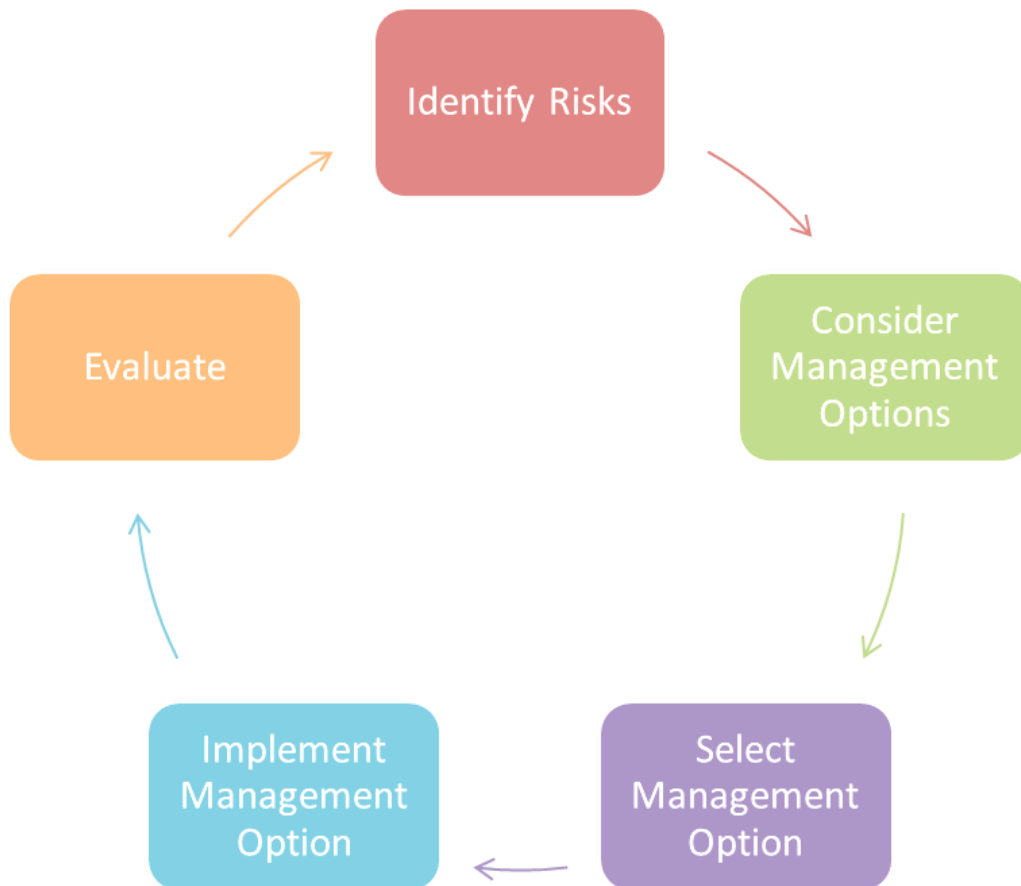


CITY OF OAKLAND

WORKERS' COMPENSATION ANNUAL REPORT FY 2018-19



Human Resources Management, Risk Division
150 Frank H. Ogawa Plaza, Suite 3332, Oakland, CA 94612
Phone: 510-238-7660

Oakland's Workers' Compensation program falls under the City's Human Resources Management Department. The program resides in the Risk Division, is managed by the Risk Manager, and is administered by a contracted third party.

This report summarizes Oakland's Workers' Compensation Program for Fiscal Year 2018-19. It presents key program metrics along with comparisons between departments, previous years, and other cities.



CITY OF OAKLAND

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Prior Claims (January 1, 1953—Jun 30, 2018):	1181
New Claims during 18-19:	552
Claims closed during 18-19:	796
Total Open Claims as of June 30, 2019:	1098
Total Expenses for 18-19	\$20,401,245
Est. Outstanding Losses @ 50% Conf. as of June 30, 2019 (AON)	\$81,399,970
Est. Outstanding Losses (PDV)	\$69,784,661
2018/19 Final EWC Premium	\$1,859,311
TPA Annual Performance Audit (JT2)	92.20%



CITY OF OAKLAND

TOTAL COST SUMMARY

ANNUAL REPORT FISCAL YEAR 2018-19

The total cost of the Workers’ Compensation Program for Fiscal Year 2018-19:

Settlements: Permanent Disability:	\$4,618,359	Medical WC Disability Medical First Aid Only Claims Total Medical:	\$8,525,914 \$21,413 \$8,547,327
Temporary Disability Non-4850 Temporary Disability MOU Benefit (non-sworn) Total Non-4850 Pay 4850 Oakland Police Dept. Oakland Fire Dept. Total 4850 Pay Subtotal—Temp. Disability Total Disability Payments:	\$1,185,648 \$259,599 \$1,445,247 \$1,914,332 \$1,776,113 \$3,690,445 \$5,135,692 \$9,754,051	Operational Expenses Sub-total Contributions—Excess Ins. Total Operational Expenses:	20,047,424 (\$2,025,832) \$18,021,592
Other Claim Cost Rehabilitation Investigation Expenses Legal Utilization Review Return to Work Services Injury Report Line 10% Penalties Other Claim Cost Total:	\$74,577 \$71,594 \$934,164 \$438,406 \$182,051 \$40,489 \$4,784 \$1,746,046	Administration Expenses TPA Contract Bill Review Misc. Fees Total Administration Expenses:	\$1,839,550 \$540,103 \$0.00 \$2,379,653

Total Operational Expenses + Admin Expense = **\$20,401,245**

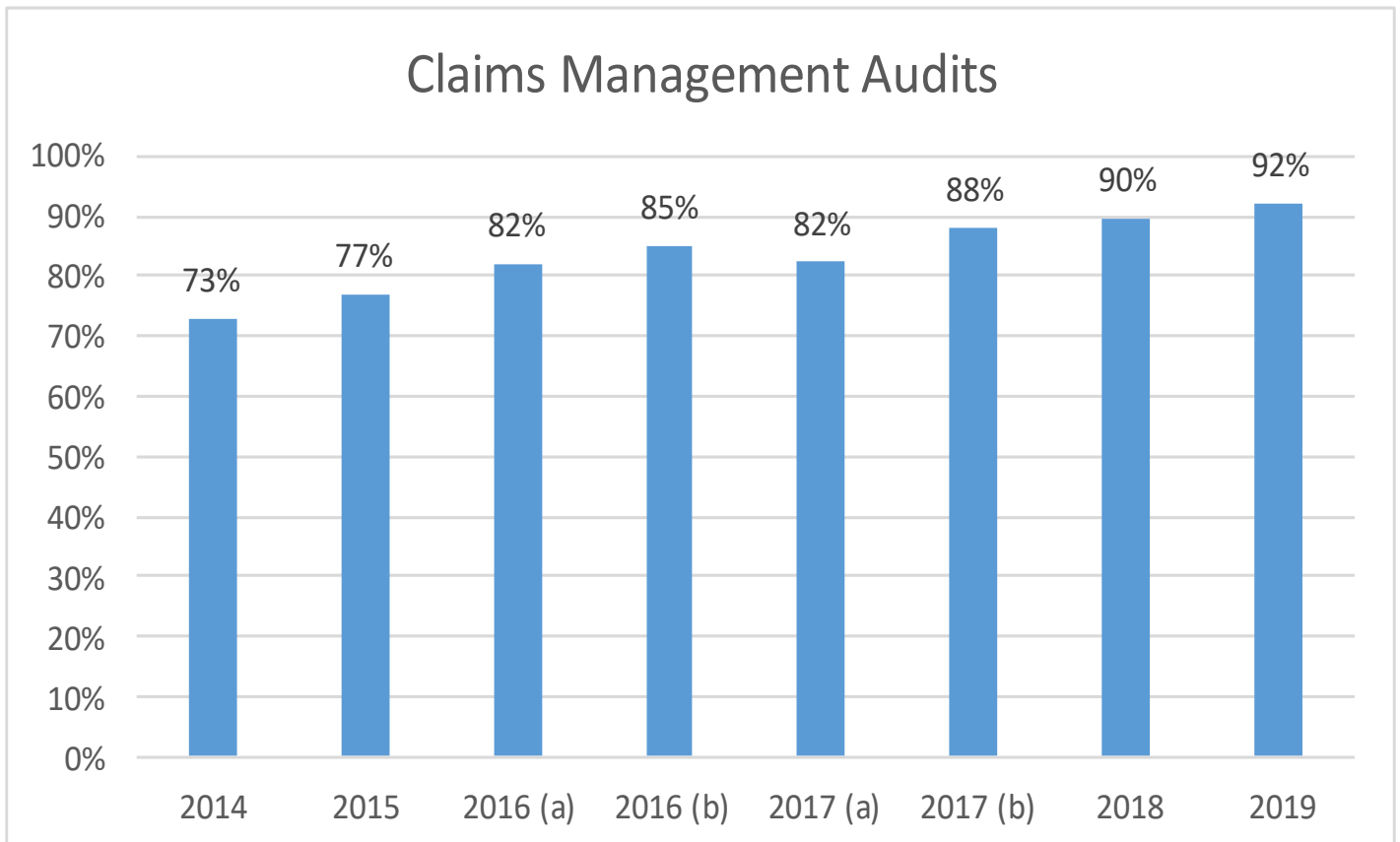


The purpose of a Third Party Administrator (TPA) is to manage the City’s workers’ compensation program by complying with the requirements of the California Division of Industrial Relations (DIR) and Division of Workers’ Compensation (DWC).

The success of the City’s Self-Insured Workers’ Compensation program relies heavily on a successful partnership with the City’s TPA. Since 2001, the City has partnered with JT2 Integrated Resources. JT2’s performance has been measured by regular audit, against a performance standard established by CSAC-EIA.

The City has instituted a number of different analytical tools to assess the performance of the TPA, including annual Claims Audits, annual Actuarial Reviews, quarterly Financial Reviews, quarterly Fraud Status Updates, and intermittent miscellaneous reviews, such as Fraud Program review and Contract Compliance Assessments. In the past year, the City commissioned a number of these tools, including Actuarial Assessment, Fraud Assessment, and a Claims Audit. The results of these assessment efforts are found in Appendices C - E. The overall score for claims audits over time follows.

Exhibit 5-A



Performance Strengths

Outstanding results were achieved in the categories of adjuster caseload, payments on correct claims, initial reserve for probable value, initial reserve timely, medical bills paid timely, penalties coded correctly, apportionment pursued appropriately, proactive return to work efforts, member noticed of permanent work restrictions, TD/4850 reserves separate, permanent disability exposure includes life pension, settlement valuation, Medicare’s interest protected, EIA settlement authority requested, member settlement authority requested, litigation management, periodic contact with the third party, subrogation pursued for maximum recovery, approval to accept/waive/settle subrogation, timely initial excess reporting, timely subsequent excess reporting and timely excess reimbursement requests.

Performance Improvement Recommendations

When the initial TD benefit is triggered an automatic 30-day diary should be set to maintain employee contact while the employee is off work. Likewise, when surgery is approved a diary should be set to secure the surgery date so that contact can be made within three business days of the procedure.

We recommend questioning the injured employees regarding prior injuries and existing conditions during the initial contact to determine if apportionment is viable. A POA template that requires the adjuster to address apportionment and review the index report would prompt the adjuster to document the viability of apportionment.

Category	Points Available	Points	Score	%
Claim Handling - Administrative	1380	1252	Exceeds Expectations	90.72%
Caseload	1	1	Exceeds Expectations	100.00%
Case Review and Documentation	1207	1089	Exceeds Expectations	90.22%
Communication	8	5	Unsatisfactory	62.50%
Fiscal Handling	74	70	Exceeds Expectations	94.59%
Claim Creation	42	39	Exceeds Expectations	92.86%
Reserves	48	48	Exceeds Expectations	100.00%
Claims Handling - Technical	517	497	Exceeds Expectations	96.13%
Payments	90	90	Exceeds Expectations	100.00%
Apportionment	20	16	Meets Expectations	80.00%
Disability Management	8	8	Exceeds Expectations	100.00%
Reserving	296	284	Exceeds Expectations	95.95%
Resolution of Claim	38	34	Meets Expectations	89.47%
Settlement Authority	22	22	Exceeds Expectations	100.00%
Litigated Cases	31	31	Exceeds Expectations	100.00%
Subrogation	5	5	Exceeds Expectations	100.00%
Excess Coverage	7	7	Exceeds Expectations	100.00%
Overall Score	1897	1749	Exceeds Expectations	92.20%

In addition to the Claims Management Audits, other data is collected to monitor claims administration performance. Two examples are Closing Ratio and Fraud Investigation.

Closing Ratio: The ratio of claims closed over claims opened during a specific period of time. A Closing Ratio value of greater than one is desirable because it indicates that more claims are being closed than opened, reducing the City’s total number of open claims.

Claims Productivity Ratio by Fiscal Year			Exhibit 7-A
Fiscal Year	# Claims Closed	# Claims Opened	Closing Ratio
FY13-14	645	640	101%
FY14-15	508	563	90%
FY15-16	717	593	121%
FY16-17	634	569	111%
FY17-18	636	515	123%
FY18-19	796	552	144%

Fraud Investigations have 3 parts:

1. Surveillance (observation of individual without contact with the subject).
2. Field Investigations (progression of surveillance, and taking statements from the subject & others).
3. Fraud Referral (the case meets the standard for fraud set by the District Attorney).

Fraud Investigation Activity

Indemnity Claims Filed FY2018-19	Surveillance	Field Investigation	Fraud Referral (FD-1) Submission	Background Checks	Denied Claims
434	7	49	0	23	63

Exhibit 7-B

An Agreed Medical Examination (AME) is a tool approved by the State of California as a method of seeking third opinion resolutions on disputed medical cases. This typically occurs when an employee’s treating physician and the employer’s physician disagree on the severity of injury and degree of disability caused by the injury. When such disagreement exists, either party (employee or employer) has the option to invoke an AME. However, both parties must agree to the need for the exam. Additionally, the State of California requires that the injured worker have legal representation to qualify for an AME. If the employee does not have legal counsel, the City cannot require the employee to participate in the AME process.

The physician selection process is managed by the State of California. When a request for an QME is received, the State provides a “panel list” of physicians to the parties from which to select. The State of California establishes the panel. Typically it takes several months for an Examination appointment due to the number of State-wide Workers’ Compensation cases that are in dispute.

The City of Oakland relies heavily on AMEs to bring resolution to Workers’ Compensation cases. The exhibit below illustrates the number of AME and Qualified Medical Examination processes that have been utilized for Fiscal Year 2014-15 through Fiscal Year 2018-19. In addition, this exhibit reflects the number of cases settled on the basis of the opinion of the employee’s Primary Treating Physician (PTP).

Medical Legal Statistics by Fiscal Year					Exhibit 8-A
Fiscal Year	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Number of Claims Settled	114	128	163	182	89
Agreed Medical Examiner	74	90	130	121	37
PTP (Primary Treating Physician)	25	25	15	24	12
Panel QME (Employee Unrepresented by Attorney)	6	3	0	0	0
QME (Employee Represented by Attorney)	6	12	18	37	39
Other	3	0	0	0	1



Ongoing

- Monthly disability review meetings with department representatives to discuss active claims and identify cases for investigation and/or transitional duty assignments.
- Telephonic injury reporting to triage Workers' Compensation claims reporting.
- Participation in Medical Provider Network (MPN) through WellComp, a MPN sponsored by CSAC-EIA.
- Ongoing examination of City's disability programs
- Continuing education

New Initiatives

- Oakland Police Officer Association - Alternative Dispute Resolution Carve-Out
 - Approved by the DIR on December 9, 2019
 - Official Start Date January 11, 2020 @ 0700
 - Intended to improved customer service and reduce cost
- Shift in settlement philosophy
 - Intended to address future liabilities
 - Working closely with Finance to balance annual cost vs. outstanding loss



As a form of Risk Transfer, the City purchases Excess Workers' Compensation (EWC) coverage through CSAC-EIA. The EWC Program provides bodily injury coverage for employees if they are injured on the job. Coverage includes reimbursement for payments above the City's Self Insured Retention of \$750,000. Covered expenses include compensation for loss of earnings at statutory rates, medical benefits, and some allocated expenses.

The EWC Program provides the following special coverage features:

- Volunteers included (subject to resolution by employer prior to injury)
- Defense costs included within SIR and limit
- No terrorism exclusion
- Other states coverage (while in course and scope)
- EIA staff will coordinate a claims audit every 2 years
- 182 Members covering \$31B in total payroll.

2018/19 Final EWC Premium: \$1,859,311

EWC Insurance Retention Review

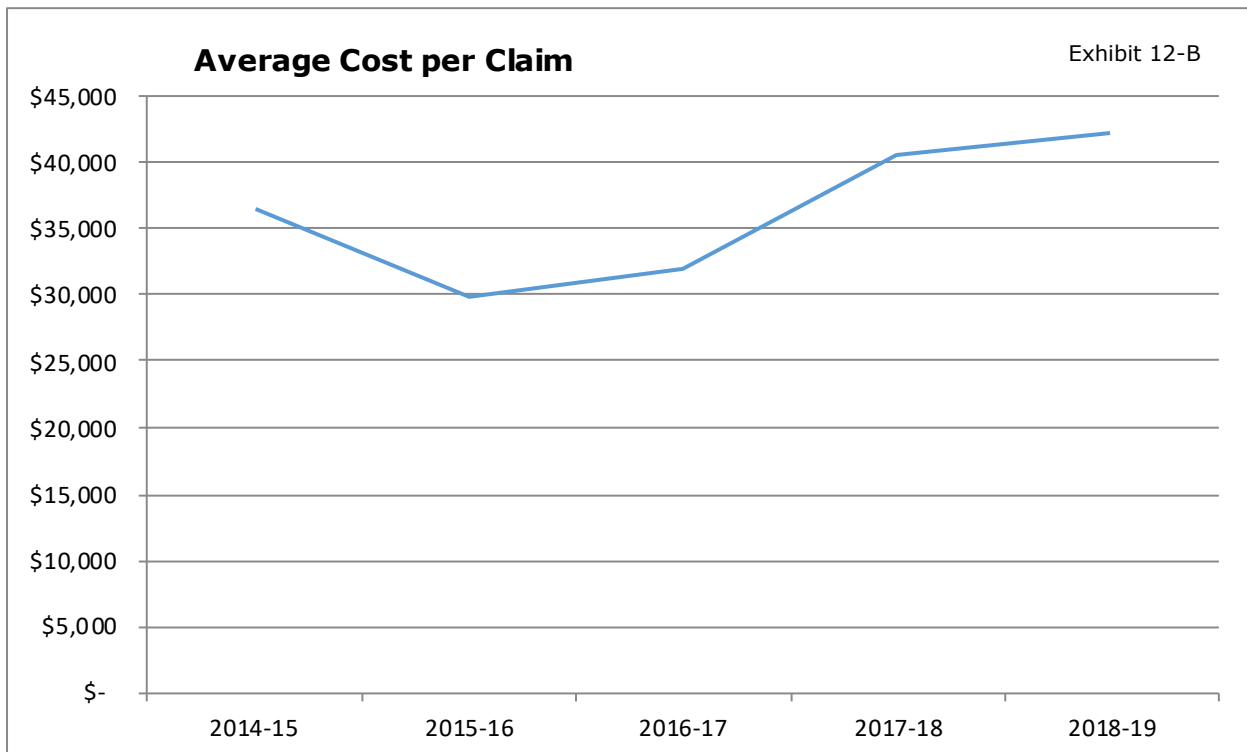
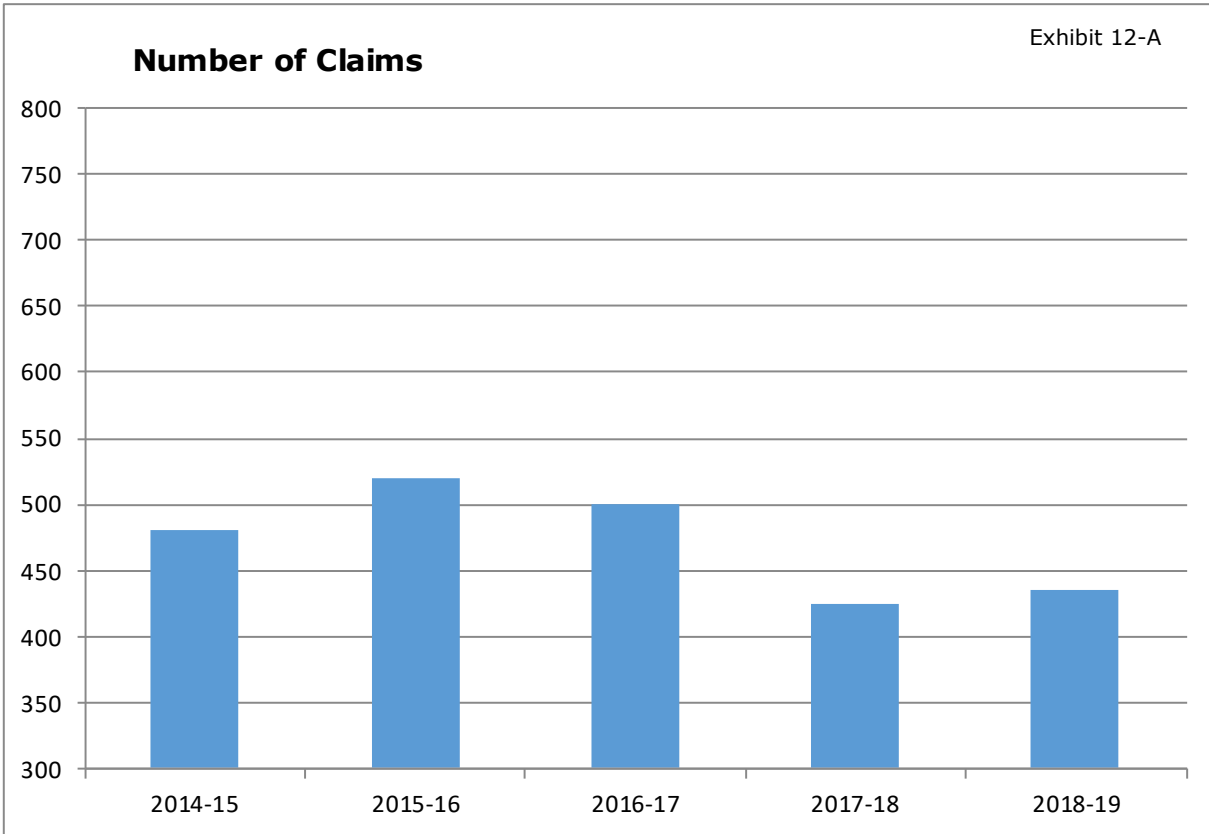
Each year the City reviews it's EWC coverage and other possible placements before re-newing with CSAC-EIA. As in previous years, CSAC-EIA continues to be the City's most cost efficient partner.

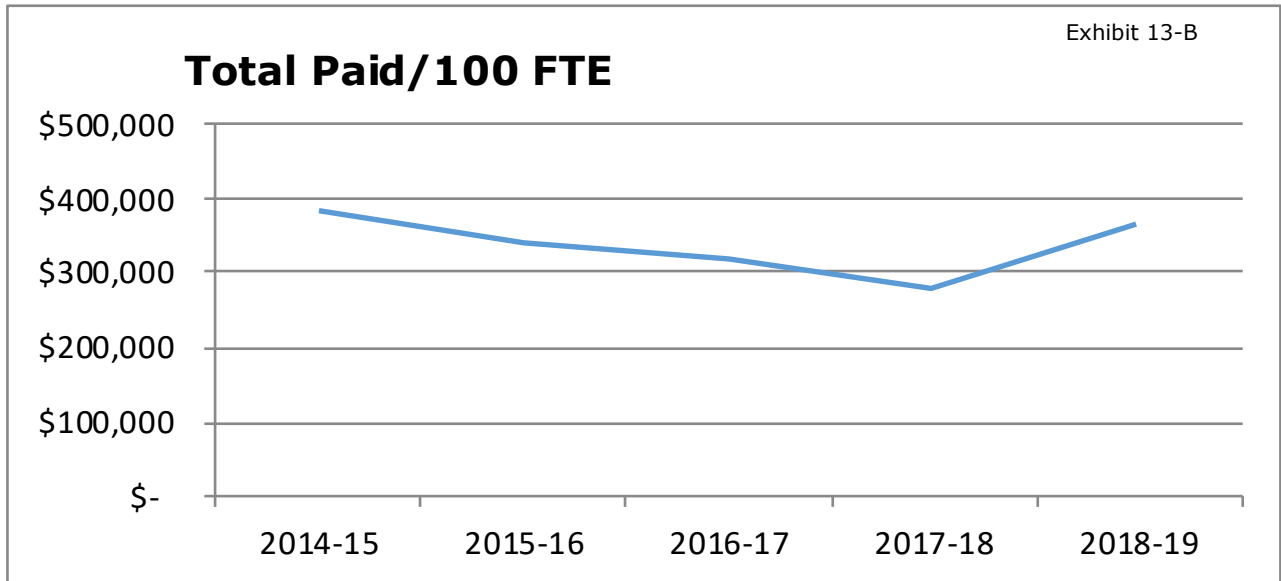
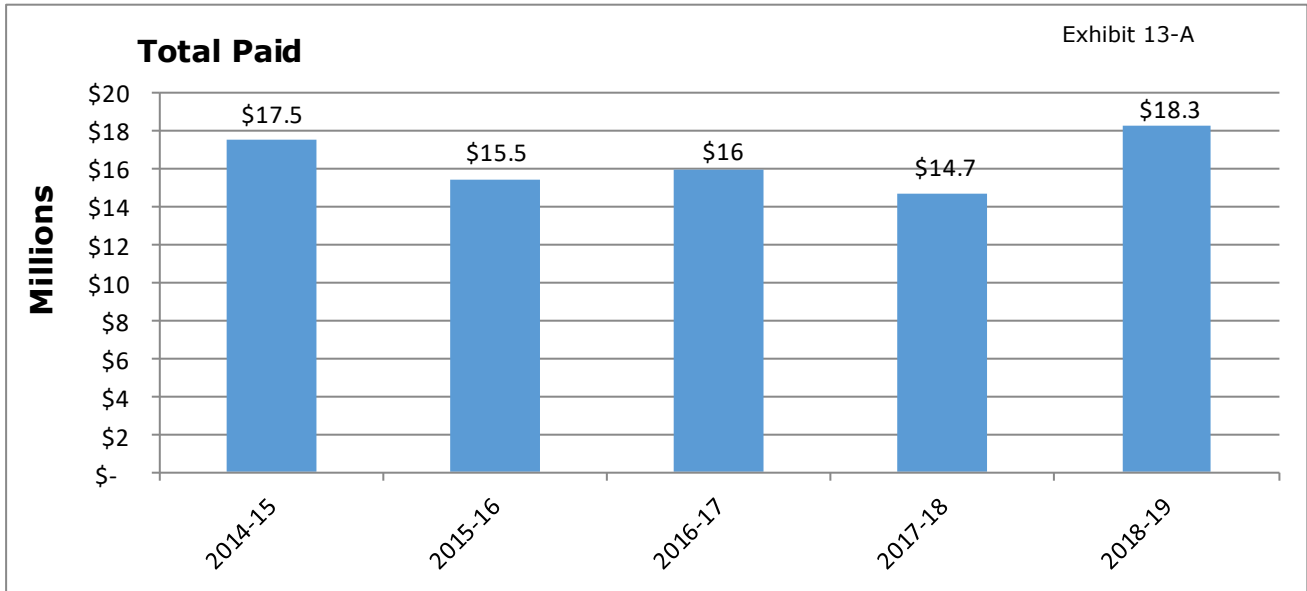
The City's position was notably difficult this year do to a large loss early in the fiscal year. This loss will continue to effect the City's program for the foreseeable future.

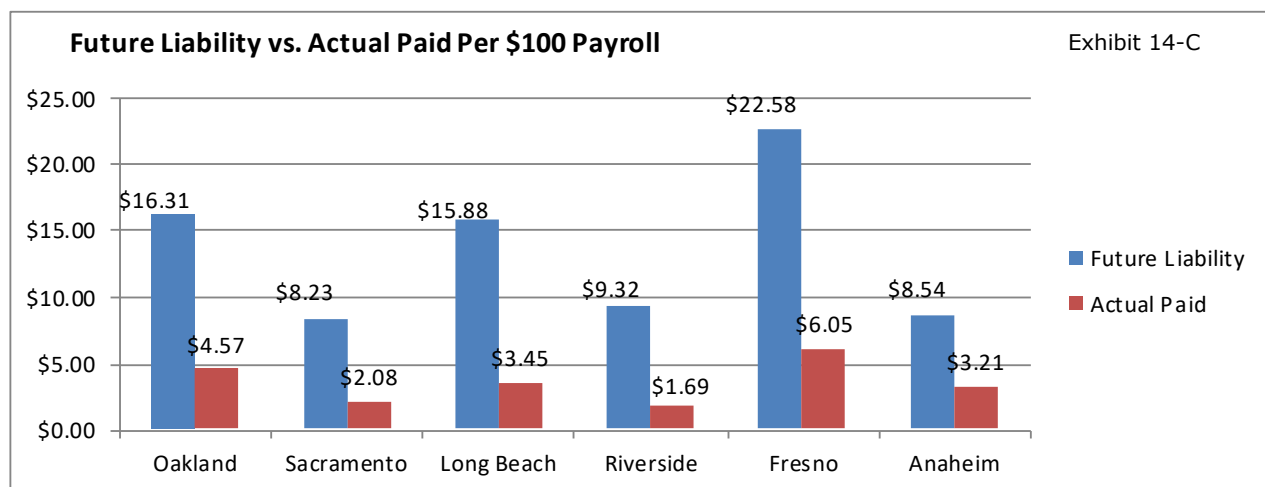
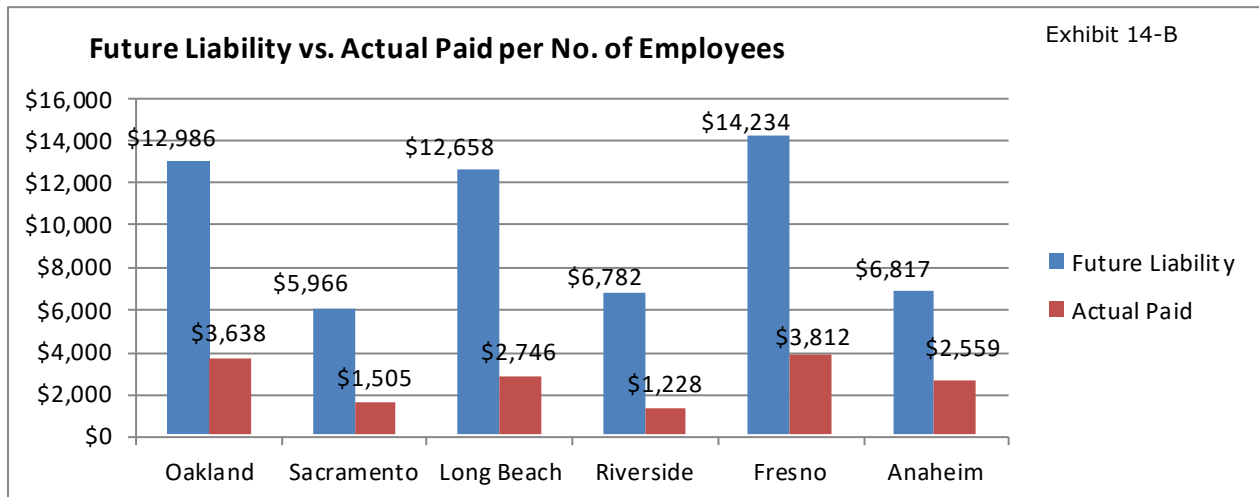
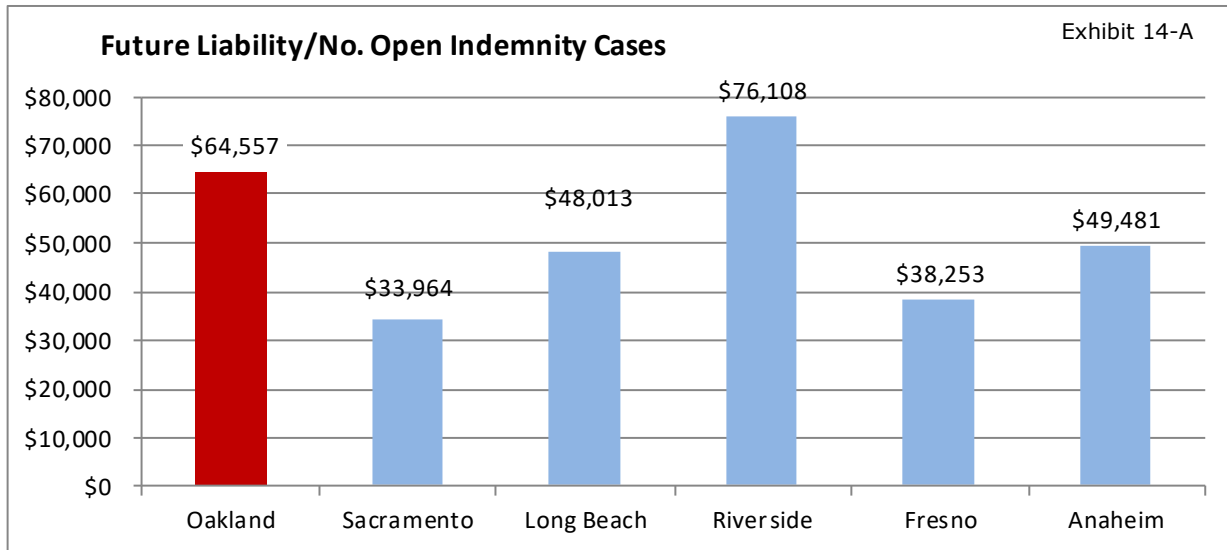


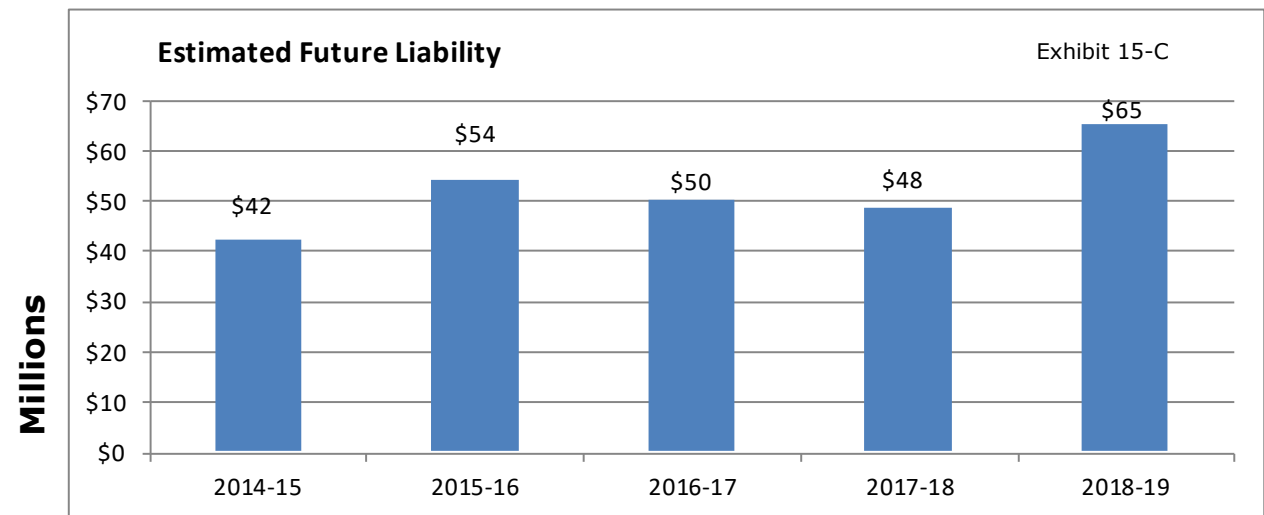
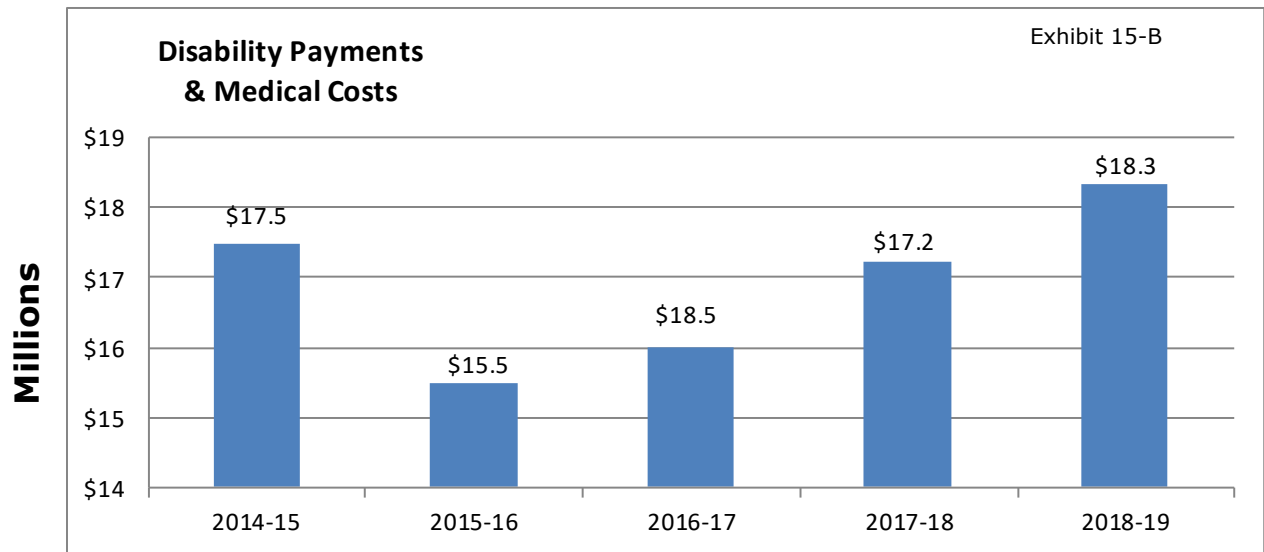
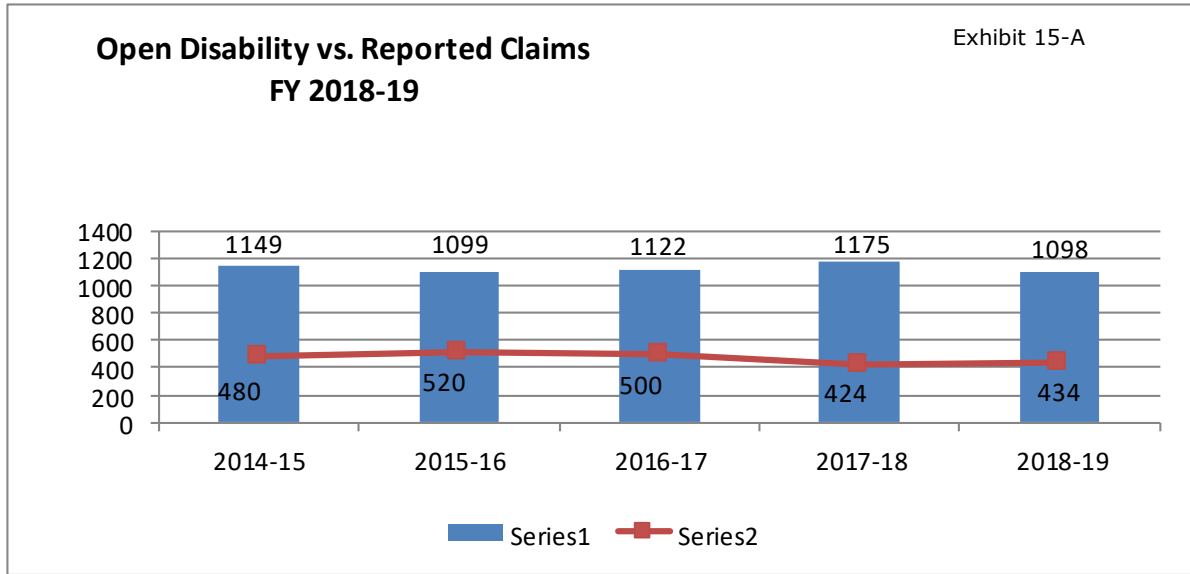
As a Self-Insured employer, the City is required to submit a Self-Insured Annual Report (SIA) to the State of California each year. The SIA serves two purposes. First, it enables the State to determine the annual Workers' Compensation Assessments to employers. Second, it provides the City comparison information for year to year program performance. The table below shows the City's performance for the past five fiscal years. The following pages compare City's Workers' Compensation experience against itself and comparable cities.

COO Self-Insured Annual Report to State of California						Exhibit 11-A
Fiscal Year	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	
Indemnity Claims Rec'd	273	277	289	233	191	
Medical Only Claims Rec'd	207	243	211	191	242	
Total # of Claims Rec'd	480	520	500	424	433	
Total Benefits Paid (Disability & Medical Expenses Only)	\$17,841,655	\$15,472,848	\$16,000,632	\$14,697,608	\$18,300,670	
Total Future Liability	\$42,439,625	\$54,384,319	\$50,316,257	\$48,486,464	\$65,332,189	
# of Employee (FTE)	4552	4576	5062	5283	5031	
Total Reported Payroll	\$342,660,477	\$364,004,747	\$360,410,946	\$375,381,194	\$400,535,932	
Total # Claims/100 FTE	10.54	11.36	9.88	8.03	8.63	
Total Benefits Paid/100 FTE	\$391,952	\$338,130	\$316,093	\$278,206	\$363,758	
Total # Claims per \$1M Payroll	1.40	1.43	1.39	1.13	1.08	
Total Benefits Paid per \$1M Payroll	\$52,068	\$42,507	\$44,396	\$39,154	\$45,690	
Average Cost per Claim	\$37,170	\$29,755	\$32,001	\$34,664	\$37,856	









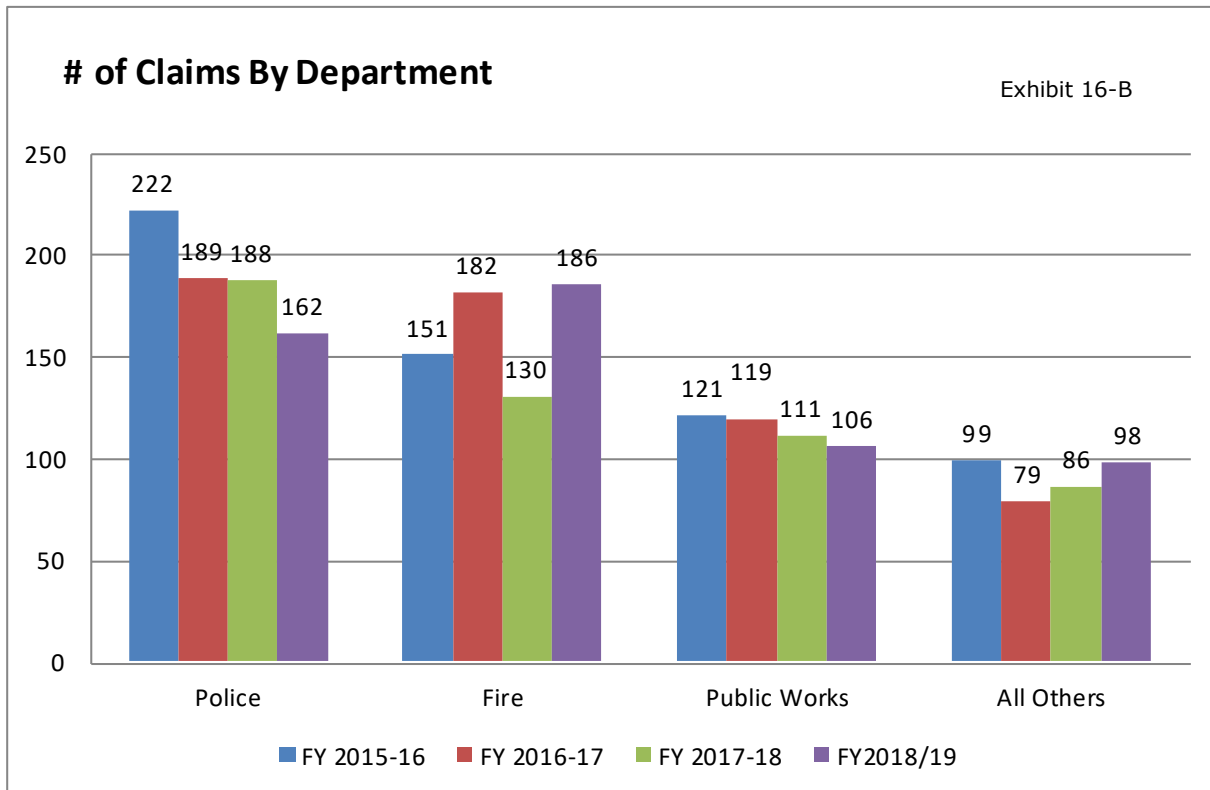
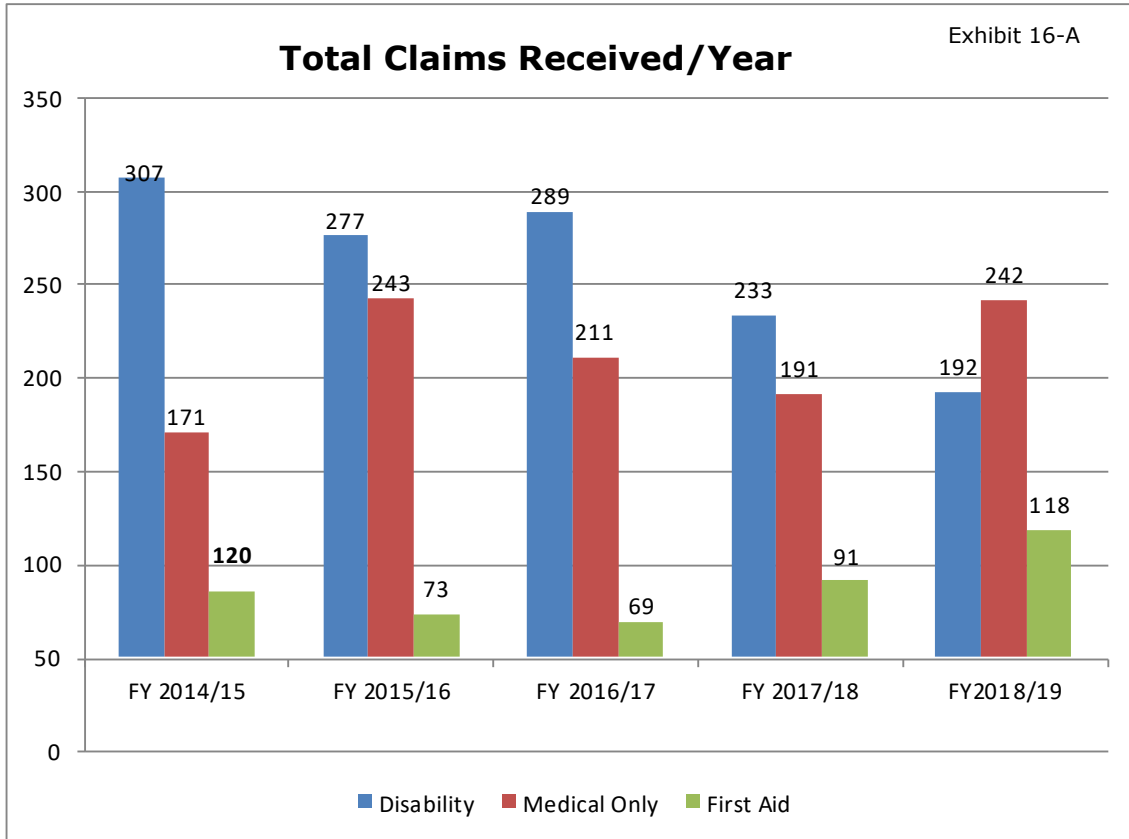
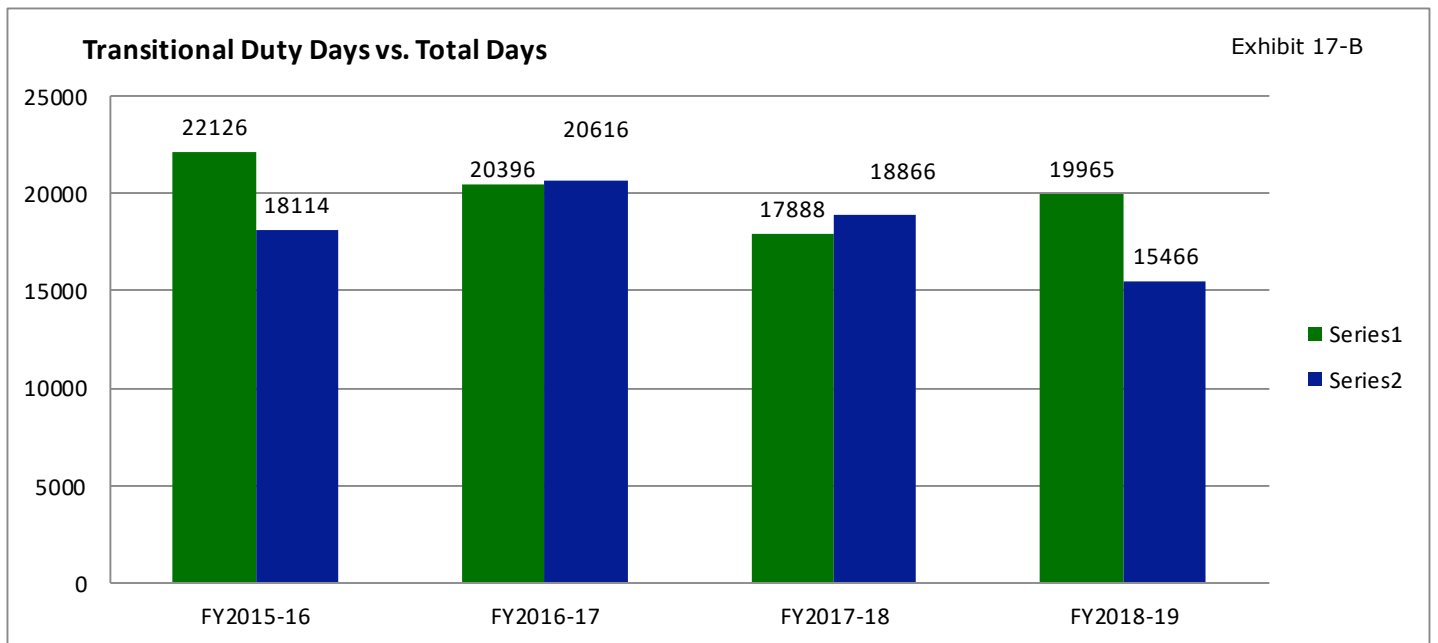
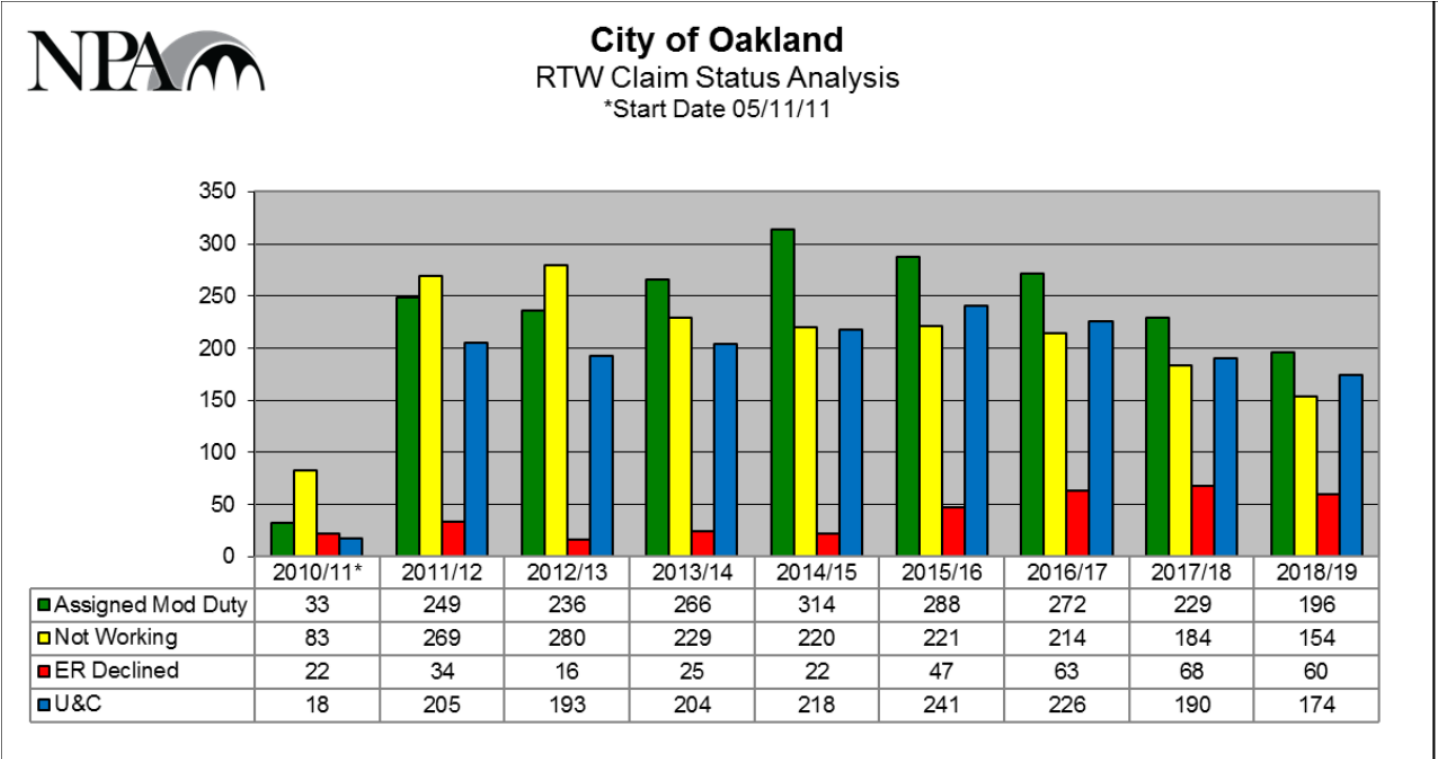


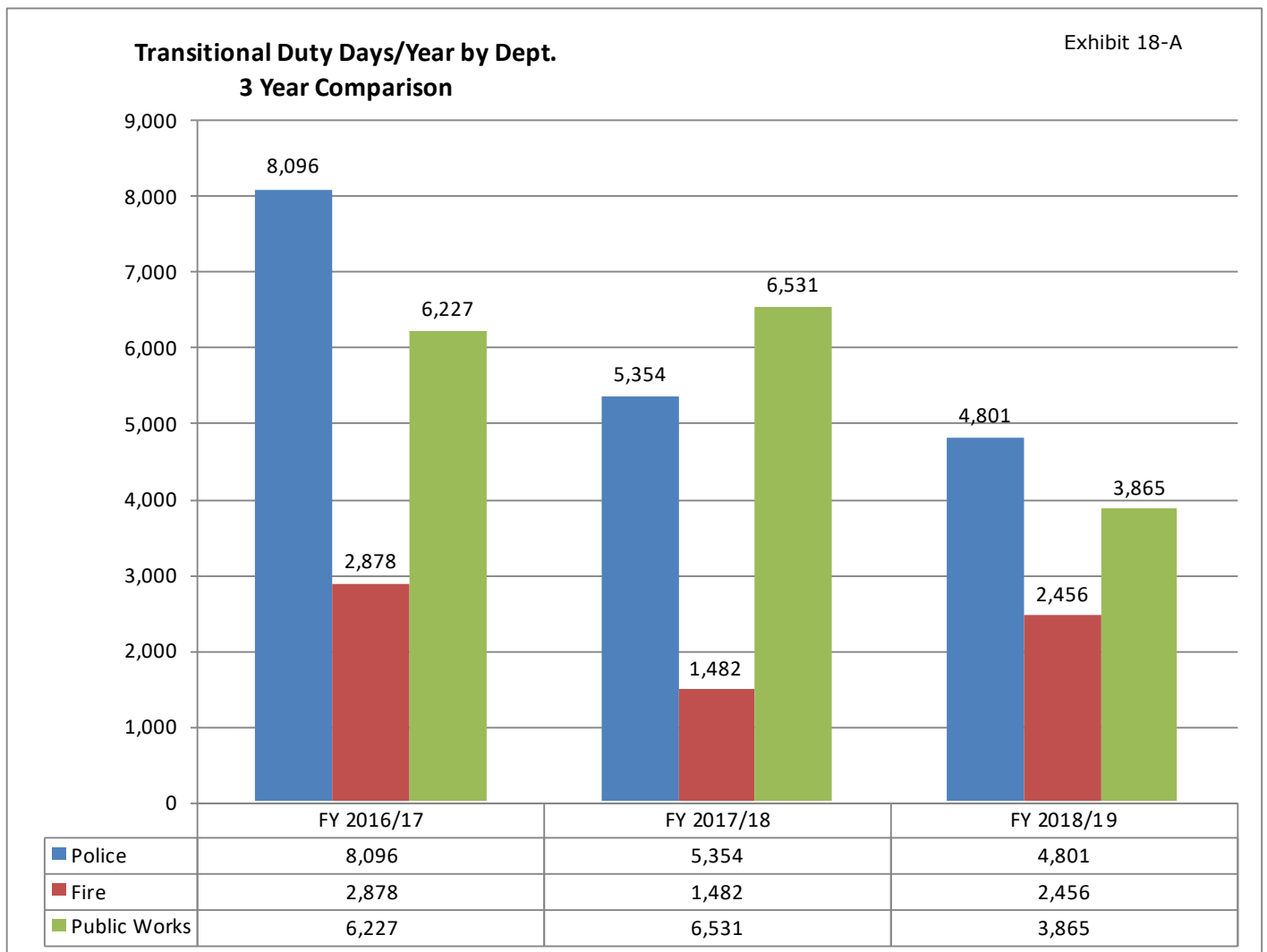
Exhibit 17-A



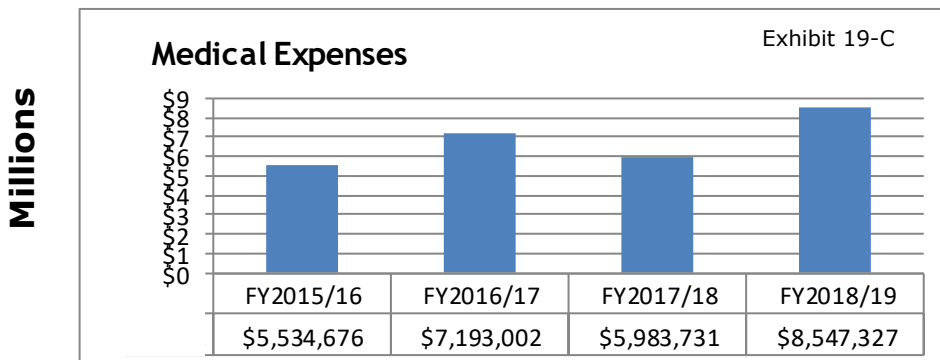
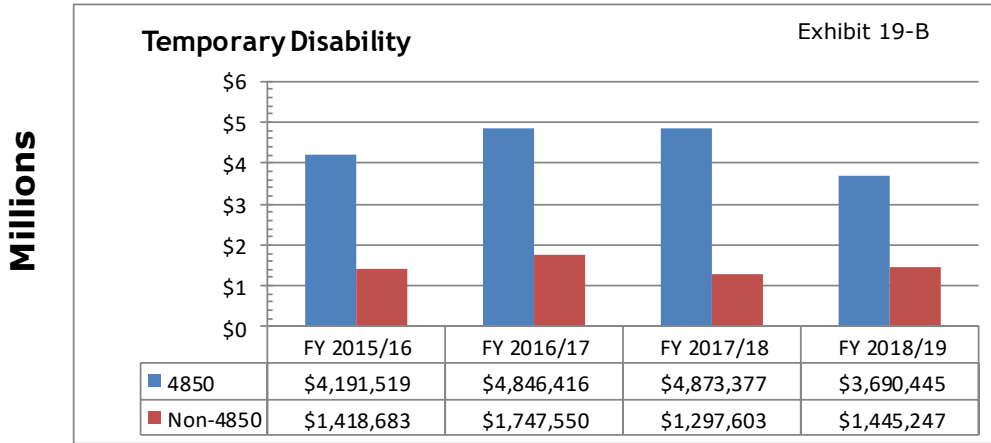
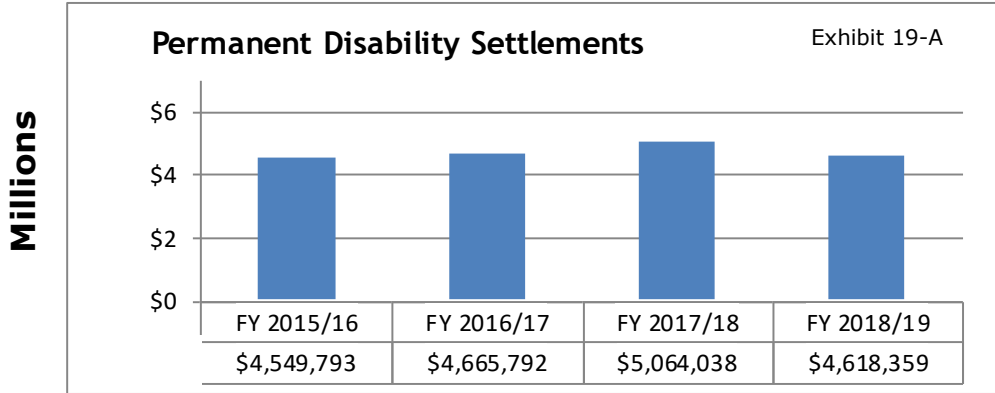
The number of Transitional Duty (TD) days for Police decreased by 10% and Fire has increased by 66% from last year's number. Factors affecting the reduction of days in modified duty are listed below. OPW had a 41% decrease in Transitional Duty (TD) days from last year.

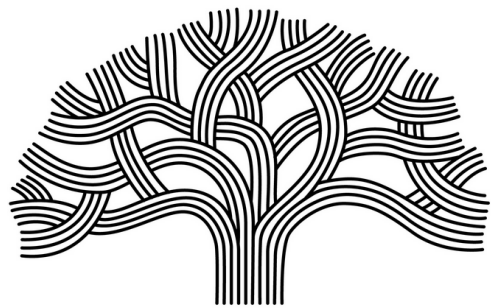
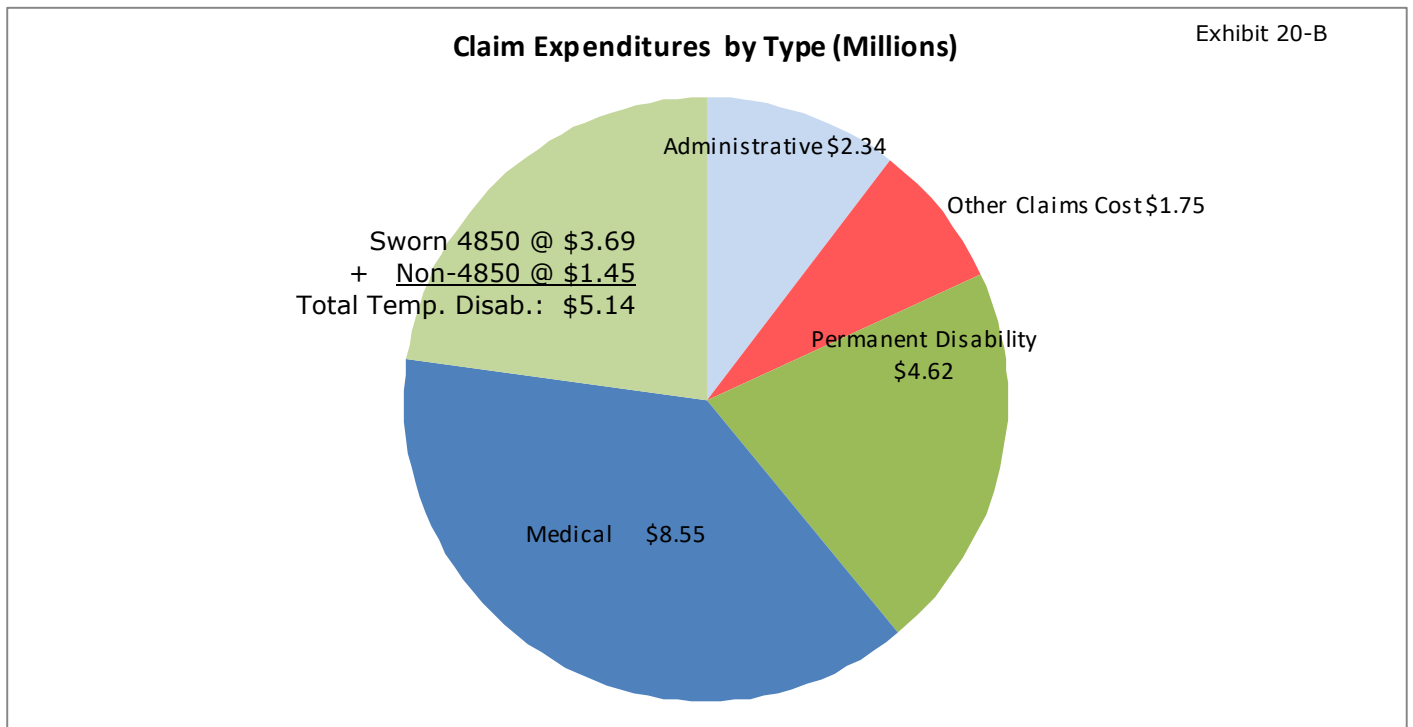
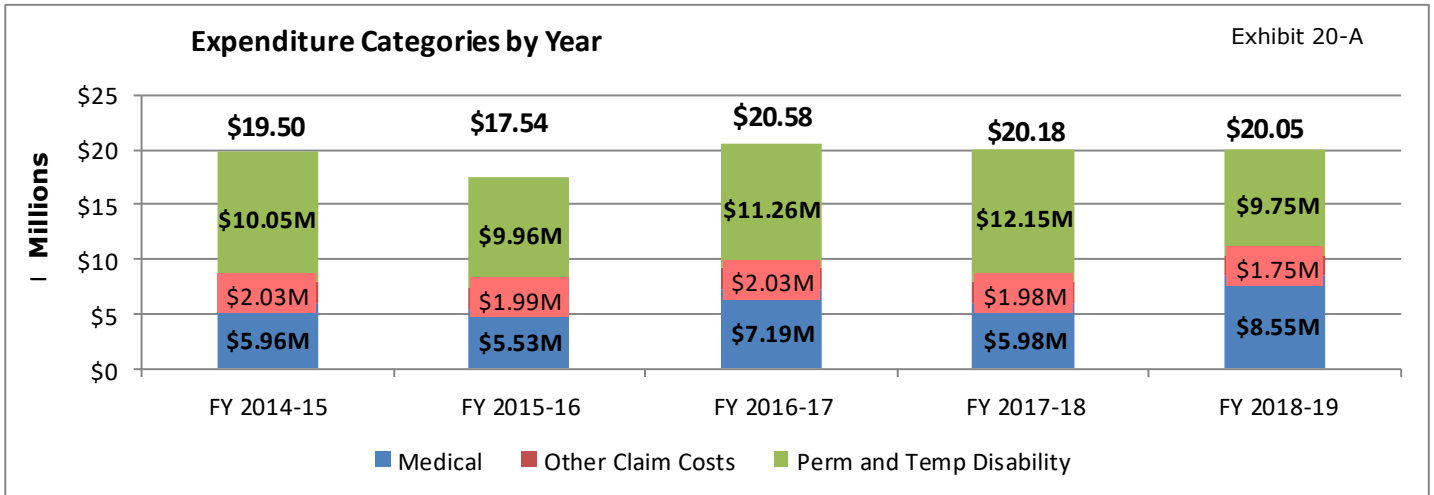
Contributing factors include:

- Reduction in average days to return to work at full duties.
- Decrease in department decline of modified duty.



The primary expenditure types in Oakland’s Workers’ Compensation Program are Indemnity Payments (Permanent Disability payments), Temporary Disability payments, and Medical Expenditures. Appendix A defines these terms and Appendix B provides a detailed breakdown of program expenditures over the past 5 years. The following graphs show four-year histories for each primary expenditure type.





CITY OF OAKLAND

Permanent Disability Settlements, Disability & 4850 Costs

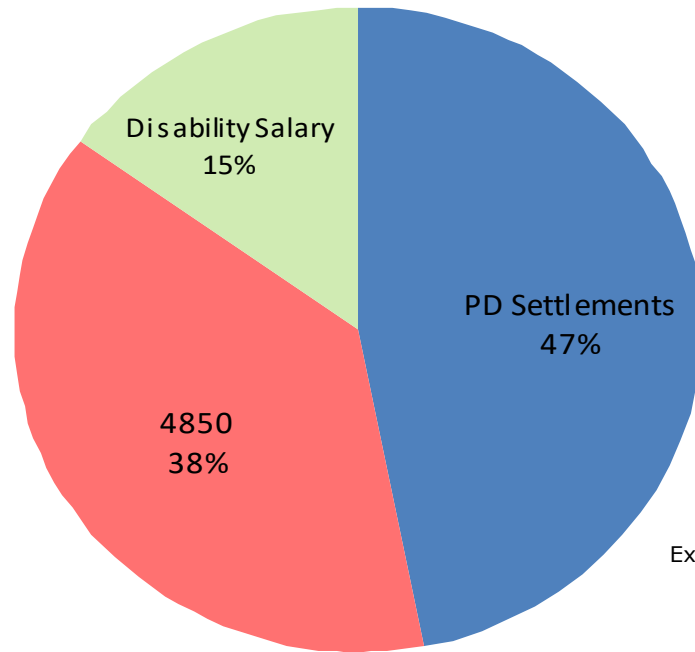


Exhibit 21-A

Other Claim Costs (Allocated)

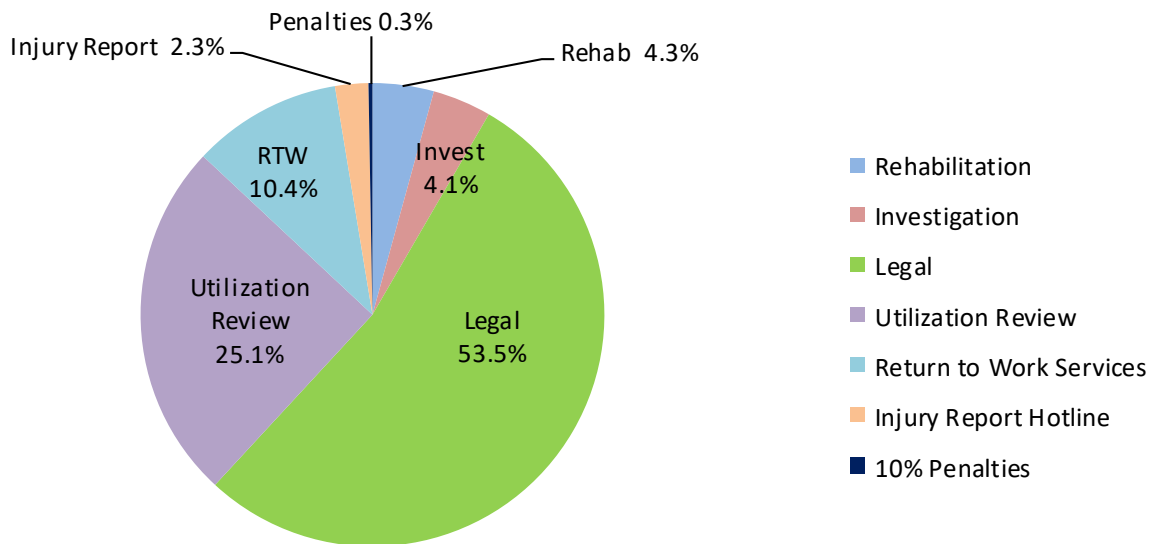


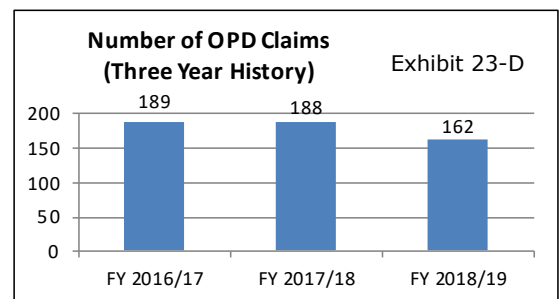
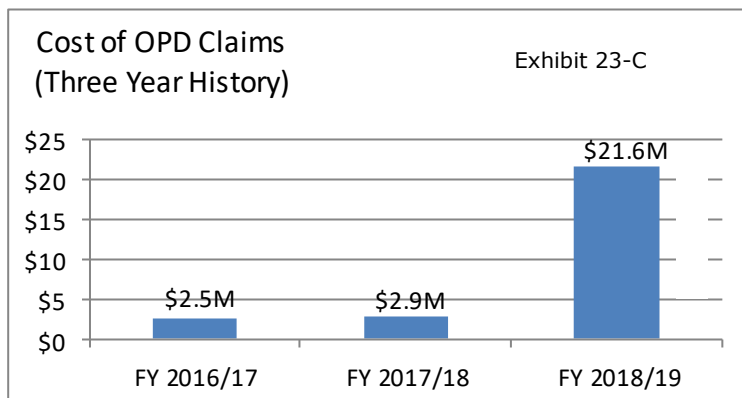
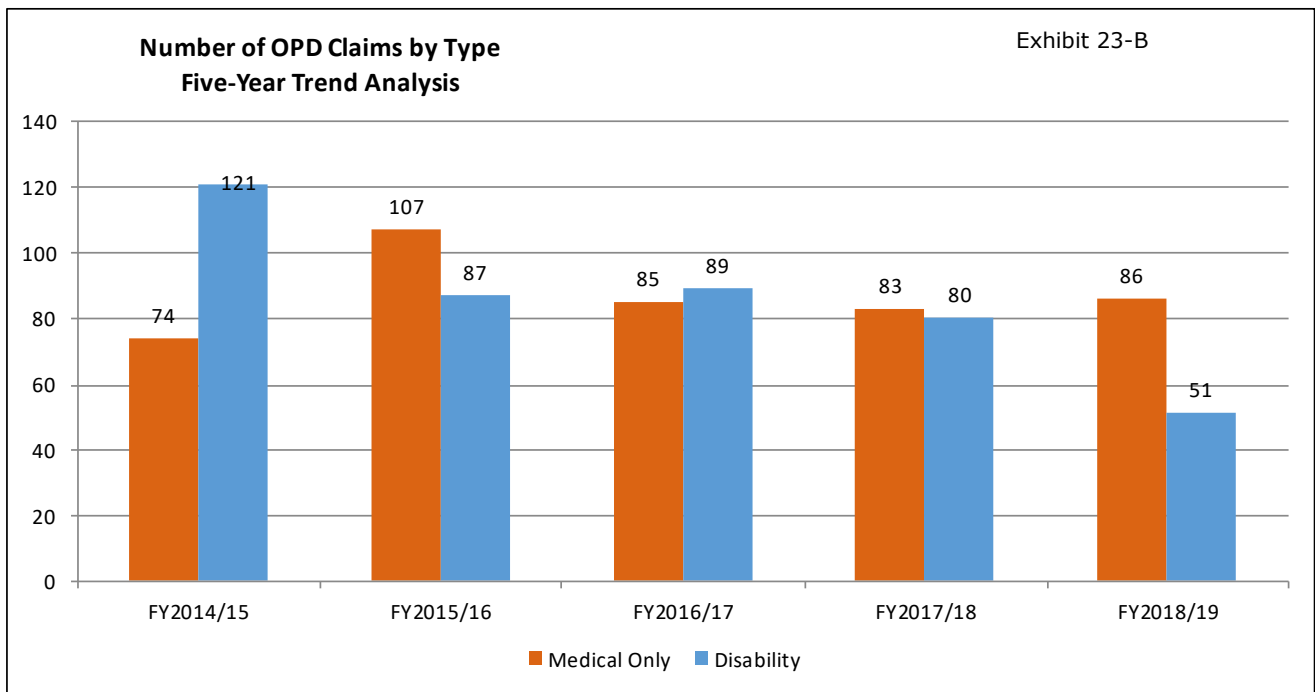
Exhibit 21-B

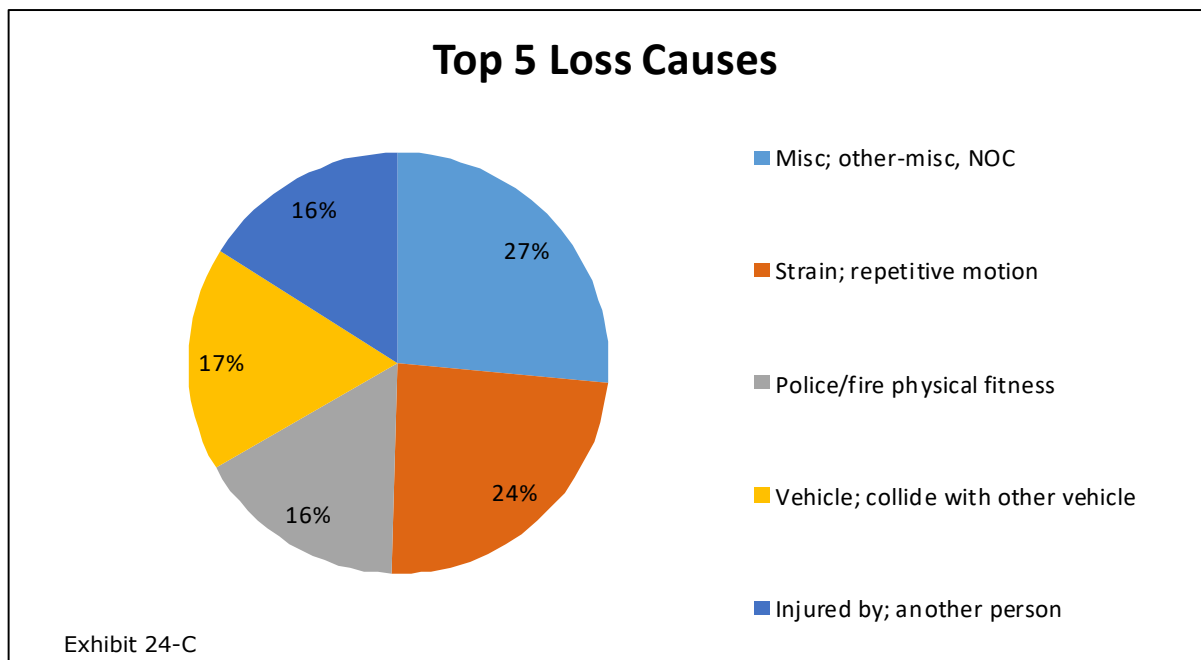
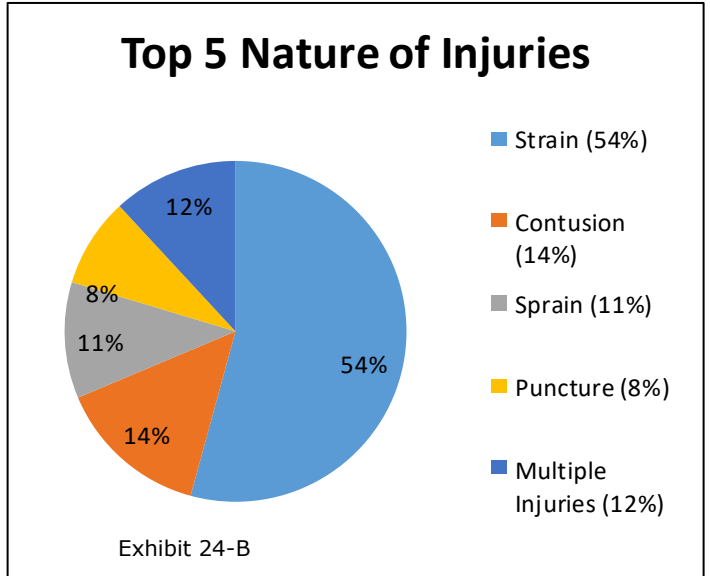
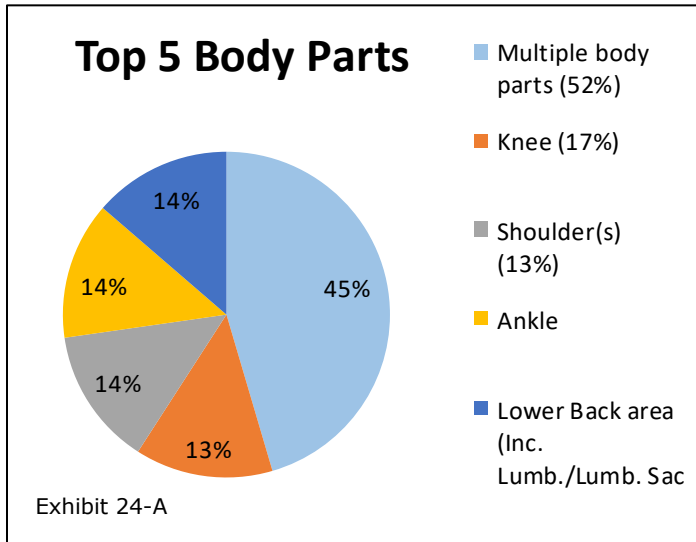
Number of Claims by Department										Exhibit 22-A
Department	FY16-17			FY17-18			FY18-19			
	M.O.	Disb.	All	M.O.	Disb.	All	M.O.	Disb.	All	
Budget & Revenue		1	1		0	0	0	0	0	
City Administration	3	4	7	1	3	6	3	0	5	
City Attorney	1	0	1	1	1	2	0	0	0	
City Auditor	0	2	2	0	0	0	0	0	0	
City Clerk	1	0	1	1	0	1	0	0	0	
Dept. Of Info & Tech	0	2	2	0	0	0	0	0	1	
Financial Mgmt	0	3	3	5	2	7	4	2	6	
Fire	54	100	154	30	67	130	58	74	186	
Housing & Comm Dev.	0	0	0	0	1	1	0	1	1	
Human Services	7	14	21	5	9	14	5	8	17	
Library	2	4	6	3	6	15	5	1	9	
Neighborhood Inv.	0	0	0	0	1	1	0	0	0	
Office Mayor	0	0	0	0	0	0	0	0	0	
Parks & Recreation	9	11	20	7	10	26	10	2	23	
Planning & Bldg	2	3	5	2	4	7	7	4	12	
Police	85	89	174	83	80	188	86	51	162	
Public Works	45	58	103	49	47	111	52	42	106	
Dept. of Transportation	0	0	0	4	2	6	12	7	24	
Totals	209	291	500	191	233	515	242	192	552	

M.O.: Medical Only Claims **Disb.** Claims with disability costing

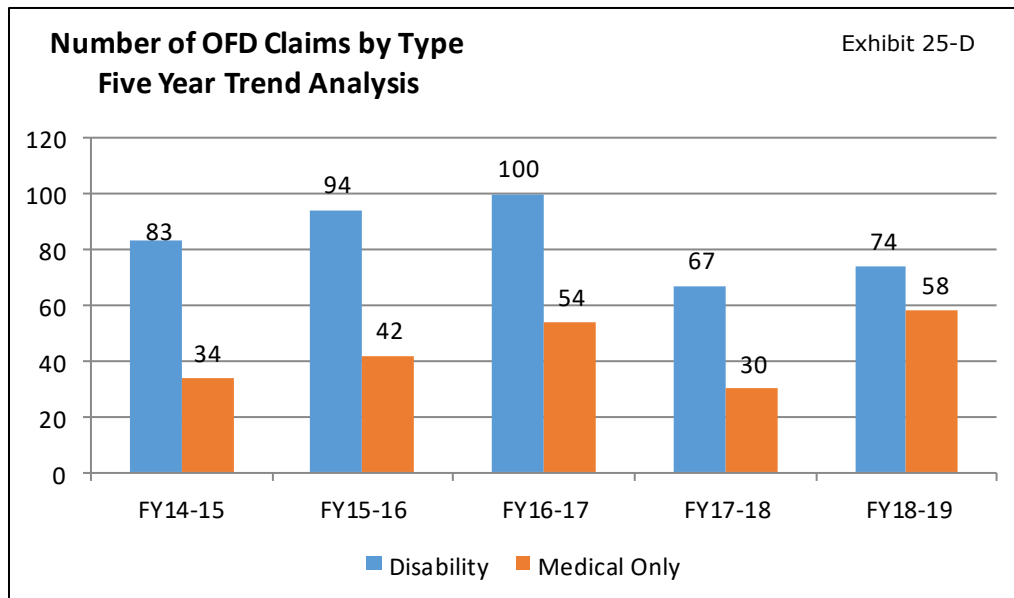
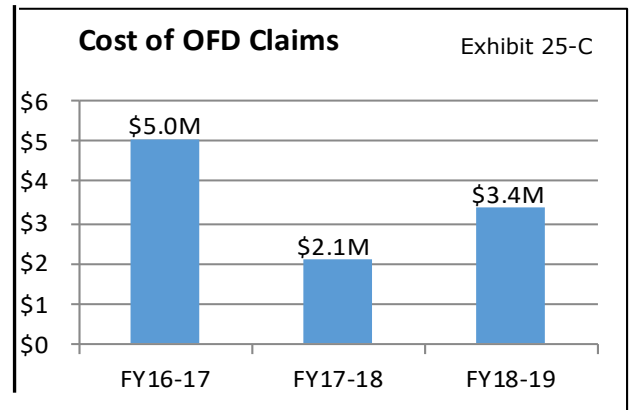
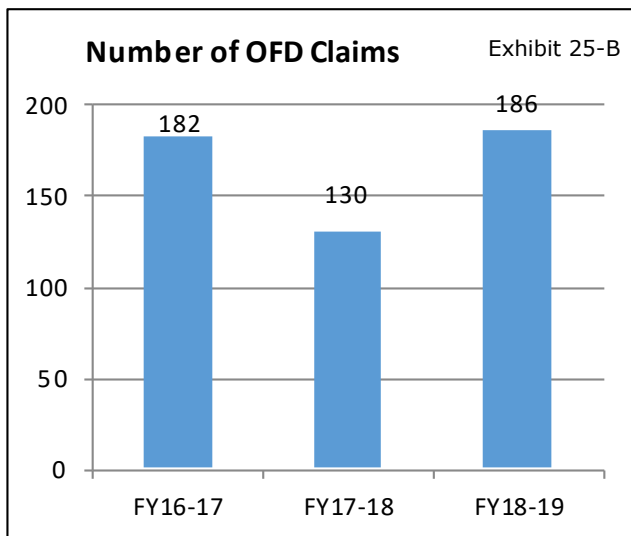
Estimated Future Liability by Department				Exhibit 22-B		
Department	FY16-17		FY17-18		FY18-19	
City Administration	\$41,617		\$23,934		\$4,299	
City Attorney	\$5,885		\$12,358		-	
City Clerk	\$2,032		-		-	
Dept. Of Info & Tech	-		-		-	
Financial Mgmt	\$6,033		\$4,473		\$25,149	
Fire	\$3,536,606		\$1,236,120		\$2,006,761	
Housing & Com Dev.	-		-		\$11,680	
Human Services	\$114,499		\$68,454		\$94,022	
Library	\$20,773		\$87,722		\$5,078	
Neighborhood Inv.	-		\$5,710		-	
Parks & Recreation	\$44,449		\$99,271		\$19,395	
Planning & Bldg	\$67,565		\$1,004		\$81,863	
Police	\$1,090,358		\$1,640,363		\$18,198,506	
Public Works (PW) *	\$2,103,320		\$670,479		\$401,313	
Dept. of Transportation	-		\$12,823		\$151,188	
Totals	\$7,033,137		\$3,862,711		\$20,999,253	

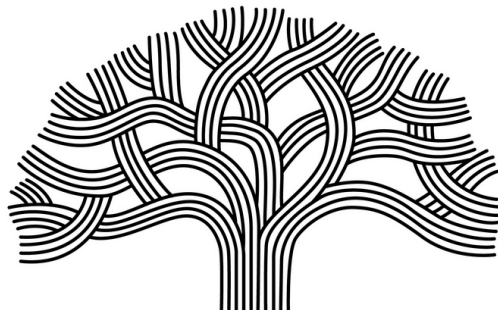
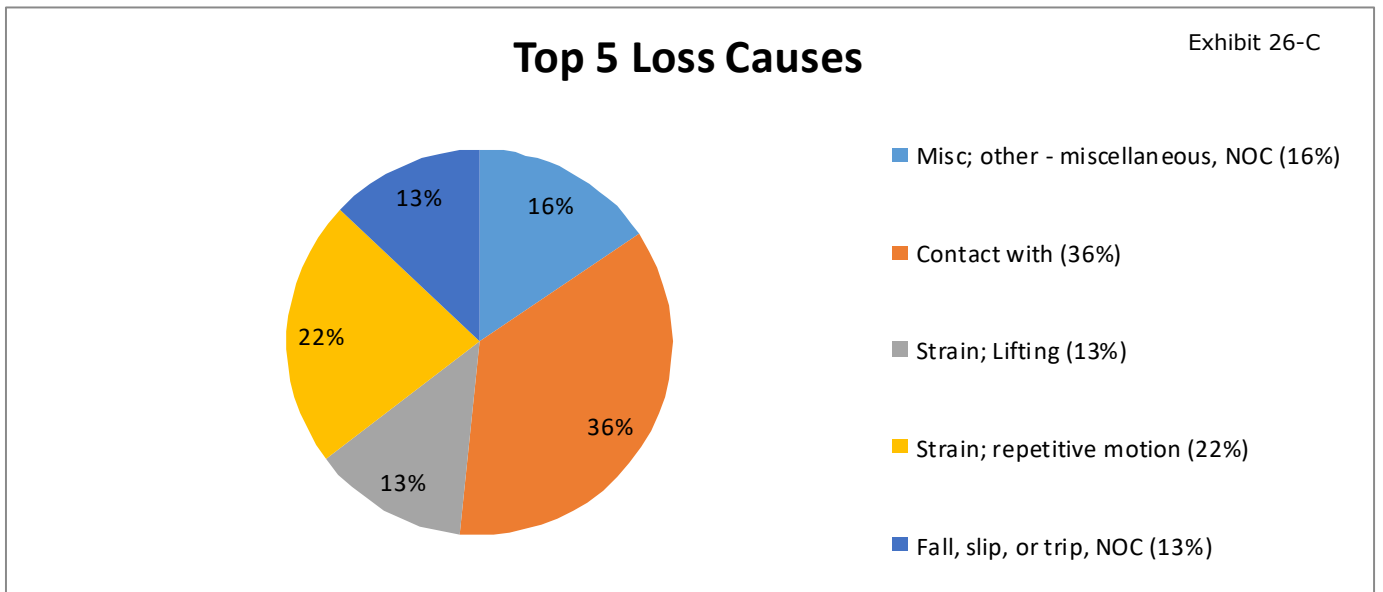
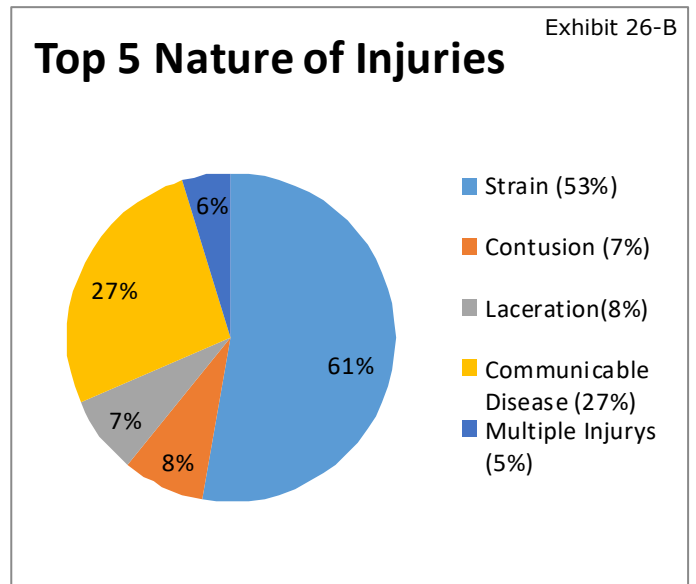
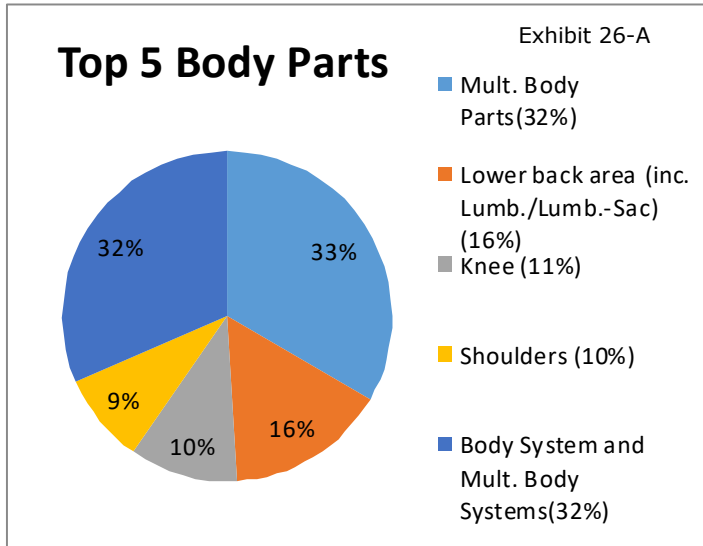
Police Department -- Workers' Compensation Claims					Exhibit 23-A
	# of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2018-19	162	29%	\$21,617,689	82.61%	\$133,443
3-Year Average	180	33%	\$8,997,017	60.84%	\$50,076





Fire Department -- Workers' Compensation Claims					Exhibit 25- A
	# of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2018-2019	186	34%	\$3,358,756	12.83%	\$18,058
3-Year Average	166	30%	\$3,477,762	23.52%	\$20,950





CITY OF OAKLAND

Public Works / DOT -- Workers' Compensation Claims					Exhibit 27-A
	Number of Claims	% of City	Cost of Claims	% of City	Avg. Cost Per Claim
FY 2018-19	130	23%	\$552,501	2.64%	\$5,781
3 Year Avg.	117	21%	\$1,113,041	10.50%	\$9,513

Exhibit 27-B

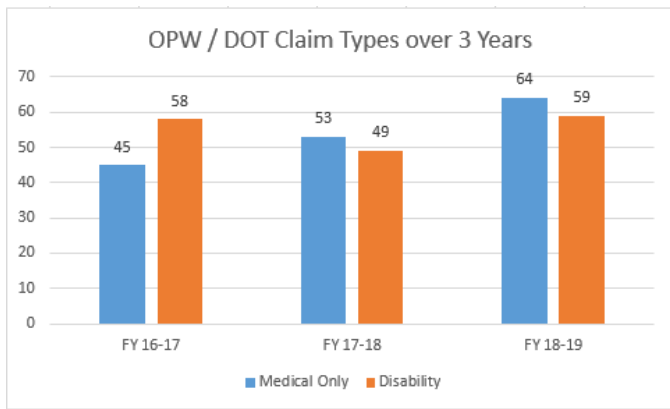


Exhibit 27-C

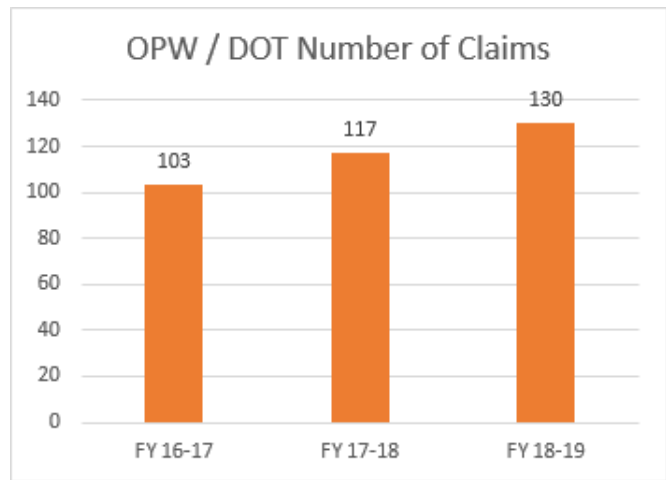
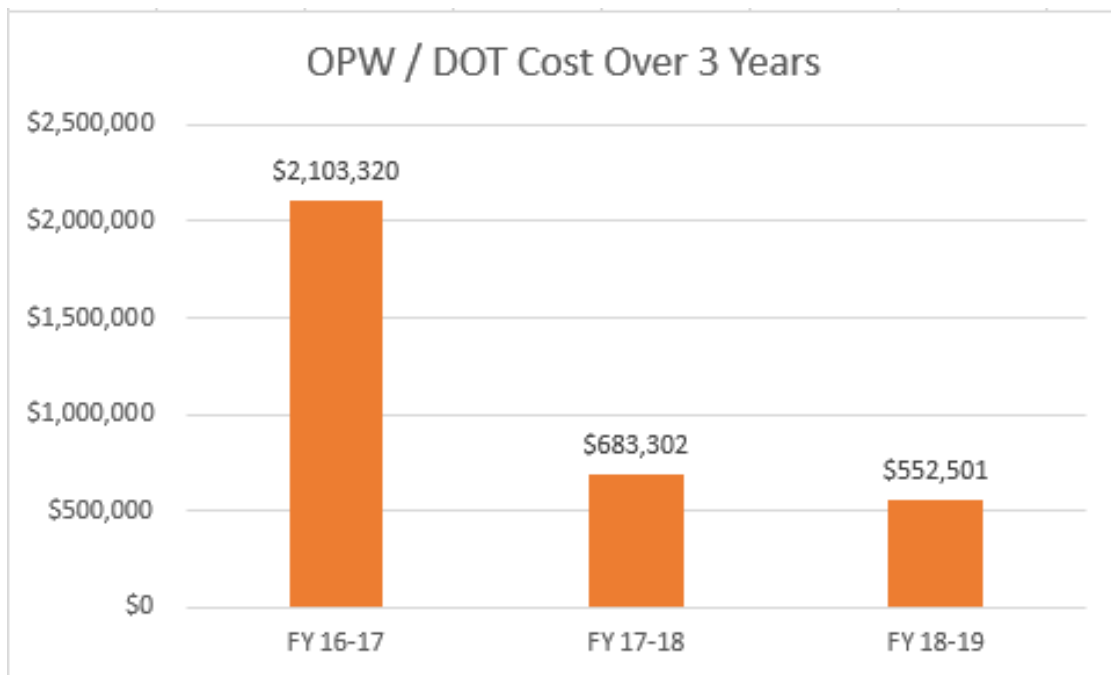
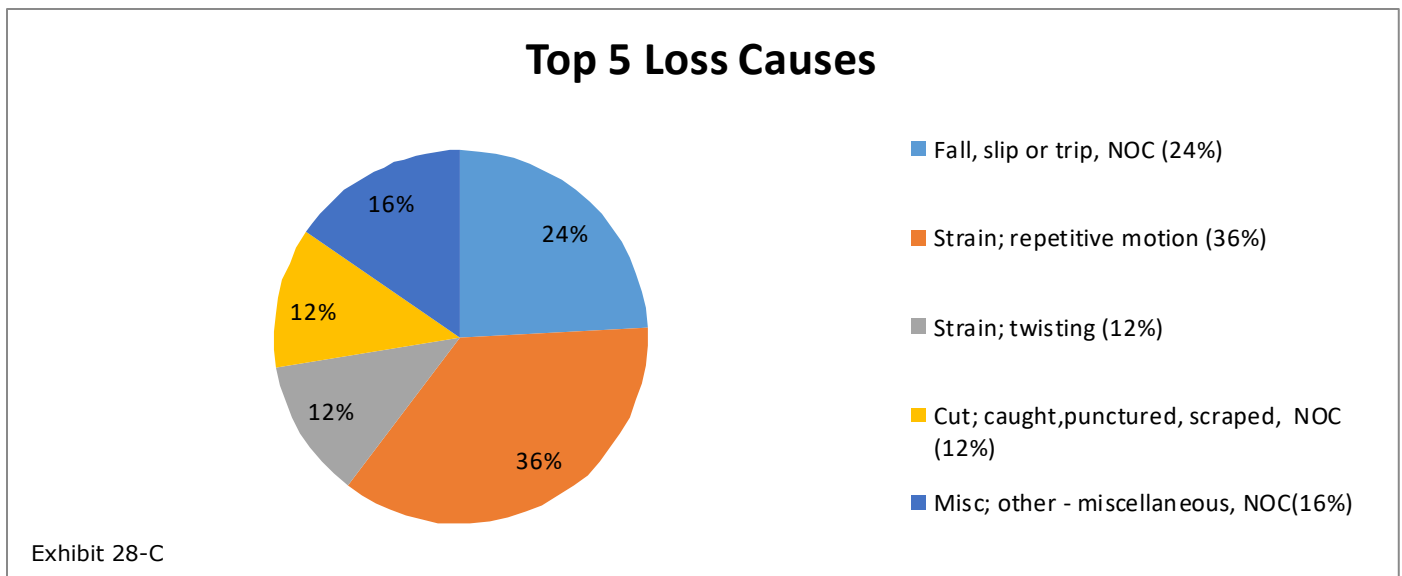
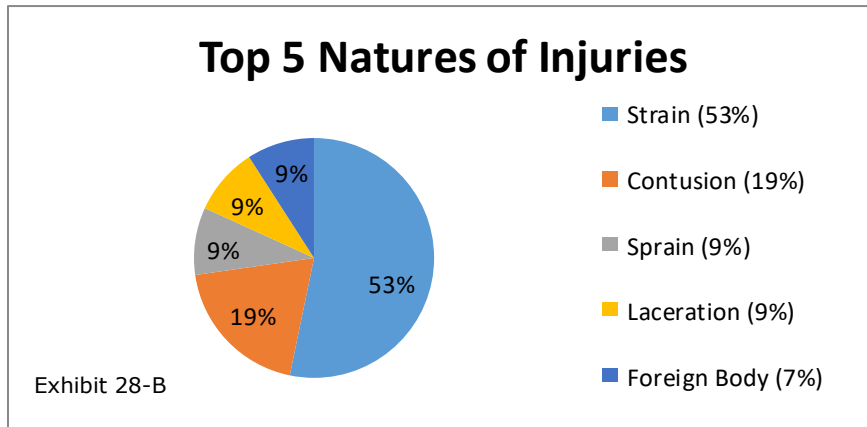
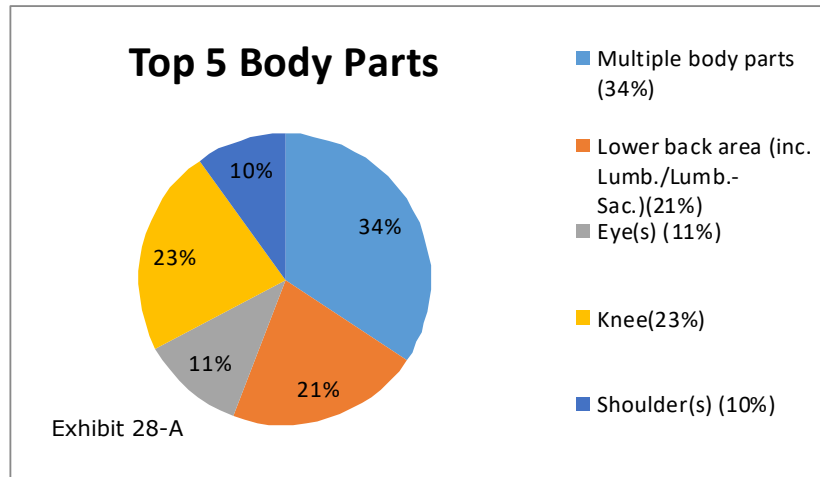
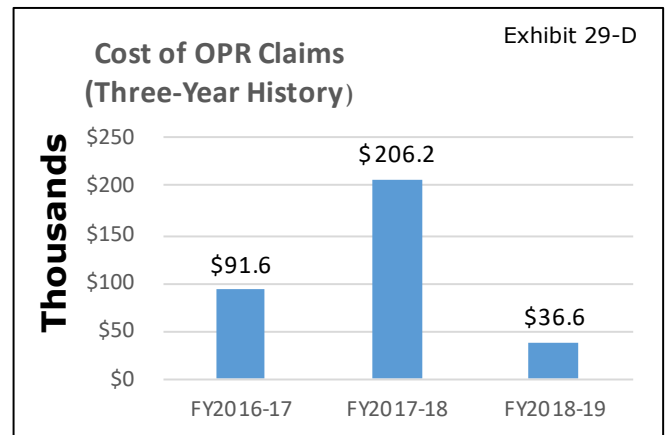
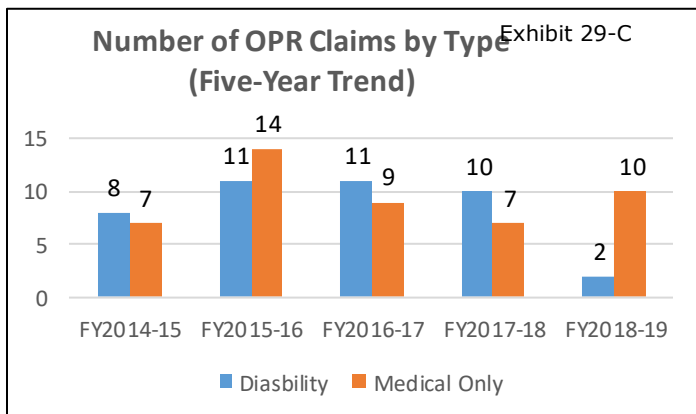
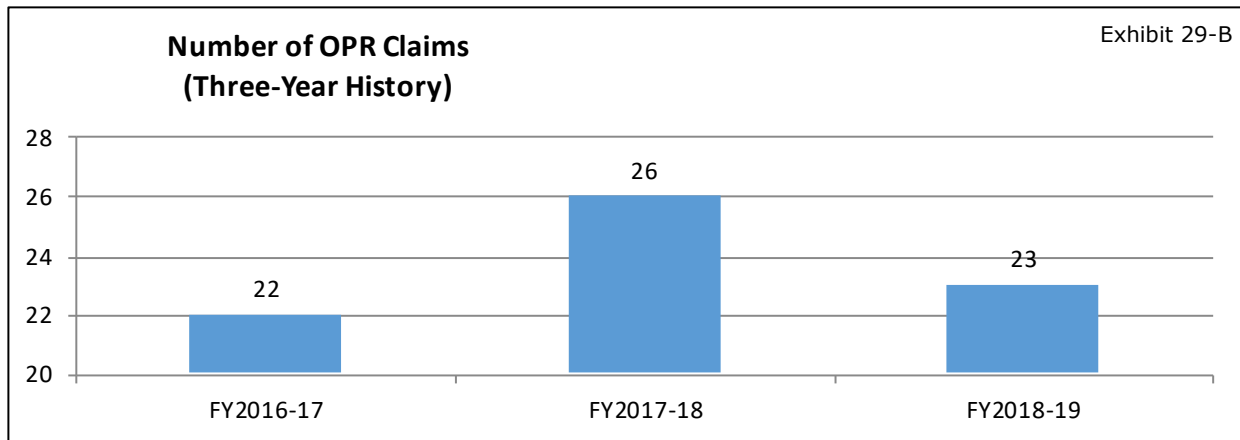


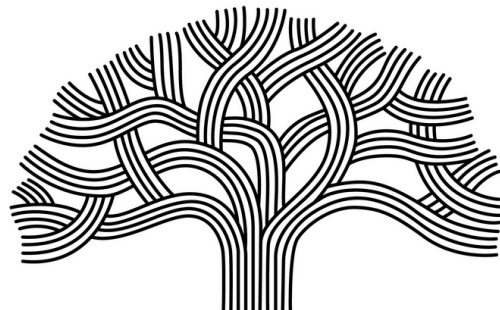
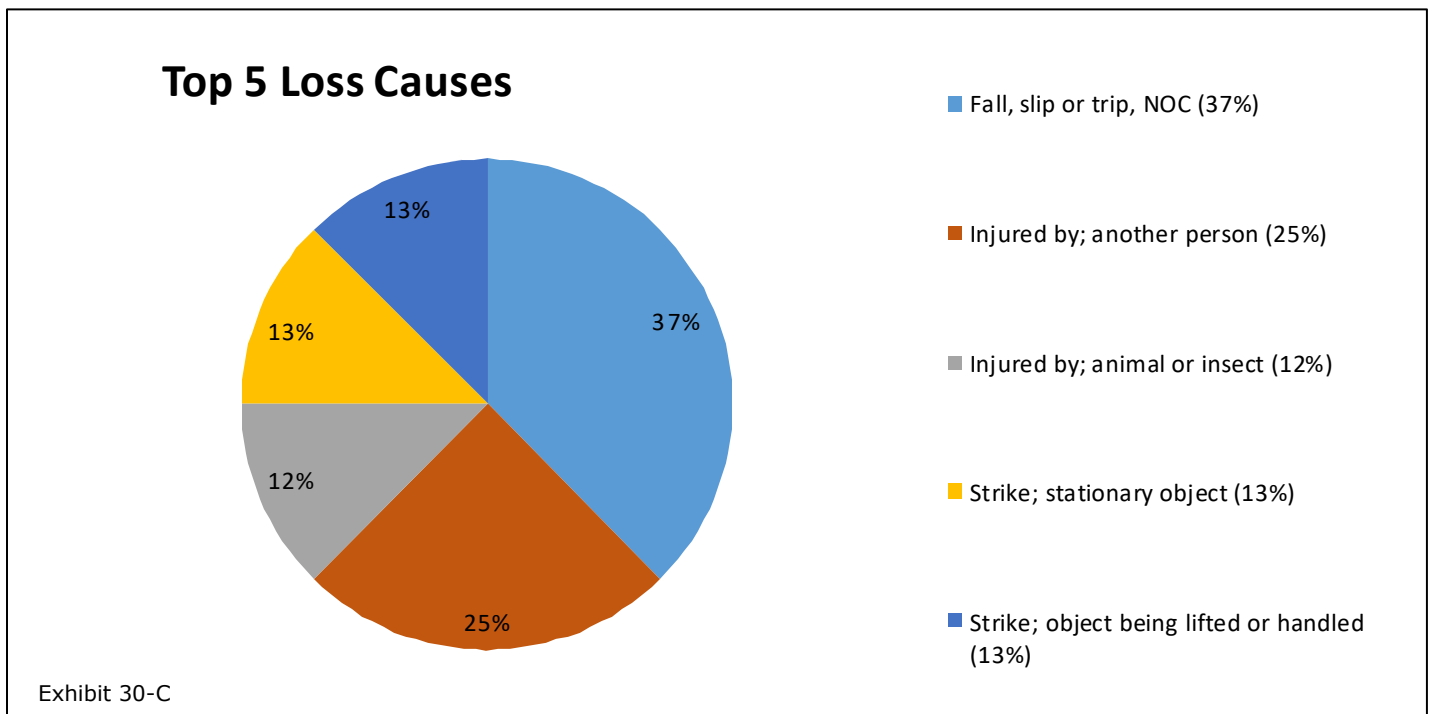
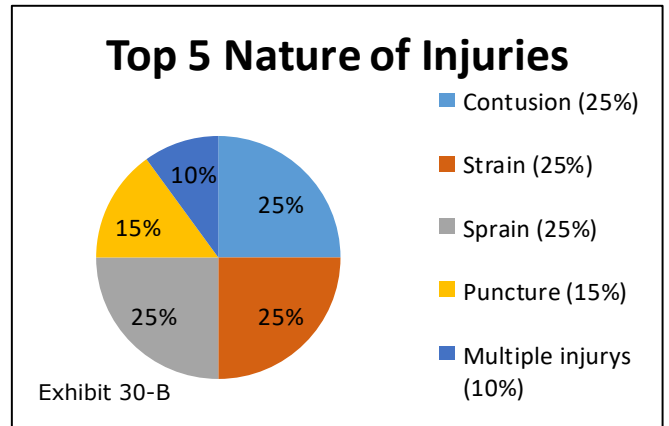
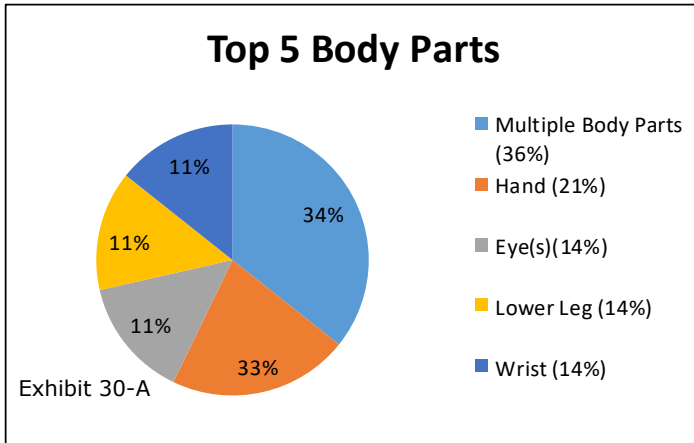
Exhibit 27-D





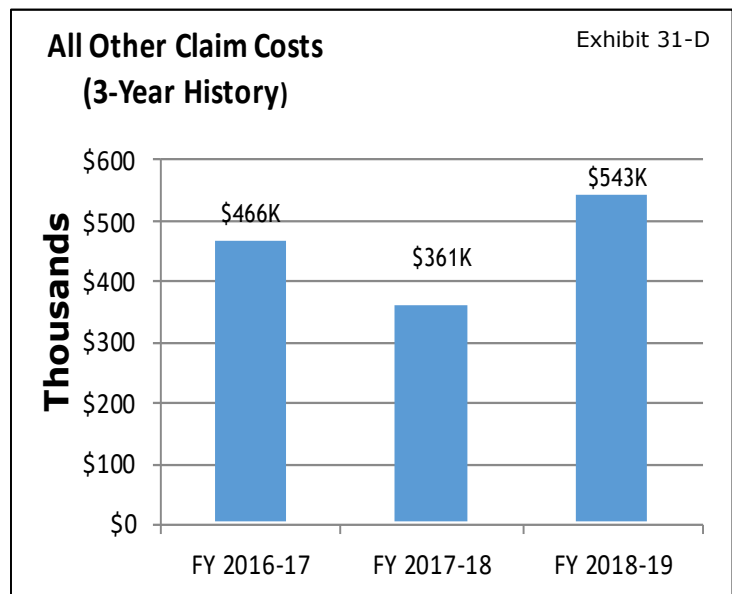
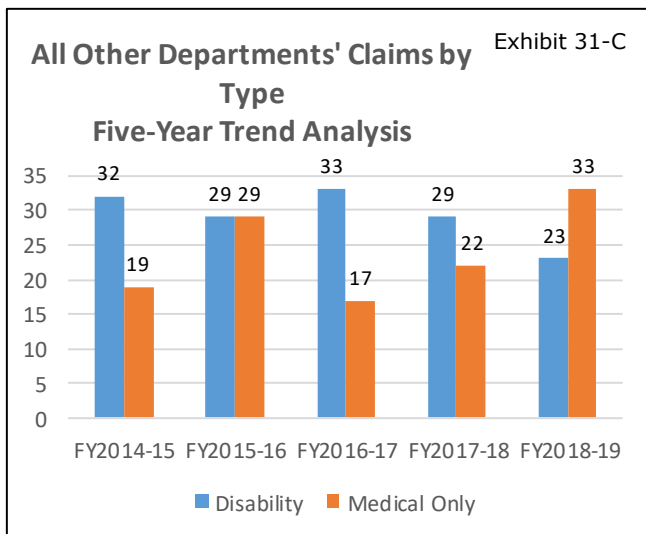
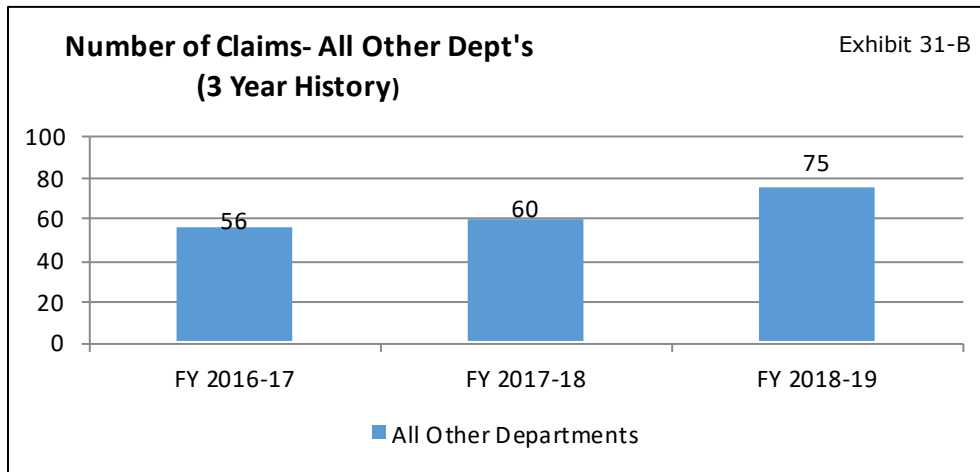
Parks and Recreation--Workers' Compensation Claims					Exhibit 29-A
	No. of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2018-19	23	4%	\$36,642	0.14%	\$1,593
3-Year Average	24	4%	\$111,468	0.75%	\$4,710





CITY OF OAKLAND

All Other Departments' Claims					Exhibit 31-A
	No. of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2018-19	75	14%	\$543,175	2.08%	\$7,242
3-Year Average	64	12%	\$456,806	3.09%	\$7,175

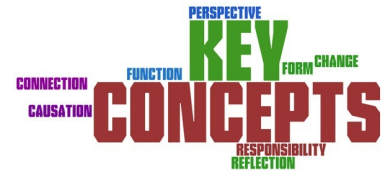


SCHEDULE OF EXHIBITS

Appendix A	Key Terms
Appendix B	Workers' Compensation Expenditure Report (FY 2015-16 through FY 2018-19)
Appendix C	Workers' Compensation Claims Audit, Final Reports <i>October 2019</i>
Appendix D	Actuarial Review of the Self-Insured Workers' Compensation Program <i>AON Risk Solutions, June 30, 2019</i>

Appendix A

Key Terms



Permanent Disability Settlements:

Settlements paid when an injury results in a permanent disability.

Temporary Disability:

Non-Sworn Salary Supplement: City payments at the employee's full rate of pay made in the first 60-90 days when injured workers are unable to perform work of any kind.

Temporary Disability: State-mandated payments made when injured workers are unable to perform work of any kind.

Sworn Salary Supplement/4850: State-mandated payments at the employee's full rate of pay for up to one-year when an injured worker is unable to perform work of any kind.

**Allocated:
(Other Claim Costs)**

- Rehabilitation
- Investigation Expenses
- Legal
- Utilization Review
- Return to Work Services
- 24 hour Injury Report Line
- 10% Penalties

Medical:

All medical expenses related to treatment of the injury, including diagnostics, physical therapy, durable medical equipment, prescriptions and surgery, and in/out hospital patient care.

Administrative:

This includes costs associated with administration of the Workers' Compensation Program.

Appendix B

Workers' Compensation Expenditures Report (Fiscal Years 2015-2019)

Expenditures By Year	2015-16	2016-17	2017-18	2018-19	%Change
Settlements: Permanent Disability:	\$4,549,793	\$4,665,792	\$5,064,038	\$4,618,359	-8.80%
Temporary Disability					
Non-4850					
Temporary Disability	\$1,084,483	\$1,443,514	\$1,114,210	\$1,185,648	
MOU Benefit (non-sworn)	\$334,200	\$307,487	\$183,393	\$259,599	
Total Non-4850 Pay	\$1,418,683	\$1,751,001	\$1,297,247	\$1,445,247	11.40%
4850					
Oakland Police Dept.	\$1,873,375	\$2,334,489	\$2,124,296	\$1,914,332	
Oakland Fire Dept.	\$2,318,144	\$2,508,476	\$2,749,082	\$1,776,113	
Total 4850 Pay	\$4,191,519	\$4,842,695	\$4,873,378	\$3,690,445	-24.27%
Subtotal—Temp. Disability	\$5,610,202	\$6,593,966	\$6,170,981	\$5,135,692	
Total Disability Payments:	\$10,159,995	\$11,259,758	\$11,235,019	\$9,754,051	-13.18%
Other Claim Cost					
Rehabilitation	\$30,556	\$69,308	\$209,710	\$74,577	
Investigation Expenses	\$116,005	\$100,898	\$77,675	\$71,594	
Legal	\$962,432	\$1,069,949	\$977,556	\$934,164	
Utilization Review	\$650,192	\$552,992	\$523,046	\$438,406	
Return to Work Services	\$182,820	\$182,005	\$144,368	\$182,051	
Injury Report Line	\$44,565	\$41,863	\$36,442	\$40,489	
10% Penalties	\$9,178	\$17,355	\$9,693	\$4,784	
Other Claim Cost Total:	\$1,995,748	\$2,034,370	\$1,978,490	\$1,746,046	-11.75%
Medical					
WC Disability Medical	\$5,516,530	\$7,181,856	\$5,966,600	\$8,525,914	
First Aid Only Claims	\$18,146	\$11,146	\$17,131	\$21,413	
Total Medical:	\$5,534,676	\$7,193,002	\$5,983,731	\$8,547,327	42.84%
Operational Expenses Sub-total	17,690,417	20,487,128	19,197,239	20,047,424	
Contributions—Excess Ins.	(\$391,880)	(\$82,330)	(\$753,069)	(\$2,025,832)	
Total Operational Expenses:	\$17,298,537	\$20,404,798	\$18,444,170	\$18,021,592	-2.29%
Administration Expenses					
TPA Contract	\$1,644,460	\$1,824,322	\$1,747,238	\$1,839,550	
Bill Review	\$492,480	\$542,070	\$513,070	\$540,103	
Misc. Fees	\$1,825	\$0.00	\$1,800	\$0.00	
Total Administration Expenses:	\$2,138,765	\$2,366,392	\$2,262,038	\$2,379,653	5.20%
Total Expense:	\$19,437,302	\$22,771,190	\$20,706,208	\$20,401,425	-1.47%

Appendix C
Claims Audit Report
October 2019

OCTOBER 2019
CSAC EIA AUDIT REPORT

City of Oakland
Third Party Administrator – JT2



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- Addendum II

Audit Worksheets

- Addendum II

EXECUTIVE SUMMARY

This section will serve as an overview of the audit findings with recommendations for moving forward. The overall claims handling of the TPA is **Exceeds Expectations** as measured in accordance with the standards set forth in the Guidelines.

Performance Strengths

Outstanding results were achieved in the categories of adjuster caseload, payments on correct claims, initial reserve for probable value, initial reserve timely, medical bills paid timely, penalties coded correctly, apportionment pursued appropriately, proactive return to work efforts, member notified of permanent work restrictions, TD/4850 reserves separate, permanent disability exposure includes life pension, settlement valuation, Medicare's interest protected, EIA settlement authority requested, member settlement authority requested, litigation management, periodic contact with the third party, subrogation pursued for maximum recovery, approval to accept/waive/settle subrogation, timely initial excess reporting, timely subsequent excess reporting and timely excess reimbursement requests.

Performance Improvement Recommendations

When the initial TD benefit is triggered an automatic 30-day diary should be set to maintain employee contact while the employee is off work. Likewise, when surgery is approved a diary should be set to secure the surgery date so that contact can be made within three business days of the procedure.

We recommend questioning the injured employees regarding prior injuries and existing conditions during the initial contact to determine if apportionment is viable. A POA template that requires the adjuster to address apportionment and review the index report would prompt the adjuster to document the viability of apportionment.

Audit Demographics

The audit criterion was formed by using the CSAC EIA standards. The City of Oakland file audits specifically focused on claims handling activity from 10/01/18 through the date of the audit. JT2 provided a list of the open inventory covered by the CSAC EIA program and a random selection of the files was pulled to gather 132 files from the open inventory. The file selection consisted of a mix of indemnity claims, future medical files and medical only claims. File documents, notes, payments, letters and reserves are maintained in electronic form. The audit was completed off site and the files were accessed remotely. Each worksheet was provided to Carmen Angeles and Angela Sorrentino for review and comment. They engaged with the auditors and submitted all questions, feedback or disputes prior to the conclusion of the audit.

AUDIT TEAM

Angela Mudge

Owner, President & CEO

Over 29 years of workers' compensation claims experience. IEA Certificate, Self-Insured Certificate & WCCP Designation. Prior positions held - adjuster, supervisor, claims manager and vice president.

Anne Ruiz

Chief Operating Officer

Over 22 years of workers' compensation claims experience. Associate in Claims Designation, Self-Insured Certificate & WCCA Designation. Prior positions held - adjuster, supervisor, claims services liaison and central services manager.

Shawna Culp

Senior Collaborator

Over 25 years of workers' compensation claims experience. IEA Certificate and Self-Insured Certificate. Prior positions held – operations supervisor, adjuster, supervisor, unit manager and training supervisor.

Sherril Ventimiglia

Senior Collaborator

Over 30 years of workers' compensation claims experience. Self-Insured Certificate & WCCP Designation. Prior positions held – adjuster, claims analyst, supervisor, manager, director of claims and assistant vice president of claims.

AUDIT SCORESHEETS

Overview

Category	Points Available	Points	Score	%
Claim Handling - Administrative	1380	1252	Exceeds Expectations	90.72%
Caseload	1	1	Exceeds Expectations	100.00%
Case Review and Documentation	1207	1089	Exceeds Expectations	90.22%
Communication	8	5	Unsatisfactory	62.50%
Fiscal Handling	74	70	Exceeds Expectations	94.59%
Claim Creation	42	39	Exceeds Expectations	92.86%
Reserves	48	48	Exceeds Expectations	100.00%
Claims Handling - Technical	517	497	Exceeds Expectations	96.13%
Payments	90	90	Exceeds Expectations	100.00%
Apportionment	20	16	Meets Expectations	80.00%
Disability Management	8	8	Exceeds Expectations	100.00%
Reserving	296	284	Exceeds Expectations	95.95%
Resolution of Claim	38	34	Meets Expectations	89.47%
Settlement Authority	22	22	Exceeds Expectations	100.00%
Litigated Cases	31	31	Exceeds Expectations	100.00%
Subrogation	5	5	Exceeds Expectations	100.00%
Excess Coverage	7	7	Exceeds Expectations	100.00%
Overall Score	1897	1749	Exceeds Expectations	92.20%

Detail

Category	Points Available	Points	Score	%
Claim Handling - Administrative				
Caseload				
Adjuster Caseload	1	1	Exceeds Expectations	100.00%
Case Review and Documentation				
Examiner Reviews - Timing	756	692	Exceeds Expectations	91.53%
Examiner Reviews - Quality Plan of Action	129	122	Exceeds Expectations	94.57%
Supervisor Reviews	317	271	Meets Expectations	85.49%
Medical Only Conversion	5	4	Meets Expectations	80.00%
Communication				
Ongoing Employee Contact	8	5	Unsatisfactory	62.50%
Fiscal Handling				
Payments on Correct Claims	40	40	Exceeds Expectations	100.00%
File Balancing	34	30	Meets Expectations	88.24%
Claim Creation				
Three Point Contact - Initial Employee Contact	19	18	Exceeds Expectations	94.74%
Three Point Contact - Initial Employer Contact	23	21	Exceeds Expectations	91.30%
Reserves				
Initial Reserves for Probable Value	24	24	Exceeds Expectations	100.00%
Initial Reserves Timely	24	24	Exceeds Expectations	100.00%
Score for Claim Handling - Administrative	1380	1252		90.72%

Category	Points Available	Points	Score	Score
Claim Handling - Technical				
Payments				
Medical Bills Paid Timely	88	88	Exceeds Expectations	100.00%
Penalties Coded Correctly	2	2	Exceeds Expectations	100.00%
Apportionment				
Apportionment Ruled In/Out	12	8	Unsatisfactory	66.67%
Apportionment Pursued Appropriately	8	8	Exceeds Expectations	100.00%
Disability Management				
Proactive RTW	4	4	Exceeds Expectations	100.00%
Member Noticed of Perm. Restrictions	4	4	Exceeds Expectations	100.00%
Reserving				
Reserves Adjusted Timely	120	113	Exceeds Expectations	94.17%
TD & 4850 Reserves Separate	16	16	Exceeds Expectations	100.00%
PD Exposure Includes Life Pension	3	3	Exceeds Expectations	100.00%
FM Reserve Consistent with OSIP	30	29	Exceeds Expectations	96.67%
Allocated Reserves Accurate	127	123	Exceeds Expectations	96.85%
Resolution of Claim				
Resolution Pursued Timely	19	15	Below Expectations	78.95%
Settlement Valuation	18	18	Exceeds Expectations	100.00%
Medicare's Interests Protected	1	1	Exceeds Expectations	100.00%
Settlement Authority				
EIA Settlement Authority Requested	3	3	Exceeds Expectations	100.00%
Member Settlement Authority Requested	19	19	Exceeds Expectations	100.00%
Litigated Cases				
Initiate Investigation Material to Potential Lit.	0	0	N/A	N/A
Litigation Management & Defense Attorney on Panel	31	31	Exceeds Expectations	100.00%
Subrogation				
Identify and Notice 3rd Party Timely	0	0	N/A	N/A
Periodic Contact with 3rd Party	2	2	Exceeds Expectations	100.00%
Complaint or Lien Filed Timely	0	0	N/A	N/A
Member Involved in Complaint vs. Lien	0	0	N/A	N/A
Subrogation Pursued for Maximum Recovery	2	2	Exceeds Expectations	100.00%
Approval to Accept, Waive, or Settle	1	1	Exceeds Expectations	100.00%
Excess Coverage				
Timely Initial Excess Reporting	1	1	Exceeds Expectations	100.00%
Timely Subsequent Excess Reporting	4	4	Exceeds Expectations	100.00%
Timely Excess Reimbursement Requests	2	2	Exceeds Expectations	100.00%
Closing Excess Report Sent	0	0	N/A	N/A
Score for Claim Handling - Technical	517	497		96.13%

AUDIT EXCEPTION DETAILS

Claim Handling – Administrative Caseload

Adjuster Caseload

Opportunities 1 | Achieved 1

The City of Oakland has 7 dedicated adjusters with caseloads within the standard. The weighted values listed below include adjustment for the 2:1 ratio for future medical and medical only claims.

Adjuster / Supervisor	City of Oakland			Other Accounts			Total	Weighted Value	MO & FM	Weighted Value	Total
	Indemnity	Med Only	Future Med	Indemnity	Med Only	Future Med					
Daniel Christensen/A.Cardenas	5	0	230	0	0	0	235	120	230	115	120
Jerry Hom / A. Cardenas	88	20	16	0	0	0	124	106	36	18	106
Jacquelyn Stingily/A. Cardenas	72	17	24	0	0	0	113	93	41	21	93
Caryl Calizo/B. Strome	0	0	246	0	0	0	246	123	246	123	123
Mary Denham/B. Strome	118	10	1	0	0	0	129	124	11	6	124
Yolanda Ballard/B. Strom	102	31	7	0	0	0	140	121	38	19	121
Grinnah Bautista/C. Angeles	85	4	15	0	0	0	104	95	19	10	95
Total	470	82	539	0	0	0	1091	781	621	311	781

Case Review & Documentation

Examiner Reviews - Timing

Opportunities 756 | Achieved 692

Please see Addendum I for a detailed summary of opportunities and plan of actions meeting the criteria for this standard.

Examiner Reviews - Quality Plan of Action

Opportunities 129 | Achieved 122

- CSAC-0479** The 09/05/19 POA note indicates the index results are pending. The index report was posted to the notes 08/01/19.
- CSAC-0484** The current plan of action does not include a rationale to support the current reserves which are understated.
- CSAC-0492** The plan of action does not reflect the medical exposure for which the current reserves are understated.
- CSAC-0493** The 09/04/19 plan of action note does not include a reserve rationale.
- CSAC-0527** The "index report" section of the notepad entry repeats "requested 01/02/19" in each POA. Index reports were received 02/04/19 and 08/06/19 but this is not evident within the POA note.
- CSAC-0530** The Index section of the 08/13/19 report indicates the ISO/index has been requested but does not acknowledge receipt or note the findings.
- CSAC-0542** The 02/21/19, 04/08/19, 07/08/19, and 08/22/19 POA notes repeatedly indicate that "once index report is received it will be reviewed to assist for the purpose of apportionment". The first index report was received 02/04/19 and acknowledged by the supervisor to contain multiple hits.

Supervisor Reviews

Opportunities 317 | Achieved 271

Please see Addendum I for a detailed summary of opportunities and supervisor reviews meeting the criteria for this standard.

Medical Only Conversion

Opportunities 5 | Achieved 4

1. **CSAC-0476** The claim was reopened as a medical only 07/18/18. The file should be reviewed for conversion due to prolonged treatment, surgical consult and reserves set over \$20,000.

Communication

Ongoing Employee Contact

Opportunities 8 | Achieved 5

1. **CSAC-0463** The employee was not contacted within 3 working days of the 08/28/19 surgery.
2. **CSAC-0483** The employee is off work as of 07/06/19. Adjuster contact with the employee while TD is not evident.
3. **CSAC-0506** The injured worker was not contacted within 3 days of the 10/29/18 surgery.

Fiscal Handling

Payments on Correct Claims

Opportunities 40 | Achieved 40

All claims that met the criteria for this category also met the standard.

File Balancing

Opportunities 34 | Achieved 30

1. **CSAC-0490** The file was balanced 10/05/18 with subsequent balancing due by 04/03/19. Subsequent balancing was untimely completed 04/09/19.
2. **CSAC-0548** File balancing was due 11/01/18 and was untimely completed 01/28/19.
3. **CSAC-0572** File balancing is not evident.
4. **CSAC-0598** The file was balanced 01/23/19. Subsequent to this, the file was untimely balanced 08/02/19.

Claim Creation

Three Point Contact – Initial Employee Contact

Opportunities 19 | Achieved 18

1. **CSAC-0463** The claim was received 03/25/19 with initial contacts due 03/28/19. The three-point contact screen documents two attempts to reach the employee 03/25/19 and 03/26/19. A third attempt was not documented until 04/02/19.

Three Point Contact – Initial Employer Contact

Opportunities 23 | Achieved 21

1. **CSAC-0472** This claim was received 07/22/19. The initial contact with the employer was due by 07/25/19. There was one contact attempt made on 07/22/19.
2. **CSAC-0517** The claim was received 02/21/19 with initial contacts due 02/26/19. Employer contact attempts are documented 02/21/19 and 02/22/19. A third attempt was not found.

Reserves

Initial Reserves for Probable Value

Opportunities 24 | Achieved 24

All claims that met the criteria for this category also met the standard.

Initial Reserve Timely

Opportunities 24 | Achieved 24

All claims that met the criteria for this category also met the standard.

Claim Handling – Technical

Payments

Medical Bills Paid Timely

Opportunities 88 | Achieved 88

All claims that met the criteria for this category also met the standard.

Penalties Coded Correctly

Opportunities 2 | Achieved 2

Both claims that met the criteria for this category also met the standard.

Apportionment

Ruled In/Out

Opportunities 12 | Achieved 8

1. **CSAC-0479** Apportionment ruled in/out has been marked down because there are no documented efforts to determine if the employee has prior injuries or medical conditions that would provide an avenue for apportionment. The employee was not questioned at the time of the initial contact and based upon the 09/05/19 POA the ISO/index report received 08/01/19 has not been reviewed.
2. **CSAC-0527** Apportionment ruled in/out has been marked down because the previous injury and prior claims sections of the three-point contact screen are blank. The auditor was unable to locate documentation that apportionment opportunities were explored within the notepad. Index/ISO reports were received 02/04/19 and 08/16/19 but do not appear to have been reviewed based upon the POA which repeatedly states the index was requested 01/02/19.
3. **CSAC-0530** The previous injury and prior claim sections of the employee contact screen were not completed. There is no evidence the ISO/index report received 08/08/19 has been reviewed.
4. **CSAC-0542** The three-point contact screen indicates the employee denied prior injuries/claims, but supervisor reviews note multiple priors identified via the ISO/index which have not been reviewed by the adjuster.

Pursued Appropriately

Opportunities 8 | Achieved 8

All claims that met the criteria for this category also met the standard.

Disability Management

Proactive Return to Work

Opportunities 4 | Achieved 4

All claims that met the criteria for this category also met the standard.

Member Noticed of Permanent Work Restrictions

Opportunities 4 | Achieved 4

All claims that met the criteria for this category also met the standard.

Reserving

Reserves Adjusted Timely

Opportunities 120 | Achieved 113

1. **CSAC-0451** Medical reserve strengthening is needed for costs associated with the med-legal evaluation to address the new and further filing.
2. **CSAC-0467** Based on the conservative future medical care recommendations outlined in the POA and lack of medical activity, medical reserves are overstated. There has been no treatment since 2014 so we are unable to calculate a 3-year average. The employee's current life expectancy is 19.7 years. Using \$500/year as an estimate, the auditor recommends \$9,850 for future medical reserves.
3. **CSAC-0478** The expense reserve is understated.
4. **CSAC-0484** The medical reserve is under stated and the expense reserve is overstated.
5. **CSAC-0491** Surgery was authorized 01/11/19 and took place 02/26/19. The reserves were untimely adjusted 03/22/19.
6. **CSAC-0492** The reserve adjusted timely was marked down as there are MRI findings and the employee has been referred for an ortho examination however the reserve has not been adjusted for the exposure.
7. **CSAC-0553** The stipulation has been paid in full. The auditor recommends removing the outstanding indemnity reserve.

TD & 4850 Reserved Separately

Opportunities 16 | Achieved 16

All claims that met the criteria for this category also met the standard.

PD Exposure Includes Life Pension

Opportunities 3 | Achieved 3

All claims that met the criteria for this category also met the standard.

FM Reserves Consistent with OSIP Standards

Opportunities 30 | Achieved 29

1. **CSAC-0484** The current reserves were not consistent with OSIP standards and are understated.

Allocated Reserve Accurate

Opportunities 127 | Achieved 123

1. **CSAC-0467** The current reserves are overstated. Adjustment to the allocated reserve is recommended.
2. **CSAC-0478** The current reserves are understated. Expense reserves need strengthening for further litigation.
3. **CSAC-0484** The current expense reserves are overstated.

4. **CSAC-0492** *The current expense reserves are understated.*

Reserve Detail

No recommended changes	125 claims
Increase recommended	4 claims
Decrease recommended	3 claims
Total estimated reserve variance	-\$18,238

Resolution of Claim

Resolution Pursued Timely

Opportunities 29 | Achieved 15

1. **CSAC-0465** *The supplemental QME report was received 01/09/19. An MSA was obtained for C&R consideration 01/31/19. The rating was received 03/11/19. Resolution pursued timely has been marked down because the file was not priced for settlement authority until 09/09/19.*
2. **CSAC-0486** *The notes document discussion with the member on 03/31/19 with agreement to submit a SAR based on the current record as the QME was non-responsive to requests for a supplemental. The SAR was not submitted to the member until 05/09/19.*
3. **CSAC-0532** *The AME report was received 08/01/18. Resolution pursued timely has been marked down because the SAR was not submitted to the member until 01/30/19.*
4. **CSAC-0535** *The AME report was received 08/01/18. Resolution pursued timely has been marked down because the SAR was not submitted to the member until 01/30/19.*

Settlement Valuation

Opportunities 18 | Achieved 18

All claims that met the criteria for this category also met the standard.

Medicare's Interests Protected

Opportunities 1 | Achieved 1

The claim that met the criteria for this category also met the standard.

Settlement Authority

EIA Settlement Authority Requested

Opportunities 3 | Achieved 3

All claims that met the criteria for this category also met the standard.

Member Settlement Authority Requested

Opportunities 19 | Achieved 19

All claims that met the criteria for this category also met the standard.

Litigated Claims

Initiate Investigation Material to Potential Litigation

Opportunities 0 | Achieved N/A

There were no applicable claims for this category.

**Proper Litigation Management and Defense Attorney on Panel
Opportunities 31 | Achieved 31**

All claims that met the criteria for this category also met the standard.

Subrogation

**Identify & Notice 3rd Party Timely
Opportunities 0 | Achieved N/A**

There were no applicable claims for this category.

**Periodic Contact with 3rd Party
Opportunities 2 | Achieved 2**

Both claims that met the criteria for this category also met the standard.

**Complaint or Lien Filed Timely
Opportunities 0 | Achieved N/A**

There were no applicable claims for this category.

**Member Involved in Complaint vs. Lien
Opportunities 0 | Achieved N/A**

There were no applicable claims for this category.

**Subrogation Pursued for Maximum Recovery
Opportunities 2 | Achieved 2**

Both claims that met the criteria for this category also met the standard.

**Approval to Accept, Waive or Settle 3rd Party Case
Opportunities 1 | Achieved 1**

The claim that met the criteria for this category also met the standard.

Excess Coverage

**Timely Initial Excess Reporting
Opportunities 1 | Achieved 1**

The claim that met the criteria for this category also met the standard.

**Timely Subsequent Excess Reports
Opportunities 4 | Achieved 4**

Please see Addendum I for a detailed summary of opportunities and excess reports meeting the criteria for this standard.

**Timely Excess Reimbursement Requests
Opportunities 2 | Achieved 2**

Both claims that met the criteria for this category also met the standard.

**Closing Excess Report Sent
Opportunities 0 | Achieved N/A**

There were no applicable claims for this category.

AUDITED BUT NOT SCORED RESULTS

Category	Points Available	Points	%
Supervisor Caseload	1	1	100.00%
Respond to Written Inquiries	66	65	98.48%
Ongoing Employer Communication/Reporting	4	4	100.00%
Initial Decision	25	22	88.00%
Final Decision	6	6	100.00%
AOE/COE Investigation	7	7	100.00%
Indexing	106	106	100.00%
Initial TD/PD Payment	21	16	76.19%
DWC Notice	38	33	86.84%
Subsequent TD/PD Payments	32	32	100.00%
Overpayments	0	0	N/A
Undisputed Awards Paid Timely	10	10	100.00%
Copy of Award to Excess	0	0	N/A
Medical Bills Objection Letters	12	12	100.00%
Employee Reimbursements Timely	12	12	100.00%
Advance Travel Timely	23	22	95.65%
Self-Imposed Penalties Paid	2	2	100.00%
Penalty Reimbursement	0	0	N/A
Proper Use of UR	53	53	100.00%
NCM Used Appropriately	5	5	100.00%
Proof of Member/EIA Authority	10	9	90.00%
Member Involved in Legal Activities Where Appropriate	2	2	100.00%

Appendix D
AON
Actuarial Review of the Self-Insured Workers'
Compensation Program
Period ending June 30, 2019

**City of Oakland,
California**

**Actuarial Study of the
Self-Insured Workers Compensation Program
as of June 30, 2019**

September 19, 2019

September 19, 2019

City of Oakland
150 Frank H. Ogawa Plaza, Second Floor
Oakland, California 94612

Attn: Mr. Andrew Lathrop
Risk Manager

**Actuarial Study of the
Self-Insured Workers Compensation Program
as of June 30, 2019**

This study has been completed for the City of Oakland, California, for the specific objectives listed in the study. It contains the analysis and conclusions of our work.

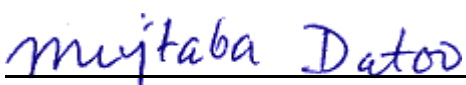
Each section and appendix of the study is an integral part of the whole. We recommend a review of the entire study prior to reliance upon this study.

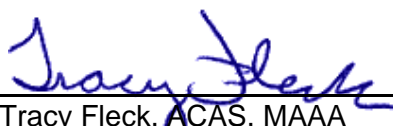
No key personnel have a relationship with the City of Oakland, California, that may impair our objectivity.


Please call if you have any questions. Thank you for the opportunity to be of service.

Respectfully submitted,

Aon Risk Consultants, Inc.

By 
Mujtaba Dato, ACAS, MAAA, FCA
Actuarial Practice Leader


Tracy Fleck, ACAS, MAAA
Consultant and Actuary


Brenda Craigmyle
Senior Actuarial Analyst

MD:bc

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I.	Background	1
II.	Objectives	2
III.	Conclusions	3

Appendices

- A Conditions and Limitations
- B Glossary of Actuarial Terms
- C Exhibits

I. Background

The City of Oakland (the City) was fully self-insured for workers compensation until August 1, 2004. Effective August 2, 2004, the City began purchasing excess insurance.

The history of the City's self-insured retentions for workers compensation is as shown in Table I-1.

Table I-1
Self-Insured Retentions
(Workers Compensation)

Claim Period (1)	Self-Insured Retention (2)
To 8/1/2004	Unlimited
8/2/2004 to 6/30/2008	\$1,000,000
7/1/2008 and subsequent	750,000

Note: Above information provided by the City.

A self-insured retention of \$750,000 is assumed through 2020/21.

We have not reviewed the collectibility of the excess insurance. JT2 administers the workers compensation program.

The fiscal period runs from July 1 through June 30.

Data

Loss data valued as of June 30, 2019 was provided to us by the City. The City also provided payroll for 2018/19. Payroll projections for 2019/20 and 2020/21 are based on a 1% trend. Payroll for 2017/18 and prior were provided for previous studies.

In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis. Any material discrepancies discovered in the loss or exposure data by the City or any other parties should be reported to us immediately, and if warranted, we will make appropriate amendments to the report.

Consistent with the prior study, we have combined several claims from 2009 into one occurrence that was identified by the City.

II. Objectives

The specific objectives of this study are:

1. **Estimate Outstanding Losses.** Estimate outstanding losses (including allocated loss adjustment expenses [ALAE]) as of June 30, 2019.

The estimated outstanding losses are the cost of unpaid claims. The estimated outstanding losses include case reserves, the development of known claims and incurred but not reported (IBNR) claims. ALAE are the direct expenses for settling specific claims. The amounts are limited to the self-insured retention.

2. **Project Ultimate Losses.** Project ultimate losses (including ALAE) for 2019/20 and 2020/21.

The projected ultimate losses are the accrual value of losses with accident dates during 2019/20 and 2020/21, regardless of report or payment date. The amounts are limited to the self-insured retention.

3. **Project Losses Paid.** Project losses paid during the 2019/20 and 2020/21 years.

The projected losses paid are the claim disbursements during 2019/20 and 2020/21, regardless of accident or report date. The amounts are limited to the self-insured retention.

4. **Compare to Previous Actuarial Study.** Compare to the previous actuarial study valued as of June 30, 2018.

5. **Size of Loss Distribution Analysis.** Analyze the distribution of losses in various layers.

6. **Affirm GASB Statement No. 10.** Provide a statement affirming the conclusions of this report are consistent with Governmental Accounting Standards Board (GASB) Statement No. 10.

III. Conclusions

We have reached the following conclusions:

1. Estimate Outstanding Losses

We estimate outstanding losses as of June 30, 2019 to be as shown in Table III-1.

**Table III-1
Estimated Outstanding Losses
at Expected (50%) Confidence Level
June 30, 2019**

Item (1)	Amount (2)
(A) Estimated outstanding losses	\$81,399,970
(B) Present value of estimated outstanding losses	69,784,661

Note: (A) and (B) are from Exhibit WC-11.

The estimated outstanding losses decreased by \$11.1 million from our prior estimate of \$92,452,763 as of June 30, 2018 to \$81,399,970 as of June 30, 2019. The decrease consists of:

- +\$18.6 million from the additional year (2018/19) of exposure,
- -\$17.6 million for claim payments made during 2018/19, and
- -\$12.0 million due to a decrease in projected ultimate losses for claim periods 2017/18 and prior. This decrease reflects lower than expected loss development, as discussed on pages 11 and 12.

The present value of the estimated outstanding losses is the amount of money, discounted for anticipated investment income, required to meet unpaid claims. It is calculated based on a 2.5% yield on investments, as previously provided by the City.

The estimated outstanding losses reflect the excess insurance maintained by the City.

GASB Statement No. 10 requires public entities to recognize the impact of all benefits paid for work-related injuries.

The implementation guide for GASB Statement No. 10 specifies that a liability for outstanding unallocated loss adjustment expenses (ULAE) needs to be established for governmental entities. ULAE are primarily composed of future claims administration for open claims. They are typically 5% to 10% of the estimated outstanding losses.

'4850' benefits are a full-salary (12 months) benefit for safety personnel. They are typically about 5% of the estimated outstanding losses.

2. Project Ultimate Losses

We project ultimate losses for 2019/20 and 2020/21 to be as shown in Tables III-2A and III-2B.

**Table III-2A
Projected Ultimate Losses
2019/20**

Item (1)	Projected Payroll (000) (2)	Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)
(A) Full Value	\$379,798	\$5.62	\$21,333,000
(B) Present Value	379,798	4.98	18,902,000

Note: (A) and (B) are from Exhibit WC-10.

**Table III-2B
Projected Ultimate Losses
2020/21**

Item (1)	Projected Payroll (000) (2)	Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)
(A) Full Value	\$383,596	\$5.67	\$21,761,000
(B) Present Value	383,596	5.03	19,282,000

Note: (A) and (B) are from Exhibit WC-10.

The projected ultimate losses have decreased by 15% compared to the projection in the prior study. This is due to a 9% decrease in payroll and a 7% decrease in the projected loss rate.

**Table III-2C
Comparison of Projected Ultimate Losses
2018/19 and 2019/20**

Claim Period (1)	Projected Payroll (000) (2)	Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)
(A) 2018/19 (prior study)	\$417,725	\$6.04	\$25,231,000
(B) 2019/20 (current study)	379,798	\$5.62	21,333,000
(C) Change (B) - (A)	(\$37,927)	(\$0.42)	(\$3,898,000)

The present value of the projected ultimate limited losses is the amount of money, discounted for anticipated investment income, required to meet claims. It is calculated based on a 2.5% yield on investments, as provided by the City.

All costs other than losses are additional.

3. Project Losses Paid

We project losses paid during 2019/20 and 2020/21 to be as shown in Table III-3.

Table III-3
Projected Losses Paid
2019/20 and 2020/21

Item (1)	2019/20 (2)	2020/21 (3)
(A) Projected losses paid	\$17,972,657	\$18,563,842

Note: (2) is from Exhibit WC-12.
(3) is from Exhibit WC-13.

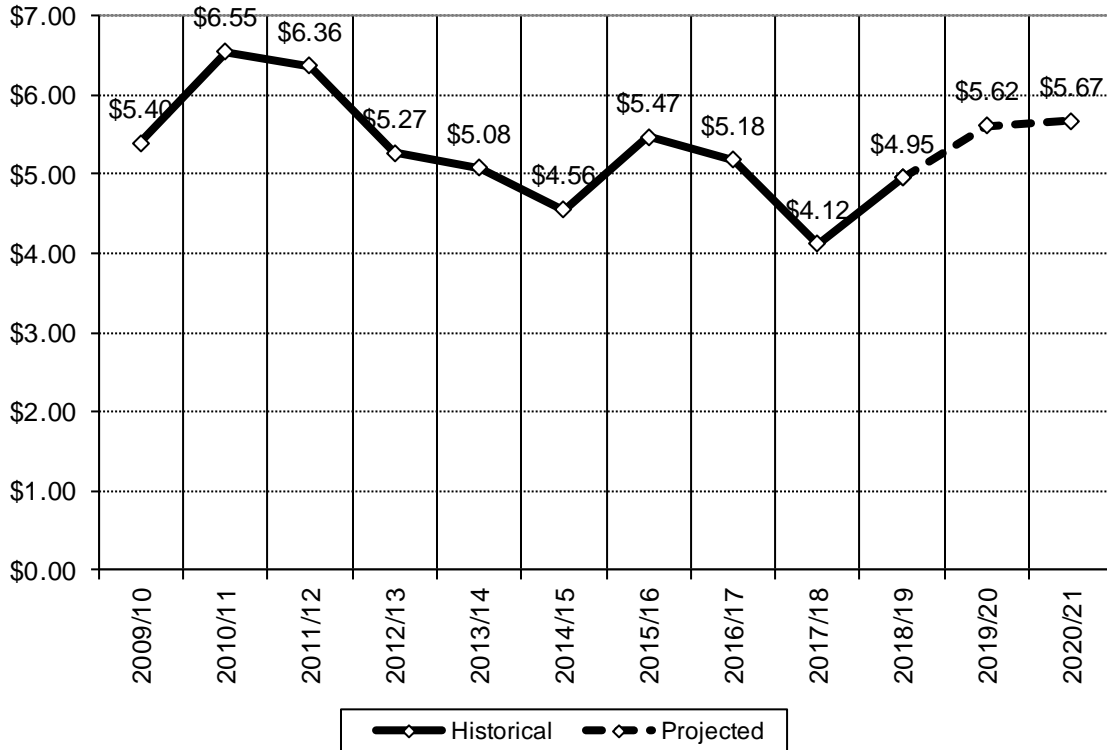
We note that there are four large open claims with case reserves greater than \$1 million (on an unlimited basis). We have assumed that these claims will be paid out according to the selected payment pattern anticipated in this report. If these claims are paid out in a lump sum, or in any manner different than the selected pattern, the projected loss payments shown in Table III-3 may vary from expected payments.

All costs other than losses are additional.

Loss Experience Trends

Graphs III-1 and III-2 show loss experience trends for workers compensation as measured by loss rate per \$100 of payroll and frequency and severity, respectively.

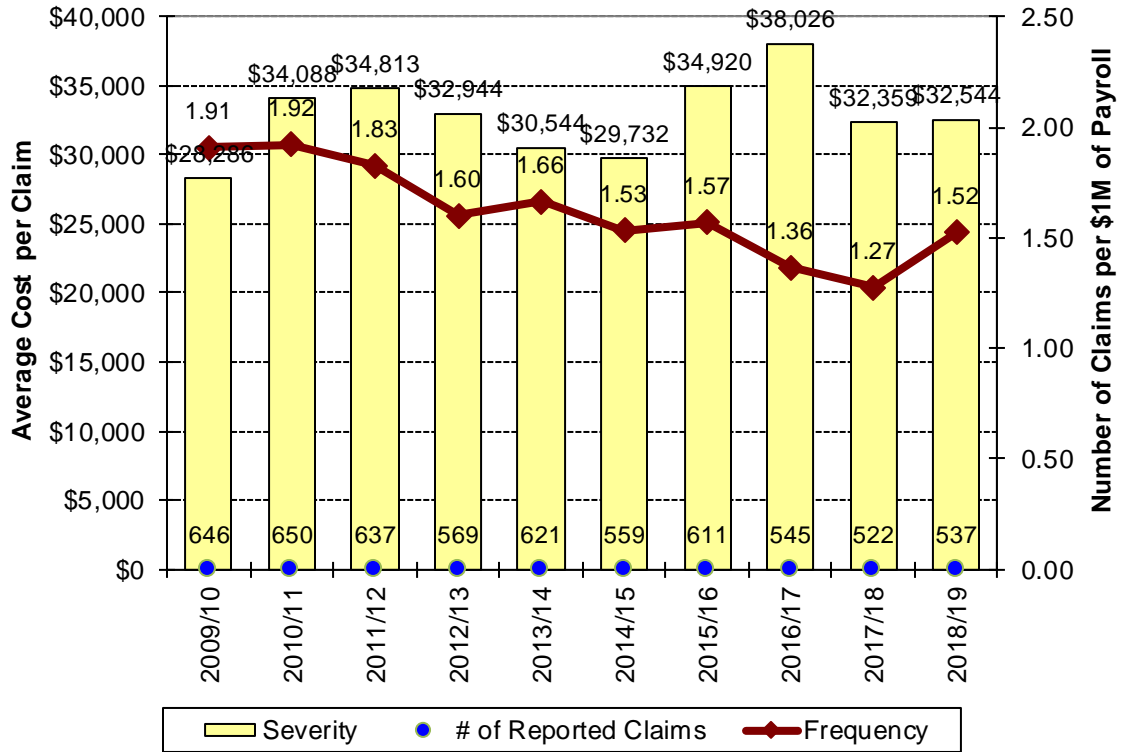
Graph III-1
Loss Rate per \$100 of Payroll
(Workers Compensation)



Note: Loss rates per \$100 of payroll are from Exhibit WC-10, columns (4) and (7).

We note that the loss experience of 2010/11 and 2011/12 is greater due to the presence of more claims between \$100,000 to \$250,000. Conversely, the loss experience of 2012/13 through 2014/15 is favorable because there are fewer claims over \$50,000 than there has been historically. A size of loss distribution is provided in Exhibit WC-16.

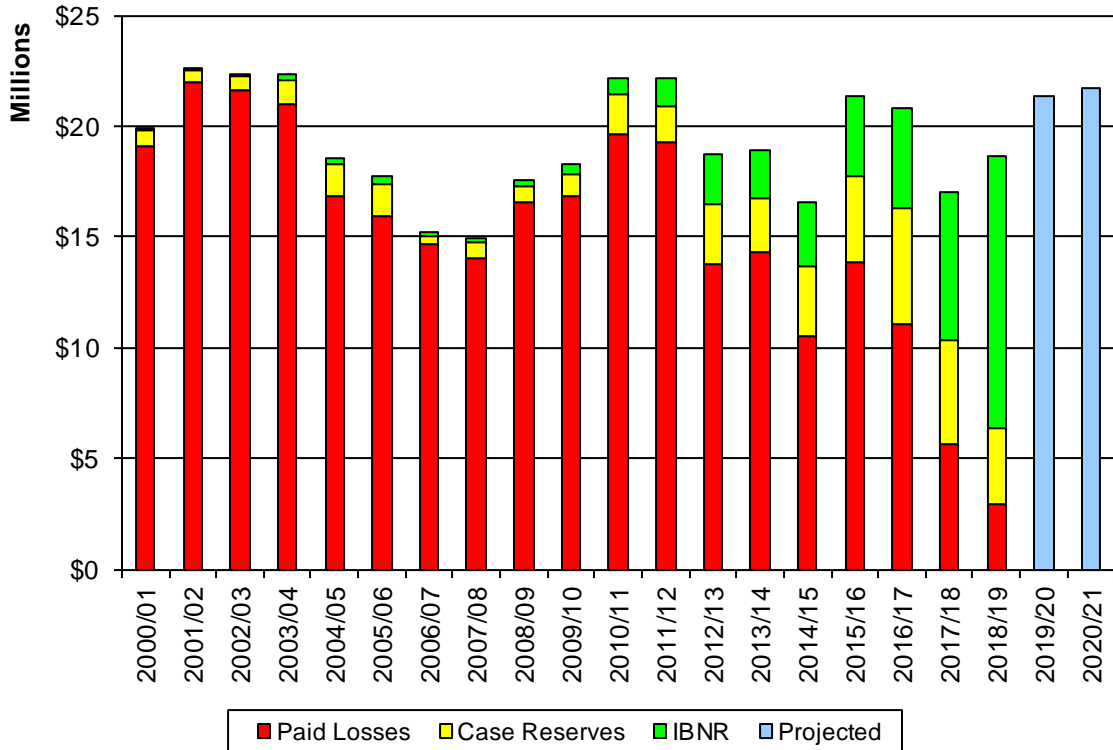
**Graph III-2
Frequency and Severity
(Workers Compensation)**



Note: Frequency amounts are from Exhibit WC-8, Section I, column (7).
Severity amounts are based on Exhibits WC-8 and WC-9.

Graph III-3 shows the composition of the projected ultimate limited losses for workers compensation.

Graph III-3
Composition of Projected Ultimate Limited Losses
(Workers Compensation)



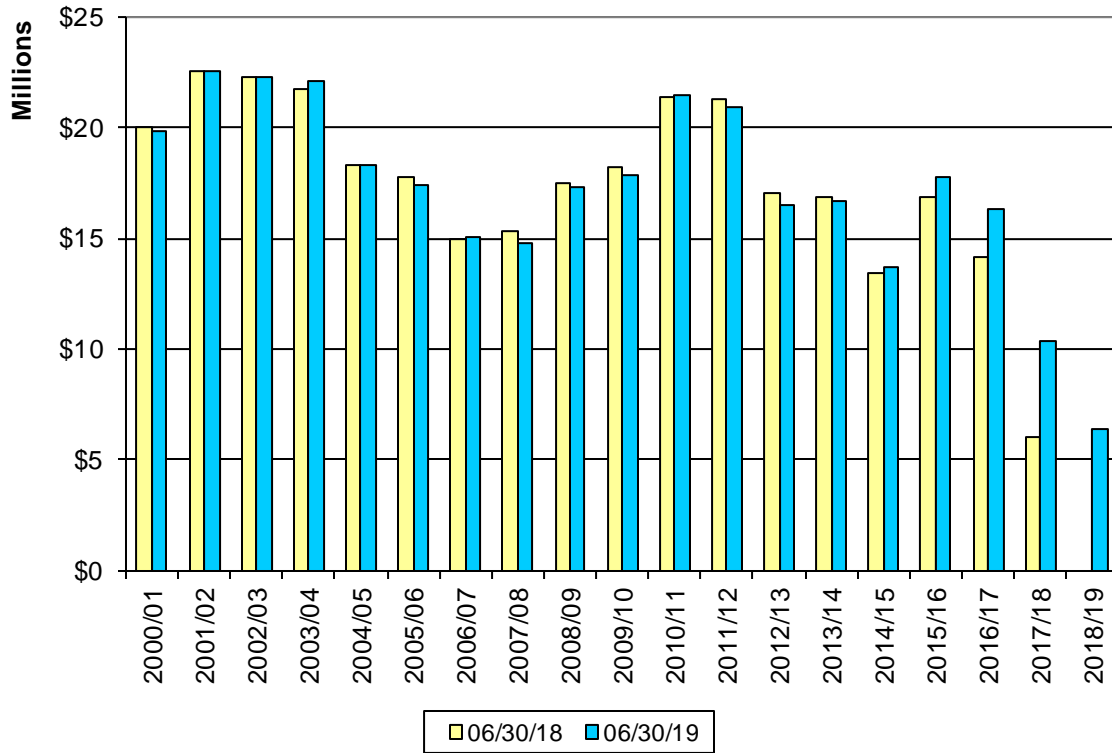
Note: Amounts through 2018/19 are from Exhibit WC-11.
Amounts for 2019/20 and 2020/21 are from Exhibit WC-10.

A list of large claims with limited reported incurred losses \$500,000 or greater as of June 30, 2019 is as shown in Exhibit WC-15.

4. Compare to Previous Actuarial Study

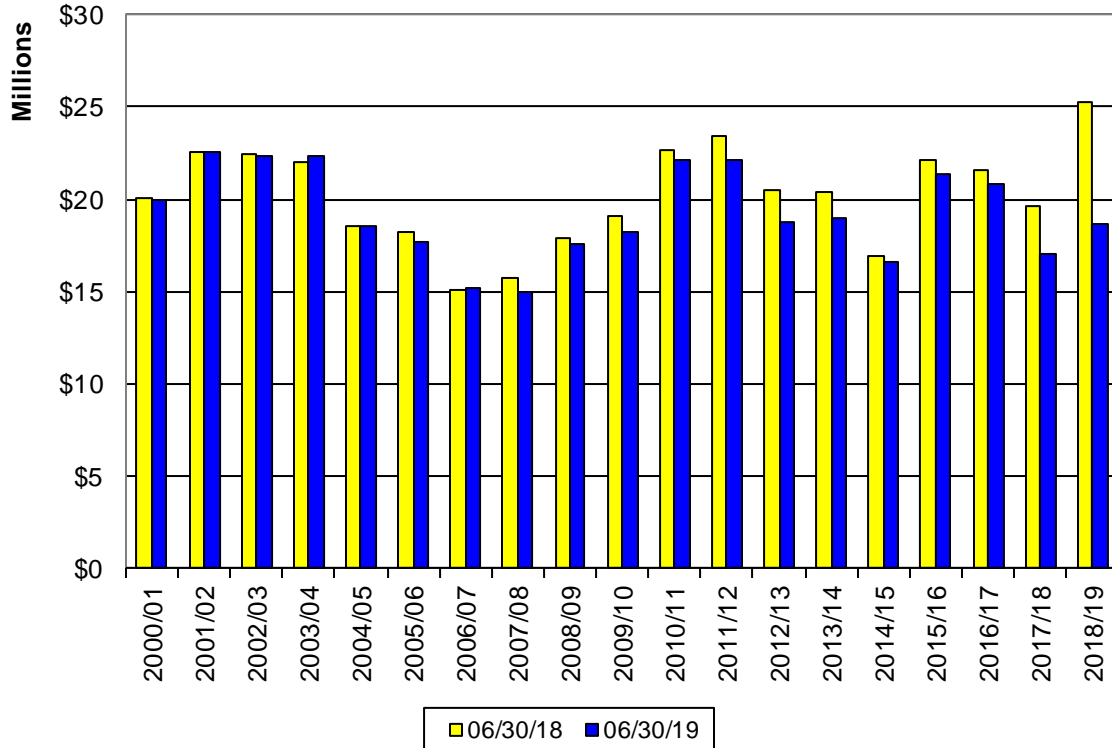
Graphs III-4 and III-5 are graphical comparisons of the reported incurred losses and projected ultimate losses, respectively, by fiscal year of occurrence of the workers compensation program from the previous study (report dated October 19, 2018) to the current study.

**Graph III-4
Comparison of Limited Reported Incurred Losses
as of June 30, 2018 and June 30, 2019**



Note: Amounts as of June 30, 2018 are from the previous actuarial study.
Amounts as of June 30, 2019 are from Exhibit WC-1.

Graph III-5
Comparison of Projected Ultimate Limited Losses
as of June 30, 2018 and June 30, 2019



Note: Amounts as of June 30, 2018 are from the previous actuarial study.
Amounts as of June 30, 2019 are from Exhibits WC-9.

For all claims through 2017/18, the change in the projected ultimate limited losses from June 30, 2018 to June 30, 2019 was -2.1%.

We compare the projected ultimate limited losses by year as of June 30, 2018 and June 30, 2019 as shown in Table III-4A.

**Table III-4A
Comparison of Projected Ultimate Limited Losses
as of June 30, 2018 and June 30, 2019**

Claim Period (1)	Projected Ultimate Limited Losses as of 6/30/18 (2)	Projected Ultimate Limited Losses as of 6/30/19 (3)	Change (3) - (2) (4)	Percentage Change (4) / (2) (5)
to 1999/00	\$209,584,000	\$209,089,000	(\$495,000)	-0.2%
2000/01	20,117,000	19,911,441	(205,559)	-1.0%
2001/02	22,604,000	22,567,000	(37,000)	-0.2%
2002/03	22,432,000	22,382,000	(50,000)	-0.2%
2003/04	21,998,000	22,313,000	315,000	1.4%
2004/05	18,558,000	18,552,000	(6,000)	0.0%
2005/06	18,243,000	17,722,000	(521,000)	-2.9%
2006/07	15,070,000	15,211,000	141,000	0.9%
2007/08	15,777,000	14,996,000	(781,000)	-5.0%
2008/09	17,925,000	17,585,000	(340,000)	-1.9%
2009/10	19,046,000	18,273,000	(773,000)	-4.1%
2010/11	22,664,000	22,157,000	(507,000)	-2.2%
2011/12	23,463,000	22,176,000	(1,287,000)	-5.5%
2012/13	20,459,000	18,745,000	(1,714,000)	-8.4%
2013/14	20,402,000	18,968,000	(1,434,000)	-7.0%
2014/15	16,943,000	16,620,000	(323,000)	-1.9%
2015/16	22,089,000	21,371,000	(718,000)	-3.3%
2016/17	21,552,000	20,838,000	(714,000)	-3.3%
2017/18	19,644,000	17,053,000	(2,591,000)	-13.2%
2018/19	25,231,000	18,615,000	(6,616,000)	-26.2%
Total	\$593,801,000	\$575,144,441	(\$18,656,559)	-3.1%

Note: (2) is from the prior actuarial study.
(3) is from Exhibit WC-9 and Exhibit WC-10.

The City experienced generally lower than expected loss development for most years from 2007/08 through 2018/19, resulting in a decrease in the estimated ultimate losses for most of these years. The estimate for 2018/19 has decreased from the prior projection, due to lower than expected paid and incurred loss development.

Actual loss experience versus expected experience in the prior actuarial study, for both paid and incurred losses, is as shown in Table III-4B.

Table III-4B
Comparison of Actual and Expected Experience
June 30, 2018 to June 30, 2019

Claim Period (1)	Paid Losses in the Period			Incurred Losses in the Period		
	Paid Expected (2)	Paid Actual (3)	Difference (3) - (2) (4)	Incurred Expected (5)	Incurred Actual (6)	Difference (6) - (5) (7)
to 1999/00	\$1,198,339	\$1,238,930	\$40,591	\$190,877	(\$337,500)	(\$528,377)
2000/01	60,449	168,740	108,291	26,252	(153,436)	(179,688)
2001/02	39,414	154,935	115,521	21,223	3,168	(18,055)
2002/03	61,115	275,591	214,476	29,846	20,361	(9,485)
2003/04	74,972	414,301	339,329	49,070	375,166	326,096
2004/05	147,571	184,194	36,623	66,755	55,188	(11,568)
2005/06	172,573	106,222	(66,351)	103,306	(325,937)	(429,243)
2006/07	45,062	115,847	70,785	26,999	154,502	127,503
2007/08	160,463	48,896	(111,567)	95,886	(595,281)	(691,167)
2008/09	131,359	71,818	(59,541)	82,413	(179,296)	(261,709)
2009/10	244,718	189,017	(55,701)	189,727	(352,873)	(542,600)
2010/11	294,507	198,037	(96,470)	305,034	146,949	(158,085)
2011/12	527,131	454,281	(72,850)	435,458	(341,775)	(777,232)
2012/13	833,871	410,477	(423,394)	671,263	(537,300)	(1,208,563)
2013/14	950,929	956,098	5,169	617,756	(159,263)	(777,020)
2014/15	1,149,678	1,046,080	(103,598)	573,179	226,297	(346,882)
2015/16	2,162,605	2,581,689	419,084	1,623,732	912,062	(711,670)
2016/17	2,682,601	2,972,132	289,531	2,057,617	2,175,115	117,498
2017/18	3,417,446	3,074,110	(343,336)	5,527,050	4,359,736	(1,167,314)
2018/19	3,672,389	2,965,835	(706,554)	9,618,438	6,368,072	(3,250,366)
Total	\$18,027,192	\$17,627,231	(\$399,961)	\$22,311,882	\$11,813,956	(\$10,497,926)

Note: (2) and (5) are expected amounts from June 30, 2018 to June 30, 2019.
(3) and (6) are the actual experience from June 30, 2018 to June 30, 2019.

As part of our analysis, we project ultimate losses by year using paid loss development and incurred loss development (these are defined in the attached Glossary). Table III-4B shows how the paid and incurred claims emerged 12 months later based on loss development factors we selected in the actuarial study valued as of June 30, 2018. This analysis provides a peek into how the claims are actually emerging compared to the expected emergence which is based on historical development patterns.

5. Size of Loss Distribution Analysis

Table III-5A shows the distribution of losses in various layers for workers compensation.

Table III-5A
Size of Loss Distribution
(Workers Compensation)

Claim Size (1)	Total Reported Claims (2)	Percent of Total (2)/Total(2) (3)	Cumulative Percent of Total (4)	Total Reported Incurred Losses (5)	Percent of Total (5)/Total(5) (6)	Cumulative Percent of Total (7)
(A) \$1 to \$5,000	27,335	77.5%	77.5%	\$24,120,246	4.2%	4.2%
(B) \$5,000 to \$10,000	1,922	5.5%	83.0%	13,519,536	2.4%	6.6%
(C) \$10,000 to \$25,000	1,875	5.3%	88.3%	30,423,874	5.3%	11.9%
(D) \$25,000 to \$50,000	1,366	3.9%	92.2%	48,939,526	8.5%	20.4%
(E) \$50,000 to \$100,000	1,243	3.5%	95.7%	88,911,292	15.5%	35.9%
(F) \$100,000 to \$250,000	1,166	3.3%	99.0%	182,833,623	31.9%	67.9%
(G) \$250,000 to \$500,000	271	0.8%	99.8%	88,402,950	15.4%	83.3%
(H) \$500,000 to \$750,000	45	0.1%	99.9%	27,208,052	4.7%	88.0%
(I) \$750,000 to \$1,000,000	14	0.0%	100.0%	12,120,406	2.1%	90.1%
(J) Over \$1,000,000	15	0.0%	100.0%	56,466,149	9.9%	100.0%
(K) Total (A) ... (J)	35,252	100%		\$572,945,656	100%	

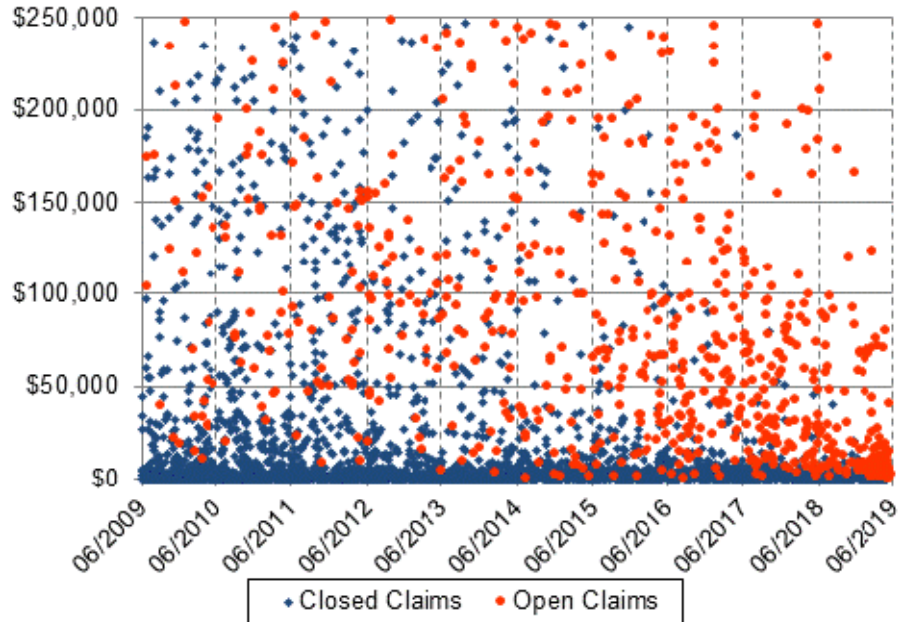
Note: See Exhibit WC-16. Claim counts exclude claims with incurred value of \$0.

For workers compensation, about 83% of the non-zero claims reported are below \$10,000 and represent about 7% of the incurred amounts. The remaining 17% of the claims consume about 93% of the incurred amounts.

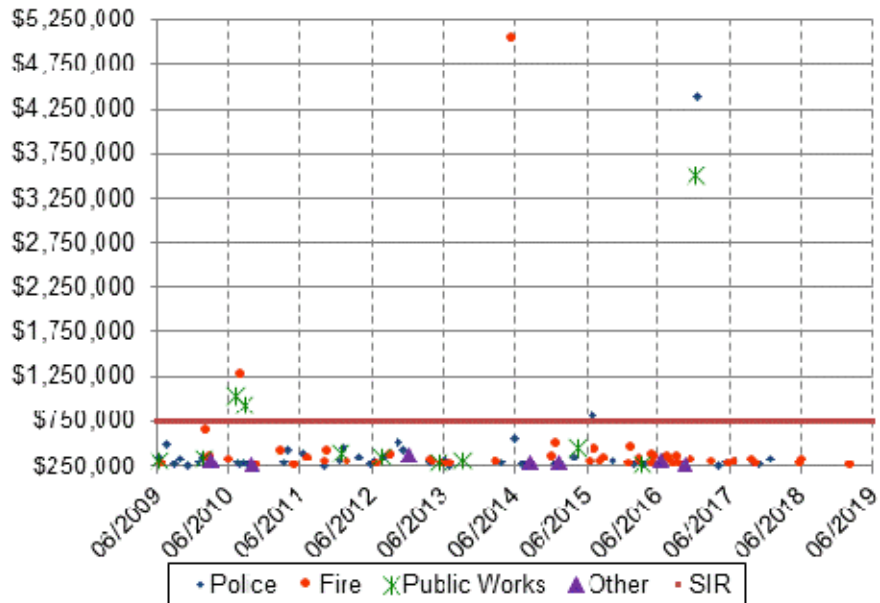
A size of loss distribution by year and loss layer as of June 30, 2019 is as shown in Exhibit WC-16.

The reported workers compensation claim experience underlying our analysis is shown below in Graphs III-6 and III-7, with each point representing one claim. The amounts are gross of excess insurance.

Graph III-6
Distribution of Workers Compensation Losses
Incurred Less Than \$100,000
2009/10 through 2018/19



Graph III-7
Distribution of Workers Compensation Losses
Incurred Greater Than \$100,000
2009/10 through 2018/19



Note: A large claim with \$19.9 million incurred is not shown in the above graph.

Table III-5B shows the distribution of claim counts and incurred losses (not developed or trended) by type of benefit.

**Table III-5B
Loss Distribution by Type of Benefit
(2009/10 through 2018/19)**

Claim Type (1)	Claim Counts		Incurred Losses	
	Count (2)	% (3)	Loss (4)	% (5)
(A) Medical Only	2,706	45.9%	\$2,587,271	1.4%
(B) Claims with Indemnity				
(i) Indemnity			102,210,290	54.0%
(ii) Medical			70,551,900	37.3%
(iii) <u>Expense</u>			<u>13,985,832</u>	<u>7.4%</u>
(iv) Subtotal	3,191	54.1%	186,748,023	98.6%
(C) Total (A)+(Biv)	5,897	100%	\$189,335,293	100%

Note: See Exhibit WC-17.

About 46% of the claims reported are Medical Only claims and represent about 1% of the incurred amounts. For the Claims with Indemnity, Indemnity benefits are 54.0%, Medical 37.3%, and expense 7.4% of the total benefit.

6. Affirm GASB Statement No. 10

We affirm the conclusions of this report are consistent with GASB Statement No. 10.

Conditions and Limitations

It is important to understand the conditions and limitations listed below. Each chapter and section is an integral part of the whole study. If there are questions, please contact Aon for clarification.

- **Data Quality** In conducting this analysis, we relied upon the provided data without audit or independent verification; however, we reviewed it for reasonableness and consistency. Any inaccuracies in quantitative data or qualitative representations could have a significant effect on the results of our review and analysis. Any material discrepancies discovered in the loss data by the organization or any other parties should be reported to us immediately, and if warranted, we will make appropriate amendments to the report.
- **Economic Environment.** Unless otherwise stated, we assumed the current economic conditions will continue in the foreseeable future.
- **Insurance Coverage.** Unless otherwise stated, we assumed no insurance coverage changes (including coverage provided by the organization to others) subsequent to the date this study was prepared. This includes coverage language, self-insured retention, limitations and similar issues.
- **Insurance Solvency.** Unless otherwise stated, we assumed all insurance purchased by the organization is from solvent sources payable in accordance with terms of the coverage document.
- **Interest Rate.** The exhibits specify the annual interest rate used.
- **Methodology.** In this study, different actuarial methods were applied. In some instances, the methods yield significantly disparate results. The estimates, projections and recommendations in this study reflect our judgments as to the best method or combination of methods that are most reliable and reflective of the exposure to loss.
- **Reproduction.** Use of this report is limited to the organization for the specific purpose described in the Introduction section. Other uses are prohibited without an executed release with Aon.

Distribution by the organization is unrestricted. The report should only be distributed in its entirety including all supporting exhibits.

- **Risk and Variability.** Insurance is an inherently risky enterprise. Actual losses may vary significantly from our estimates, projections and recommendations. They may emerge higher or lower.

- **Statutory and Judicial Changes.** Legislatures and judiciaries may change statutes that govern indemnification. This includes benefit levels for workers compensation, immunities and limitations for liability, and other similar issues. Unless otherwise stated, we assumed no statutory changes subsequent to the date this study was prepared.
- **Supplemental Data.** In addition to the data provided by the organization, we supplemented our analysis with data from similar organizations and insurance industry statistics, as we deemed appropriate.
- **Usage.** This study has been prepared for the usage of the organization shown on the transmittal page. It was not prepared for and may not be appropriate for use by other organizations. Other organizations should obtain written permission from Aon prior to use of this study.

Glossary of Actuarial Terms

Actuarial Methods (Most Common)

A major objective of an actuarial study is to statistically project ultimate losses. The following actuarial methods are the most common:

- Developed Paid Losses
- Developed Reported Incurred Losses
- Developed Case Reserves
- Frequency Times Severity Analysis
- Loss Rate Analysis

The following describes each method:

1. **Developed Paid Losses.** Paid losses represent the amounts actually paid to claimants (less excess insurance recoveries). As time goes on, loss payments continue until all claims are closed and there are no remaining payments expected. At this time, the ultimate losses for the claim period are known. This common process is called “paid loss development.”

Paid loss development is an extrapolation of actual dollars paid. It does not depend on case reserve estimates. A potential shortcoming of utilizing this method is that only a small fraction of total payments have been made for the most recent claim periods. Extrapolating ultimate losses based on small amounts of actual payments may be speculative. A second potential shortcoming is that payment patterns can change over time.

2. **Developed Reported Incurred Losses.** Reported incurred losses are paid losses plus case reserves. In most programs, total reported incurred losses underestimate the ultimate losses. Over time, as more information about a body of claims becomes known, they are adjusted either up or down until they are closed. Though many individual claims settle for less than what was estimated, these decreases are generally more than offset by increases in the cost of other claims for which new information has emerged.

The net effect is that total estimated costs are often revised upward over time. This normal process is called “reported incurred loss development.” Actuaries typically review the development patterns of the recent past to make projections of the expected future loss development and, therefore, estimations of ultimate losses.

3. **Developed Case Reserves.** A case reserve is an estimate of the unpaid amount established by claims adjusters for which a particular claim will ultimately be settled or adjudicated. The developed case reserves method is a hybrid of the paid loss development and reported incurred loss development methods. It relies on the historical adequacy of case reserves to predict ultimate losses.

4. **Frequency Times Severity Analysis.** The frequency times severity analysis is an actuarial method that uses a preliminary projection of ultimate losses to project claims severity. The claims severity times the number of claims is a predictor of ultimate losses. The focus of the frequency times severity analysis is that ultimate losses each period are dependent on the number of claims.
5. **Loss Rate Analysis.** The loss rate analysis is based on the historical loss rates per exposure unit (such as payroll, vehicles or property value). The loss rates (projected ultimate losses divided by exposure units) are trended to reflect the effect of claim cost inflation and retention changes. The trended loss rates represent the rates that one would see if all of the claims had been handled in the claim cost environment that will be present in the upcoming period. The trended loss rate times the projected exposure units is a predictor of losses.
6. **Bornhuetter-Ferguson Method (B-F).** The B-F method is an actuarial method that weights a preliminary projection of ultimate losses with projections of ultimate losses determined by other actuarial methods (usually the developed paid losses and developed reported incurred losses methods). For less mature claim periods, the B-F method leans more heavily to the preliminary projection. It gradually converges to the projections of ultimate losses determined by the other actuarial methods as the claim periods mature.

Actuary

A specialist trained in mathematics, statistics, and finance who is responsible for rate, reserve, and dividend calculations and other statistical studies.

Allocated Loss Adjustment Expenses

Allocated loss adjustment expenses (ALAE) are the direct expenses to settle specific claims. These expenses are primarily legal expenses.

Governmental Accounting Standards Board (GASB) Statement No. 10 requires that ALAE be included in financial statements and that they be calculated by actuarial methods.

American Academy of Actuaries

A society concerned with the development of education in the field of actuarial science and with the enhancement of standards in the actuarial field. Members may use the designation MAAA (Member, American Academy of Actuaries).

Benefits

The financial reimbursement and other services provided insureds by insurers under the terms of an insurance contract. An example would be the benefits listed under a life or health insurance policy or benefits as prescribed by a workers compensation law.

Casualty Actuarial Society

A professional society for actuaries in areas of property and casualty insurance work. This society grants the designation of Associate of the Casualty Actuarial Society (ACAS) and Fellow of the Casualty Actuarial Society (FCAS).

Claim

Demand by an individual or entity to recover for a loss.

Claims Made

A policy written on this basis covers only those claims that are made during the policy period. Coverage for prior acts is provided back to what is known as the retroactive date, which is the effective date of the original claims made policy with the same insurer.

Composite Rate

A single rate with a single basis of premium (e.g., payroll or sales). For this single rate the insured is covered for a variety of hazards, such as premises and operations, completed operations, products liability, and automobile. Its primary value is to compute premium simply.

Confidence Level

A confidence level is the statistical certainty that an actuary believes funding will be sufficient. For example, an 80% confidence level means that the actuary believes funding will be sufficient in eight years out of ten.

Confidence levels are determined based on mathematical models. Coverages that are low frequency and high severity (such as excess liability) are subject to greater risk than coverages that are high frequency and low severity (such as automobile physical damage). Therefore, they need a greater margin to attain a given confidence level.

Coverage

The scope of the protection provided under a contract of insurance.

Credibility

Credibility is the belief that the sample data is an accurate reflection of the larger population. Credibility is highest when the sample data is large and the standard deviation (discussed later) of the larger population is low.

Dates

There are at least three milestone dates in a claim. They are the date of injury or accident, the date of report and the date of closure. It is best if each of these dates is recorded. Some organizations may also keep the date a claim becomes a lawsuit, as opposed to a demand. Aon recommends this additional level of detail, especially if the data is to be used for litigation management.

Deductible

The portion of an insured loss to be borne by the insured before he is entitled to recovery from the insurer. Deductibles may be expressed as a dollar amount, percentage or waiting period.

Disability

A condition that curtails a person's ability to carry on his normal pursuits. A disability may be partial or total, and temporary or permanent.

Dividend (Policyholder)

The return of part of the premium paid for a policy issued on a participating basis by either a mutual or a stock insurer.

Estimated Outstanding Losses

Estimated outstanding losses are the cost of claims that have occurred but have not yet been paid. They typically include indemnification and allocated loss adjustment expenses (ALAE), but not unallocated loss adjustment expenses (ULAE).

Estimated outstanding losses are calculated as projected ultimate losses less paid losses. Alternatively, they are the sum of case reserves and incurred but not reported (IBNR) claims.

Estimated outstanding losses are usually the largest single item listed as a liability on the balance sheet of a public entity's financial statement. GASB Statement No. 10 requires they be calculated by actuarial methods. Other common names for estimated outstanding losses are outstanding claims liabilities and unpaid claims.

Experience Rating

A method of adjusting the premium for a risk based on past loss experience for that risk compared to loss experience for an average risk.

Exposure Data

Exposure data refers to the activities of the organization. For example, payroll is the most common exposure measure for workers compensation. Aon suggests collecting exposure data with the following characteristics:

- **Readily Available.** The exposure data should be easily obtained. It is best if it is a byproduct of other activities, although this is not always possible. If getting data is arduous, it may discourage collection.
- **Vary With Losses.** The exposure data should correlate directly with losses. The ideal situation is where exposure and expected losses move in tandem. The exposure base needs to be fitting to the coverage. For example, the number of employees may vary with property losses (more employees = more office space = more losses), but property value is a clearly superior exposure base for property losses.

Generally Accepted Accounting Principles (GAAP)

These principles are intended to produce financial results (in the insurance industry) consistent with those of other industries and to assure consistency in financial reporting.

Incurred But Not Reported

IBNR is really comprised of two distinct items. These are the development of known case reserves (incurred but not enough reported [IBNER] and incurred but not yet reported [IBNYR]).

IBNER are the actuary's estimate of the inadequacy of case reserves. Most claims settle at amounts close to what is set by the claims administrator. Some claims close favorably and some emerge as more expensive. On balance, case reserves tend to be too low (especially for recent years). IBNER is the actuary's estimate of the amount total case reserves will rise upon closure.

IBNYR refers to those claims that have occurred, but have not yet been reported. A classic example is medical malpractice claim reported several years after the medical procedure was performed.

Insurance Services Office (ISO)

An organization of the property and casualty insurance business designed to gather statistics, promulgate rates, and develop policy forms.

Investment Income

The return received by entities from their investment portfolios, including interest, dividends and realized capital gains on stocks. Realized capital gains means the profit realized on

assets that have actually been sold for more than their purchase price.

Limited

Most programs purchase excess insurance for catastrophic claims. For example, they may purchase coverage for claims above a \$500,000 per occurrence self-insured retention. “Limited” refers to an estimate or projection being limited to the self-insured retention. In contrast, “unlimited” means a loss projection not limited to the self-insured retention.

Other common names for limited are net of excess insurance or capped losses.

Loss Development

The difference between the amount of losses initially estimated by the insurer and the amount reported in an evaluation on a later date. Loss development is typically measured for paid losses, reported incurred losses and claim counts.

Manual Rates

Usually, the published rate for some unit of insurance. An example is in the workers compensation manual, where the rates shown apply to each \$100 of the payroll of the insured, \$100 being the “unit.”

National Council on Compensation Insurance (NCCI)

An association of workers compensation insurance companies whose main functions are collecting statistics and calculating rates, establishing policy wording, developing experience and retrospective rating plans, and serving as the filing organization for member companies.

Net

Many pooling programs assign deductibles to members. For example, each member may have a \$5,000 per claim deductible. “Net” refers to a loss estimate or projection that excludes amounts below member deductibles.

Occurrence

An event that results in an insured loss. In some lines of insurance, such as general liability, it is distinguished from accident in that the loss does not have to be sudden and fortuitous and can result from continuous or repeated exposure that results in bodily injury or property damage neither expected nor intended by the insured.

Pool

An organization of entities through which particular types of risks are written with the premiums, losses, and expenses shared in agreed amounts among the members belonging to the organization.

Premium

The price of insurance protection for a specified risk for a specified period of time.

Present Value

The amount of money that future amounts receivable are currently worth. For example, a Life Insurance policy may provide for payments to be made monthly for ten years. The present value of that money would be less than the total amount of the regular periodic payments for 10 years because of the amount of interest that a present lump sum could earn during the term than the payments otherwise would have been made.

Probability

The probability is the likelihood of an event. It is a measure of how likely a value or event is to occur. It can be measured from data by calculating the number of occurrences of the value or event divided by the total number of occurrences. This calculation can be converted to a percentage. For example, tossing a coin has a 50% probability of heads or tails.

Projected Losses Paid

Projected losses paid are the projected claims disbursements in a period, regardless of when the claim occurred. They typically include indemnification and ALAE, but not unallocated loss adjustment expenses (ULAE).

“Projected losses paid” is a cash-flow analysis that can be used in making investment decisions.

Projected Ultimate Losses

Projected ultimate losses are the accrual value of claims. They are the total amount that is expected to be paid in a particular claim period after all claims are closed. Projected ultimate losses are the total loss costs for a particular period. They typically include indemnification and ALAE, but not ULAE.

Other common names for projected ultimate losses are expected losses, ultimate losses and total losses.

Rate

The cost of a given unit of insurance. For example, in life insurance, it is the price of \$1,000 of the face amount. In property insurance, it is the rate per \$100 of value to be insured. The premium is the rate multiplied by the number of units of insurance purchased.

Retrospective Rating

A method for which the final premium is not determined until the end of the coverage period, and is based on the insured's own loss experience for that same period. It is usually subject to a maximum and minimum premium. A plan of this type can be used in various types of insurance, especially workers compensation and liability, and is usually elected by only very large insureds.

Salvage

Property taken over by an entity to reduce its loss. Automobile physical damage losses can be reduced by the sale of recovered vehicles.

Schedule Rating

The application of debits or credits within established ranges for various characteristics of a risk according to an established schedule of items. Under liability and automobile insurance, the schedule rating plan allows credits and debits for various good or bad features of a particular commercial risk. An example in automobile schedule rating would be allowing credits for driver training classes or fleet maintenance programs.

Self-Insurance Retention (SIR)

That portion of a risk or potential loss assumed by an insured. It is often in the form of a per occurrence deductible.

Society of Actuaries (SOA)

A professional society for actuaries in areas of pensions, and life and health insurance work. The SOA grants the designation Associate of the Society of Actuaries (ASA) and Fellow of the Society of Actuaries (FSA).

Standard Premium

Most often used in connection with retrospective rating for Workers Compensation and General Liability Insurance. It is the premium of which the basic premium is a percentage and is developed by applying the regular rates to an insured's payroll.

State Fund

A fund set up by a state government to finance a mandatory insurance system, such as Workers Compensation or non-occupational disability benefits. Such a fund may be monopolistic, i.e., purchasers of the type of insurance required must place it in the state fund; or it may be competitive, i.e., an alternative to private insurance if the purchaser desires to use it.

Statutory Accounting Principles (SAP)

Those principles required by statute that must be followed by an insurance company or other similar entity when submitting its financial statement to the state insurance department. Such principles differ from (GAAP) in some important respects. For one thing SAP requires that expenses must be recorded immediately and cannot be deferred to track with premiums as they are earned and taken into revenue.

Unallocated Loss Adjustment Expenses

Unallocated loss adjustment expenses (ULAE) are the indirect expenses to settle claims. These expenses are primarily administration and claims handling expenses.

GASB Statement No. 10 requires that ULAE be included in financial statements and that they be calculated by actuarial methods.

Exhibits

The attached exhibits detail our analysis.

Data Summary as of June 30, 2019
Losses Limited to Self-Insured Retention

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/19 (4)	Payroll (000) (5)	Reported Claims 6/30/19 (6)	Open Claims 6/30/19 (7)	Limited Paid Losses 6/30/19 (8)	Limited Case Reserves 6/30/19 (9)	Limited Reported Incurred Losses 6/30/19 (10)
to 1999/00	Unlimited	None	240.0	Not Provided	24,797	137	\$204,028,464	\$4,600,063	\$208,628,527
2000/01	Unlimited	None	228.0	273,627	1,109	18	19,126,597	713,494	19,840,091
2001/02	Unlimited	None	216.0	293,519	1,013	16	21,959,963	545,355	22,505,319
2002/03	Unlimited	None	204.0	305,541	923	21	21,607,874	682,592	22,290,466
2003/04	Unlimited	None	192.0	307,406	773	22	20,980,176	1,143,327	22,123,503
2004/05	1,000,000	None	180.0	315,491	675	20	16,886,357	1,424,935	18,311,292
2005/06	1,000,000	None	168.0	326,085	748	20	15,984,689	1,399,318	17,384,008
2006/07	1,000,000	None	156.0	354,814	703	15	14,659,670	429,666	15,089,336
2007/08	1,000,000	None	144.0	370,278	704	16	14,017,222	731,023	14,748,245
2008/09	750,000	None	132.0	377,769	678	18	16,609,393	697,496	17,306,888
2009/10	750,000	None	120.0	338,407	646	33	16,828,989	982,760	17,811,749
2010/11	750,000	None	108.0	338,298	650	40	19,608,286	1,856,174	21,464,460
2011/12	750,000	None	96.0	348,514	637	46	19,258,160	1,632,652	20,890,812
2012/13	750,000	None	84.0	355,748	569	54	13,752,341	2,731,248	16,483,589
2013/14	750,000	None	72.0	373,451	621	60	14,335,483	2,379,569	16,715,052
2014/15	750,000	None	60.0	364,737	559	64	10,535,301	3,162,467	13,697,768
2015/16	750,000	None	48.0	390,571	611	98	13,857,662	3,930,803	17,788,465
2016/17	750,000	None	36.0	Not Provided	545	119	11,111,126	5,231,442	16,342,568
2017/18	750,000	None	24.0	413,589	522	128	5,630,881	4,753,732	10,384,613
2018/19	750,000	None	12.0	376,038	537	175	2,965,835	3,402,237	6,368,072
Total					38,020	1,120	\$493,744,469	\$42,430,355	\$536,174,824

* The specific self-insured retention changes are as follows:

Effective Date	Retention
01/00/00	Unlimited
08/02/04	1,000,000
07/01/08	750,000

(8), (9) and (10) are net of the specific self-insured retention and other recoveries.

Data was provided by the City.

Data Summary as of June 30, 2019
Net Unlimited Losses

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/19 (4)	Payroll (000) (5)	Reported Claims 6/30/19 (6)	Open Claims 6/30/19 (7)	Net Unlimited Paid Losses 6/30/19 (8)	Net Unlimited Case Reserves 6/30/19 (9)	Net Unlimited Reported Incurred Losses 6/30/19 (10)
to 1999/00	Unlimited	None	240.0	Not Provided	24,797	137	\$204,028,464	\$4,600,063	\$208,628,527
2000/01	Unlimited	None	228.0	273,627	1,109	18	19,126,597	713,494	19,840,091
2001/02	Unlimited	None	216.0	293,519	1,013	16	21,959,963	545,355	22,505,319
2002/03	Unlimited	None	204.0	305,541	923	21	21,607,874	682,592	22,290,466
2003/04	Unlimited	None	192.0	307,406	773	22	20,980,176	1,143,327	22,123,503
2004/05	Unlimited	None	180.0	315,491	675	20	16,886,357	2,076,501	18,962,857
2005/06	Unlimited	None	168.0	326,085	748	20	17,351,127	1,399,318	18,750,446
2006/07	Unlimited	None	156.0	354,814	703	15	14,659,670	429,666	15,089,336
2007/08	Unlimited	None	144.0	370,278	704	16	14,520,053	1,126,922	15,646,975
2008/09	Unlimited	None	132.0	377,769	678	18	19,583,549	719,955	20,303,503
2009/10	Unlimited	None	120.0	338,407	646	33	16,828,989	982,760	17,811,749
2010/11	Unlimited	None	108.0	338,298	650	40	19,894,154	2,553,648	22,447,803
2011/12	Unlimited	None	96.0	348,514	637	46	19,258,160	1,632,652	20,890,812
2012/13	Unlimited	None	84.0	355,748	569	54	13,752,341	2,731,248	16,483,589
2013/14	Unlimited	None	72.0	373,451	621	60	14,440,377	6,552,415	20,992,792
2014/15	Unlimited	None	60.0	364,737	559	64	10,535,301	3,162,467	13,697,768
2015/16	Unlimited	None	48.0	390,571	611	98	13,908,696	3,930,803	17,839,499
2016/17	Unlimited	None	36.0	Not Provided	545	119	12,118,147	10,611,753	22,729,899
2017/18	Unlimited	None	24.0	413,589	522	128	5,630,881	4,753,732	10,384,613
2018/19	Unlimited	None	12.0	376,038	537	175	4,921,883	20,604,225	25,526,108
Total					38,020	1,120	\$501,992,759	\$70,952,897	\$572,945,656

(8), (9) and (10) are gross of the specific self-insured retention and net of other recoveries.

Data was provided by the City.

Data Summary as of June 30, 2019
Gross Unlimited Losses

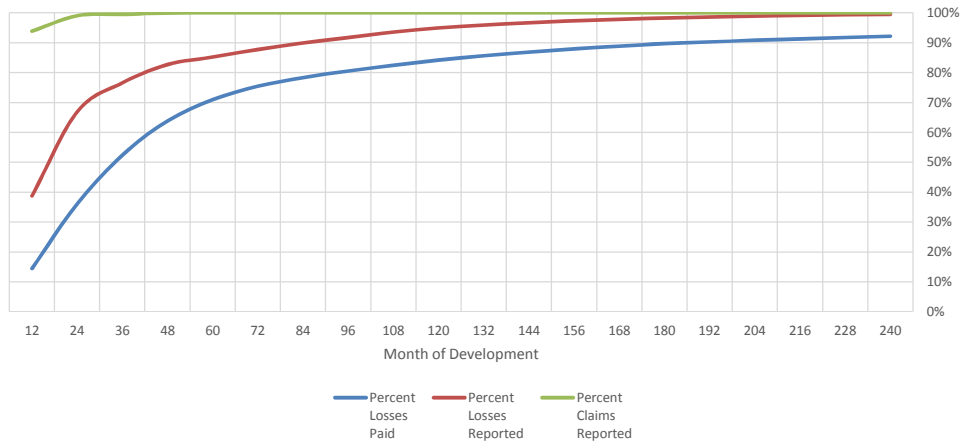
Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/19 (4)	Payroll (000) (5)	Reported Claims 6/30/19 (6)	Open Claims 6/30/19 (7)	Gross Unlimited Paid Losses 6/30/19 (8)	Gross Unlimited Case Reserves 6/30/19 (9)	Gross Unlimited Reported Incurred Losses 6/30/19 (10)
to 1999/00	Unlimited	None	240.0	Not Provided	24,797	137	\$204,337,305	\$4,603,165	\$208,940,470
2000/01	Unlimited	None	228.0	273,627	1,109	18	19,223,073	713,494	19,936,568
2001/02	Unlimited	None	216.0	293,519	1,013	16	22,139,942	545,355	22,685,297
2002/03	Unlimited	None	204.0	305,541	923	21	21,723,184	682,592	22,405,777
2003/04	Unlimited	None	192.0	307,406	773	22	21,555,467	1,143,327	22,698,794
2004/05	Unlimited	None	180.0	315,491	675	20	17,056,181	2,076,501	19,132,682
2005/06	Unlimited	None	168.0	326,085	748	20	17,454,959	1,399,318	18,854,277
2006/07	Unlimited	None	156.0	354,814	703	15	14,779,387	429,666	15,209,053
2007/08	Unlimited	None	144.0	370,278	704	16	14,703,186	1,126,922	15,830,108
2008/09	Unlimited	None	132.0	377,769	678	18	19,857,200	719,955	20,577,154
2009/10	Unlimited	None	120.0	338,407	646	33	17,114,882	982,760	18,097,641
2010/11	Unlimited	None	108.0	338,298	650	40	19,923,021	2,553,648	22,476,670
2011/12	Unlimited	None	96.0	348,514	637	46	19,371,863	1,632,652	21,004,515
2012/13	Unlimited	None	84.0	355,748	569	54	13,754,057	2,731,248	16,485,305
2013/14	Unlimited	None	72.0	373,451	621	60	14,448,277	6,552,415	21,000,692
2014/15	Unlimited	None	60.0	364,737	559	64	10,563,528	3,162,467	13,725,995
2015/16	Unlimited	None	48.0	390,571	611	98	13,966,080	3,930,803	17,896,883
2016/17	Unlimited	None	36.0	Not Provided	545	119	12,156,203	10,611,753	22,767,956
2017/18	Unlimited	None	24.0	413,589	522	128	5,638,376	4,715,152	10,353,528
2018/19	Unlimited	None	12.0	376,038	537	175	4,921,883	20,604,225	25,526,108
Total					38,020	1,120	\$504,688,054	\$70,917,419	\$575,605,472

(8), (9) and (10) are gross of the specific self-insured retention and other recoveries.

Data was provided by the City.

Summary of Percent Losses Paid, Losses Reported and Claims Reported

Months of Development (1)	Percent Losses Paid (2)	Percent Losses Reported (3)	Percent Claims Reported (4)
540.0	100.0%	100.0%	100.0%
528.0	100.0%	100.0%	100.0%
516.0	100.0%	100.0%	100.0%
504.0	99.9%	100.0%	100.0%
492.0	99.9%	100.0%	100.0%
480.0	99.9%	100.0%	100.0%
468.0	99.9%	100.0%	100.0%
456.0	99.9%	100.0%	100.0%
444.0	99.8%	100.0%	100.0%
432.0	99.8%	100.0%	100.0%
420.0	99.7%	100.0%	100.0%
408.0	99.7%	100.0%	100.0%
396.0	99.6%	100.0%	100.0%
384.0	99.5%	100.0%	100.0%
372.0	99.3%	100.0%	100.0%
360.0	99.2%	100.0%	100.0%
348.0	98.9%	100.0%	100.0%
336.0	98.7%	100.0%	100.0%
324.0	98.4%	100.0%	100.0%
312.0	97.9%	100.0%	100.0%
300.0	97.4%	100.0%	100.0%
288.0	96.8%	100.0%	100.0%
276.0	96.0%	100.0%	100.0%
264.0	95.0%	100.0%	100.0%
252.0	93.7%	99.9%	100.0%
240.0	92.2%	99.5%	100.0%
228.0	91.7%	99.3%	100.0%
216.0	91.3%	99.1%	100.0%
204.0	90.8%	98.9%	100.0%
192.0	90.3%	98.6%	100.0%
180.0	89.7%	98.2%	100.0%
168.0	88.8%	97.8%	100.0%
156.0	87.9%	97.3%	100.0%
144.0	86.8%	96.7%	100.0%
132.0	85.6%	95.9%	100.0%
120.0	84.2%	94.9%	100.0%
108.0	82.4%	93.5%	100.0%
96.0	80.6%	91.7%	100.0%
84.0	78.3%	89.9%	100.0%
72.0	75.5%	87.7%	100.0%
60.0	70.9%	85.2%	100.0%
48.0	63.8%	82.7%	99.9%
36.0	52.3%	76.6%	99.5%
24.0	36.1%	66.9%	99.0%
12.0	14.4%	38.8%	93.8%



(2) is from Exhibit WC-2 (page 2).

(3) is from Exhibit WC-2 (page 3).

(4) is from Exhibit WC-2 (page 4).

(6), (7) and (8) are interpolated, based on (2), (3) and (4), respectively.

Historical Limited Paid Losses (\$000) and Limited Paid Loss Development

I. Historical Limited Paid Losses (\$000)

Claim Period	Months of Development:																			
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1999/00																				
2000/01								17,498	17,835	18,095	18,243	18,384	18,520	18,608	18,688	18,771	18,875	18,958	19,127	
2001/02							18,378	18,963	19,678	20,043	20,442	20,700	20,923	21,071	21,610	21,692	21,805	21,960		
2002/03						16,745	17,702	18,322	18,692	19,444	19,819	20,358	20,586	20,776	21,141	21,332	21,608			
2003/04					15,966	16,776	17,253	18,274	18,603	19,046	19,578	19,834	20,116	20,222	20,566	20,980				
2004/05				11,109	12,288	13,255	14,081	14,562	15,529	15,627	15,961	16,191	16,539	16,702	16,886					
2005/06			9,239	10,733	11,925	12,719	13,209	13,887	14,276	15,170	15,448	15,742	15,878	15,985						
2006/07		7,705	10,428	12,123	12,969	13,467	13,788	14,031	14,145	14,375	14,459	14,544	14,660							
2007/08	3,274	6,798	9,061	10,643	11,516	12,147	12,662	13,281	13,573	13,800	13,968	14,017								
2008/09	3,500	8,732	11,787	13,716	14,403	14,960	15,523	15,776	15,958	16,538										
2009/10	3,877	9,024	12,032	13,699	15,065	15,655	16,040	16,538	16,640	16,829										
2010/11	4,975	10,288	13,545	16,083	17,050	18,197	18,956	19,410	19,608											
2011/12	2,977	10,326	14,196	16,388	17,323	18,141	18,804	19,258												
2012/13	2,401	6,100	8,993	10,823	12,447	13,342	13,752													
2013/14	2,368	6,551	9,474	11,631	13,379	14,335														
2014/15	2,240	5,593	8,020	9,489	10,535															
2015/16	2,798	7,556	11,276	13,858																
2016/17	3,866	8,139	11,111																	
2017/18	2,557	5,631																		
2018/19	2,966																			

II. Limited Paid Loss Development

Claim Period	Months of Development:																			
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
to 1999/00																				
2000/01								1.019	1.015	1.008	1.008	1.007	1.005	1.004	1.004	1.006	1.004	1.009		
2001/02							1.032	1.038	1.019	1.020	1.013	1.011	1.007	1.026	1.004	1.005	1.007			
2002/03						1.057	1.035	1.020	1.040	1.019	1.027	1.011	1.009	1.018	1.009	1.013				
2003/04					1.051	1.028	1.059	1.018	1.024	1.028	1.013	1.014	1.005	1.017	1.020					
2004/05				1.106	1.079	1.062	1.034	1.066	1.006	1.021	1.014	1.021	1.010	1.011						
2005/06			1.162	1.111	1.067	1.039	1.051	1.028	1.063	1.018	1.019	1.009	1.007							
2006/07		1.353	1.163	1.070	1.038	1.024	1.018	1.008	1.016	1.006	1.006	1.008								
2007/08	2.077	1.333	1.175	1.082	1.055	1.042	1.049	1.022	1.017	1.012	1.004									
2008/09	2.495	1.350	1.164	1.050	1.039	1.038	1.016	1.012	1.036	1.004										
2009/10	2.327	1.333	1.139	1.100	1.039	1.025	1.031	1.006	1.011											
2010/11	2.068	1.317	1.187	1.060	1.067	1.042	1.024	1.010												
2011/12	3.469	1.375	1.154	1.057	1.047	1.037	1.024													
2012/13	2.541	1.474	1.203	1.150	1.072	1.031														
2013/14	2.767	1.446	1.228	1.150	1.071															
2014/15	2.497	1.434	1.183	1.110																
2015/16	2.700	1.492	1.229																	
2016/17	2.105	1.365																		
2017/18	2.202																			
2018/19																				
Average																				
All	2.477	1.388	1.181	1.095	1.057	1.039	1.034	1.023	1.025	1.015	1.013	1.012	1.007	1.015	1.009	1.008	1.006	1.009		
Wtd 3	2.313	1.428	1.216	1.138	1.062	1.037	1.026	1.009	1.022	1.007	1.010	1.013	1.007	1.015	1.011	1.008				
Last 3	2.336	1.431	1.213	1.137	1.064	1.036	1.026	1.009	1.021	1.007	1.009	1.013	1.007	1.015	1.011	1.008				
Last 5	2.466	1.451	1.205	1.107	1.062	1.035	1.026	1.010	1.023	1.012	1.011	1.011	1.008	1.015						
x-hi,low																				
Similar	2.679	1.495	1.238	1.128	1.081	1.057	1.042	1.031	1.027	1.023	1.019	1.015	1.012	1.012	1.010	1.009	1.008	1.008	1.083	
Previous	2.600	1.450	1.200	1.080	1.055	1.039	1.032	1.022	1.022	1.018	1.015	1.013	1.010	1.010	1.006	1.006	1.005	1.005	1.085	
Selected	2.500	1.450	1.220	1.110	1.065	1.037	1.030	1.022	1.022	1.017	1.014	1.013	1.010	1.010	1.006	1.006	1.005	1.005	1.085	
Cumulative	6.928	2.771	1.911	1.566	1.411	1.325	1.278	1.241	1.214	1.188	1.168	1.152	1.137	1.126	1.115	1.108	1.101	1.096	1.085	
Percent	14.4%	36.1%	52.3%	63.8%	70.9%	75.5%	78.3%	80.6%	82.4%	84.2%	85.6%	86.8%	87.9%	88.8%	89.7%	90.3%	90.8%	91.3%	91.7%	92.2%

Amounts are limited (net of excess insurance) and net of other recoveries.

Data was provided by the City.

Historical Limited Reported Incurred Losses (\$000) and Limited Reported Incurred Loss Development

I. Historical Limited Reported Incurred Losses (\$000)

Claim Period	Months of Development:																			
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1999/00																				
2000/01								18,966	18,601	18,712	18,863	19,194	19,105	19,327	19,398	19,807	19,809	19,994	19,840	
2001/02							21,104	20,917	20,801	21,140	21,284	21,293	22,321	22,725	22,804	22,597	22,502	22,505		
2002/03						19,806	19,717	20,191	20,328	20,637	20,663	21,445	21,641	21,999	22,125	22,270	22,290			
2003/04					18,973	18,991	19,153	19,790	20,472	20,531	21,219	21,397	21,566	21,443	21,748	22,124				
2004/05				14,940	14,940	16,266	16,963	17,540	18,362	18,405	18,550	18,705	18,629	18,256	18,311					
2005/06			13,636	13,940	14,760	15,366	15,996	16,186	16,806	17,020	17,344	17,151	17,710	17,384						
2006/07		12,182	13,503	14,335	14,489	14,947	14,660	14,772	14,904	15,252	15,052	14,935	15,089							
2007/08	8,126	10,793	12,889	14,266	14,228	14,126	14,723	15,079	15,246	15,205	15,344	14,748								
2008/09	7,312	13,225	16,845	17,497	17,101	17,372	17,328	18,010	18,072	17,486	17,307									
2009/10	8,727	15,621	17,474	17,349	17,587	17,768	18,240	18,186	18,165	17,812										
2010/11	11,395	17,821	18,656	20,235	20,504	21,515	21,356	21,318	21,464											
2011/12	9,353	17,335	19,494	21,503	22,167	21,392	21,233	20,891												
2012/13	5,495	10,353	13,970	17,381	16,461	17,021	16,484													
2013/14	5,431	11,242	16,389	16,585	16,874	16,715														
2014/15	6,785	11,750	12,680	13,471	13,698															
2015/16	10,563	14,766	16,876	17,788																
2016/17	8,774	14,167	16,343																	
2017/18	6,025	10,385																		
2018/19	6,368																			

II. Limited Reported Incurred Loss Development

Claim Period	Months of Development:																			
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
to 1999/00																				
2000/01							0.981	1.006	1.008	1.018	0.995	1.012	1.004	1.021	1.000	1.009	0.992			
2001/02							0.991	0.994	1.016	1.007	1.000	1.048	1.018	1.003	0.991	1.000				
2002/03						0.996	1.024	1.007	1.015	1.001	1.038	1.009	1.017	1.006	1.007	1.001				
2003/04					1.001	1.009	1.033	1.034	1.003	1.034	1.008	1.008	0.994	1.014	1.017					
2004/05				1.000	1.089	1.043	1.034	1.047	1.002	1.008	1.008	0.996	0.980	1.003						
2005/06			1.022	1.059	1.041	1.041	1.012	1.038	1.013	1.019	0.989	1.033	0.982							
2006/07		1.108	1.062	1.011	1.032	0.981	1.008	1.009	1.023	0.987	0.992	1.010								
2007/08	1.328	1.194	1.107	0.997	0.993	1.042	1.024	1.011	0.997	1.009	0.961									
2008/09	1.809	1.274	1.039	0.977	1.016	0.997	1.039	1.003	0.968	0.990										
2009/10	1.790	1.119	0.993	1.014	1.010	1.027	0.997	0.999	0.981											
2010/11	1.564	1.047	1.085	1.013	1.049	0.993	0.998	1.007												
2011/12	1.853	1.125	1.103	1.031	0.965	0.993	0.984													
2012/13	1.884	1.349	1.244	0.947	1.034	0.968														
2013/14	2.070	1.458	1.012	1.017	0.991															
2014/15	1.732	1.079	1.062	1.017																
2015/16	1.398	1.143	1.054																	
2016/17	1.615	1.154																		
2017/18	1.724																			
2018/19																				
Average																				
All	1.706	1.186	1.071	1.008	1.020	1.008	1.013	1.012	1.002	1.007	1.002	1.014	1.000	1.006	1.009	0.999	1.005	0.992		
Wtd 3	1.550	1.128	1.041	0.991	0.993	0.986	0.993	1.003	0.981	0.995	0.981	1.013	0.986	1.008	1.005	0.999				
Last 3	1.579	1.125	1.043	0.994	0.997	0.985	0.993	1.003	0.982	0.995	0.981	1.013	0.985	1.008	1.005	0.999				
Last 5	1.690	1.215	1.073	1.016	1.012	0.994	1.006	1.006	0.997	1.002	0.996	1.009	0.997	1.004						
x-hi,low																				
Similar	1.569	1.199	1.094	1.048	1.031	1.022	1.015	1.010	1.012	1.009	1.008	1.006	1.004	1.004	1.003	1.002	1.002	1.001	1.028	
Previous	1.725	1.145	1.090	1.032	1.030	1.027	1.023	1.020	1.015	1.010	1.008	1.007	1.005	1.004	1.004	1.003	1.002	1.002	1.002	
Selected	1.725	1.145	1.080	1.030	1.030	1.025	1.020	1.020	1.015	1.010	1.008	1.007	1.005	1.004	1.004	1.003	1.002	1.002	1.002	
Cumulative	2.580	1.496	1.306	1.209	1.174	1.140	1.112	1.090	1.069	1.053	1.043	1.035	1.027	1.022	1.018	1.014	1.011	1.009	1.007	
Percent	38.8%	66.9%	76.6%	82.7%	85.2%	87.7%	89.9%	91.7%	93.5%	94.9%	95.9%	96.7%	97.3%	97.8%	98.2%	98.6%	98.9%	99.1%	99.3%	

Amounts are limited (net of excess insurance) and net of other recoveries.

Data was provided by the City.

Historical Reported Claims and Reported Claim Development

I. Historical Reported Claims

Claim Period	Months of Development:																			
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1999/00																				
2000/01							1,106	1,107	1,107	1,106	1,107	1,108	1,107	1,108	1,108	1,108	1,109	1,109	1,109	
2001/02							1,009	1,010	1,012	1,006	1,013	1,006	1,013	1,006	1,013	1,013	1,013	1,013	1,013	
2002/03						918	919	920	918	919	922	919	922	922	922	923	923	923	923	
2003/04					771	771	767	769	774	769	774	773	773	773	773	773	773	773	773	
2004/05				670	672	674	671	671	674	672	675	675	675	675	675	675	675	675	675	
2005/06			740	742	747	740	740	748	740	748	749	749	748	748	748	748	748	748	748	
2006/07		696	701	703	700	700	703	700	703	703	703	703	703	703	703	703	703	703	703	
2007/08	669	702	702	694	694	702	694	702	703	703	704	704	704	704	704	704	704	704	704	
2008/09	637	674	672	673	677	674	678	678	678	678	678	678	678	678	678	678	678	678	678	
2009/10	605	615	618	642	619	642	642	645	646	646	646	646	646	646	646	646	646	646	646	
2010/11	576	615	645	625	649	650	650	650	650	650	650	650	650	650	650	650	650	650	650	
2011/12	548	629	593	636	636	637	637	637	637	637	637	637	637	637	637	637	637	637	637	
2012/13	515	560	566	568	569	569	569	569	569	569	569	569	569	569	569	569	569	569	569	
2013/14	587	618	620	621	621	621	621	621	621	621	621	621	621	621	621	621	621	621	621	
2014/15	526	553	555	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	
2015/16	571	607	610	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	
2016/17	525	543	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	
2017/18	496	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	
2018/19	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	

II. Reported Claim Development

Claim Period	Months of Development:																			
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-Ult
to 1999/00																				
2000/01							1.001	1.000	0.999	1.001	1.001	0.999	1.001	1.001	1.000	1.001	1.000	1.000	1.000	
2001/02							1.001	0.994	1.000	1.007	0.993	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002/03						1.001	1.001	0.998	1.001	1.003	0.997	1.003	1.000	1.000	1.001	1.000	1.000	1.000	1.000	
2003/04					1.000	1.000	0.995	1.003	1.007	0.994	1.007	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004/05				1.003	1.003	0.996	1.000	1.004	0.997	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005/06			1.003	1.007	0.991	1.000	1.011	0.989	1.011	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006/07		1.007	1.003	0.996	1.000	1.004	0.996	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2007/08	1.049	1.000	0.989	1.000	1.012	0.989	1.012	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2008/09	1.058	0.997	1.001	1.006	0.996	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2009/10	1.017	1.005	1.039	0.964	1.037	1.000	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2010/11	1.068	1.049	0.969	1.038	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2011/12	1.148	0.943	1.073	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2012/13	1.087	1.011	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2013/14	1.053	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2014/15	1.051	1.004	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2015/16	1.063	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2016/17	1.034	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	
2017/18	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	
2018/19	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052	
Average																				
All	1.062	1.002	1.008	1.001	1.004	1.000	1.002	1.000	1.001	1.000	1.001	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000	
Wtd 3	1.050	1.004	1.003	1.001	1.001	1.000	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Last 3	1.050	1.004	1.003	1.001	1.001	1.000	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Last 5	1.052	1.004	1.004	1.001	1.001	1.000	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
x-hi,low																				
Similar	1.131	1.019	1.010	1.007	1.007	1.005	1.005	1.006	1.006	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	
Previous	1.060	1.005	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Selected	1.055	1.005	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Cumulative	1.066	1.010	1.005	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Percent	93.8%	99.0%	99.5%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Data was provided by the City.

Historical Ratio of Limited Paid Losses and Limited Reported Incurred Losses

Claim Period	Months of Development:																			
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
to 1999/00																				
2000/01								92.3%	95.9%	96.7%	96.7%	95.8%	96.9%	96.3%	96.3%	94.8%	95.3%	94.8%	96.4%	
2001/02							87.1%	90.7%	94.6%	94.8%	96.0%	97.2%	93.7%	92.7%	94.8%	96.0%	96.9%	97.6%		
2002/03						84.5%	89.8%	90.7%	92.0%	94.2%	95.9%	94.9%	95.1%	94.4%	95.5%	95.8%	96.9%			
2003/04					84.1%	88.3%	90.1%	92.3%	90.9%	92.8%	92.3%	92.7%	93.3%	94.3%	94.6%	94.8%				
2004/05				74.4%	82.2%	81.5%	83.0%	83.0%	84.6%	84.9%	86.0%	86.6%	88.8%	91.5%	92.2%					
2005/06			67.8%	77.0%	80.8%	82.8%	82.6%	85.8%	84.9%	89.1%	89.1%	91.8%	89.7%	92.0%						
2006/07		63.2%	77.2%	84.6%	89.5%	90.1%	94.1%	95.0%	94.9%	94.3%	96.1%	97.4%	97.2%							
2007/08	40.3%	63.0%	70.3%	74.6%	80.9%	86.0%	86.0%	88.1%	89.0%	90.8%	91.0%	95.0%								
2008/09	47.9%	66.0%	70.0%	78.4%	84.2%	86.1%	89.6%	87.6%	88.3%	94.6%	96.0%									
2009/10	44.4%	57.8%	68.9%	79.0%	85.7%	88.1%	87.9%	90.9%	91.6%	94.5%										
2010/11	43.7%	57.7%	72.6%	79.5%	83.2%	84.6%	88.8%	91.1%	91.4%											
2011/12	31.8%	59.6%	72.8%	76.2%	78.1%	84.8%	88.6%	92.2%												
2012/13	43.7%	58.9%	64.4%	62.3%	75.6%	78.4%	83.4%													
2013/14	43.6%	58.3%	57.8%	70.1%	79.3%	85.8%														
2014/15	33.0%	47.6%	63.3%	70.4%	76.9%															
2015/16	26.5%	51.2%	66.8%	77.9%																
2016/17	44.1%	57.4%	68.0%																	
2017/18	42.4%	54.2%																		
2018/19	46.6%																			
Average																				
All	40.7%	57.9%	68.3%	75.4%	81.7%	85.1%	87.6%	90.0%	90.7%	92.7%	93.2%	93.9%	93.5%	93.5%	94.7%	95.3%	96.4%	96.2%	96.4%	
Last 3	44.4%	54.3%	66.0%	72.8%	77.3%	83.0%	86.9%	91.4%	90.4%	93.3%	94.4%	94.7%	91.9%	92.6%	94.1%	95.5%	96.4%			
Last 5	39.8%	54.3%	64.8%	72.3%	78.1%	85.0%	88.4%	90.0%	90.7%	93.2%	92.0%	93.2%	92.7%	93.0%	95.0%					
x-hi,low																				
Implicit	37.2%	54.0%	68.3%	77.2%	83.2%	86.0%	87.0%	87.9%	88.1%	88.7%	89.3%	89.8%	90.4%	90.8%	91.3%	91.5%	91.8%	92.1%	92.4%	92.6%

Developed Limited Paid Losses

Claim Period (1)	Months of Development 6/30/19 (2)	Limited Paid Losses 6/30/19 (3)	Percent Losses Paid (4)	Developed Limited Paid Losses (3)/(4) (5)
to 1999/00	Various	\$204,028,464	97.6%	\$209,064,358
2000/01	228.0	19,126,597	91.7%	20,856,119
2001/02	216.0	21,959,963	91.3%	24,065,422
2002/03	204.0	21,607,874	90.8%	23,797,973
2003/04	192.0	20,980,176	90.3%	23,245,293
2004/05	180.0	16,886,357	89.7%	18,821,743
2005/06	168.0	15,984,689	88.8%	17,869,142 *
2006/07	156.0	14,659,670	87.9%	16,668,282
2007/08	144.0	14,017,222	86.8%	15,993,202 *
2008/09	132.0	16,609,393	85.6%	19,227,826 *
2009/10	120.0	16,828,989	84.2%	19,984,864 *
2010/11	108.0	19,608,286	82.4%	23,642,230 *
2011/12	96.0	19,258,160	80.6%	23,891,948
2012/13	84.0	13,752,341	78.3%	17,573,191
2013/14	72.0	14,335,483	75.5%	18,752,294 *
2014/15	60.0	10,535,301	70.9%	14,867,889
2015/16	48.0	13,857,662	63.8%	21,282,914 *
2016/17	36.0	11,111,126	52.3%	20,551,228 *
2017/18	24.0	5,630,881	36.1%	15,603,771
2018/19	12.0	2,965,835	14.4%	16,100,787 *
Total		\$493,744,469		\$581,860,475

* - Indicates large claim(s) limited to retention. For details, see Exhibit WC-15.

(3) is from Exhibit WC-1.

(4) is from Exhibit WC-2.

Developed Limited Reported Incurred Losses

Claim Period (1)	Months of Development 6/30/19 (2)	Limited Reported Incurred Losses 6/30/19 (3)	Percent Losses Reported (4)	Developed Limited Reported Incurred Losses (3)/(4) (5)
to 1999/00	Various	\$208,628,527	100.0%	\$208,715,444
2000/01	228.0	19,840,091	99.3%	19,979,170
2001/02	216.0	22,505,319	99.1%	22,708,407
2002/03	204.0	22,290,466	98.9%	22,536,599
2003/04	192.0	22,123,503	98.6%	22,434,896
2004/05	180.0	18,311,292	98.2%	18,625,172 *
2005/06	168.0	17,384,008	97.8%	17,747,799 *
2006/07	156.0	15,089,336	97.3%	15,501,502
2007/08	144.0	14,748,245	96.7%	15,222,646 *
2008/09	132.0	17,306,888	95.9%	18,015,230 *
2009/10	120.0	17,811,749	94.9%	18,759,514
2010/11	108.0	21,464,460	93.5%	22,790,416 *
2011/12	96.0	20,890,812	91.7%	22,779,100
2012/13	84.0	16,483,589	89.9%	18,332,986
2013/14	72.0	16,715,052	87.7%	18,950,177 *
2014/15	60.0	13,697,768	85.2%	16,083,935
2015/16	48.0	17,788,465	82.7%	21,356,783 *
2016/17	36.0	16,342,568	76.6%	20,887,085 *
2017/18	24.0	10,384,613	66.9%	15,530,995
2018/19	12.0	6,368,072	38.8%	15,243,904 *
Total		\$536,174,824		\$572,201,759

* - Indicates large claim(s) limited to retention. For details, see Exhibit WC-15.

(3) is from Exhibit WC-1.

(4) is from Exhibit WC-2.

Developed Limited Case Reserves

Claim Period (1)	Months of Development 6/30/19 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 6/30/19 [(4)-(3)]/ [100.0%-(3)] (5)	Limited Paid Losses 6/30/19 (6)	Limited Case Reserves 6/30/19 (7)	Developed Limited Case Reserves (6)+(7)/(5) (8)
to 1999/00	Various	97.6%	100.0%	99.0%	\$204,028,464	\$4,600,063	\$208,674,343
2000/01	228.0	91.7%	99.3%	91.6%	19,126,597	713,494	19,905,473
2001/02	216.0	91.3%	99.1%	89.8%	21,959,963	545,355	22,567,414
2002/03	204.0	90.8%	98.9%	88.1%	21,607,874	682,592	22,382,380
2003/04	192.0	90.3%	98.6%	85.8%	20,980,176	1,143,327	22,313,407
2004/05	180.0	89.7%	98.2%	82.7%	16,886,357	1,424,935	18,551,651 *
2005/06	168.0	88.8%	97.8%	80.6%	15,984,689	1,399,318	17,721,780
2006/07	156.0	87.9%	97.3%	77.9%	14,659,670	429,666	15,210,980
2007/08	144.0	86.8%	96.7%	74.7%	14,017,222	731,023	14,995,953
2008/09	132.0	85.6%	95.9%	71.5%	16,609,393	697,496	17,585,387
2009/10	120.0	84.2%	94.9%	68.0%	16,828,989	982,760	18,273,319
2010/11	108.0	82.4%	93.5%	63.4%	19,608,286	1,856,174	22,156,958 *
2011/12	96.0	80.6%	91.7%	57.3%	19,258,160	1,632,652	22,109,517
2012/13	84.0	78.3%	89.9%	53.6%	13,752,341	2,731,248	18,847,643
2013/14	72.0	75.5%	87.7%	49.9%	14,335,483	2,379,569	18,974,970 *
2014/15	60.0	70.9%	85.2%	49.1%	10,535,301	3,162,467	16,977,595
2015/16	48.0	63.8%	82.7%	52.1%	13,857,662	3,930,803	21,400,110
2016/17	36.0	52.3%	76.6%	50.8%	11,111,126	5,231,442	20,933,208 *
2017/18	24.0	36.1%	66.9%	48.2%	5,630,881	4,753,732	15,502,720
2018/19	12.0	14.4%	38.8%	28.4%	2,965,835	3,402,237	14,932,542
Total					\$493,744,469	\$42,430,355	\$570,017,352

* - Indicates large claim(s) limited to retention. For details, see Exhibit WC-15.

(3) and (4) are from Exhibit WC-2.

(6) and (7) are from Exhibit WC-1.

Preliminary Projected Ultimate Limited Losses to 2018/19

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	Preliminary Projected Ultimate Limited Losses (5)
to 1999/00	\$209,064,358	\$208,715,444	\$208,674,343	\$209,088,533
2000/01	20,856,119	19,979,170	19,905,473	19,911,441
2001/02	24,065,422	22,708,407	22,567,414	22,567,414
2002/03	23,797,973	22,536,599	22,382,380	22,382,380
2003/04	23,245,293	22,434,896	22,313,407	22,313,407
2004/05	18,821,743	18,625,172	18,551,651	18,551,651
2005/06	17,869,142	17,747,799	17,721,780	17,721,780
2006/07	16,668,282	15,501,502	15,210,980	15,210,980
2007/08	15,993,202	15,222,646	14,995,953	14,995,953
2008/09	19,227,826	18,015,230	17,585,387	17,585,387
2009/10	19,984,864	18,759,514	18,273,319	18,273,319
2010/11	23,642,230	22,790,416	22,156,958	22,156,958
2011/12	23,891,948	22,779,100	22,109,517	22,176,476
2012/13	17,573,191	18,332,986	18,847,643	18,744,711
2013/14	18,752,294	18,950,177	18,974,970	18,967,532
2014/15	14,867,889	16,083,935	16,977,595	16,620,131
2015/16	21,282,914	21,356,783	21,400,110	21,371,059
2016/17	20,551,228	20,887,085	20,933,208	20,838,363
2017/18	15,603,771	15,530,995	15,502,720	15,534,240
2018/19	16,100,787	15,243,904	14,932,542	15,205,048
Total	\$581,860,475	\$572,201,759	\$570,017,352	\$570,216,764

(2) is from Exhibit WC-3.

(3) is from Exhibit WC-4.

(4) is from Exhibit WC-5.

(5) is based on (2) to (4) and actuarial judgment.

Bornhuetter - Ferguson Analysis

I. A-priori Loss Rate

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per \$100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2019/20 = 1.000) (5)	Trended Limited Loss Rate per \$100 of Payroll (4)X(5) (6)	Projected A-priori Loss Rate per \$100 of Payroll (7)/(5) (8)
2009/10	\$18,273,319	\$338,407	\$5.40	1.053	\$5.69	\$5.22
2010/11	22,156,958	338,298	6.55	1.050	6.87	5.24
2011/12	22,176,476	348,514	6.36	1.056	6.72	5.21
2012/13	18,744,711	355,748	5.27	1.072	5.65	5.13
2013/14	18,967,532	373,451	5.08	1.073	5.45	5.12
2014/15	16,620,131	364,737	4.56	1.056	4.81	5.21
2015/16	21,371,059	390,571	5.47	1.044	5.71	5.27
2016/17	20,838,363	401,986	5.18	1.032	5.35	5.33
2017/18	15,534,240	413,589	3.76	1.021	3.84	5.39
2018/19	15,205,048	376,038	4.04	1.010	4.08	5.45

(7) Projected 2019/20 a-priori loss rate per \$100 of Payroll \$5.50

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 6/30/19 (2)	Percent Losses Paid (3)	Projected A-priori Loss Rate per \$100 of Payroll (4)	Payroll (000) (5)	B-F Unpaid Losses [100.0%-(3)] X(4)X(5)X10 (6)	B-F Ultimate Limited Paid Losses (2)+(6) (7)
2014/15	\$10,535,301	70.9%	\$5.21	\$364,737	\$5,536,695	\$16,071,995
2015/16	13,857,662	63.8%	5.27	390,571	7,442,279	21,299,941
2016/17	11,111,126	52.3%	5.33	401,986	10,210,326	21,321,451
2017/18	5,630,881	36.1%	5.39	413,589	14,239,735	19,870,617
2018/19	2,965,835	14.4%	5.45	376,038	17,523,779	20,489,614

III. Bornhuetter - Ferguson Analysis Based on Limited Reported Incurred Losses

Claim Period (1)	Limited Reported Incurred Losses 6/30/19 (2)	Percent Losses Reported (3)	Projected A-priori Loss Rate per \$100 of Payroll (4)	Payroll (000) (5)	B-F Unreported Losses [100.0%-(3)] X(4)X(5)X10 (6)	B-F Ultimate Limited Reported Losses (2)+(6) (7)
2014/15	\$13,697,768	85.2%	\$5.21	\$364,737	\$2,818,779	\$16,516,546
2015/16	17,788,465	82.7%	5.27	390,571	3,563,680	21,352,145
2016/17	16,342,568	76.6%	5.33	401,986	5,020,307	21,362,875
2017/18	10,384,613	66.9%	5.39	413,589	7,382,666	17,767,279
2018/19	6,368,072	38.8%	5.45	376,038	12,541,619	18,909,691

Section I, (2) is from Exhibit WC-6.

Section I, (3), Section II, (5) and Section III, (5) are from Exhibit WC-10.

Section I, (5) is from Exhibit WC-14.

Section I, (7) is based on Section I, (6) and actuarial judgment.

Sections II and III, (2) are from Exhibit WC-1.

Sections II and III, (3) are from Exhibit WC-2.

Sections II and III, (4) are from Section I, (8).

Frequency Times Severity Analysis

I. Projected Ultimate Claims

Claim Period (1)	Months of Development 6/30/19 (2)	Reported Claims 6/30/19 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Payroll (000) (6)	Frequency (per \$1M of Payroll) (5)/(6)X1,000 (7)
2009/10	120.0	646	100.0%	646	\$338,407	1.91
2010/11	108.0	650	100.0%	650	338,298	1.92
2011/12	96.0	637	100.0%	637	348,514	1.83
2012/13	84.0	569	100.0%	569	355,748	1.60
2013/14	72.0	621	100.0%	621	373,451	1.66
2014/15	60.0	559	100.0%	559	364,737	1.53
2015/16	48.0	611	99.9%	612	390,571	1.57
2016/17	36.0	545	99.5%	548	401,986	1.36
2017/18	24.0	522	99.0%	527	413,589	1.27
2018/19	12.0	537	93.8%	572	376,038	1.52

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2019/20 = 1.000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2019/20 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2009/10	\$18,273,319	646	\$28,287	1.415	\$40,037	\$28,405	\$18,349,859
2010/11	22,156,958	650	34,088	1.369	46,680	29,359	19,083,392
2011/12	22,176,476	637	34,814	1.337	46,549	30,069	19,153,952
2012/13	18,744,711	569	32,943	1.319	43,444	30,487	17,347,268
2013/14	18,967,532	621	30,544	1.282	39,149	31,367	19,478,933
2014/15	16,620,131	559	29,732	1.224	36,396	32,843	18,359,318
2015/16	21,371,059	612	34,920	1.175	41,030	34,218	20,941,406
2016/17	20,838,363	548	38,026	1.128	42,901	35,636	19,528,621
2017/18	15,534,240	527	29,477	1.083	31,932	37,113	19,558,503
2018/19	15,205,048	572	26,582	1.040	27,654	38,647	22,106,278
						(7) Projected 2019/20 average claim severity \$40,205	

Section I, (3) is from Exhibit WC-1.

Section I, (4) is from Exhibit WC-2.

Section I, (6) is from Exhibit WC-10.

Section II, (2) is from Exhibit WC-6.

Section II, (3) is from Section I, (5).

Section II, (5) is from Exhibit WC-14.

Section II, (7) is based on (6) and actuarial judgment.

Projected Ultimate Limited Losses to 2018/19

Claim Period (1)	Developed Limited Paid Losses (2)	Developed Limited Reported Incurred Losses (3)	Developed Limited Case Reserves (4)	B-F Ultimate Limited Paid Losses (5)	B-F Ultimate Limited Reported Losses (6)	Frequency Times Severity (7)	Projected Ultimate Limited Losses (8)
to 1999/00	\$209,064,358	\$208,715,444	\$208,674,343				\$209,089,000
2000/01	20,856,119	19,979,170	19,905,473				19,911,441
2001/02	24,065,422	22,708,407	22,567,414				22,567,000
2002/03	23,797,973	22,536,599	22,382,380				22,382,000
2003/04	23,245,293	22,434,896	22,313,407				22,313,000
2004/05	18,821,743	18,625,172	18,551,651				18,552,000
2005/06	17,869,142	17,747,799	17,721,780				17,722,000
2006/07	16,668,282	15,501,502	15,210,980				15,211,000
2007/08	15,993,202	15,222,646	14,995,953				14,996,000
2008/09	19,227,826	18,015,230	17,585,387				17,585,000
2009/10	19,984,864	18,759,514	18,273,319				18,273,000
2010/11	23,642,230	22,790,416	22,156,958				22,157,000
2011/12	23,891,948	22,779,100	22,109,517				22,176,000
2012/13	17,573,191	18,332,986	18,847,643				18,745,000
2013/14	18,752,294	18,950,177	18,974,970				18,968,000
2014/15	14,867,889	16,083,935	16,977,595	16,071,995	16,516,546	18,359,318	16,620,000
2015/16	21,282,914	21,356,783	21,400,110	21,299,941	21,352,145	20,941,406	21,371,000
2016/17	20,551,228	20,887,085	20,933,208	21,321,451	21,362,875	19,528,621	20,838,000
2017/18	15,603,771	15,530,995	15,502,720	19,870,617	17,767,279	19,558,503	17,053,000
2018/19	16,100,787	15,243,904	14,932,542	20,489,614	18,909,691	22,106,278	18,615,000

(2) is from Exhibit WC-3.

(3) is from Exhibit WC-4.

(4) is from Exhibit WC-5.

(5) and (6) are from Exhibit WC-7.

(7) is from Exhibit WC-8.

(8) is based on (2) to (7) and actuarial judgment.

Projected Ultimate Limited Losses for 2019/20 and Subsequent

Claim Period (1)	Projected Ultimate Limited Losses (2)	Payroll (000) (3)	Limited Loss Rate per \$100 of Payroll (2)/(3)/10 (4)	Loss Rate Trend (2019/20 = 1.000) (5)	Trended Limited Loss Rate per \$100 of Payroll (4)X(5) (6)
2009/10	\$18,273,000	\$338,407	\$5.40	1.053	\$5.69
2010/11	22,157,000	338,298	6.55	1.050	6.87
2011/12	22,176,000	348,514	6.36	1.056	6.72
2012/13	18,745,000	355,748	5.27	1.072	5.65
2013/14	18,968,000	373,451	5.08	1.073	5.45
2014/15	16,620,000	364,737	4.56	1.056	4.81
2015/16	21,371,000	390,571	5.47	1.044	5.71
2016/17	20,838,000	401,986	5.18	1.032	5.35
2017/18	17,053,000	413,589	4.12	1.021	4.21
2018/19	18,615,000	376,038	4.95	1.010	5.00
Total	\$194,816,000	\$3,701,339	\$5.26		\$5.55

Claim Period (1)	Projected Limited Loss Rate per \$100 of Payroll (7)	Projected Payroll (000) (8)	Projected Ultimate Limited Losses (7)X(8)X10 (9)	Present Value Factor (10)	Present Value of Projected Limited Loss Rate per \$100 of Payroll (7)X(10) (11)	Present Value of Projected Ultimate Limited Losses (8)X(11)X10 (12)
2019/20	\$5.62	\$379,798	\$21,333,000	0.89	\$4.98	\$18,902,000
2020/21	5.67	383,596	21,761,000	0.89	5.03	19,282,000

(2) is from Exhibit WC-9.

(3) 2009/10, 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2017/18 and 2018/19 were provided by the City. Other periods assume a 1% trend.

(5) is from Exhibit WC-14.

(7) 2019/20 is based on (6) and actuarial judgment.
Other period(s) based on 2019/20 plus the trend in Exhibit WC-14.

(8) is based on (3) for 2018/19 and a 1% trend.

(10) is based on a 2.5% interest rate and the payout pattern in Exhibit WC-2.

Estimated Outstanding Losses as of June 30, 2019

Claim Period (1)	Limited Paid Losses 6/30/19 (2)	Limited Case Reserves 6/30/19 (3)	Limited Reported Incurred Losses 6/30/19 (4)	Projected Ultimate Limited Losses (5)	Estimated IBNR 6/30/19 (5)-(4) (6)	Estimated Outstanding Losses 6/30/19 (3)+(6) (7)	Present Value Factor (8)	Present Value of Estimated Outstanding Losses 6/30/19 (7)X(8) (9)
to 1999/00	\$204,028,464	\$4,600,063	\$208,628,527	\$209,089,000	\$460,473	\$5,060,536	0.91	\$4,615,369
2000/01	19,126,597	713,494	19,840,091	19,911,441	71,349	784,843	0.90	702,778
2001/02	21,959,963	545,355	22,505,319	22,567,000	61,681	607,036	0.88	534,066
2002/03	21,607,874	682,592	22,290,466	22,382,000	91,534	774,126	0.86	669,593
2003/04	20,980,176	1,143,327	22,123,503	22,313,000	189,497	1,332,824	0.85	1,135,776
2004/05	16,886,357	1,424,935	18,311,292	18,552,000	240,708	1,665,643	0.84	1,398,878
2005/06	15,984,689	1,399,318	17,384,008	17,722,000	337,992	1,737,310	0.83	1,447,480
2006/07	14,659,670	429,666	15,089,336	15,211,000	121,664	551,330	0.83	455,393
2007/08	14,017,222	731,023	14,748,245	14,996,000	247,755	978,778	0.82	804,398
2008/09	16,609,393	697,496	17,306,888	17,585,000	278,112	975,608	0.82	797,732
2009/10	16,828,989	982,760	17,811,749	18,273,000	461,251	1,444,011	0.82	1,177,328
2010/11	19,608,286	1,856,174	21,464,460	22,157,000	692,540	2,548,714	0.82	2,078,740
2011/12	19,258,160	1,632,652	20,890,812	22,176,000	1,285,188	2,917,840	0.81	2,373,911
2012/13	13,752,341	2,731,248	16,483,589	18,745,000	2,261,411	4,992,659	0.82	4,069,144
2013/14	14,335,483	2,379,569	16,715,052	18,968,000	2,252,948	4,632,517	0.82	3,786,509
2014/15	10,535,301	3,162,467	13,697,768	16,620,000	2,922,232	6,084,699	0.83	5,037,380
2015/16	13,857,662	3,930,803	17,788,465	21,371,000	3,582,535	7,513,338	0.84	6,333,610
2016/17	11,111,126	5,231,442	16,342,568	20,838,000	4,495,432	9,726,874	0.86	8,390,675
2017/18	5,630,881	4,753,732	10,384,613	17,053,000	6,668,387	11,422,119	0.88	10,039,140
2018/19	2,965,835	3,402,237	6,368,072	18,615,000	12,246,928	15,649,165	0.89	13,936,761
Total	\$493,744,469	\$42,430,355	\$536,174,824	\$575,144,441	\$38,969,617	\$81,399,970		\$69,784,661

(2), (3) and (4) are net of specific self-insured retention and aggregate retention.

(5) is from Exhibit WC-9.

(8) is based on a 2.5% interest rate and the payout pattern in Exhibit WC-2.

Projected Losses Paid July 1, 2019 to June 30, 2020

Claim Period (1)	Months of Development 6/30/19 (2)	Percent Losses Paid (3)	Months of Development 6/30/20 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 7/1/19 to 6/30/20 [(5)-(3)]/[100.0%-(3)] (6)	Estimated Outstanding Losses 6/30/19 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 6/30/20 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 6/30/20 (9)X(10) (11)
to 1999/00	240.0	92.2%	252.0	93.7%	20.0% *	\$5,060,536	\$1,012,107	\$4,048,429	0.91	\$3,701,504
2000/01	228.0	91.7%	240.0	92.2%	5.5% *	784,843	43,397	741,446	0.91	676,222
2001/02	216.0	91.3%	228.0	91.7%	5.2% *	607,036	31,657	575,379	0.90	515,216
2002/03	204.0	90.8%	216.0	91.3%	4.9% *	774,126	38,188	735,938	0.88	647,473
2003/04	192.0	90.3%	204.0	90.8%	5.6% *	1,332,824	74,070	1,258,754	0.86	1,088,780
2004/05	180.0	89.7%	192.0	90.3%	5.2% *	1,665,643	87,197	1,578,446	0.85	1,345,085
2005/06	168.0	88.8%	180.0	89.7%	8.0% *	1,737,310	138,146	1,599,164	0.84	1,343,046
2006/07	156.0	87.9%	168.0	88.8%	7.3% *	551,330	40,238	511,092	0.83	425,828
2007/08	144.0	86.8%	156.0	87.9%	8.6% *	978,778	83,823	894,955	0.83	739,224
2008/09	132.0	85.6%	144.0	86.8%	8.3% *	975,608	81,338	894,270	0.82	734,946
2009/10	120.0	84.2%	132.0	85.6%	9.1% *	1,444,011	130,730	1,313,281	0.82	1,073,839
2010/11	108.0	82.4%	120.0	84.2%	10.3% *	2,548,714	262,130	2,286,584	0.82	1,864,292
2011/12	96.0	80.6%	108.0	82.4%	9.1% *	2,917,840	266,786	2,651,054	0.82	2,162,209
2012/13	84.0	78.3%	96.0	80.6%	10.8% *	4,992,659	539,101	4,453,558	0.81	3,623,349
2013/14	72.0	75.5%	84.0	78.3%	11.4% *	4,632,517	527,212	4,105,305	0.82	3,345,928
2014/15	60.0	70.9%	72.0	75.5%	15.8% *	6,084,699	961,727	5,122,972	0.82	4,187,395
2015/16	48.0	63.8%	60.0	70.9%	19.4% *	7,513,338	1,458,948	6,054,390	0.83	5,012,288
2016/17	36.0	52.3%	48.0	63.8%	24.1% *	9,726,874	2,348,693	7,378,181	0.84	6,219,675
2017/18	24.0	36.1%	36.0	52.3%	25.0% *	11,422,119	2,855,530	8,566,589	0.86	7,389,781
2018/19	12.0	14.4%	24.0	36.1%	25.0% *	15,649,165	3,912,291	11,736,874	0.88	10,315,785
2019/20	0.0	0.0%	12.0	14.4%	14.4% *	21,333,000	3,079,348	18,253,652	0.89	16,256,253
Total						\$102,732,970	\$17,972,657	\$84,760,313		\$72,668,118

* - Limited to a maximum of 25% per actuarial judgment.

(3) and (5) are from Exhibit WC-2.

(7) to 2018/19 is from Exhibit WC-11. The amount for 2019/20 is from Exhibit WC-10.

(10) is based on a 2.5% interest rate and the payout pattern in Exhibit WC-2.

Projected Losses Paid July 1, 2020 to June 30, 2021

Claim Period (1)	Months of Development 6/30/20 (2)	Percent Losses Paid (3)	Months of Development 6/30/21 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 7/1/20 to 6/30/21 [(5)-(3)]/[100.0%-(3)] (6)	Estimated Outstanding Losses 6/30/20 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 6/30/21 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 6/30/21 (9)X(10) (11)
to 1999/00	252.0	93.7%	264.0	95.0%	20.0% *	\$4,048,429	\$809,686	\$3,238,743	0.92	\$2,969,801
2000/01	240.0	92.2%	252.0	93.7%	20.0% *	741,446	148,289	593,157	0.91	542,327
2001/02	228.0	91.7%	240.0	92.2%	5.5% *	575,379	31,815	543,564	0.91	495,748
2002/03	216.0	91.3%	228.0	91.7%	5.2% *	735,938	38,379	697,559	0.90	624,620
2003/04	204.0	90.8%	216.0	91.3%	4.9% *	1,258,754	62,095	1,196,659	0.88	1,052,813
2004/05	192.0	90.3%	204.0	90.8%	5.6% *	1,578,446	87,720	1,490,726	0.86	1,289,428
2005/06	180.0	89.7%	192.0	90.3%	5.2% *	1,599,164	83,717	1,515,447	0.85	1,291,400
2006/07	168.0	88.8%	180.0	89.7%	8.0% *	511,092	40,641	470,451	0.84	395,105
2007/08	156.0	87.9%	168.0	88.8%	7.3% *	894,955	65,317	829,638	0.83	691,232
2008/09	144.0	86.8%	156.0	87.9%	8.6% *	894,270	76,586	817,684	0.83	675,399
2009/10	132.0	85.6%	144.0	86.8%	8.3% *	1,313,281	109,491	1,203,790	0.82	989,322
2010/11	120.0	84.2%	132.0	85.6%	9.1% *	2,286,584	207,011	2,079,573	0.82	1,700,419
2011/12	108.0	82.4%	120.0	84.2%	10.3% *	2,651,054	272,655	2,378,399	0.82	1,939,151
2012/13	96.0	80.6%	108.0	82.4%	9.1% *	4,453,558	407,201	4,046,357	0.82	3,300,224
2013/14	84.0	78.3%	96.0	80.6%	10.8% *	4,105,305	443,285	3,662,020	0.81	2,979,365
2014/15	72.0	75.5%	84.0	78.3%	11.4% *	5,122,972	583,029	4,539,943	0.82	3,700,169
2015/16	60.0	70.9%	72.0	75.5%	15.8% *	6,054,390	956,937	5,097,453	0.82	4,166,537
2016/17	48.0	63.8%	60.0	70.9%	19.4% *	7,378,181	1,432,703	5,945,478	0.83	4,922,122
2017/18	36.0	52.3%	48.0	63.8%	24.1% *	8,566,589	2,068,525	6,498,064	0.84	5,477,752
2018/19	24.0	36.1%	36.0	52.3%	25.0% *	11,736,874	2,934,219	8,802,655	0.86	7,593,418
2019/20	12.0	14.4%	24.0	36.1%	25.0% *	18,253,652	4,563,413	13,690,239	0.88	12,032,639
2020/21	0.0	0.0%	12.0	14.4%	14.4% *	21,761,000	3,141,128	18,619,872	0.89	16,582,399
Total						\$106,521,313	\$18,563,842	\$87,957,471		\$75,411,390

* - Limited to a maximum of 25% per actuarial judgment.

(3) and (5) are from Exhibit WC-2.

(7) to 2019/20 is from Exhibit WC-12, (9). The amount for 2020/21 is from Exhibit WC-10.

(10) is based on a 2.5% interest rate and the payout pattern in Exhibit WC-2.

Loss Rate and Severity Trend

I. Benefit Level Changes

Effective Date (1)	Benefit Level Change (2)	Cumulative Benefit Level Change (3)
01/01/10	1.001	1.001
01/01/11	0.987	0.988
01/01/12	0.982	0.970
01/01/13	0.967	0.938
01/01/14	1.012	0.949
01/01/15	1.001	0.950
01/01/16	1.002	0.952
01/01/17	1.000	0.952
01/01/18	1.002	0.954

II. Loss Rate and Severity Trend

Claim Period (1)	Benefit Trend (2019/20 = 1.000) (2)	Residual Trend (2019/20 = 1.000) (3)	Retention Index (2019/20 = 1.000) (4)	Loss Rate Trend (2019/20 = 1.000) (2)X(3)X(4) (5)	Wage Trend (2019/20 = 1.000) (6)	Severity Trend (2019/20 = 1.000) (5)X(6) (7)
2009/10	0.953	1.105	1.000	1.053	1.344	1.415
2010/11	0.960	1.094	1.000	1.050	1.305	1.369
2011/12	0.975	1.083	1.000	1.056	1.267	1.337
2012/13	1.000	1.072	1.000	1.072	1.230	1.319
2013/14	1.011	1.062	1.000	1.073	1.194	1.282
2014/15	1.005	1.051	1.000	1.056	1.159	1.224
2015/16	1.003	1.041	1.000	1.044	1.126	1.175
2016/17	1.002	1.030	1.000	1.032	1.093	1.128
2017/18	1.001	1.020	1.000	1.021	1.061	1.083
2018/19	1.000	1.010	1.000	1.010	1.030	1.040
2019/20	1.000	1.000	1.000	1.000	1.000	1.000
2020/21	1.000	0.990	1.000	0.990	0.971	0.961

Section I, (2) and (3) reflect data published by the NCCI.

Section II, (2) is based on Section I, (2).

Section II, (3) is based on 1% trend per actuarial judgment.

Section II, (4) is based on industry statistics and actuarial judgment.

Section II, (6) is based on 3% trend.

List of Large Claims
Reported Incurred Losses Greater Than \$500,000

Claim Number (1)	Date of Loss (2)	Claim Period (3)	Specific Self-Insured Retention (4)	Unlimited Paid Losses 6/30/19 (5)	Unlimited Case Reserves 6/30/19 (6)	Unlimited Reported Incurred Losses 6/30/19 (7)
0000190143	12/27/72	to 1999/00	Unlimited	\$722,941	\$0	\$722,941
0000190774	01/19/74	to 1999/00	Unlimited	613,638	0	613,638
0000190326	08/01/74	to 1999/00	Unlimited	771,240	0	771,240
0000190147	07/04/75	to 1999/00	Unlimited	4,497,548	131,229	4,628,777
0000190244	10/03/75	to 1999/00	Unlimited	542,435	0	542,435
0000191607	03/11/77	to 1999/00	Unlimited	2,904,822	0	2,904,822
0000190910	12/05/77	to 1999/00	Unlimited	913,798	0	913,798
0000190513	10/19/78	to 1999/00	Unlimited	925,345	0	925,345
0000120155	08/21/82	to 1999/00	Unlimited	442,543	101,832	544,375
0001305216	04/11/83	to 1999/00	Unlimited	800,100	0	800,100
0001305673	10/28/83	to 1999/00	Unlimited	671,186	258,985	930,171
0001305402	01/03/84	to 1999/00	Unlimited	583,002	0	583,002
0001305712	01/26/84	to 1999/00	Unlimited	567,073	0	567,073
0008600690	07/16/86	to 1999/00	Unlimited	560,893	0	560,893
0087580347	02/24/87	to 1999/00	Unlimited	658,278	26,824	685,102
0088580060	10/17/87	to 1999/00	Unlimited	633,209	28,723	661,933
0088580879	07/01/88	to 1999/00	Unlimited	628,550	0	628,550
0088580941	10/06/88	to 1999/00	Unlimited	612,393	0	612,393
0090000792	08/23/90	to 1999/00	Unlimited	518,919	86,727	605,646
0091001095	10/20/91	to 1999/00	Unlimited	626,623	61,613	688,236
0091000967	10/20/91	to 1999/00	Unlimited	615,883	0	615,883
0093000088	01/15/93	to 1999/00	Unlimited	423,160	104,564	527,724
0094630112	08/01/94	to 1999/00	Unlimited	1,409,190	0	1,409,190
0095630065	11/07/94	to 1999/00	Unlimited	393,777	157,285	551,061
0095630121	01/11/95	to 1999/00	Unlimited	567,522	45,196	612,718
0096630131	08/15/95	to 1999/00	Unlimited	726,001	232,369	958,369
0096630617	03/01/96	to 1999/00	Unlimited	541,404	0	541,404
0097630604	07/10/97	to 1999/00	Unlimited	480,754	47,158	527,912
0058620066	01/25/98	to 1999/00	Unlimited	446,309	75,640	521,949
0058620470	06/11/98	to 1999/00	Unlimited	685,025	0	685,025
0059620316	03/26/99	to 1999/00	Unlimited	506,947	0	506,947
0059620442	05/04/99	to 1999/00	Unlimited	670,277	149,099	819,375
0056200017	01/03/00	to 1999/00	Unlimited	631,654	230,073	861,726
0056210090	01/03/01	2000/01	Unlimited	375,411	153,680	529,091
0056210086	01/24/01	2000/01	Unlimited	531,819	0	531,819
0056210681	07/19/01	2001/02	Unlimited	555,676	0	555,676
0108004322	08/23/01	2001/02	Unlimited	915,476	0	915,476
0109002741	09/21/01	2001/02	Unlimited	731,455	0	731,455
0204001439	04/06/02	2001/02	Unlimited	841,289	13,009	854,298
0208004522	08/03/02	2002/03	Unlimited	1,604,673	93,561	1,698,234
0208003005	08/11/02	2002/03	Unlimited	752,443	0	752,443
0209003498	09/27/02	2002/03	Unlimited	623,075	109,554	732,629
0210003933	10/03/02	2002/03	Unlimited	663,607	4,730	668,337
0211004343	11/23/02	2002/03	Unlimited	913,203	128,154	1,041,357
0312004058	12/27/03	2003/04	Unlimited	609,218	81,259	690,477
0401000424	01/13/04	2003/04	Unlimited	584,135	0	584,135
0403000853	03/15/04	2003/04	Unlimited	309,652	195,804	505,456
0405001211	05/14/04	2003/04	Unlimited	475,586	226,699	702,285
0408000000	08/27/04	2004/05	1,000,000	137,968	441,844	579,813
0509002575	12/03/04	2004/05	1,000,000	722,543	929,023 *	1,651,565 *
0501000048	01/12/05	2004/05	1,000,000	483,963	57,019	540,982
0506001414	06/23/05	2004/05	1,000,000	800,675	80,327	881,002
0507002799	07/01/05	2005/06	1,000,000	665,427	0	665,427
0509001885	09/28/05	2005/06	1,000,000	270,244	451,890	722,133
0601000103	01/21/06	2005/06	1,000,000	2,366,438 *	0	2,366,438 *
0602003173	02/28/06	2005/06	1,000,000	506,378	0	506,378
0608001735	08/14/06	2006/07	1,000,000	439,724	223,244	662,968
0701000110	01/20/07	2006/07	1,000,000	504,355	0	504,355
0708001974	08/17/07	2007/08	1,000,000	1,502,831 *	395,899	1,898,730 *
0708002337	08/27/07	2007/08	1,000,000	708,184	0	708,184
0802000349	02/22/08	2007/08	1,000,000	408,581	178,620	587,201
0903000603	03/21/09	2008/09	750,000	3,724,156 *	22,459	3,746,615 *
0906002809	06/12/09	2008/09	750,000	680,452 *	0	680,452
1003000505	03/19/10	2009/10	750,000	634,989 *	0	634,989
1008001619	08/06/10	2010/11	750,000	1,035,869 *	0	1,035,869 *
1008001950	08/31/10	2010/11	750,000	583,926	677,521 *	1,261,447 *
100900068	09/23/10	2010/11	750,000	257,744	678,284 *	936,027 *
121100167	11/14/12	2012/13	750,000	518,743	0	518,743
140600108	06/24/14	2013/14	750,000	854,894 *	4,172,846	5,027,740 *
140600155	06/30/14	2013/14	750,000	242,281	315,947 *	558,228
150800000	08/03/15	2015/16	750,000	801,034 *	0	801,034 *
170100012	01/08/17	2016/17	750,000	1,757,021 *	1,740,563	3,497,583 *
170100056	01/24/17	2016/17	750,000	264,385	4,125,364 *	4,389,748 *
180800033	08/13/18	2018/19	750,000	2,706,048 *	17,201,988	19,908,036 *

The claim(s) indicated by a "*" have been limited in development.

Amounts are gross of excess insurance and net of other recoveries.

Size of Loss Distribution

I. Reported Claim Count

Claim Size (1)	Prior (2)	2014/15 (3)	2015/16 (4)	2016/17 (5)	2017/18 (6)	2018/19 (7)	Total (2)...(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	2,690	11	21	6	10	30	2,768		
0.01 - 5,000	25,474	396	392	358	343	372	27,335	27,335	77.5%
5,000 - 10,000	1,716	39	37	34	40	56	1,922	29,257	83.0%
10,000 - 25,000	1,713	26	42	29	34	31	1,875	31,132	88.3%
25,000 - 50,000	1,249	22	24	31	26	14	1,366	32,498	92.2%
50,000 - 100,000	1,089	13	37	38	43	23	1,243	33,741	95.7%
100,000 - 250,000	1,028	40	39	33	18	8	1,166	34,907	99.0%
250,000 - 500,000	217	12	18	14	8	2	271	35,178	99.8%
500,000 - 750,000	45	0	0	0	0	0	45	35,223	99.9%
750,000 - 1,000,000	13	0	1	0	0	0	14	35,237	100.0%
Over 1,000,000	12	0	0	2	0	1	15	35,252	100.0%
Total	35,246	559	611	545	522	537	38,020	35,252	

II. Total Reported Incurred Losses

Claim Size (1)	Prior (2)	2014/15 (3)	2015/16 (4)	2016/17 (5)	2017/18 (6)	2018/19 (7)	Total (2)...(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
0.01 - 5,000	21,594,122	528,991	517,290	527,847	466,867	485,131	24,120,246	24,120,246	4.2%
5,000 - 10,000	12,084,317	275,751	240,680	228,715	284,101	405,973	13,519,536	37,639,783	6.6%
10,000 - 25,000	27,834,252	386,782	662,478	462,826	572,399	505,138	30,423,874	68,063,657	11.9%
25,000 - 50,000	44,791,272	771,451	851,468	1,116,334	893,968	515,032	48,939,526	117,003,183	20.4%
50,000 - 100,000	77,616,688	1,025,097	2,619,468	2,847,163	3,101,964	1,700,912	88,911,292	205,914,475	35.9%
100,000 - 250,000	159,852,404	6,893,700	6,467,008	5,427,418	2,739,466	1,453,627	182,833,623	388,748,098	67.9%
250,000 - 500,000	71,796,508	3,815,996	5,680,074	4,232,265	2,325,849	552,259	88,402,950	477,151,048	83.3%
500,000 - 750,000	27,208,052	0	0	0	0	0	27,208,052	504,359,101	88.0%
750,000 - 1,000,000	11,319,372	0	801,034	0	0	0	12,120,406	516,479,506	90.1%
Over 1,000,000	28,670,782	0	0	7,887,332	0	19,908,036	56,466,149	572,945,656	100.0%
Total	\$482,767,769	\$13,697,768	\$17,839,499	\$22,729,899	\$10,384,613	\$25,526,108	\$572,945,656	\$572,945,656	

Amounts are gross of excess insurance and net of other recoveries.

Data was provided by the City.

Oakland_WC_063019.xlsx

Loss Distribution by Type

I. Claim Counts and Incurred Losses

Claim Period (1)	Reported Claims 6/30/19			Unlimited Reported Incurred Losses 6/30/19				Total (5)...(8)
	Medical Only (2)	Lost-Time (3)	Total (2)...(3) (4)	Lost-Time				
				Medical Only (5)	Indemnity (6)	Medical (7)	Expense (8)	
2009/10	244	402	646	\$121,687	\$11,237,934	\$5,285,133	\$1,452,887	\$18,097,641
2010/11	226	424	650	132,349	13,477,046	7,201,004	1,666,270	22,476,670
2011/12	279	358	637	200,521	13,627,586	5,386,941	1,789,468	21,004,515
2012/13	243	326	569	179,792	9,684,601	4,896,515	1,724,397	16,485,305
2013/14	320	301	621	254,361	11,825,147	7,450,936	1,470,247	21,000,692
2014/15	239	320	559	198,483	8,308,443	3,887,173	1,331,896	13,725,995
2015/16	275	336	611	279,325	10,844,557	5,133,050	1,639,951	17,896,883
2016/17	252	293	545	344,492	13,387,964	7,716,152	1,319,347	22,767,956
2017/18	265	257	522	333,897	5,567,699	3,486,306	965,626	10,353,528
2018/19	363	174	537	542,362	4,249,312	20,108,691	625,744	25,526,108
Total	2,706	3,191	5,897	\$2,587,271	\$102,210,290	\$70,551,900	\$13,985,832	\$189,335,293

II. Percentages

Claim Period (1)	Reported Claims 6/30/19			Unlimited Reported Incurred Losses 6/30/19				Total (13)...(16)
	Medical Only (2)/(4) (10)	Lost-Time (3)/(4) (11)	Total (10)...(11) (12)	Lost-Time				
				Medical Only (5)/(9) (13)	Indemnity (6)/(9) (14)	Medical (7)/(9) (15)	Expense (8)/(9) (16)	
2009/10	37.8%	62.2%	100.0%	0.7%	62.1%	29.2%	8.0%	100.0%
2010/11	34.8%	65.2%	100.0%	0.6%	60.0%	32.0%	7.4%	100.0%
2011/12	43.8%	56.2%	100.0%	1.0%	64.9%	25.6%	8.5%	100.0%
2012/13	42.7%	57.3%	100.0%	1.1%	58.7%	29.7%	10.5%	100.0%
2013/14	51.5%	48.5%	100.0%	1.2%	56.3%	35.5%	7.0%	100.0%
2014/15	42.8%	57.2%	100.0%	1.4%	60.5%	28.3%	9.7%	100.0%
2015/16	45.0%	55.0%	100.0%	1.6%	60.6%	28.7%	9.2%	100.0%
2016/17	46.2%	53.8%	100.0%	1.5%	58.8%	33.9%	5.8%	100.0%
2017/18	50.8%	49.2%	100.0%	3.2%	53.8%	33.7%	9.3%	100.0%
2018/19	67.6%	32.4%	100.0%	2.1%	16.6%	78.8%	2.5%	100.0%
Total	45.9%	54.1%	100.0%	1.4%	54.0%	37.3%	7.4%	100.0%

Data was provided by the City and is gross of recoveries. Medical Only includes claims with claim type of First Aid, Info Only or Medical Only. Lost-Time includes claim types Future Medical, Perm Partial, Temp Disability, Perm Total Disability or Death.