,000	-	243,190	243,190	N/A	0.27%	1.01	-	-	908	-	-	-	-	-
Davidson Kempner Institutional Partners, L.P.	520 Madison Avenue, 30th Floor New York, NY 10022	N/A	N/A	30,000,000	-	40,276,398	40,276,398	N/A	5.13%	1.34	-	600,854	26,022	-	-	207,034	-	207,034
DE Shaw Composite International Fund	1166 Avenue of the Americas, 9th Floor New York, NY 10036	N/A	N/A	30,000,000	40,168,443	403,534	40,571,978	N/A	10.64%	1.79	-	1,051,685	48,280	-	-	1,514,558	-	1,514,558
Dymon Asia Macro	1 Temasek Avenue #11-01 Millenia Tower, Singapore 039192	N/A	N/A	25,000,000	15,637,141	10,000,000	25,637,141	N/A	0.64%	1.02	-	364,044	29,922	-	-	-	-	-
Hudson Bay Cap Structure Arbitrage Enhanced Fund	777 Third Ave, 30th Floor, New York, NY 10017	N/A	N/A	30,000,000	24,915,410	7,200,000	32,115,410	N/A	4.76%	1.07	-	294,353	161,935	-	-	745,799	-	745,799
Kepos Alpha Fund	620 8th Ave., 44th Floor, New York, NY 10018	N/A	N/A	18,000,000	11,838,437	4,106,251	15,944,688	N/A	-2.20%	0.88	-	201,003	37,163	-	-	-	-	-
Keynes Leveraged Quantitative Strategies Fund	9th Floor Orion House, 5 Upper St Martin's Lane London WC2H 9EA	N/A	N/A	20,000,000	9,596,425	10,000,000	19,596,425	N/A	-0.13%	1.00	-	132,269	52,884	-	-	-	-	-
Man AHL Evolution Frontier	100 St. Paul Street, Suite 800, Denver, CO 80206	N/A	N/A	13,000,000	10,339,709	4,500,000	14,839,709	N/A	5.64%	1.15	-	299,395	136,202	-	-	-	-	-
MW Eureka Fund Ltd	350 Park Avenue, 18th Floor New York, NY 10022	N/A	N/A	25,000,000	21,716,087	-	21,716,087	N/A	6.71%	1.36	-	457,416	13,655	-	-	319,174	-	467,444
Pharo Macro Fund, Ltd	1370 Avenue of the Americas, 26th Floor New York, NY 10019	N/A	N/A	30,000,000	32,955,885	-	32,955,885	N/A	9.31%	1.28	-	671,782	33,133	-	-	173,597	-	173,597
Pine River Fund Ltd	580 California Street, San Francisco, CA 94104	N/A	N/A	30,000,000	6,540,230	4,362,882	2,148,541	N/A	1.63%	1.10	-	27,435	37,067	-	-	-	-	-
Pine River Volatility Arbitrage Fund	580 California Street, San Francisco, CA 94104	N/A	N/A	25,000,000	23,994,848	-	23,994,848	N/A	-2.31%	0.96	-	121,386	9,868	-	-	-	-	-
Pinnacle Natural Resources Fund (Federated Pension investment)	712 Fifth Avenue, 29th Floor New York, NY 10019	N/A	N/A	40,000,000	-	37,341,496	37,341,496	N/A	-0.77%	0.98	-	1,000,944	219,908	-	-	698,303	-	220,957
Pinnacle Natural Resources Fund (Federated Health Care investment)	712 Fifth Avenue, 29th Floor New York, NY 10019	N/A	N/A	3,000,000	-	2,800,612	2,800,612	N/A	-0.77%	0.98	-	75,071	16,493	-	-	52,373	-	16,572
Sandler Plus Fund	711 5th Ave #15, New York, NY 10022	N/A	N/A	20,000,000	19,850,041	-	19,850,041	N/A	8.52%	1.59	-	378,130	64,871	-	-	397,017	-	397,017
Senator Global Opportunity Offshore Fund Ltd	510 Madison Ave # 28, New York, NY 10022	N/A	N/A	31,200,000	18,766,874	4,890,250	23,657,124	N/A	4.34%	1.28	-	242,936	23,951	-	-	-	-	47,323
Systematica Alternative Markets Master Fund	650 Fifth Ave New York, NY 10019	N/A	N/A	5,000,000	1,911,729	3,500,000	5,411,729	N/A	6.87%	1.10	-	95,368	9,622	-	-	-	-	-
Systematica Trend Following Fund	650 Fifth Ave New York, NY 10019	N/A	N/A	20,000,000	6,984,678	13,000,000	19,984,678	N/A	1.60%	1.02	-	89,920	104,517	-	-	-	-	-
Tempo Volatility Fund	1 Greenwich Plaza, Greenwich, CT 06830	N/A	N/A	20,000,000	14,177,145	8,700,000	22,877,145	N/A	6.11%	1.14	-	330,721	165,121	-	-	372,076	-	372,076

Source: Fund managers, Albourne, State Street, ORS

# Police & Fire Proposed Administrative Budget for FY 2020–2021 – ADJUSTED

## ATTACHMENT G

The following is a comparison of previous fiscal year actual figures, current year adopted budget and forecast, and proposed next year budget:

Expenses	2018– 2019 Actual (A)	2019– 2020 Adopted (B)	2019– 2020 Forecast (C)	2020–2021 Proposed <sup>(1)</sup> (D)	% Increase (Decrease) (B to D)	% Increase (Decrease) (C to D)
Personnel Services	\$3,334,302	\$3,898,000	\$3,608,216	\$3,790,000	(2.77%)	5.04%
Non–Personnel / Equipment	1,026,381	1,408,000	1,068,509	1,225,000	(13.00%)	14.65%
Professional Services	819,987	845,000	684,946	811,000	(4.02%)	18.40%
Medical Services	180,789	218,000	142,639	218,000	0.00%	52.83%
Total	\$5,361,459	\$6,369,000	\$5,504,310	\$6,044,000	(5.10%)	9.80%

<sup>(1)</sup> – Detail for changes provided in the following slides

# Federated Proposed Administrative Budget for FY 2020–2021 – ADJUSTED

## ATTACHMENT H

The following is a comparison of previous fiscal year actual figures, current year adopted budget and forecast, and proposed next year budget:

Expenses	2018– 2019 Actual (A)	2019– 2020 Adopted (B)	2019– 2020 Forecast (C)	2020–2021 Proposed <sup>(1)</sup> (D)	% Increase (Decrease) (B to D)	% Increase (Decrease) (C to D)
Personnel Services	\$2,961,017	\$3,489,000	\$3,195,380	<b>\$3,357,000</b>	(3.78%)	5.06%
Non–Personnel / Equipment	1,041,045	1,408,000	1,082,747	<b>1,221,000</b>	(13.28%)	12.77%
Professional Services	753,251	762,000	637,191	752,000	(1.31%)	18.02%
Medical Services	76,988	137,000	81,967	<b>100,000</b>	(27.01%)	22.00%
Total	\$4,832,301	\$5,796,000	\$4,997,285	<b>\$5,430,000</b>	(6.31)%	8.66%

<sup>(1)</sup> – Detail for changes provided in the following slides