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2019 FEB 28 PM 1:09

AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Ian Appleyard
Director, HRM

SUBJECT: Fiscal Year 2017-18 Workers'
Compensation Annual Report

DATE: February 04, 2019

City Administrator Approval

Date:

2/28/19

RECOMMENDATION

Staff Recommends That The City Council Receive An Informational Report On The Fiscal Year 2017-18 Workers' Compensation Program.

EXECUTIVE SUMMARY

This report provides expenditure and program data on the City of Oakland's Fiscal Year (FY) 2017-18 Workers' Compensation Program. The report contains comparative metrics, historical data, and various program highlights.

BACKGROUND / LEGISLATIVE HISTORY

The City of Oakland is self-insured for workers' compensation. The Human Resources Management Department (HRM) works with a contracted third-party administrator (TPA), JT2 Integrated Resources, to provide services to injured workers and handle the technical aspects of each claim. Through HRM, the TPA provides services to all City's agencies and departments to ensure program compliance with mandated California Labor Code requirements.

Each year, HRM provides statistical information regarding administration of the Workers' Compensation Program. These statistics are benchmarks by which the City can measure its performance and the effectiveness of Workers' Compensation Program initiatives. HRM also develops and implements new program changes based on these statistics. This information is contained in the 2017-18 Workers' Compensation Annual Report (**Attachment A**). Since the last report, HRM has commissioned an Actuarial Analysis as well as a Claims Management Performance Audit to monitor and ensure continued effective administration of the program. The results of the audit/analysis are included as appendices at the end of the annual report.

Item: _____
Finance & Management Committee
March 5, 2019

ANALYSIS AND POLICY ALTERNATIVES

HRM administers the Workers' Compensation Program for the City of Oakland, providing program services and support to all City agencies and departments. The attached Workers' Compensation Report provides information on the current state of the program. As described more fully in the attached report, the program statistics for FY 2017-18 include:

- Total Gross Program Expenditure was **\$20,706,208.**
Down 8.32% since 16-17
- Final Excess Workers' Compensation (EWC) Premium was **\$1,675,333.**
- Total number of claims was **515.**
Up 3% since 16-17
- Est. Outstanding Losses @ 50% Conf. was **\$92,452,763**
Down 1.7% since 16-17

Claims Management Performance Audit

The annual Workers' Compensation Claims Audit overall performance rating of the Third-Party Administrator was **89.87%**. This is an increase of 2.04% over the prior year's Audit. The HRM Department will continue to closely monitor and assess JT2's performance.

Loss Frequency

Over the past four years, the number of claims filed by City employees has remained consistent. For this report Department of Transportation ("DOT") statistics are combined with the Public Works statistics.

**Table 1: Number of New Workers' Compensation (WC) Claims by Department
 Fiscal Years 2014/15 through 2017/18**

Fiscal Year	Police			Fire			PW & DOT			Other Dept.		
	# Sworn Emp.	WC Cases	Percent	# Sworn Emp.	WC Cases	Percent	# Emp.	WC Cases	Percent	# Emp.	WC Cases	Percent
2014-15	717	218	30.40%	436	146	33.49%	724	122	16.85%	3,124	75	2.40%
2015-16	777	222	28.57%	426	151	35.45%	742	121	16.31%	3,339	99	2.29%
2016-17	745	189	25.37%	451	182	40.35%	612	120	19.61%	2,463	78	3.17%
2017-18	747	188	25.16%	439	130	29.61%	832	117	14.06%	2,934	86	2.93%

HRM continues to support departments in injury reduction and accident prevention efforts by way of onsite audits/surveys, safety trainings, and program development.

- HRM continues its promotion of a City-wide Web-Based Training Program called **Target Solutions** that provides over 100 safety and wellness courses designed specifically to comply with State and Federal Occupational Safety and Health Administration requirements. This program supported the City-wide mandated training for prevention of sexual harassment and protected class discrimination. It has also been widely used by

the Oakland Fire Department, Oakland Public Works, and Oakland DOT to deliver mandated safety trainings and continuing education trainings. HRM will continue to enhance its use and tailor the topics offered to current City needs and mandated training requirements. The Target Solutions platform is made available to the City at no cost through our primary insurance pool – CSAC Excess Insurance Authority (CSAC-EIA).

HRM continues to enhance existing elements that strategically impact overall program costs. HRM's continued efforts include the following:

- Placement of a designated Workers' Compensation Coordinator (WCC) in high volume departments. The Workers' Compensation Program is currently funding a dedicated workers' compensation position in the Police, Fire, Public Works, DOT, City Attorney's, and Finance departments. While HRM does not direct the work or function of these positions, it is intended that they devote 100 percent of their position to the development and administration of their department's internal workers' compensation program or support the City-wide workers' compensation administration efforts.
- Monthly disability review meetings with department representatives to discuss active claims and identify cases for investigation and/or transitional duty assignments.
- Regular Financial Review meetings with TPA representatives to examine expenditure rates and trends on a more global scale to assist in early detection of negative program changes.
- Telephonic injury reporting to triage Workers' Compensation claims reporting, and possible expansion of the methodology for certifying medical conditions under the Family Medical Leave Act (FMLA) program.
- Implementation of Labor Soft, an Integrated Disability Management Information System, designed to aid in the tracking and documenting disability leaves, disability management issues, and other Risk-related loss prevention programs.
- Participate in Medical Provider Network (MPN) through WellComp, a MPN sponsored by CSAC-EIA, our Excess Workers' Compensation insurance carrier.
- Ongoing examination of the City's disability programs to align them with industry innovations and best practices.
- Continuing education for staff responsible for administering the City's inter-disciplinary disability programs.

FISCAL IMPACT

This is an informational report. It provides information and data regarding the existing program as compared to previous years. No new costs are introduced within this report.

- A. **Table 2** summarizes the key categories of Workers' Compensation expenditures incurred by the City of Oakland:

Table 2: Future Liability Incurred

	FY2016-17	FY2017-18	Change
Number of Claims Received	500	424	-15.20%
Total Expenditures	\$22,771,190	\$19,199,039	-15.69%
Total Future Liability	\$50,316,257	\$48,486,464	-3.64%
Costs Avoided via Transitional Work	\$4,111,079	\$3,059,878	-25.57%
Settlements (Permanent Disability)	\$4,665,792	\$5,064,038	8.54%
Temporary Disability	\$6,593,966	\$6,170,980	-6.41%
Allocated (Other Claim Costs)	\$2,034,370	\$1,978,490	-2.75%
Medical	\$7,193,002	\$5,983,731	16.81%
Operational Expenses	\$20,404,798	\$19,199,039	-5.94%
Admin. Expenses	\$2,366,392	\$2,260,238	-4.49%

The primary types of expenditures incurred in Workers' Compensation are medical, permanent and temporary disability, and allocated (other claim costs) payments. In FY 2017-18 despite a decrease in the number of claims filed, medical, permanent and temporary disability payments increased over the prior year. Disability payments remain the City's single largest workers' compensation expense.

- Temporary disability payments are impacted by Labor Code 4850 payments, which allow sworn employees to receive up to a full year of salary, tax-free, upon a doctor's order to stay off work.
 - City Policies include similar payments for non-sworn employees, but generally for only 60 days.
- Payments made on files delayed or denied in previous year.
- Increase in claim settlements.
- Medical payments on catastrophic claim.

Additional discussion regarding the expenditures listed above and control factors are included in the attached report.

Estimated Future Liability/First Year Total Incurred by Department:

- B. **Table 3** on the following page shows the estimated future liability incurred by each department for claims filed in the fiscal year referenced. This allows the City to review for fiscal trends by department and assists in planning loss prevention, cost-containment strategies for the future. Although not reported in this format,

Attachment A provides more actuarial analysis for future fiscal planning for this program.

Table 3: Estimated Future Liability by Dept – Total Incurred

Department	2015-16	2016-17	2017-18
City Administration	\$10,328	\$41,617	\$23,934
City Attorney	\$4,914	\$5,885	\$12,358
Clerk's Office	\$0	\$2,032	\$0
Dept. of Info & Tech	\$22,242	\$0	\$0
Finance	\$0	\$6,033	\$4,473
Fire Department	\$4,116,610	\$3,536,606	\$1,236,120
Housing and Comm Dev.	\$0	\$0	\$0
Human Services	\$323,121	\$114,499	\$68,454
Library	\$16,256	\$20,773	\$87,722
Neighborhood Investment	\$269,709	\$0	\$5,710
Parks and Recreation	\$111,144	\$44,449	\$99,271
Planning and Building	\$7,386	\$67,565	\$1,004
Police Department	\$2,481,008	\$1,090,358	\$1,640,363
Public Works (including DOT)	\$920,991	\$2,103,320	\$670,479
Total Incurred	\$8,283,710	\$7,033,137	\$3,862,710

The estimated future liabilities of claims are measured for the life of the claim which may last many years. Workers' Compensation regulations require the employer be held responsible for all medical expenditures related to a work-related injury or illness. Employers are also responsible for a period of lost wages (indemnity) and for compensating the injured employee should their injury have a permanent impact on their ability to work (indemnity/permanent disability). We estimate the future liabilities actuarially for each claim to anticipate the financial burden placed on the City in the years to come.

PUBLIC OUTREACH / INTEREST

There are no public outreach opportunities associated with this report further than the required publication on the City's website.

COORDINATION

Development of this report was coordinated with internal staff in HRM, Controller's Bureau, City Attorney's Office, and City Administrator's Office.

SUSTAINABLE OPPORTUNITIES

Economic: *There are no economic, environmental, or social equity opportunities associated with this report.*

Environmental: *There are no economic, environmental, or social equity opportunities associated with this report.*

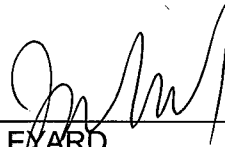
Social Equity: *There are no economic, environmental, or social equity opportunities associated with this report.*

ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends The City Council Receive An Informational Report On The Workers' Compensation Program For Fiscal Year 2017-18.

For questions regarding this report, please contact ANDREW LATHROP, RISK MANAGER, at (510) 238-7165.

Respectfully submitted,



IAN APPLEBYARD
Director/Human Resources Management
Department

Prepared by:
Andrew S. Lathrop, Risk Manager

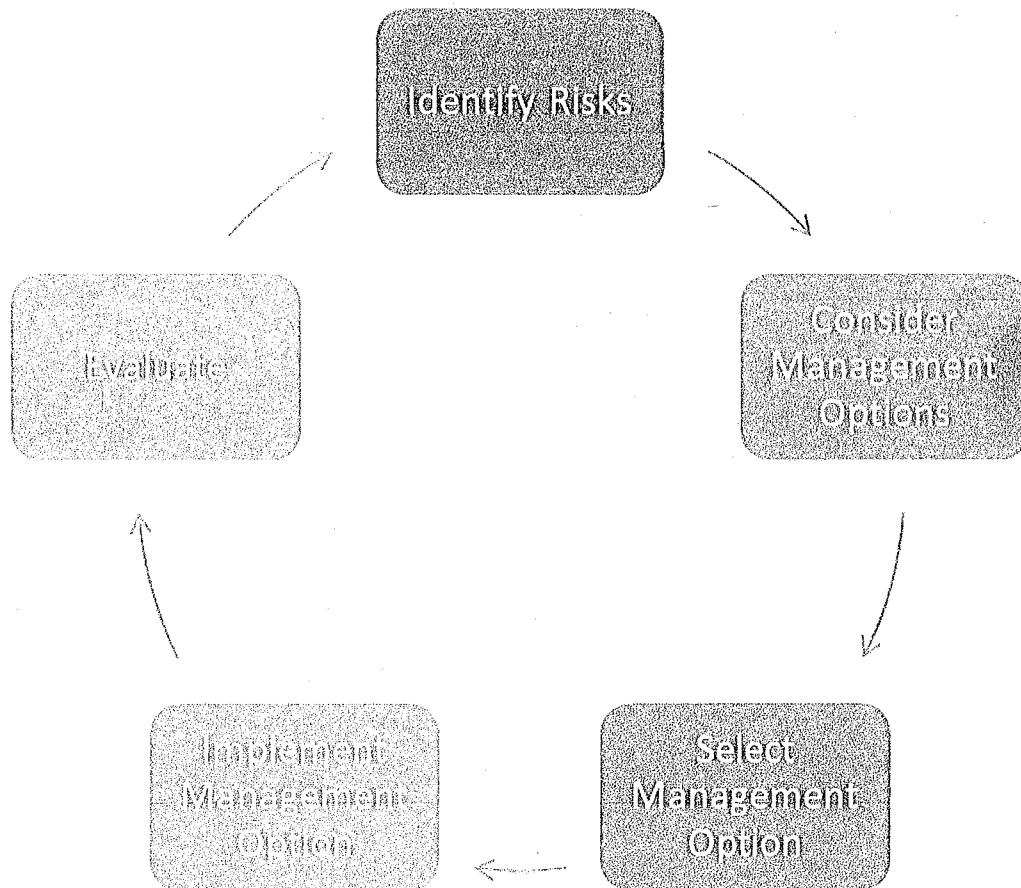
Attachments (1):

A – FY 2017-18 Workers' Compensation Annual Report

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CITY OF OAKLAND

WORKERS' COMPENSATION ANNUAL REPORT FY 2017-18

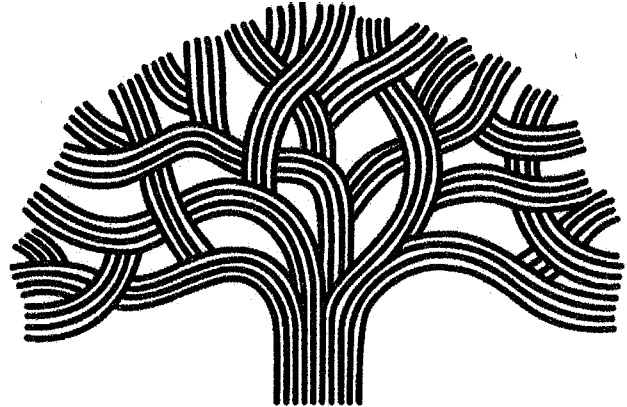


Human Resources Management, Risk Division
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Phone: 510-238-7660

WORKERS' COMPENSATION PROGRAM ANNUAL REPORT FISCAL YEAR 2017-18

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 2017-18. It presents key program metrics along with comparisons between departments, previous years, and other cities.



CITY OF OAKLAND

CITY OF OAKLAND

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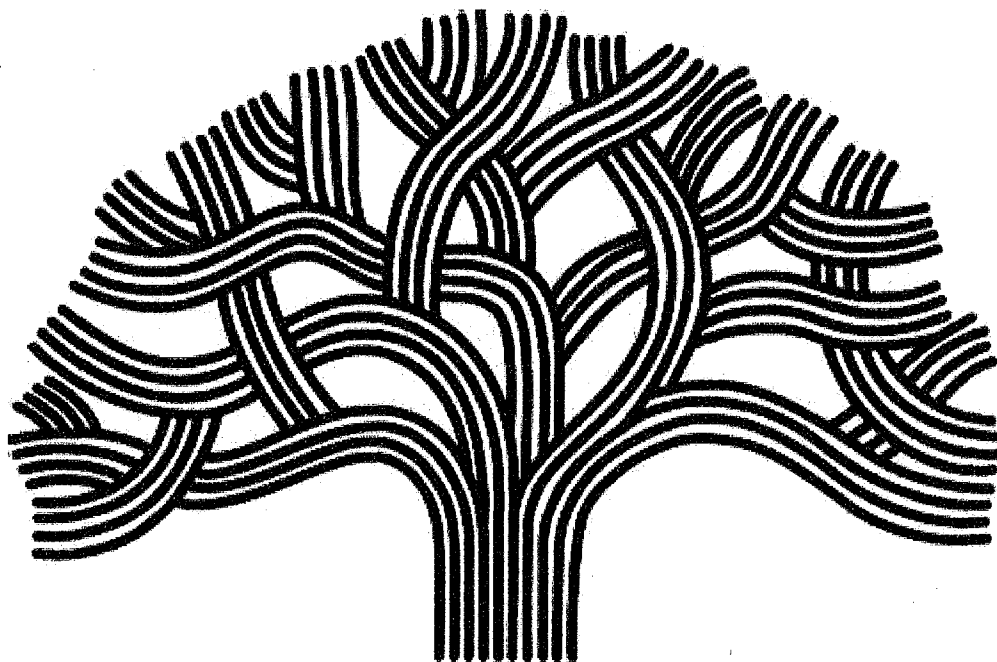
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Prior Claims (January 1, 1953—Jun 30, 2017):	1213
New Claims during 17-18:	515
Claims closed during 17-18:	636
Total Open Claims as of June 30, 2018:	1092
Total Expenses for 17-18 (Year Chart)	\$20,706,208
Est. Outstanding Losses @ 50% Conf. as of June 30, 2018 (AON)	\$92,452,763
Est. Outstanding Losses (PDV)	\$79,103,623
2017/18 Final EWC Premium	\$1,675,333
TPA Annual Performance Audit (JT2)	89.87%



CITY OF OAKLAND

TOTAL COST SUMMARY

ANNUAL REPORT FISCAL YEAR 2017-18

The total cost of the Workers' Compensation Program for Fiscal Year 2017-18 was \$20,706,208.

Disability	FY2017-18	Allocated	FY2017-18
Settlements: Perm. Disability	\$ 5,064,038.00	Rehabilitation	\$ 209,710.00
		Investigation Expenses	\$ 77,675.00
Temporary Disability		Legal	\$ 977,556.00
Non-4850		Utilization Review	\$ 523,046.00
Temporary Disability	\$ 1,114,210.40	Return to Work Services	\$ 144,368.00
MOU Benefit-Non-Sworn	\$ 183,392.60	24hrs injury Report Line	\$ 36,442.00
Total Non-4850 Pay	\$ 1,297,603.00	10% Penalties	\$ 9,693.00
4850		(JT2 & Non JT2)	
Sworn-OPD-4850 Pay	\$ 2,124,295.58	Subtotal - Allocated	\$ 1,978,490.00
Sworn-OFD-4850 Pay	\$ 2,749,081.77		
Total 4850 Pay	\$ 4,873,377.35	Operational Expenses	\$ 19,197,239.08
		3rd Recovery-Refunded to City	\$ (753,069.06)
Subtotal - Temp. Disability	\$ 6,170,980.35	Total Operational Expenses	\$ 18,444,170.02
Subtotal - Total Disability	\$ 11,235,018.35		
		Admin. Expenses	FY2017-18
Medical	FY2017-18	TPA Contract	\$ 1,747,238.40
WC Disability Medical	\$ 5,966,599.79	Bill Review Expense	\$ 513,000.00
First Aid Only Claims	\$ 17,130.94	Misc. Admin. Fee	\$ 1,800.00
Total Medical:	\$ 5,983,730.73	Subtotal - Admin Expense	\$ 2,262,038.40

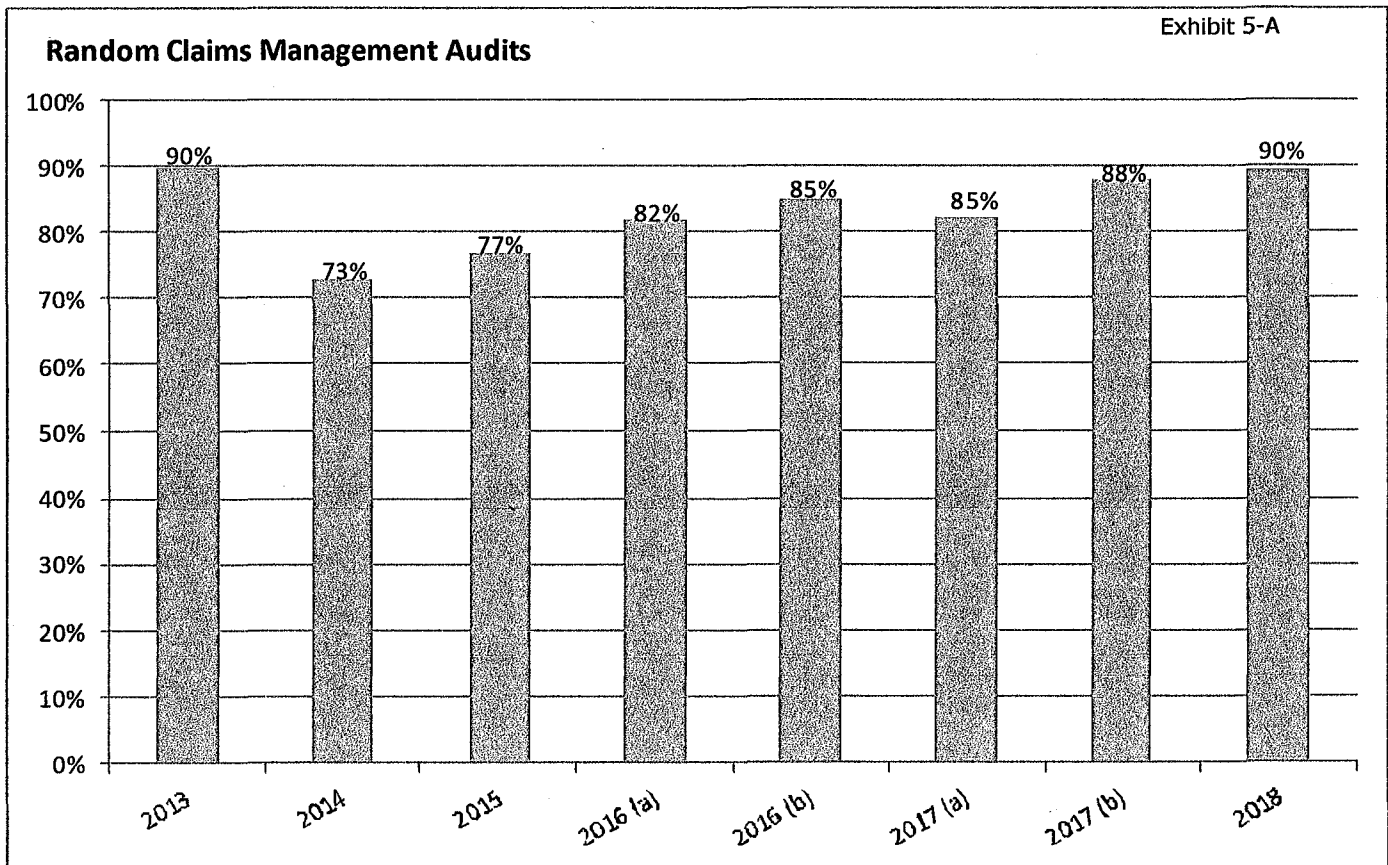
Total Operational Expenses + Admin Expense = **\$20,706,208**



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. Over the past 8 audits JT2 has earned an average score of 83.4%.

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. A summary of the claims audit follows.



The table below compares the annual 2018 Audit (conducted in October 2018) with the annual 2017 Audit (conducted in October 2017). Each audit was conducted on a comprehensive random sampling of files. A total of 8 of the 20 assessed categories met a 95% performance standard which is an increase over the 7 of the 20 categories in the prior annual audit.

Appendix C & D provide the full audit report and a Plan of Action produced by JT2 discussing strategies for continued improvements.

CSAC Random Selection Audits - 2017 vs. 2018 Annual Audit			
Category	Annual Score (Oct. 2017)	Annual Score (Oct. 2018)	Variance
Caseload	100%	100%	0%
Case Review and Documentation	81.57%	94.38%	12.81%
Communication	93.17%	93.75%	0.58%
Fiscal Handling	91.60%	80.95%	-10.64%
Medicare Reporting	100%	100%	0%
Three Point Contact	83.33%	57.14%	-26.29%
Compensability	90.91%	84.62%	-6.29%
AOE/COE Investigations	80.00%	66.67%	-13.33%
Initial Reserves	98.28%	100%	1.72%
Indexing	99.06%	100%	0.94%
Payments	90.70%	87.33%	-3.37%
Medical Treatment	97.37%	96.67%	-0.07%
Apportionment	89.66%	88.89%	-0.77%
Disability Management	100%	80.00%	-20.00%
Supplemental Job Displacement Benefits	N/A	100%	N/A
Reserves	76.72%	80.23%	3.52%
Resolution of Claim	79.52%	75.76%	-3.76%
Settlement Authority	98.48%	100%	1.52%
Litigated Cases	91.80%	78.57%	-13.23%
Subrogation	86.96%	100%	13.04%
Excess	88.89%	80.00%	-8.89%
Overall Score	87.83%	89.57%	1.73%

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
FY12-13	691	566	122%
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%

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 FY2017-18	Surveillance	Field Investigation	Fraud Referral (FD-1) Submission	Background Checks	Denied Claims
424	5	45	3	35	65

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.

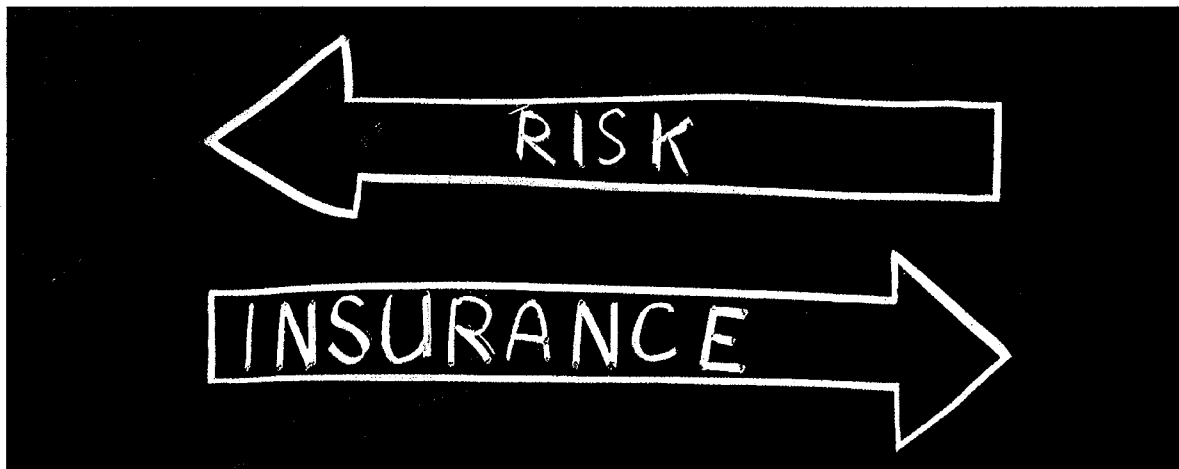
The physician selection process is managed by the State of California. When a request for an QME is received, the State provides a “panel list” of physicians to the parties from which to select. The State of California establishes the panel. Typically it takes several months for an Examination appointment 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 2013-14 through Fiscal Year 2017-18. 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	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18
Number of Claims Settled	132	114	128	163	182
Agreed Medical Examiner	84	74	90	130	121
PTP (Primary Treating Physician)	22	25	25	15	24
Panel QME (Employee Unrepresented by Attorney)	15	6	3	0	0
QME (Employee Represented by Attorney)	11	6	12	18	37
Other	0	3	0	0	0



- Placement of a designated Workers' Compensation Coordinator in all departments.
- Monthly disability review meetings with department representatives to discuss active claims and identify cases for investigation and/or transitional duty assignments.
- Regular Financial Review meetings with TPA representatives to examine expenditure rates and trends to assist in early detection of negative program changes as required.
- Telephonic injury reporting to triage Workers' Compensation claims reporting, and possible expansion of the methodology for certifying medical conditions under the Family Medical Leave Act (FMLA) program.
- Implementation of Labor Soft, an Integrated Disability Management Information System.
- Participation in Medical Provider Network (MPN) through WellComp, a MPN sponsored by CSAC-EIA.
- Ongoing examination of City's disability programs
- Continuing education



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.

2017/18 Final EWC Premium: \$1,675,333

EWC Insurance Retention Review

Prior to renewing coverage each year, it is not uncommon to revisit the cost benefit of the EWC coverage. The table below provides the actuarial assessment of the projected premiums for fiscal year 2018-19.

Exhibit 11-A

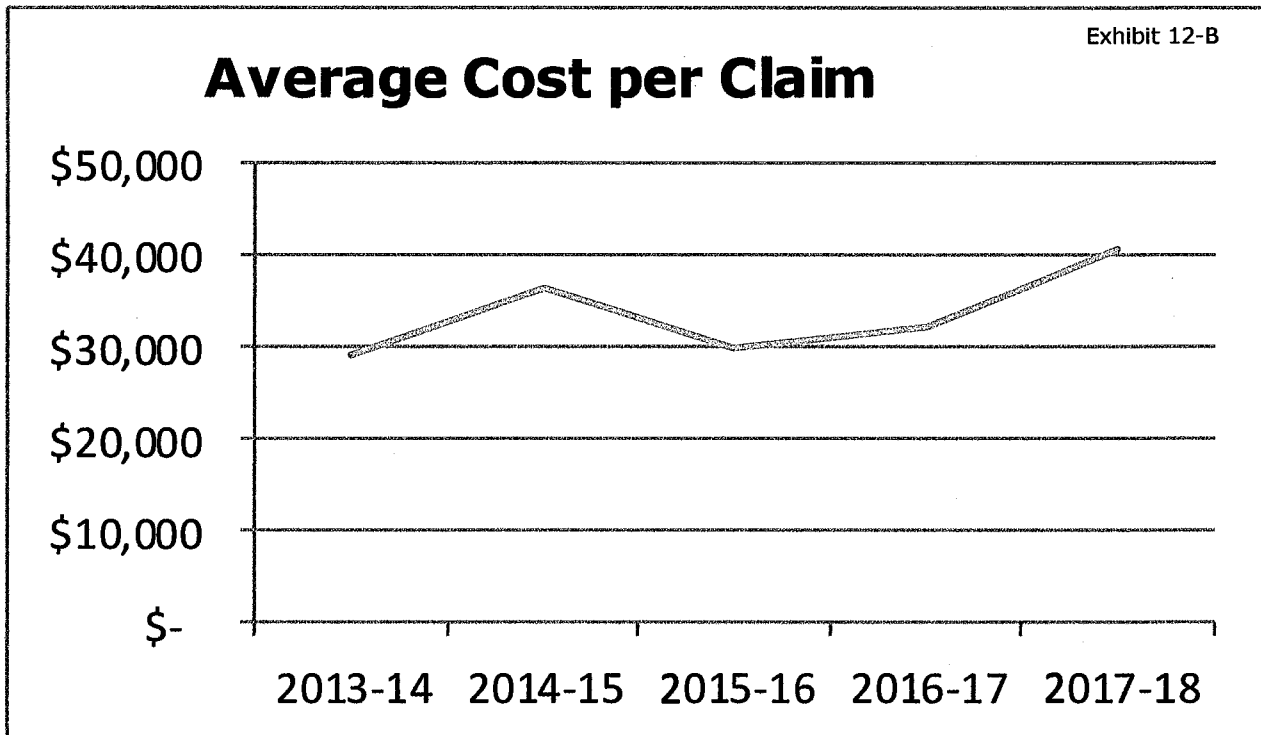
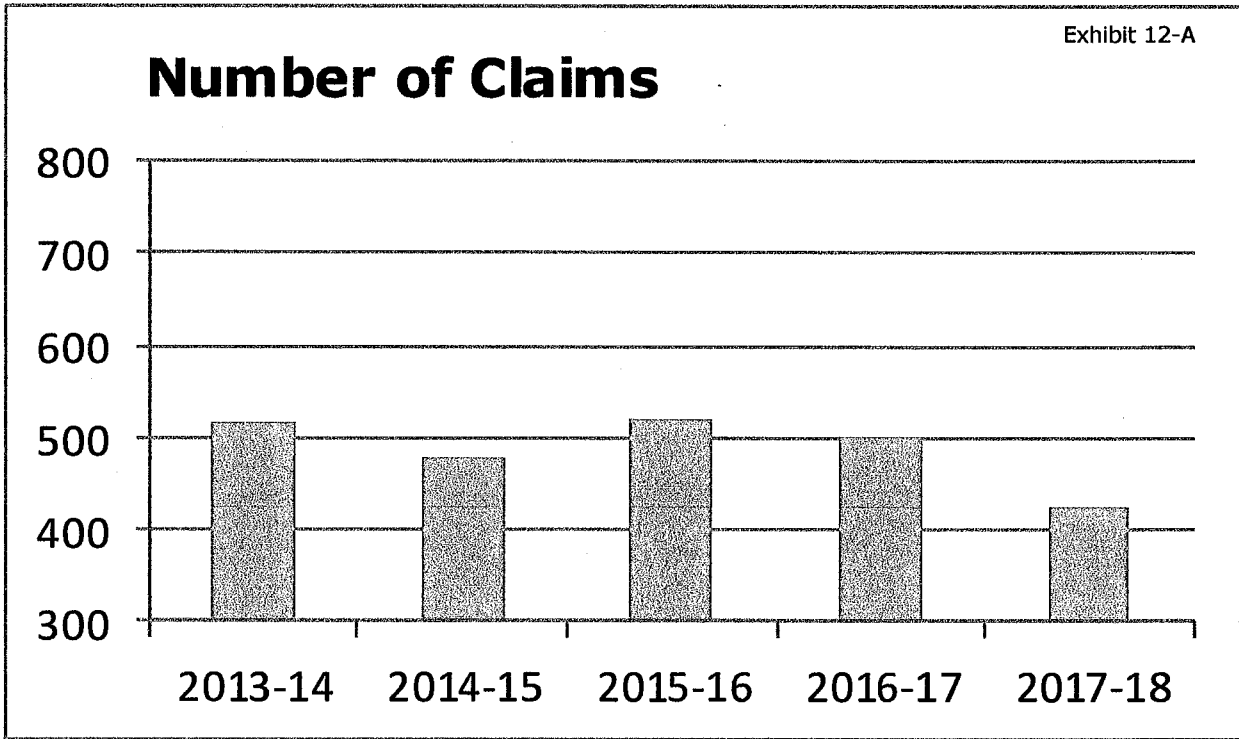
SIR	Projected Ultimate Limited Losses	Change from Current Level SIR		Estimated Premium	Change from Current Level Premium		Net Impact (3)+(5)
(1)	(2)	(3)		(4)	(5)		(6)
500,000	19,853,000	-794,000		2,569,000	765,000		-29,000
750,000	20,647,000	0		1,804,000	0		0
1,000,000	21,068,000	421,000		1,470,000	-334,000		87,000
1,500,000	21,507,000	860,000		1,037,000	-767,000		93,000
2,000,000	21,965,000	1,318,000		781,000	-1,023,000		295,000
3,000,000	22,442,000	1,795,000		585,000	-1,219,000		576,000

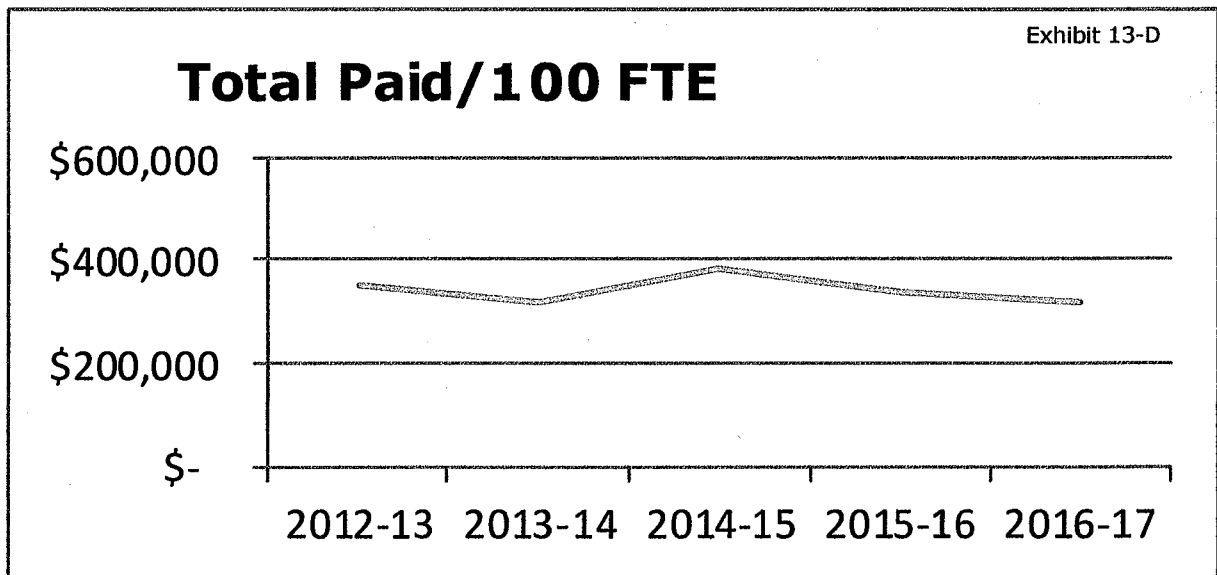
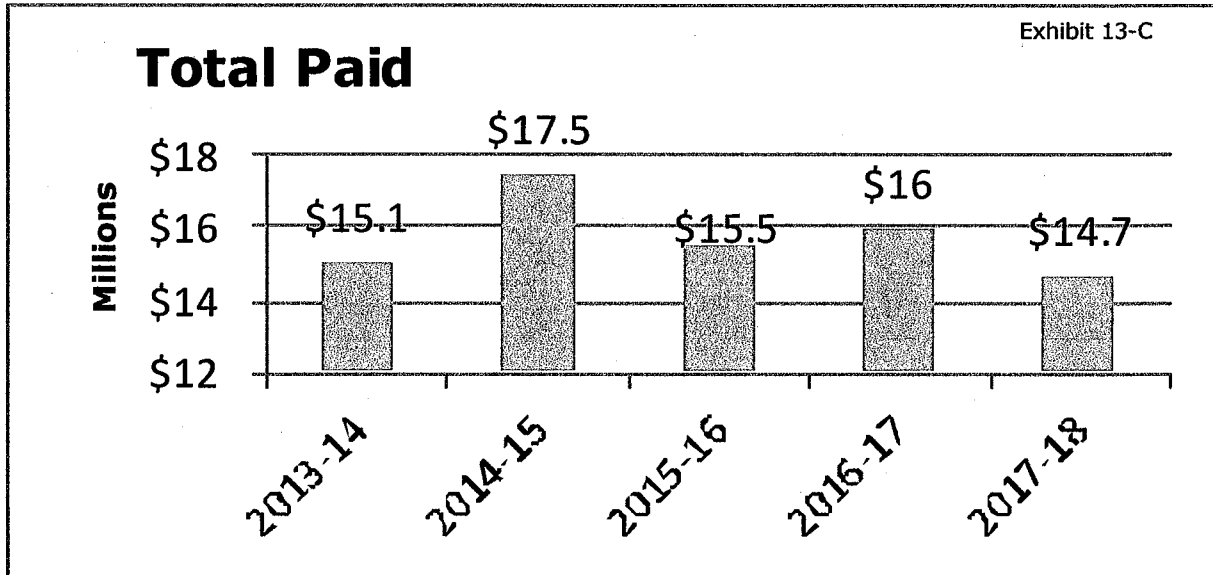
The City's current Self Insured Retention for EWC is \$750,000. Based on actuarial projections, if the City chose to increase its retention to \$1.0 million, the cost benefit to the program would be and increase expense of \$87,000 (Column 6). As the retentions increase (Column 1), the City's out of pocket expense (Column 6) also increases.

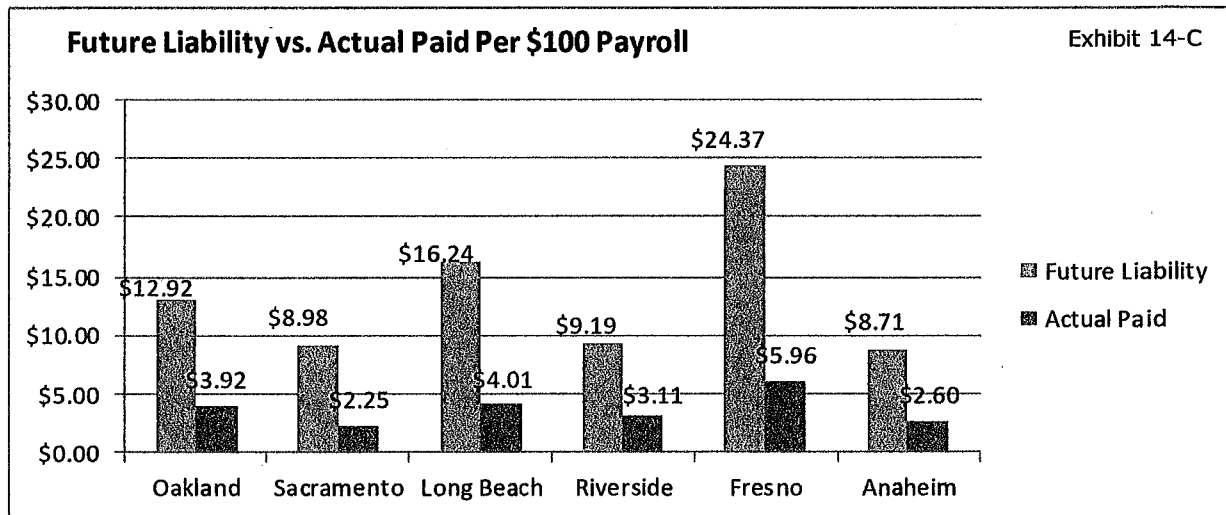
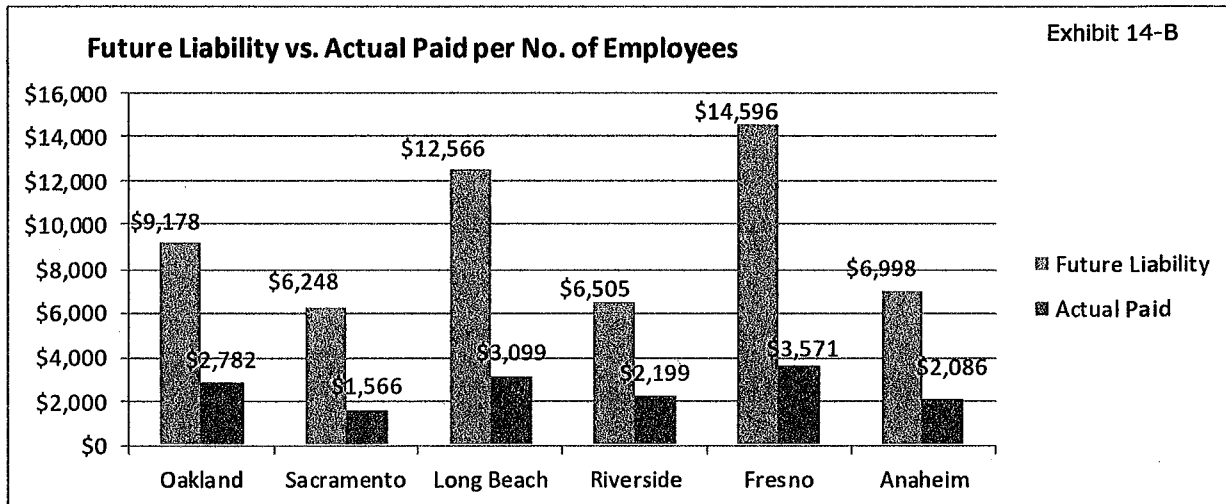
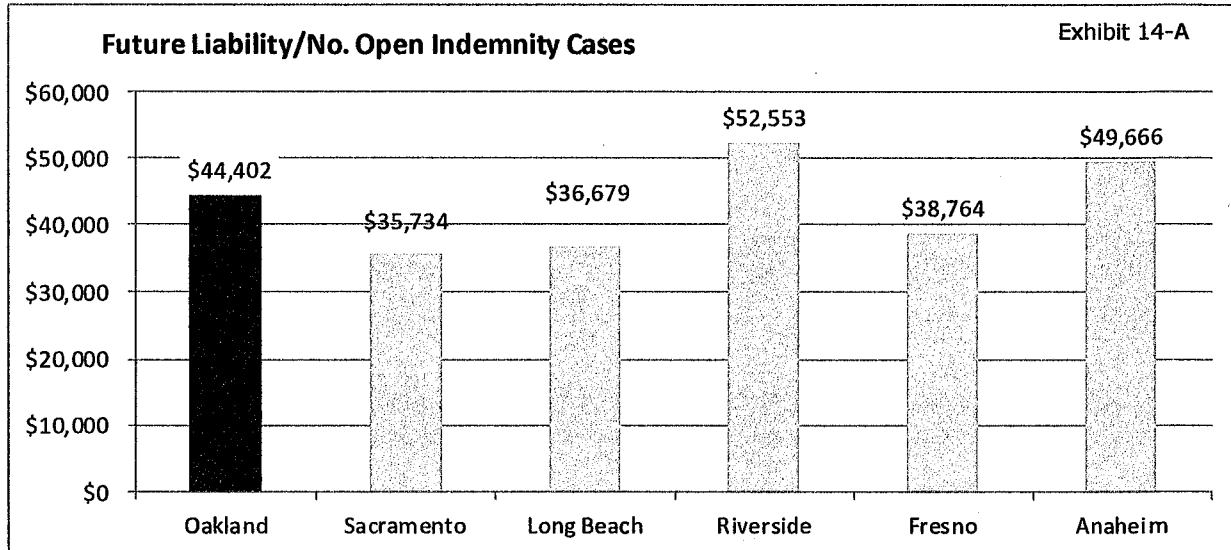
Similarly, if the City could convince a carrier to reduce our current retention to \$500,000, our out of pocket would only decline by \$29,000. Given the City's loss history, it is unlikely a carrier would agree to offer coverage at that retention level.

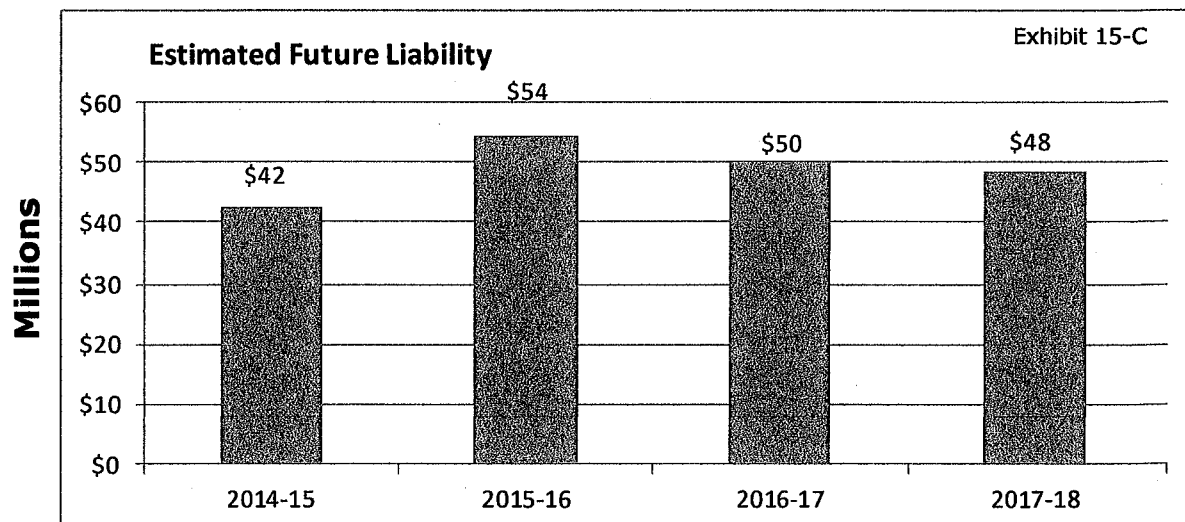
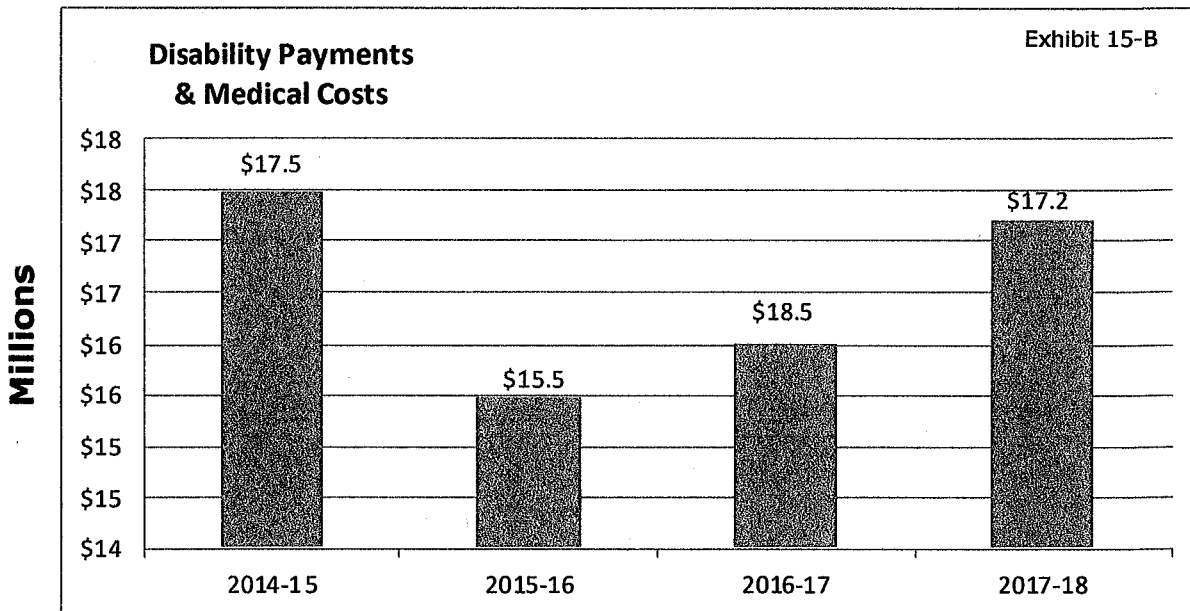
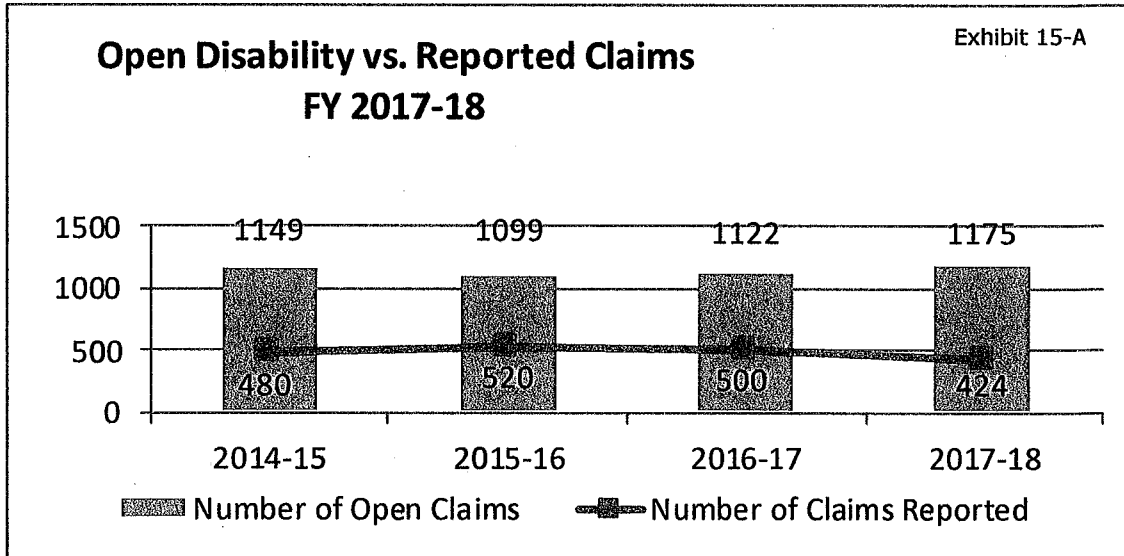
As a Self-Insured employer, the City is required to submit a Self-Insured Annual Report (SIA) to the State of California each year. The SIA serves two purposes. First, it enables the State to determine the annual Workers' Compensation Assessments to employers. Second, it provides the City comparison 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.

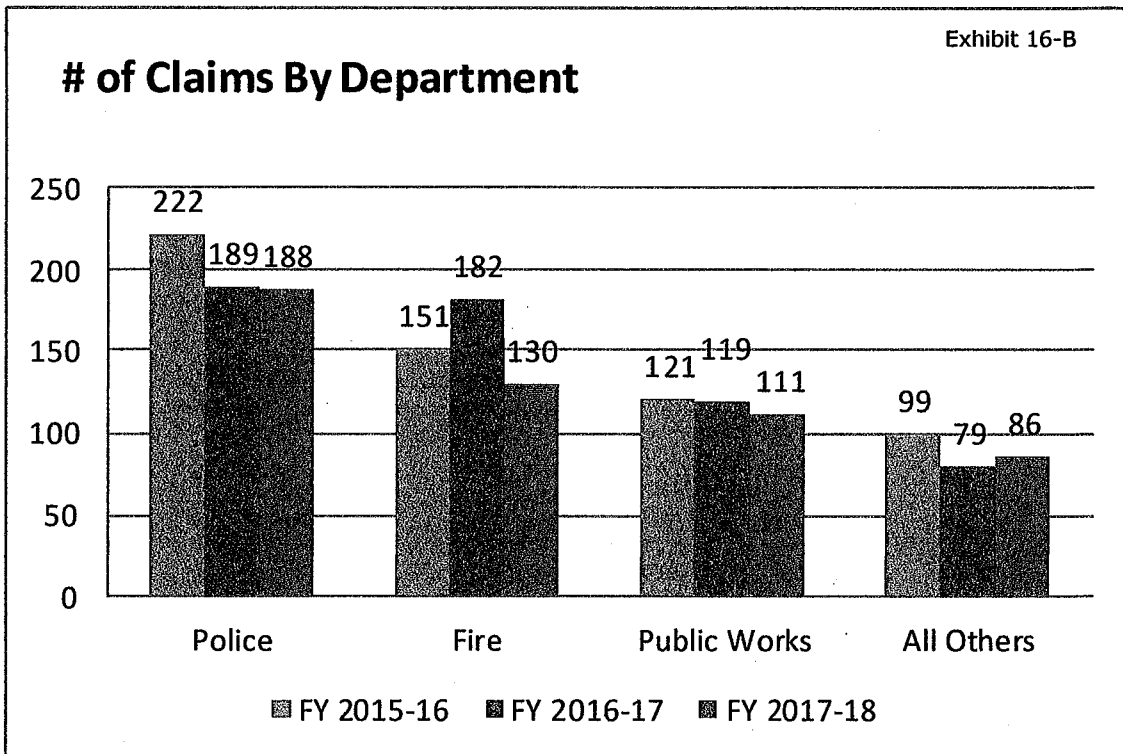
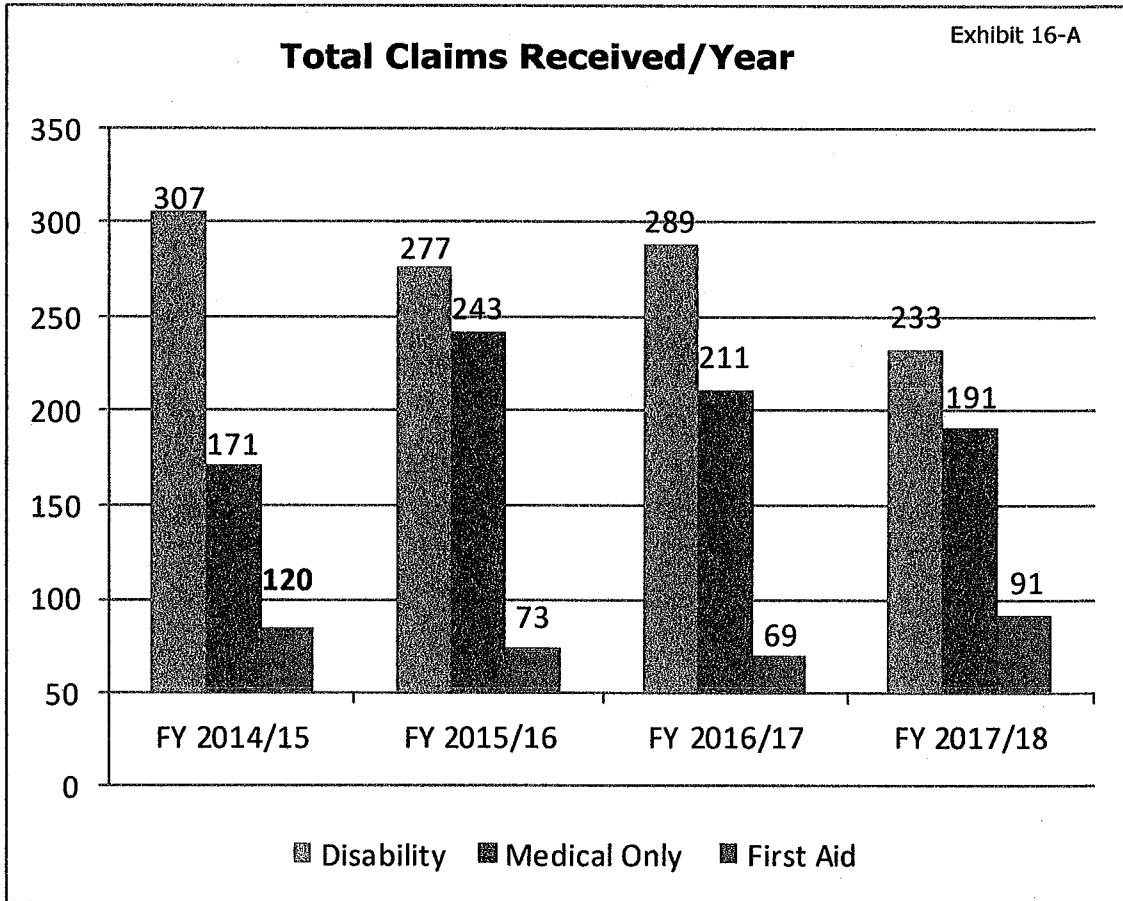
Exhibit 10-A					
COO Self-Insured Annual Report to State of California					
Fiscal Year	FY13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Indemnity Claims Rec'd	307	273	277	289	233
Medical Only Claims Rec'd	208	207	243	211	191
Total # of Claims Rec'd	515	480	520	500	424
Total Benefits Paid (Disability & Medical Expenses Only)	\$15,061,781	\$17,841,655	\$15,472,848	\$16,000,632	\$14,697,608
Total Future Liability	\$40,264,806	\$42,439,625	\$54,384,319	\$50,316,257	\$48,486,464
# of Employee (FTE)	4684	4552	4576	5062	5283
Total Reported Payroll	\$334,111,830	\$342,660,477	\$364,004,747	\$360,410,946	\$375,381,194
Total # Claims/100 FTE	10.99	10.54	11.36	9.88	8.03
Total Benefits Paid/100 FTE	\$321,558	\$391,952	\$338,130	\$316,093	\$278,206
Total # Claims per \$1M Payroll	1.54	1.40	1.43	1.39	1.13
Total Benefits Paid per \$1M Payroll	\$45,080	\$52,068	\$42,507	\$44,396	\$39,154
Average Cost per Claim	\$29,246	\$37,170	\$29,755	\$32,001	\$34,664













City of Oakland
RTW Claim Status Analysis
 *Start Date 05/11/11

Exhibit 17-A

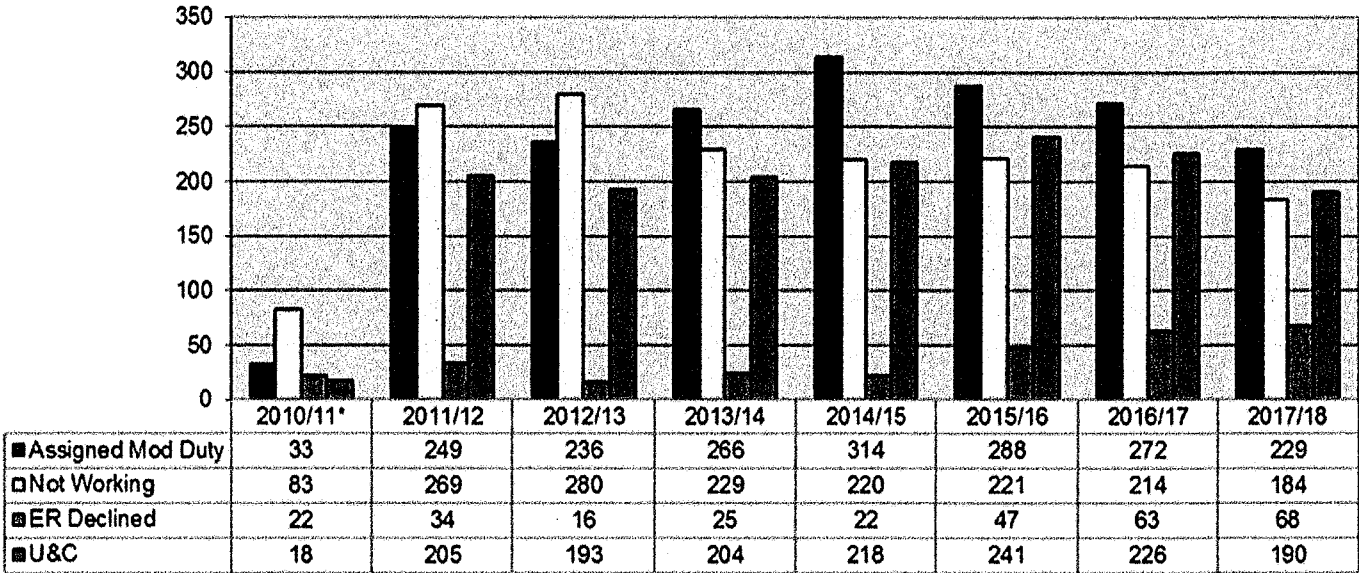
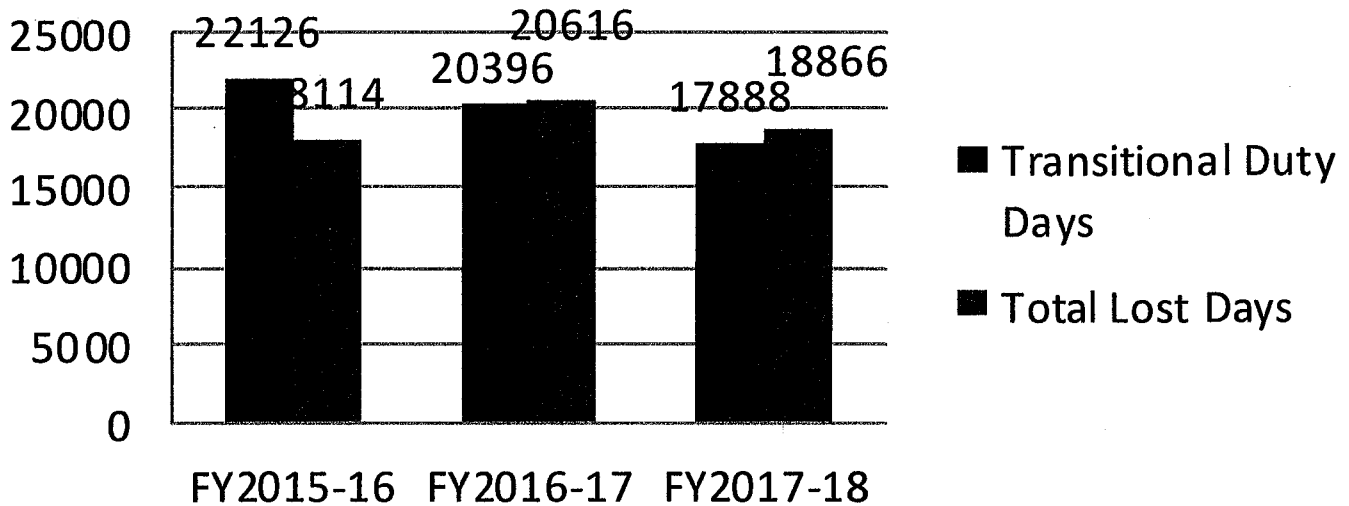


Exhibit 17-B

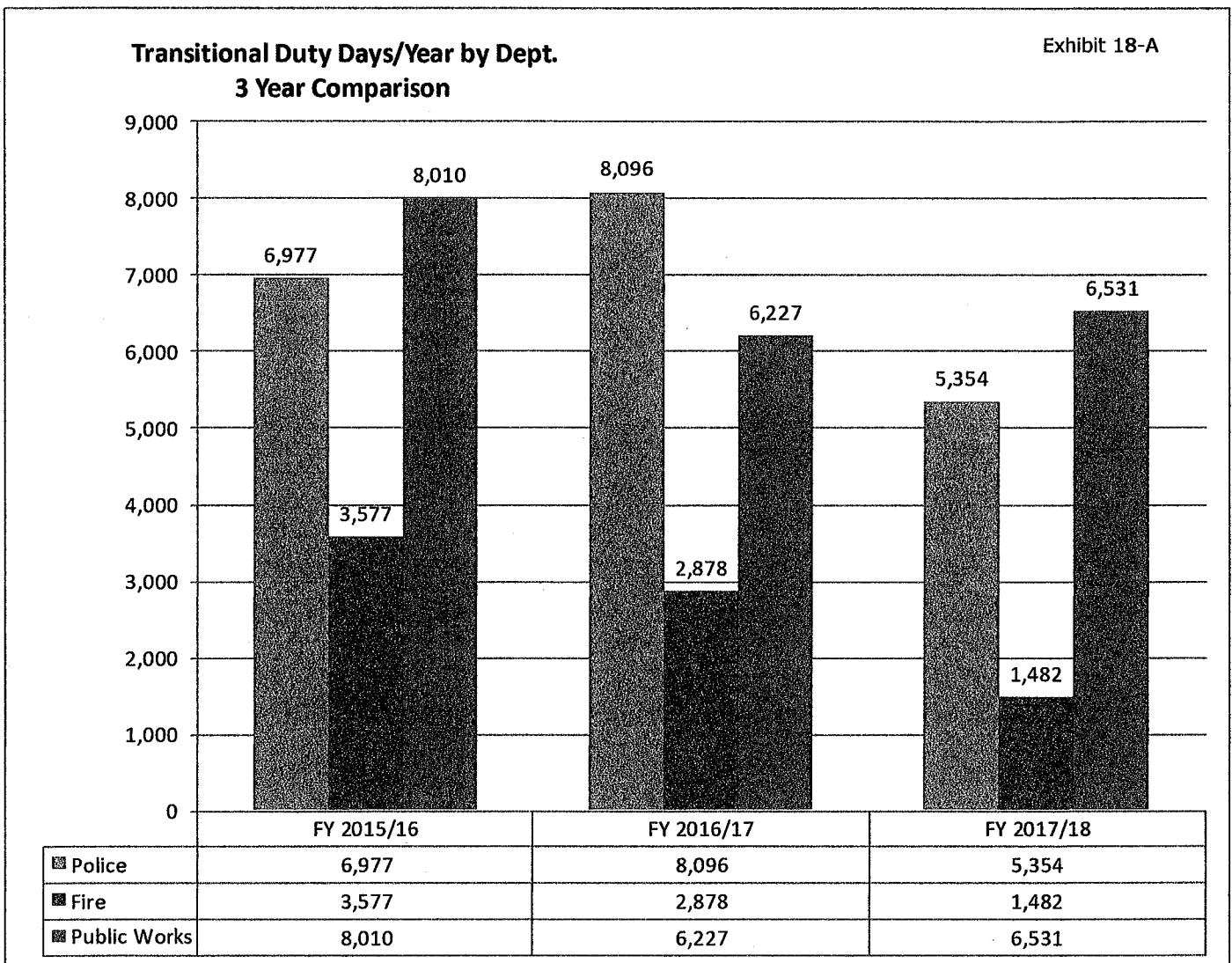
Transitional Duty Days vs. Total Days



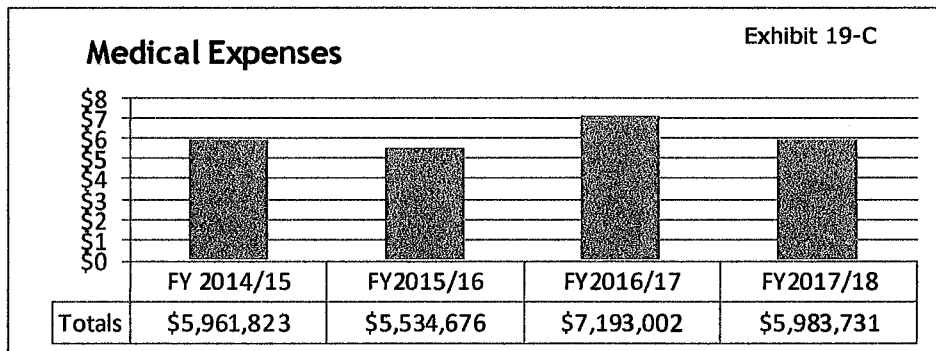
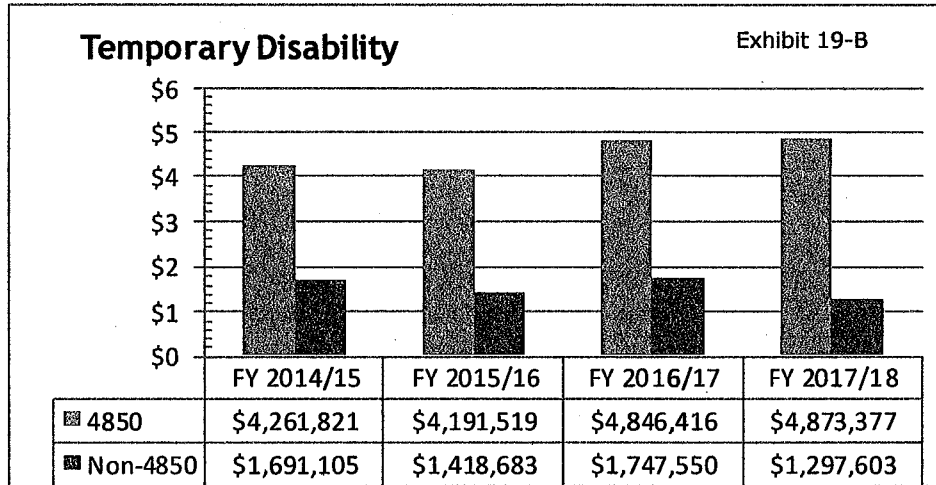
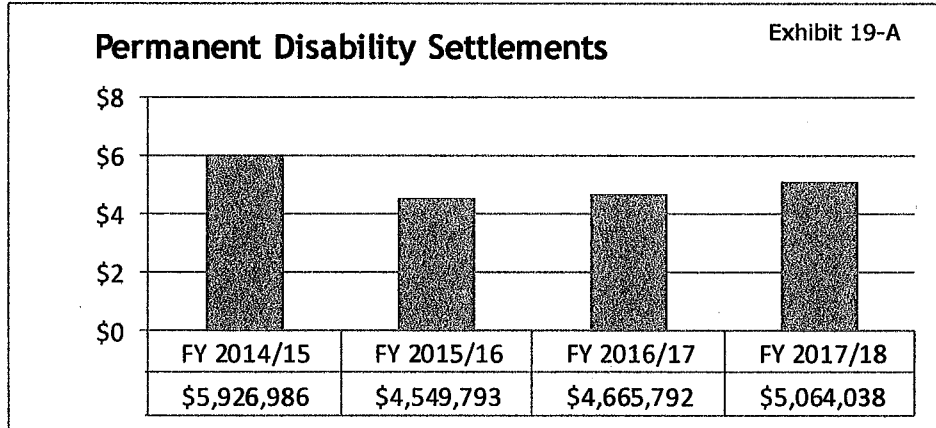
The number of Transitional Duty (TD) days for Police and Fire has decreased by 34% and 49% respectively from last year's number. Factors affecting the reduction of days in modified duty are listed below. OPW had a 5% increase in Transitional Duty (TD) days from last year.

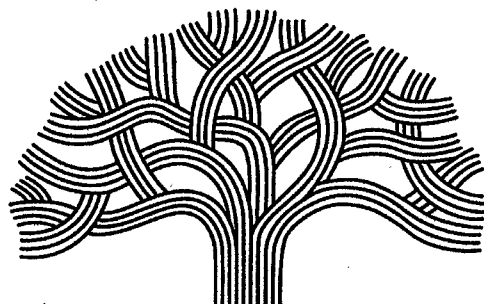
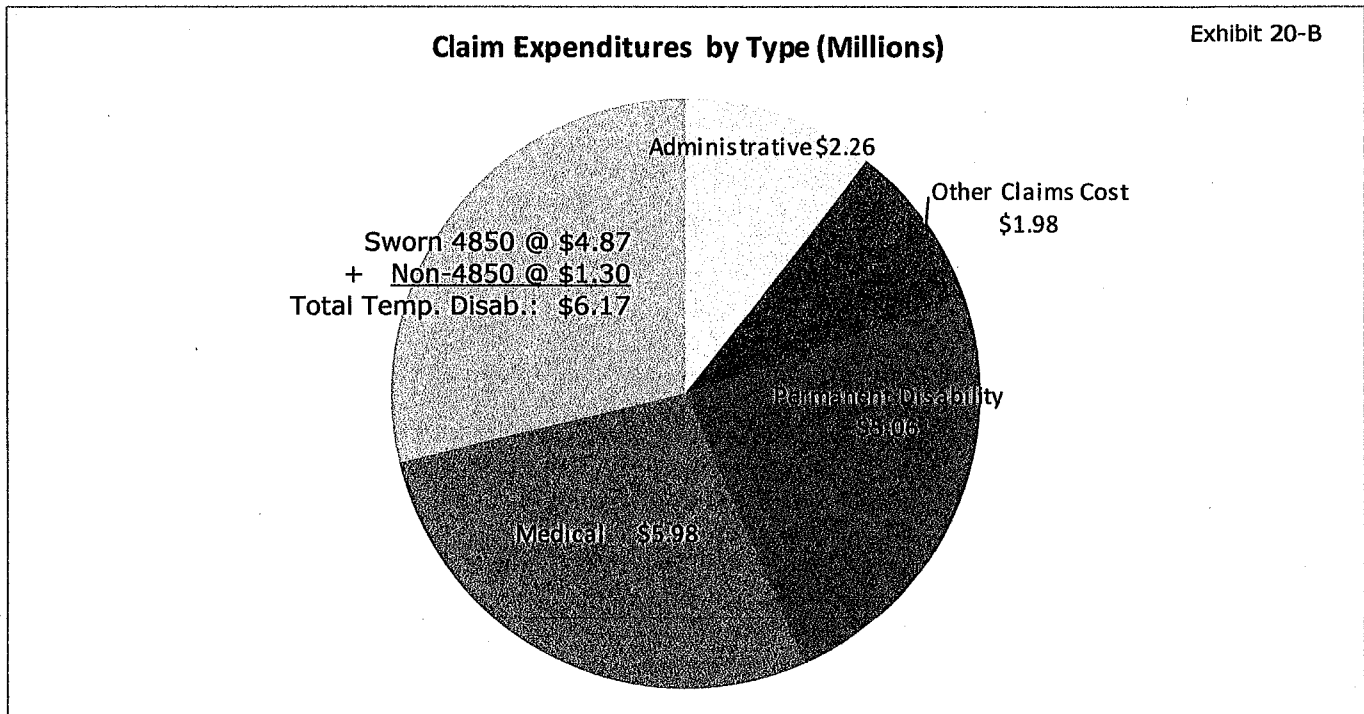
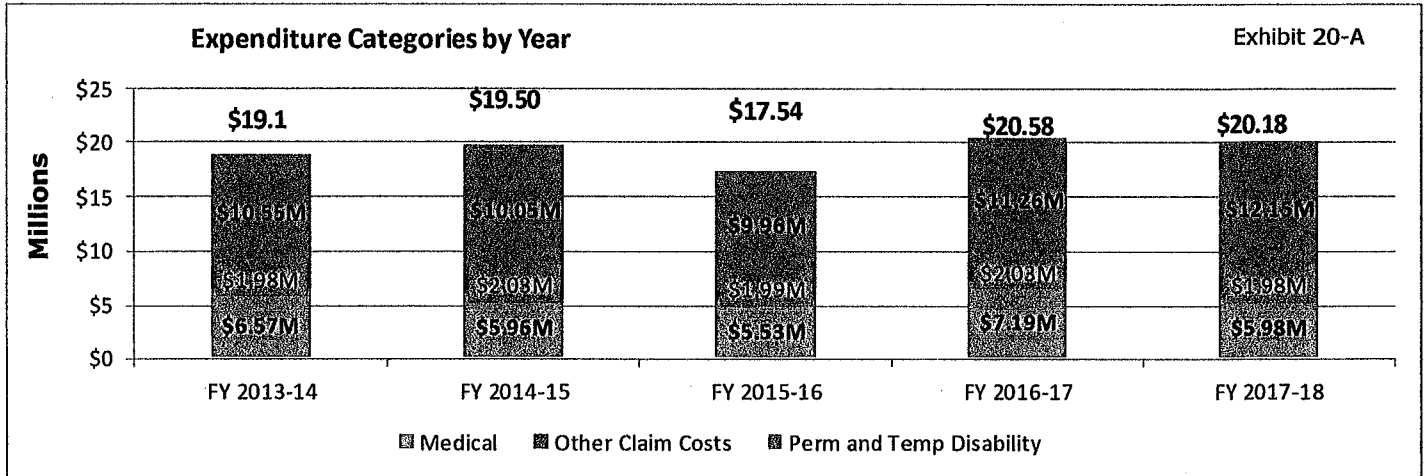
Overall, FY 2017-18 had a 22% decrease in TD days in the Transitional Duty Program from FY 2016-17. Factors that contributed to this decline include:

- 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, Medical Expenditures, and Allocated Expenditures. Appendix A defines these terms further, 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

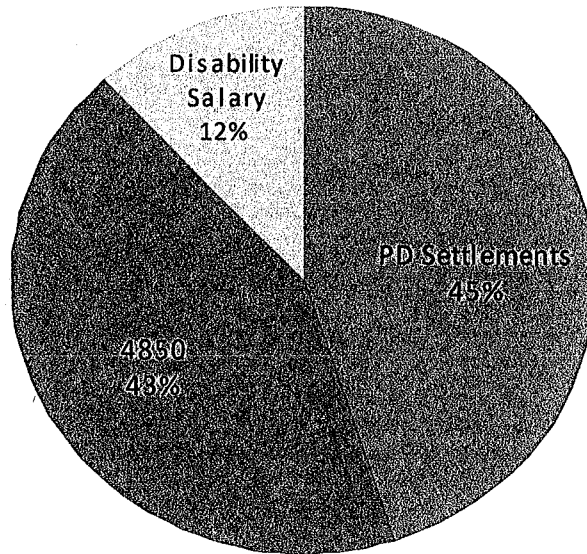


Exhibit 21-A

Other Claim Costs (Allocated)

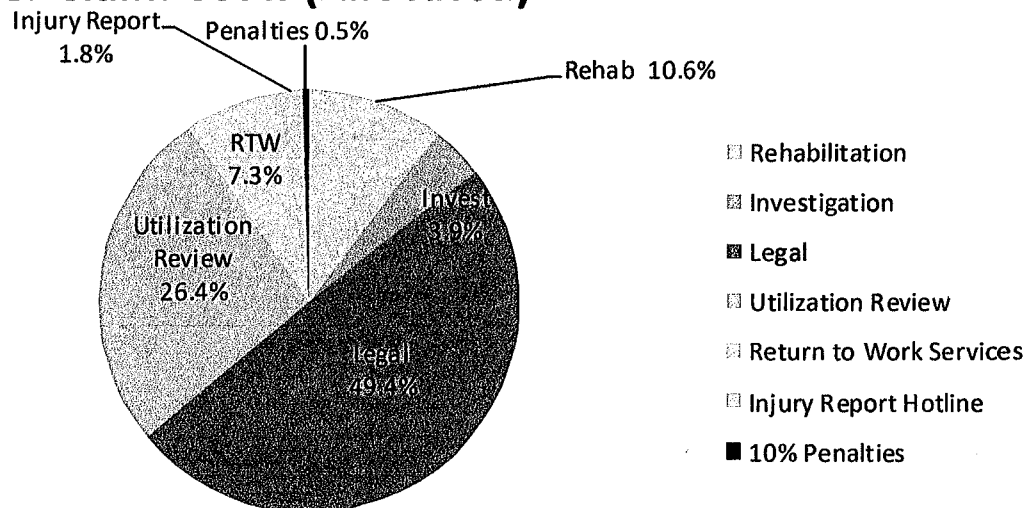


Exhibit 21-B

CLAIMS BY DEPARTMENT

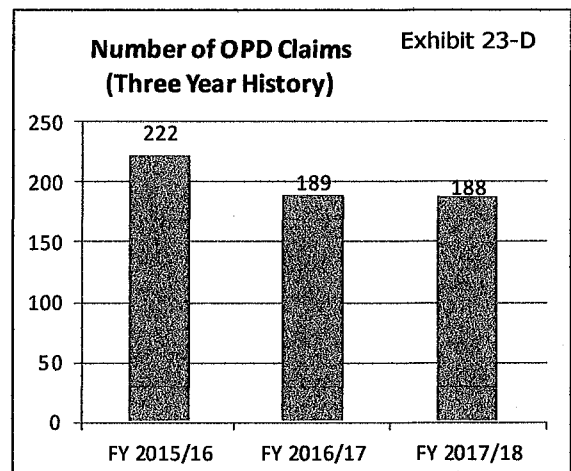
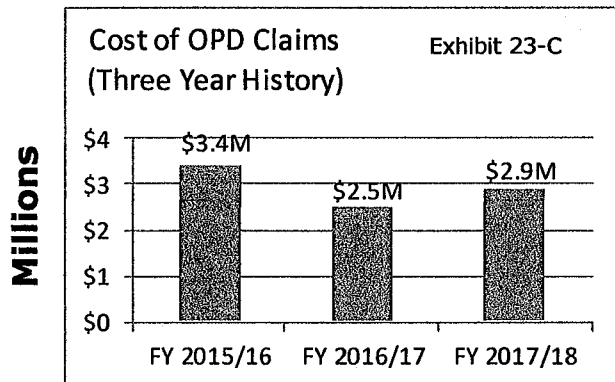
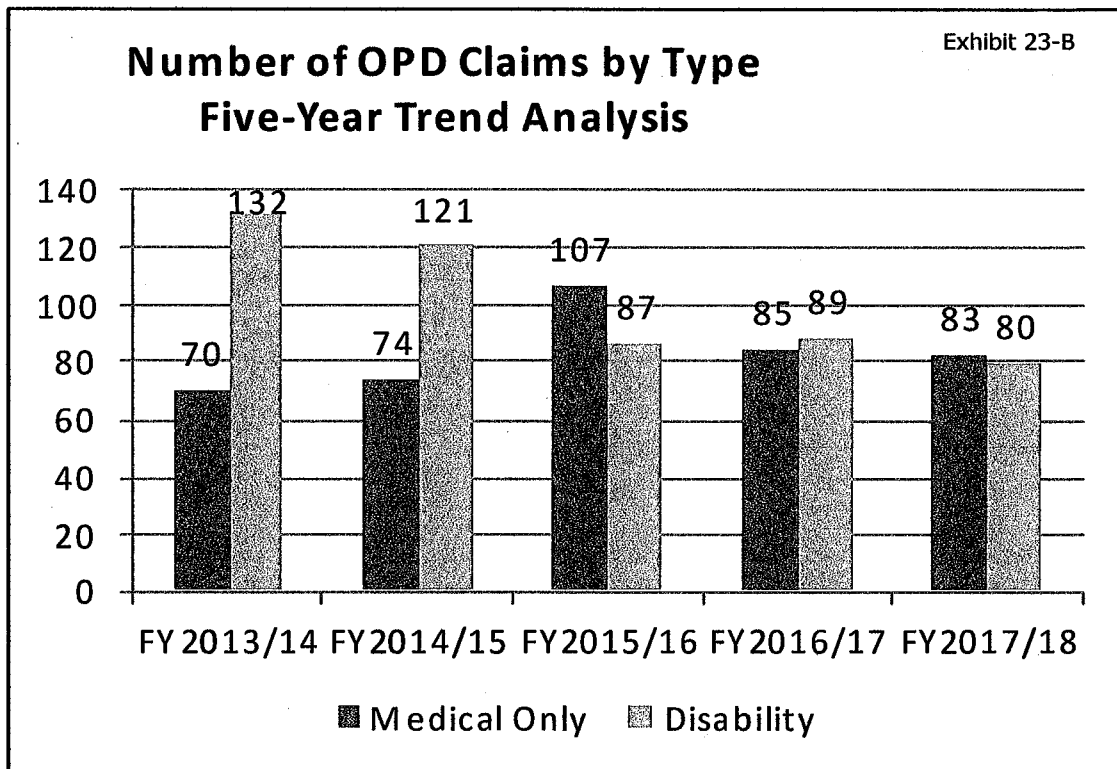
ANNUAL REPORT FISCAL YEAR 2017-18

Number of Claims by Department										Exhibit 22-A
Department	FY15-16			FY16-17			FY17-18			
	M.O.	Disb.	All	M.O.	Disb.	All	M.O.	Disb.	All	
Budget & Revenue					1	1		0	0	
City Administration	9	4	13	3	4	7	1	3	6	
City Attorney	3	2	5	1	0	1	1	1	2	
City Auditor	0	0	0	0	2	2	0	0	0	
City Clerk	0	0	0	1	0	1	1	0	1	
Dept. Of Info & Tech	3	0	3	0	2	2	0	0	0	
Financial Mgmt	0	1	1	0	3	3	5	2	7	
Fire	42	94	136	54	100	154	30	67	130	
Housing & Comm Dev.	0	0	0	0	0	0	0	1	1	
Human Services	6	19	25	7	14	21	5	9	14	
Library	5	1	6	2	4	6	3	6	15	
Neighborhood Inv.	0	1	1	0	0	0	0	1	1	
Office Mayor	1	0	1	0	0	0	0	0	0	
Parks & Recreation	14	11	25	9	11	20	7	10	26	
Planning & Bldg	2	1	3	2	3	5	2	4	7	
Police	107	87	194	85	89	174	83	80	188	
Public Works	37	68	105	45	58	103	49	47	111	
Dept. of Transportation	0	0	0	0	0	0	4	2	6	
Totals	229	289	518	209	291	500	191	233	515	

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

Estimated Future Liability by Department				Exhibit 22-B
Department	FY15-16	FY16-17	FY17-18	
City Administration	\$10,328	\$41,617	\$23,934	
City Attorney	\$4,914	\$5,885	\$12,358	
City Clerk	-	\$2,032	-	
Dept. Of Info & Tech	\$22,242	-	-	
Financial Mgmt	-	\$6,033	\$4,473	
Fire	\$4,116,610	\$3,536,606	\$1,236,120	
Housing & Com Dev.	-	-	-	
Human Services	\$323,121	\$114,499	\$68,454	
Library	\$16,256	\$20,773	\$87,722	
Neighborhood Inv.	\$269,709	-	\$5,710	
Parks & Recreation	\$111,144	\$44,449	\$99,271	
Planning & Bldg	\$7,386	\$67,565	\$1,004	
Police	\$2,481,008	\$1,090,358	\$1,640,363	
Public Works (PW) *	\$920,991	\$2,103,320	\$670,479	
Dept. of Transportation	-	-	\$12,823	
Totals	\$8,283,710	\$7,033,137	\$3,862,710	

Police Department -- Workers' Compensation Claims					Exhibit 23-A
	#of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2017-18	188	37%	\$2,890,115	44.23%	\$15,373
3-Year Average	200	36%	\$2,927,618	29.89%	\$14,663



Top 5 Body Parts

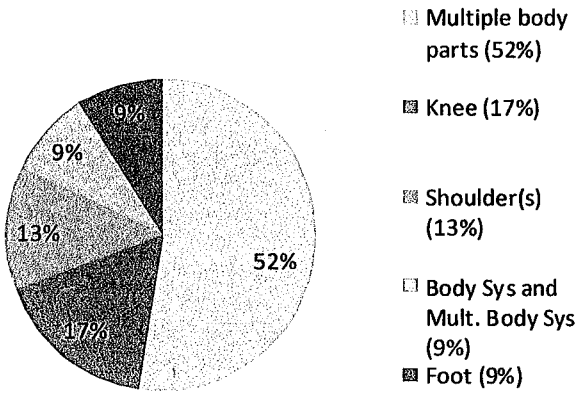


Exhibit 24-A

Top 5 Nature of Injuries

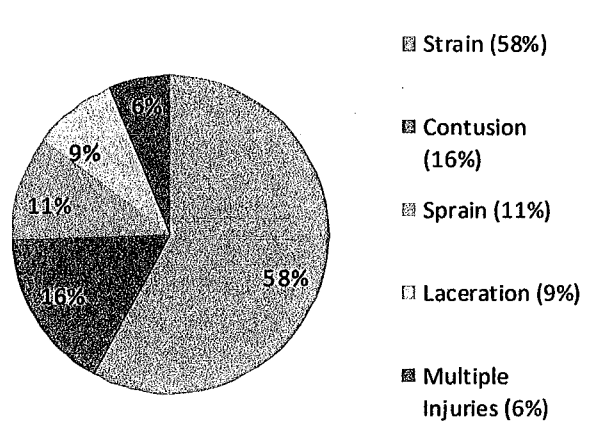


Exhibit 24-B

Top 5 Loss Causes

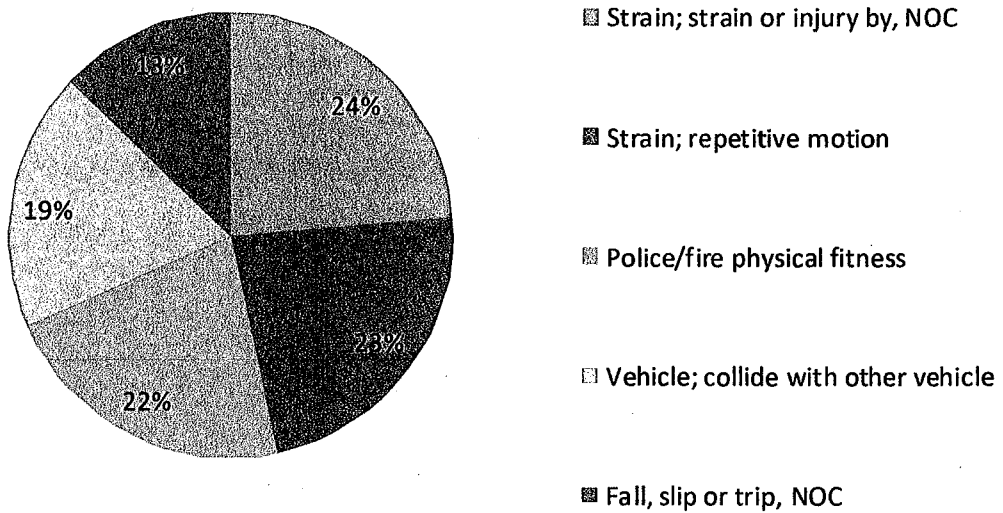
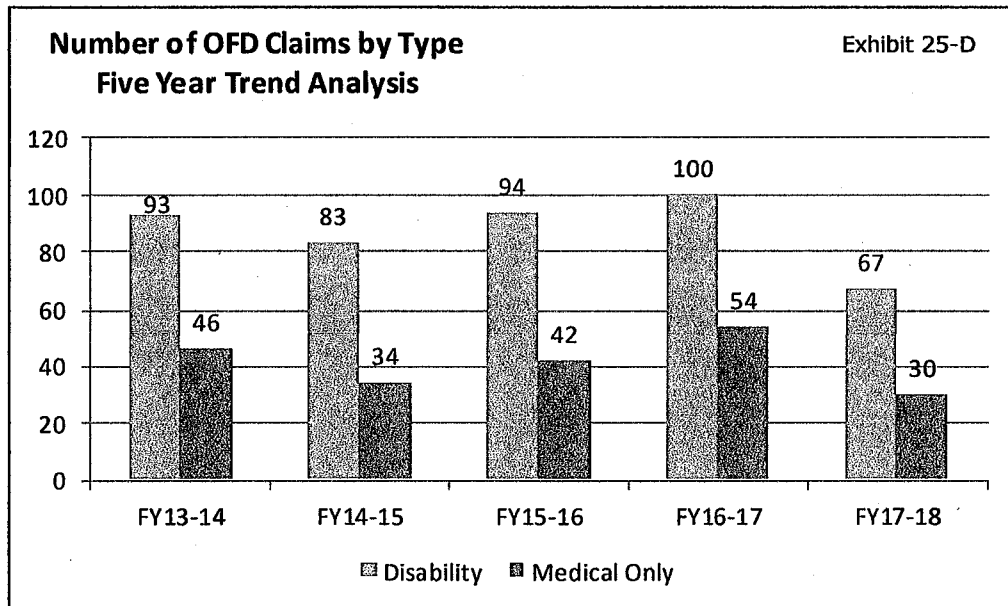
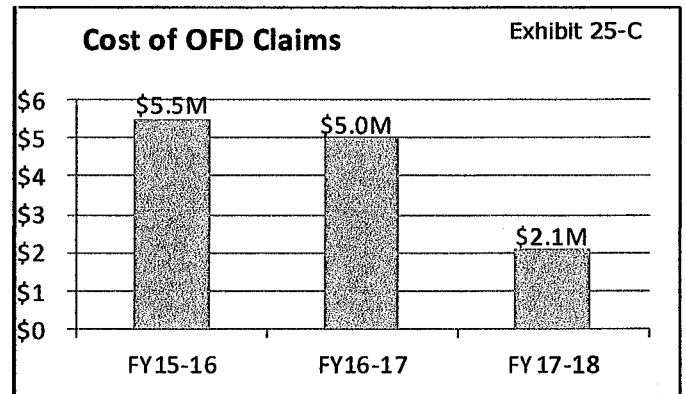
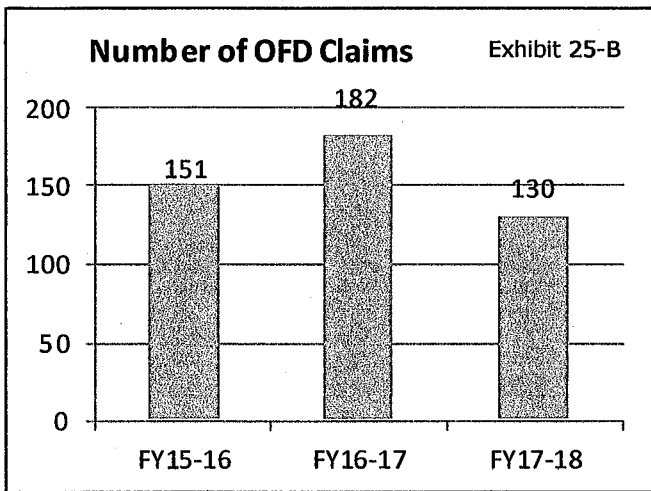
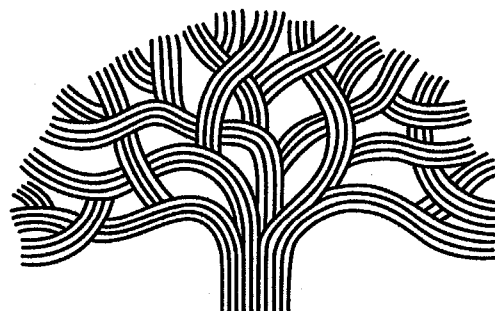
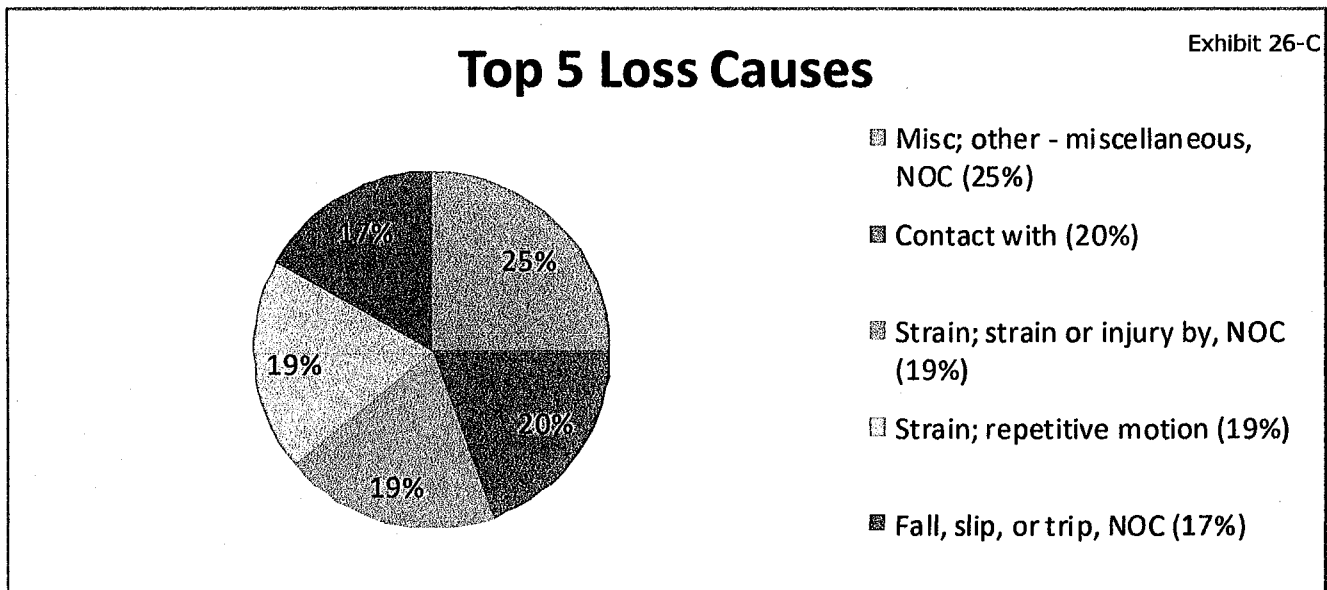
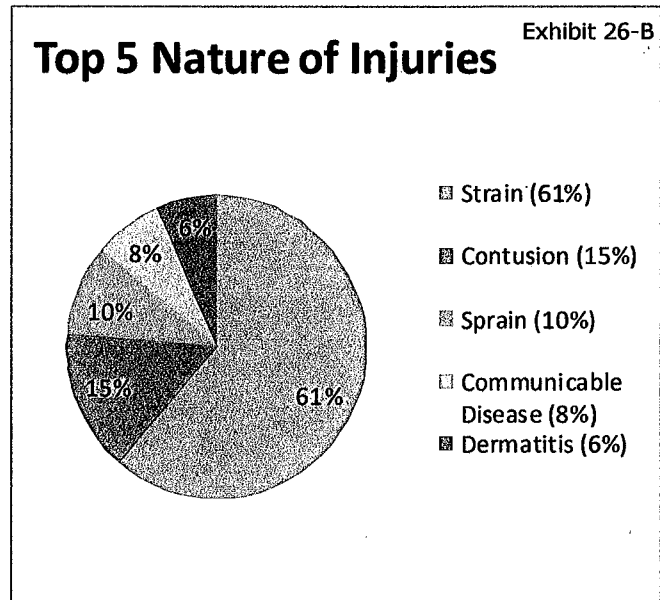
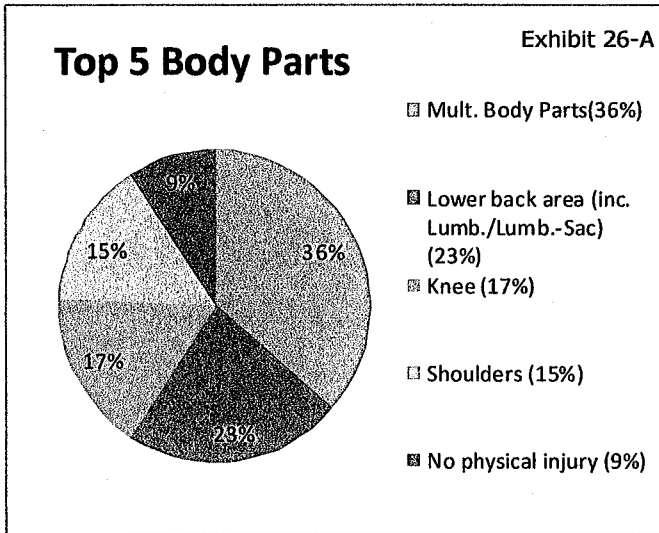


Exhibit 24-C

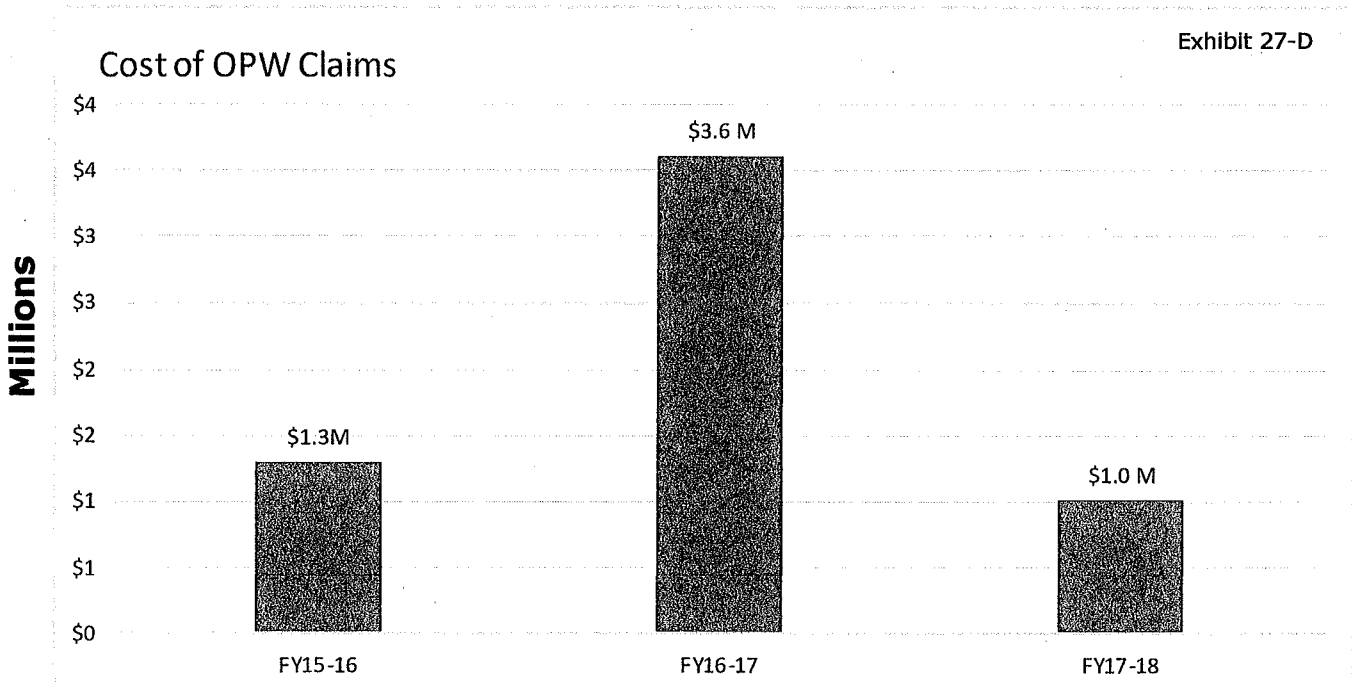
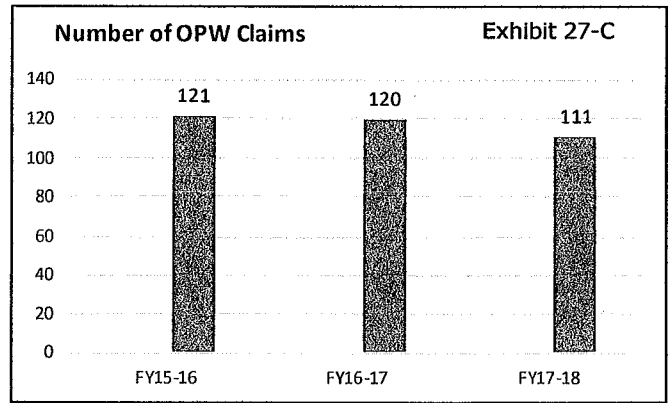
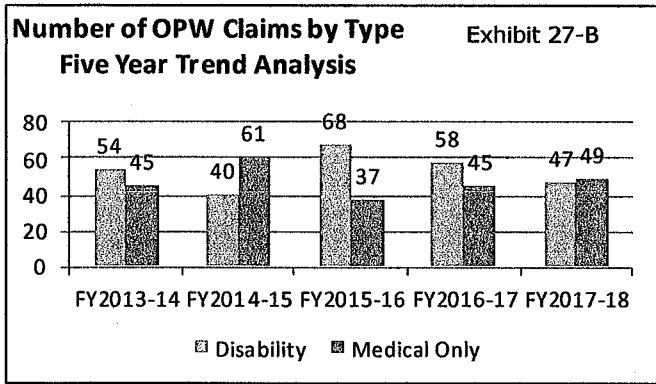
Fire Department -- Workers' Compensation Claims					
Exhibit 25- A					
	# of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2017-2018	130	25%	\$2,062,979	31.57%	\$15,869
3-Year Average	154	28%	\$4,186,450	42.75%	\$27,126

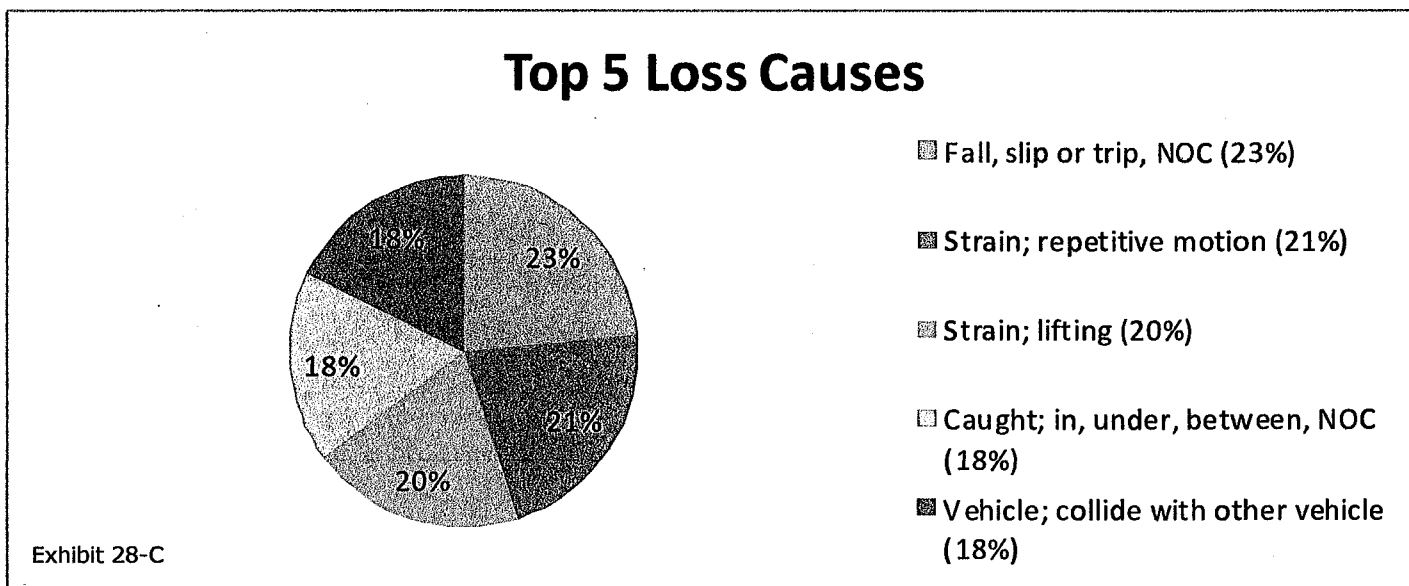
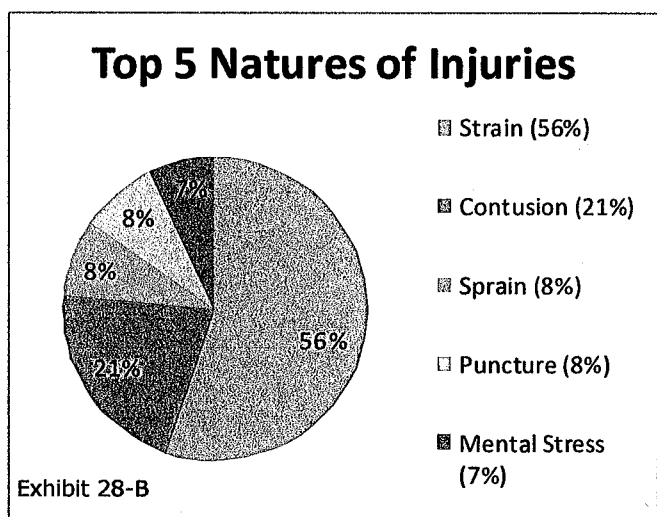
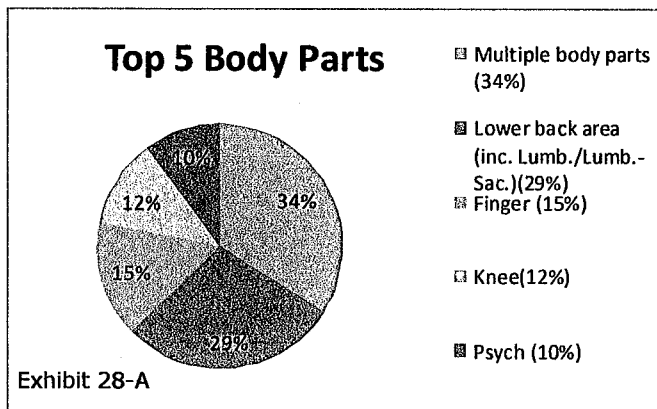




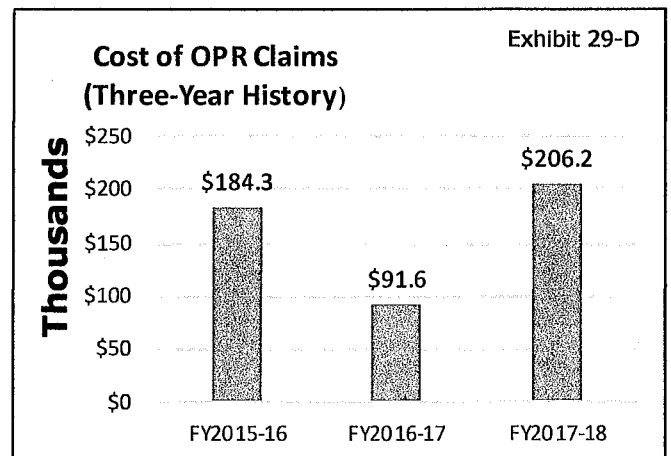
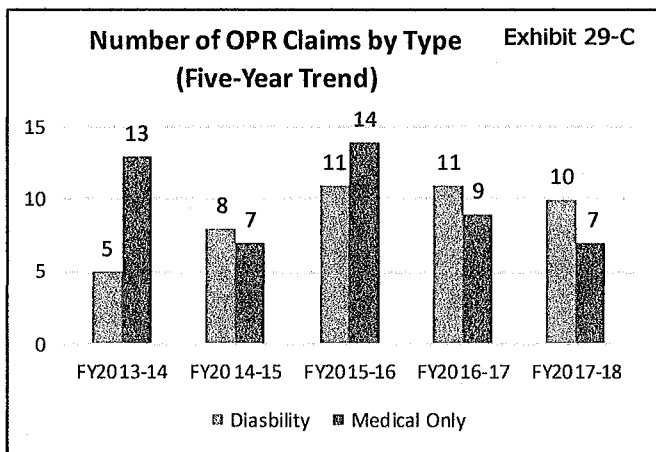
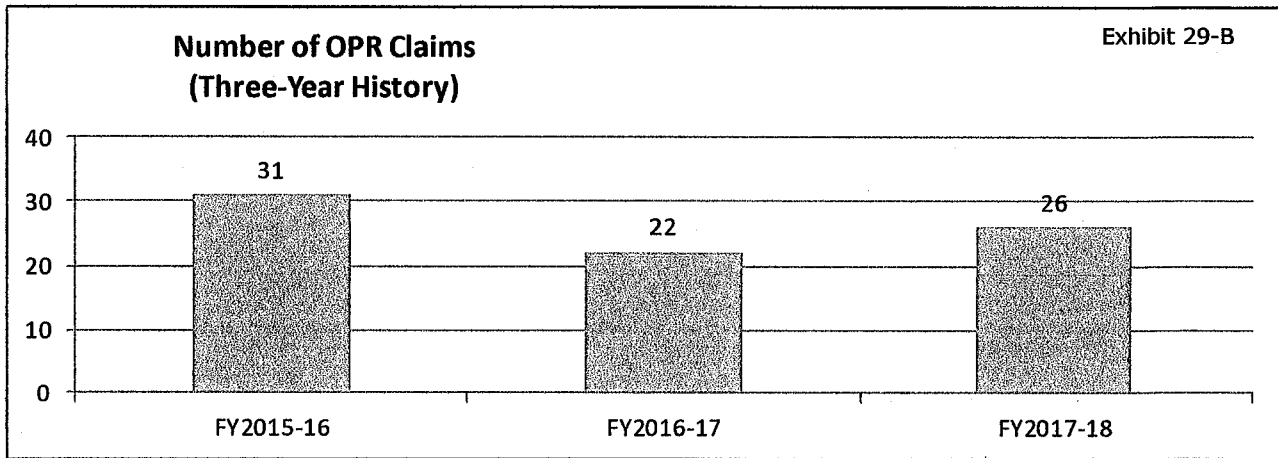
CITY OF OAKLAND

Public Works Department -- Workers' Compensation Claims					Exhibit 27-A
	Number of Claims	% of City	Cost of Claims	% of City	Avg. Cost Per Claim
FY 2017-18	111	22%	\$1,013,111	15.51%	\$9,127
3 Year Avg.	117	21%	\$1,972,197	20.14%	\$16,808

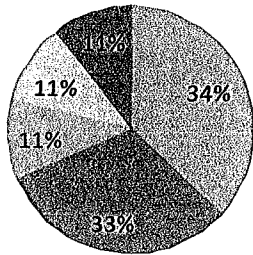




Parks and Recreation--Workers' Compensation Claims					Exhibit 29-A
	No. of Claims	% of City	Cost of Claims	% of City	Average Cost Per Claim
FY 2017-18	26	5%	\$206,164	3.16%	\$7,929
3-Year Average	26	5%	\$112,285	1.26%	\$4,263



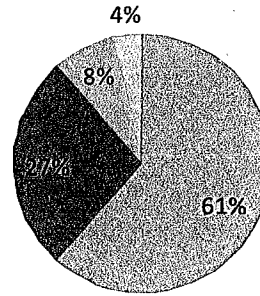
Top 5 Body Parts



- Multiple Body Parts 34%
- Skull 33%
- Chest 11%
- Eyes 11%
- Knees 11%

Exhibit 30-A

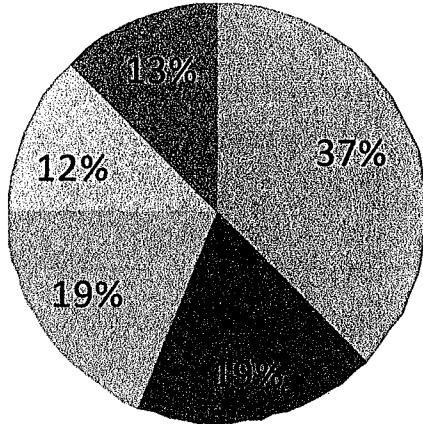
Top 4 Nature of Injuries



- Contusion (61%)
- Strain (27%)
- Sprain (8%)
- Burn (4%)

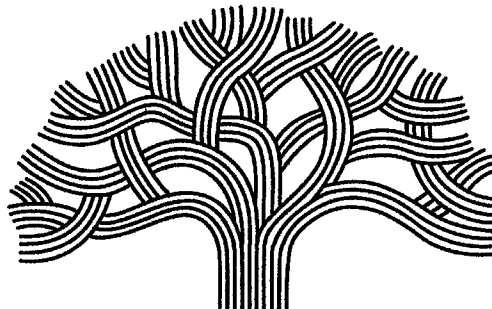
Exhibit 30-B

Top 5 Loss Causes



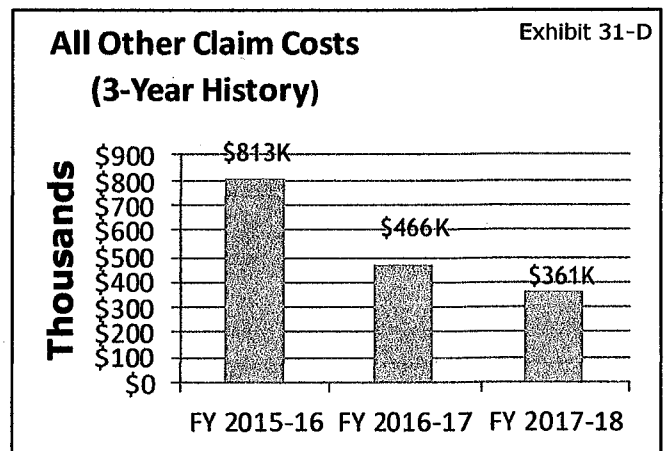
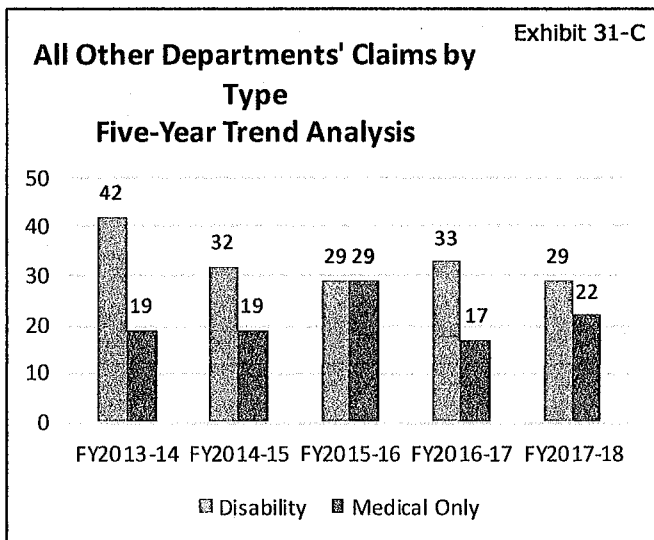
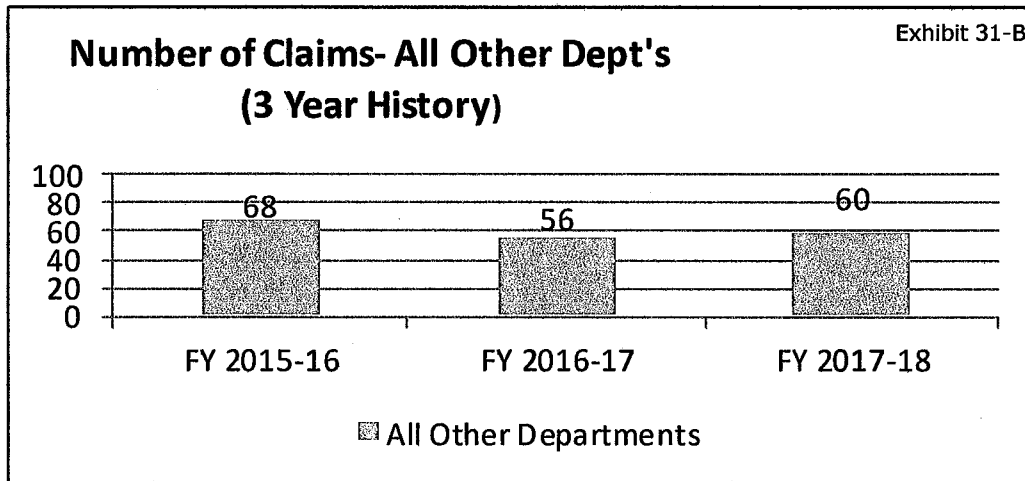
- Fall, slip or trip, NOC (37%)
- Strike; against or stepping on; NOC (19%)
- Injured by; another person (18%)
- Strain; reaching (13%)
- Strain; or injury by, NOC (13%)

Exhibit 30-C



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 2017-18	60	12%	\$361,238	5.53%	\$6,021
3-Year Average	61	11%	\$546,686	5.58%	\$8,913



SCHEDULE OF EXHIBITS

Appendix A	Key Terms
Appendix B	Workers' Compensation Expenditure Report (FY 2013-14 through FY 2017-18)
Appendix C	Workers' Compensation Claims Audit, Final Reports <i>October 2018</i>
Appendix D	Actuarial Review of the Self-Insured Workers' Compensation Program <i>AON Risk Solutions, June 30, 2018</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 2013-2018)

Expenditures By Year	2013-14	2014-15	2015-16	2016-17	2017-18	%Change
Settlements:						
Permanent Disability	\$4,838,242	\$5,926,906	\$4,549,793	\$4,665,792	\$5,064,038	8.54%
Temporary Disability						
Non-4850						
Temporary Disability	1,346,545	1,195,099	1,084,483	1,443,514	1,114,210	
MOU Benefit—non-sworn	<u>409,312</u>	<u>496,006</u>	<u>334,200</u>	<u>307,487</u>	<u>183,393</u>	
Total Non-4850 Pay	1,755,857	1,691,105	1,418,683	1,751,001	1,297,603	
4850						-25.9%
Sworn-OPD-4850 Pay	2,533,225	2,356,175	1,873,375	2,334,489	2,124,296	
Sworn-OFD-4850 Pay	<u>1,425,723</u>	<u>1,905,646</u>	<u>2,318,144</u>	<u>2,508,476</u>	<u>2,749,082</u>	
Total 4850 Pay	3,958,948	4,261,821	4,191,519	4,842,965	4,873,378	
Subtotal—Temp. Disability	5,714,805	5,952,926	5,610,202	6,593,966	6,170,981	0.63%
Total Disability	10,553,047	11,879,832	10,159,995	11,259,758	11,235,019	-6.41%
						-0.22%
Allocated:						
(Other Claim Costs)						
Rehabilitation	55,365	31,348	30,556	69,308		
Investigation Expenses	174,998	154,162	116,005	100,898	209,710	
Legal	1,226,711	1,104,091	962,432	1,069,949	77,675	
Utilization Review	321,099	536,818	650,192	552,992	977,556	
Return to Work Services	55,235	153,300	182,820	182,005	523,046	
24hr Injury Report Line	44,100	42,805	44,565	41,863	144,368	
10% Penalties	<u>4,574</u>	<u>5,533</u>	<u>9,178</u>	<u>17,355</u>	36,442	
- (JT2 & non JT2)					<u>9,693</u>	
Allocated	1,882,082	2,028,057	1,995,748	2,034,370	1,978,490	-2.75%
Medical						
WC Disability Medical	6,542,036	5,945,931	5,516,530	7,181,856	5,966,600	
First Aid Only Claims	<u>29,561</u>	<u>15,892</u>	<u>18,146</u>	<u>11,146</u>	<u>17,131</u>	
Total Medical:	6,571,597	5,961,823	5,534,676	7,193,002	5,983,731	-16.81%
Operational Expenses	19,106,726	19,869,712	17,690,417	20,487,128	19,197,239	-6.30%
3rd Party/ Excess Ins. — Refunded to City	<u>(101,858)</u>	<u>(2,109,151)</u>	<u>(391,880)</u>	<u>(82,330)</u>	<u>(753,069)</u>	
Total Operational Expenses	19,004,868	17,760,561	17,298,537	20,404,798	18,444,170	-8.78%
Admin. Expenses						
TPA Contract	2,126,962	1,507,421	1,644,460	1,824,322	1,747,238	
Bill Review Expense	593,456	451,440	492,480	<u>542,070</u>	<u>513,070</u>	
Misc. Admin. Fee (Storage)	<u>17,739</u>	<u>1,552</u>	<u>1,825</u>		<u>1,800</u>	
Admin. Expenses	2,738,157	1,960,413	2,138,765	2,366,392	2,262,038	-4.41%
Total Workers' Compensation Expense	\$21,743,025	\$19,720,974	\$19,437,302	\$22,771,190	\$20,706,208	-8.32%

Appendix C
Claims Audit Report
October 2018

October 2018
CSAC EIA AUDIT REPORT

City of Oakland
Third Party Administrator – JT2



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Executive Summary

- Page 2

Category Results

- Page 4

Audit Team

- Page 22

Audit Cross Reference List

- Appendix A

Audit Worksheets

- Appendix B

EXECUTIVE SUMMARY

This section will serve as an overview of the audit findings with recommendations for moving forward. The **final score of 89.57%** is an increase over the prior score of 87.83%.

Category	Points Available	Points	Score	Prior Score	Variance
Claims Handling Administration	492	462	93.90%	87.67%	6.23%
Claim Creation	70	64	91.43%	95.06%	-3.63%
Claims Handling Technical	432	367	84.95%	85.92%	-0.97%
Litigated Cases	28	22	78.57%	91.80%	-13.23%
Subrogation	8	8	100.00%	86.96%	13.04%
Excess	5	4	80.00%	88.89%	-8.89%
Overall Score	1035	927	89.57%	87.83%	1.73%

We saw strong performance in the following areas:

- A score of 100% was achieved in the categories of caseload, supervisor reviews, return phone calls, date stamp mail, Medicare reporting, initial decision, delay letter, initial reserves for probable value, initial reserves timely, indexing, medical bills paid timely, objection letters, employee reimbursements timely, penalties coded correctly, IMR, nurse case manager used appropriately, proactive return to work, SJDB provided timely, TD/4850 reserves separate, PD exposure includes life pension, settlement valuation, member settlement authority requested, proof of member/EIA authority, initiate investigation, member involved in legal activities, comply with member reporting requirements, identify and notice 3rd party timely, periodic contact with 3rd party, complaint/lien filed timely, member involved in complaint/lien, subro pursued for maximum recovery and timely initial excess report.

Of the categories meeting standard, three showed significant improvement when compared to the prior audit: examiner plan of action updates improved 38.30%, nurse case manager used appropriately improved 100% and identify and notice 3rd party improved 60%.

Although, the medical only conversion category did not meet standard, the score did improve 23.81% when compared to the prior audit.

Performance areas that require improvement:

- When there are multiple claims for a single individual, we suggest clearly delineating the liability assigned to each case and making a concerted effort to ensure payments are applied to the correct file.
- With respect to the three-point contacts, workflow adjustments should be considered to ensure that there are three documented attempts to reach all parties within three business days of receipt of the claim. This standard applies to both medical only and indemnity claims. Due to the low score of 57.14% and the significant decrease when compared to last year (-26.19%), we recommend re-review of this standard with the claims team.
- More careful review of applications with add-on body parts/injuries to address liability for these allegations should improve the score for final decisions.

- There were a variety of reasons for late initial benefit notice, subsequent notices and final notices. More timely and accurate mail handling may help improve performance in these areas.
- Timely mail handling should also improve getting reserves timely adjusted with triggering events.
- There were delays in getting cases worked up for settlement. More timely and accurate mail and email handling should improve results in these categories.
- There were five subcategories where only one downgraded file produced a low score. We consider these to be outliers and not an adverse trend. Categories impacted were medical only conversion, ongoing employee contact, AOE/COE investigation, self-imposed penalties paid and member noticed of permanent work restrictions.

AUDIT CRITERIA

The audit criterion was formed by using the CSAC EIA standards. The file audits specifically focused on claims handling activity from 12/01/17 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 70 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 files were accessed electronically.

AUDIT PROCESS

The audit was completed electronically. 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.

CATEGORY RESULTS

<i>Category</i>	<i>Points Available</i>	<i>Points</i>	<i>Score</i>	<i>Prior Score</i>	<i>Variance</i>
Caseload	2	2	100.00%	100.00%	0.00%
Case Review Documentation	267	252	94.38%	81.57%	12.81%
Communication	112	105	93.75%	93.17%	0.58%
Fiscal Handling	42	34	80.95%	91.60%	-10.64%
Medicare Reporting	69	69	100.00%	100.00%	0.00%
Three Point Contact	7	4	57.14%	83.33%	-26.19%
Compensability	13	11	84.62%	90.91%	-6.29%
AOE/COE Investigations	3	2	66.67%	80.00%	-13.33%
Initial Reserves	12	12	100.00%	98.28%	1.72%
Indexing	35	35	100.00%	99.06%	0.94%
Payments	150	131	87.33%	90.70%	-3.37%
Medical Treatment	30	29	96.67%	97.37%	-0.70%
Apportionment	18	16	88.89%	89.66%	-0.77%
Disability Management	5	4	80.00%	100.00%	-20.00%
SJDB	1	1	100.00%	N/A	N/A
Reserves	172	138	80.23%	76.72%	3.52%
Resolution of Claim	33	25	75.76%	79.52%	-3.76%
Settlement Authority	23	23	100.00%	98.48%	1.52%
Litigated Cases	28	22	78.57%	91.80%	-13.23%
Subrogation	8	8	100.00%	86.96%	13.04%
Excess	5	4	80.00%	88.89%	-8.89%
Overall Score	1035	927	89.57%	87.83%	1.73%

Caseload

Standard 100% → Audit Score 100%

There are seven dedicated adjusters for the City of Oakland with workloads within the CSAC EIA Standards. The supervisors do not carry caseloads.

Case Review & Documentation

Examiner Plan of Action Updates

Files Meeting the Criteria 70 | Files in Compliance 69

Standard 95% → Audit Score 98.57%

Timely plan of action updates were evident within 69 of the 70 claims that met this audit criteria. For audit file A-6423 there was a gap greater than 45 days from 07/19/18 to the date of the audit, 09/12/18.

Quality Plan of Action

Files Meeting the Criteria 70 | Files in Compliance 59

Standard 95% → Audit Score 84.29%

Quality plan of actions were evident within 59 of the 70 claims that met this audit criteria. The following audit files did not meet standard: A-6420, A-6424, A-6433, A-6435, A-6440, A-6441, A-6446, A-6448, A-6449, A-6451 and A-6496.

Supervisor Reviews

Files Meeting the Criteria 70 | Files in Compliance 70

Standard 95% → Audit Score 100%

Timely supervisor reviews were evident within all claims that met this audit criteria.

File Contents

Files Meeting the Criteria 54 | Files in Compliance 52

Standard 95% → Audit Score 96.30%

File contents were clearly identified within 52 of the 54 claims that met this audit criteria. For audit file A-6420 the summary following the employee's 06/15/18 deposition was not evident. Audit file A-6459 did not contain the 5020 nor DWC1. Requests for the documents were not evident.

Medical Only Conversion

Files Meeting the Criteria 3 | Files in Compliance 2

Standard 95% → Audit Score 66.67%

Timely medical only conversion reviews were evident within 2 of the 3 claims that met this audit criteria. For audit file A-6492 the conversion review was late completed 02/22/18. The claim was opened 10/25/17.

Communication

Return Phone Calls

Files Meeting the Criteria 18 | Files in Compliance 18

Standard 95% → Audit Score 100%

Phone calls were timely returned within the standard for all claims that met this audit criteria.

Respond to Written Inquiries

Files Meeting the Criteria 38 | Files in Compliance 32

Standard 95% → Audit Score 84.21%

Written inquiries were timely responded to within 32 of the 38 claims that met this audit criteria. For audit file A-6436 the SAR was approved on 03/09/18 with the Stipulation agreement sent to the employee more than five days later on 03/26/18. The signed Stipulation agreement was received on 08/22/18 and sent to the WCAB more than five days later on 09/10/18. For audit file A-6446 settlement authority was received on 08/14/18 necessitating that settlement documents be generated and sent to the applicant's attorney by 08/21/18. The documents were late drafted on 09/11/18 and still have not been sent to the applicant's attorney. For audit file A-6484 the settlement approval was secured 04/13/18 and the Stipulation agreement was sent to the applicant's attorney for walk through approval more than 5 business days later on 04/26/18. For audit file A-6485 the supervisor reviewed the file on 08/15/18 recommending the adjuster complete a reserve increase. A separate email was sent to the adjuster on the same date to notify him/her of the review. No action has been taken to increase the reserve. For audit file A-6492 a notice of representation was received on 05/08/18 and file documents were served to applicant's attorney more than 5 business days later on 05/17/18. For audit file A-6495 settlement authority was received on 04/11/18 and settlement documents were sent to the applicant's attorney more than 5 business days later on 04/24/18.

Date Stamp Mail

Files Meeting the Criteria 54 | Files in Compliance 54

Standard 95% → Audit Score 100%

All incoming correspondence was date stamped with the date of receipt for all claims that met this audit criteria.

Ongoing Employee Contact

Files Meeting the Criteria 2 | Files in Compliance 1

Standard 95% → Audit Score 50%

Timely ongoing contact with the employee while off work was evident within 1 of the 2 claims that met this audit criteria. For audit file A-6411 the employee was not contacted within three days following surgery on 08/06/18.

Fiscal Handling

Payments on Correct Claims

Files Meeting the Criteria 19 | Files in Compliance 13

Standard 95% → Audit Score 68.42%

Payments were made on the correct claims for 13 of the 19 claims that met this audit criteria. For audit file A-6426 payments for hydrocodone are being paid from this file in error. The payments should be paid from the employee's back claim. For audit file A-6433 payments were incorrectly issued from this claim. There has not been any treatment for this injury and all benefits should be paid from the employee's other claim file (CT injury). For audit file A-6441 gabapentin is being paid from this file without medical documentation to support the medication is for the employee's cancer (audit file) rather than his orthopedic injuries (other claim files). There are no current reports from the provider to support the ongoing medication. For audit file A-6450 the plan of action indicates that legal expenses are to be paid from claim number #160200009. There was one legal bill erroneously paid from this claim on 08/03/18. The EKG done 05/03/18 is not related to this claim. For audit file A-6454 there was a \$175 bill paid for a return to work assessment for a 02/06/18 date of service. This bill is not related to this claim. For audit file A-6489 the PTP in this case is treating the employee for the right ankle.

There are medications being paid for via this file that are being prescribed by another provider who is actually treating the employee for the claim of 03/02/12.

File Balancing

Files Meeting the Criteria 23 | Files in Compliance 21

Standard 95% → Audit Score 91.30%

File balancing was timely evidenced within 21 of the 23 claims that met this audit criteria. Audit file A-6428 was balanced on 01/22/18. The next file balance was due 07/22/18. The file was balanced late on 08/24/18. Audit file A-6434 was balanced on 02/02/18 showing the file is out of balance by over \$29,000 with no documentation as to why the file is out of balance. Also, the payment history shows payments up to 03/23/18 when the benefits payable section is through 12/23/17. The 4850 was overpaid and has been backed out however the file has not been rebalanced. The last file balancing was 02/02/18 with the current balance sheet due 08/02/18 but not completed.

Medicare Reporting

Files Meeting the Criteria 69 | Files in Compliance 69

Standard 100% → Audit Score 100%

Medicare reporting was completed for all claims that met this audit criteria.

Three-Point Contact

Files Meeting the Criteria 7 | Files in Compliance 4

Standard 95% → Audit Score 57.14%

Timely three-point contact was evident within 4 of the 7 claims that met this audit criteria. For audit file A-6411 the claim was received on 06/04/18 necessitating three point contacts or attempts by 06/07/18. Three-point contact was initiated with the employer, employee and physician on 06/04/18 with messages left. Additional documented contacts were late completed on 06/15/18. Audit file A-6442 was received on 02/16/18 necessitating three-point contacts or attempts be completed by 02/21/18. Only one message was left for the employer by that date. Audit file A-6459 was received 06/06/18 and there was one entry on 06/08/18 indicating the adjuster was reaching out to the employer. There were no follow up attempts made nor documentation that contact was achieved.

Compensability

Initial Decision

Files Meeting the Criteria 7 | Files in Compliance 7

Standard 100% → Audit Score 100%

An initial decision was completed timely for all claims that met this audit criteria.

Delay Letter

Files Meeting the Criteria 1 | Files in Compliance 1

Standard 100% → Audit Score 100%

A delay letter was sent timely for the claim that met this audit criteria.

Final Decision

Files Meeting the Criteria 5 | Files in Compliance 3

Standard 100% → Audit Score 60.00%

A final decision was made timely for 3 of the 5 claims that met this audit criteria. For audit file A-6443 an application was uploaded 05/01/18 adding injury for neck, shoulder, psyche and multiple. It appears the claim was further expanded to include sleep, neuro and worsening of diabetes. There was no final decision noted regarding the add-on body parts via a denial nor answer to the application. For audit file A-6460 notice of an amended application was received on 08/09/18 adding bilateral shoulders. There has been no acceptance, delay or denial issued for these add-on body parts.

AOE/COE Investigations

Files Meeting the Criteria 3 | Files in Compliance 2

Standard 95% → Audit Score 66.67%

AOE/COE investigations were triggered timely for 2 of the 3 claims that met this audit criteria. For audit file A-6440 the AOE/COE investigation was untimely assigned to the investigator on 08/01/18.

Initial Reserves

Initial Reserves for Probable Value

Files Meeting the Criteria 6 | Files in Compliance 6

Standard 95% → Audit Score 100%

The initial reserves were set for the appropriate probable value for all cases that met this audit criteria.

Initial Reserve Timely

Files Meeting the Criteria 6 | Files in Compliance 6

Standard 95% → Audit Score 100%

The initial reserves were set timely for all cases that met this audit criteria.

Indexing

Files Meeting the Criteria 35 | Files in Compliance 35

Standard 95% → Audit Score 100%

Initial indexing and/or appropriate re-indexing was evident within all files that met this audit criteria.

Payments

Initial TD/PD Payment

Files Meeting the Criteria 11 | Files in Compliance 9

Standard 100% → Audit Score 81.82%

Initial TD/PD payment were timely for 9 of the 11 files that met this audit criteria. For audit file A-6411 the initial TD/4850 was not paid within 14 days of his initial lost time. The employee underwent surgery on 08/06/18 with TD/4850 untimely initiated on 08/30/18. For audit file A-6495 the private rating was received 03/26/18 and the retro PD benefits were started more than 14 days later on 04/24/18.

DWC Notice**Files Meeting the Criteria 24 | Files in Compliance 16****Standard 100% → Audit Score 66.67%**

Initial DWC notices were timely for 16 of the 24 files that met this audit criteria. For audit file A-6411 the employee underwent surgery on 08/06/18 with the initial DWC notice untimely sent 08/30/18. For audit file A-6434 a PD delay letter was not sent following the employee's return to work. For audit file A-6436 the employee was deemed MMI on 10/26/17. The report was received on 12/18/17 necessitating a PD advice letter to be sent within 14 days of receipt of the report. The PD advice letter sent late on 05/05/18. For audit file A-6437 the MMI report was received on 12/19/17 and the PD start letter was sent more than 14 days later on 04/17/18. For audit file A-6441 the last DWC notice was sent prior to the audit period with no update. PD has not been paid in full. For audit file A-6453 the TD denial letter of 05/02/18 contained inaccurate information. The TD denial was based upon the QME's report that the employee was MMI. The adjuster was disputing the PTP's finding of TD but then included the following sentence, "We agree with the treating physician's evaluation of your temporary disability status." For audit file A-6459 the claim was received 06/06/18 and the denial letter was sent more than 14 days later on 06/25/18. For audit file A-6495 the private rating was received 03/26/18 and the PD start letter was sent more than 14 days later on 04/24/18.

Subsequent TD/PD Payments**Files Meeting the Criteria 22 | Files in Compliance 20****Standard 100% → Audit Score 90.91%**

Subsequent payments were supported and/or timely for 20 of the 22 files that met this audit criteria. For audit file A-6434 the ending TD notice was untimely issued. For audit file A-6437 the employee received IDR benefits as of 11/15/17 and 4850 benefits were erroneously continued to 01/05/18.

Timely Final Payment & Notice**Files Meeting the Criteria 17 | Files in Compliance 13****Standard 100% → Audit Score 76.47%**

All final payments and/or notice letters were timely for 13 of the 17 files that met this audit criteria. For audit file A-6437 the subsequent PD delay letter due 03/28/18 was sent late on 04/17/18. For audit file A-6446 the MMI report from the QME was received on 04/02/18 with the PD advice letter late sent on 08/15/18. For audit file A-6456, upon receipt of defense counsel's letter received 08/15/18 solidifying the PD rating, a PD advice letter should have been sent. For audit file A-6495 the private rating was received 03/26/18 with the PD advice letter sent more than 14 days later on 04/24/18.

Overpayments**Files Meeting the Criteria 0 | Files in Compliance N/A****Standard 95% → Audit Score N/A**

There were no applicable claims for this category.

Undisputed Awards Paid Timely**Files Meeting the Criteria 6 | Files in Compliance 5****Standard 95% → Audit Score 83.33%**

Undisputed awards were paid timely for 5 of the 6 claims that met this audit criteria. For audit file A-6491 the Stipulated Award was approved on 06/05/18 and received on 06/11/18. The payment of the award was started late on 09/12/18 (retro period of PD owed).

Copy of Award to Excess

**Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A**

There were no applicable claims for this category.

Medical Bills Paid Timely

**Files Meeting the Criteria 47 | Files in Compliance 47
Standard 100% → Audit Score 100%**

Medical bills were paid timely for all claims that met this audit criteria.

Objection Letters Timely

**Files Meeting the Criteria 5 | Files in Compliance 5
Standard 100% → Audit Score 100%**

Objection letters were evident within all claims that met this audit criteria.

Employee Reimbursements Timely

**Files Meeting the Criteria 4 | Files in Compliance 4
Standard 95% → Audit Score 100%**

Employee reimbursements were timely for all claims that met this audit criteria.

Advance Travel Timely

**Files Meeting the Criteria 9 | Files in Compliance 8
Standard 95% → Audit Score 88.89%**

Advance travel was timely paid for 8 of the 9 claims that met this audit criteria. For audit file A-6458 mileage for the 07/27/18 AME appointment was untimely paid 08/02/18.

Self-Imposed Penalties Paid

**Files Meeting the Criteria 3 | Files in Compliance 2
Standard 100% → Audit Score 66.67%**

Self-imposed penalties were timely paid for 2 of the 3 claims that met this audit criteria. For audit file A-6495 there was no SIP paid for the late portion of the retro PD paid from 12/07/17 to 04/10/18.

Penalties Coded Correctly

**Files Meeting the Criteria 2 | Files in Compliance 2
Standard 95% → Audit Score 100%**

Penalties were coded correctly for both claims that met this audit criteria.

Penalty Reimbursement Plan

**Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A**

There were no applicable claims for this category.

Medical Treatment

Proper Use of UR

Files Meeting the Criteria 24 | Files in Compliance 23

Standard 100% → Audit Score 95.83%

Proper UR was evidenced within 23 of the 24 claims that met this audit criteria. For audit file A-6415 the adjuster continues to approve Norco prescriptions in excess of the UR protocols.

UR Dispute Resolved via IMR

Files Meeting the Criteria 5 | Files in Compliance 5

Standard 100% → Audit Score 100%

In that only the employee, his representative or the treating doctor can request IMR the administrator can have no impact on ensuring UR disputes are resolved by IMR. There were 5 claims with IMR requests or decisions with proper medicals submitted by the TPA.

NCM Used Appropriately

Files Meeting the Criteria 1 | Files in Compliance 1

Standard 95% → Audit Score 100%

Proper NCM was evident within the claim that met this audit criteria.

Apportionment

Ruled In/Out

Files Meeting the Criteria 8 | Files in Compliance 7

Standard 95% → Audit Score 87.50%

Apportionment was properly ruled in/out for 7 of the 8 claims that met this audit criteria. For audit file A-6458 the employee reported to the AME that he has been involved in 2 to 3 accidents with the last one being about a year ago. The adjuster has not identified apportionment as an issue.

Pursued Appropriately

Files Meeting the Criteria 10 | Files in Compliance 9

Standard 95% → Audit Score 90%

Apportionment was properly pursued for 9 of the 10 claims that met this audit criteria. For audit file A-6451 the adjuster requested a medical history form be sent to the applicant's attorney so that prior records could be pursued. There was never any follow up to secure the medical history. A new index on 07/10/18 reveals prior injuries/claims with potential overlap for the upper extremities. Those specific records could have been pursued using the ADJ number. The records have not been pursued to explore the apportionment potential.

Disability Management

Proactive Return to Work

Files Meeting the Criteria 4 | Files in Compliance 4

Standard 95% → Audit Score 100%

Proactive return to work was evident within all claims that met this audit criteria.

Member Noticed of Permanent Work Restrictions
Files Meeting the Criteria 1 | Files in Compliance 0
Standard 95% → Audit Score 0.00%

Member timely noticed of permanent work restrictions was not evident within the claim that met this audit criteria. For audit file A-6458 the AME report was received on 08/10/18 and the permanent work restrictions were late provided to the city on 09/18/18.

20 Day Member Follow Up on Permanent Restrictions
Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A

There were no applicable claims for this category.

SJDB

SJDB Provided Timely
Files Meeting the Criteria 1 | Files in Compliance 1
Standard 100% → Audit Score 100%

The SJDB was appropriately and timely sent for the claim that met this audit criteria.

SJDB Concluded Appropriately
Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A

There were no applicable claims for this category.

Reserves

Reserves Adjusted Timely at Diary or with Triggering Event
Files Meeting the Criteria 67 | Files in Compliance 45
Standard 100% → Audit Score 67.16%

Reserves were timely adjusted with a triggering event, or on diary, for 45 of the 67 claims that met this audit criteria. Due to the number of exceptions, we recommend review of the individual audit worksheets for detailed information. The following audit files did not meet standard:

A-6409	A-6410	A-6411	A-6420	A-6422	A-6431	A-6434	A-6436	A-6437	A-6440
A-6441	A-6443	A-6445	A-6446	A-6447	A-6453	A-6455	A-6458	A-6460	A-6485
A-6493	A-6497								

TD & 4850 Reserved Separately
Files Meeting the Criteria 11 | Files in Compliance 11
Standard 95% → Audit Score 100%

Separate TD/4850 reserves were evident within all claims that met this audit criteria.

PD Exposure Includes Life Pension
Files Meeting the Criteria 3 | Files in Compliance 3
Standard 100% → Audit Score 100%

Claims with life pension exposure had the proper benefit calculated in to the PD reserve for all claims that met this audit criteria.

FM Reserves Consistent with OSIP Standards

Files Meeting the Criteria 27 | Files in Compliance 22

Standard 100% → Audit Score 81.48%

Future medical reserves were in line with OSIP standards for 22 of the 27 claims that met this audit criteria. For audit file A-6409 the reserve is not consistent with the OSIP standard and is understated. For audit file A-6437 the reserve is not consistent with the OSIP standard and is overstated. For audit file A-6455 the reserve is understated and the last OSIP reserve update on the file was completed 04/26/17. The reserves should be reviewed at least annually for an updated calculation. For audit file A-6493 the future medical reserves have not been updated per OSIP standards and the reserve is overstated. For audit file A-6497 the last OSIP calculation was completed more than a year ago on 05/23/17.

Allocated Reserve Includes medical cost containment, legal, investigation, copy service and other related fees.

Files Meeting the Criteria 64 | Files in Compliance 57

Standard 100% → Audit Score 89.06%

Allocated reserves contained values for bill review, utilization review and independent medical review for 57 of the 64 claims that met this audit criteria. For audit files A-6409, A-6420, A-6422, A-6458 and A-6485 the expense reserves were understated. For audit file A-6440 the expense reserve was not adjusted when the referral was completed for the AOE/COE investigation. The reserve is insufficient. For audit file A-6446 the MMI report from the QME was received on 04/02/18 with the expense reserves untimely adjusted on 08/13/18.

Reserve Detail

No recommended changes	52 claims
Increase recommended	13 claims
Decrease recommended	5 claims
Total estimated reserve variance	\$179,638

Resolution of Claim

Resolution Pursued within 10 Days

Files Meeting the Criteria 21 | Files in Compliance 13

Standard 95% → Audit Score 61.90%

Resolution was timely pursued within ten days for 13 of the 21 claims that met this audit criteria. For audit file A-6424 the employee was deemed MMI by the orthopedist on 03/29/18. There is no evidence that this report was sent to the PTP to address MMI status nor that an MMI report was requested from the PTP following this report. For audit file A-6433 there was no activity on this file and it could have been closed when the CT claim was filed as no application was filed for this file. For audit file A-6435 there were no follow up actions taken to resolve the claim from the start of the audit period to 08/20/18. For audit file A-6436 the MMI report was received on 12/18/17 with the SAR untimely sent to the member on 03/06/18. For audit file A-6437 the MMI report was received on 12/05/17 and the SAR was untimely sent to the member on 05/31/18. For audit file A-6446 the MMI report from the QME was received on 04/02/18 with the SAR late completed on 08/13/18. For audit file A-6491 the PTP MMI report was received 01/30/18 with the SAR late completed on 03/26/18. For audit file A-6495 there was a gap in settlement follow up from 04/24/18 to 07/02/18, 07/02/18 to 08/16/18 and 08/16/18 to current. A more aggressive approach (DOR) should be considered at this point in time given that it has been more than five months since the settlement documents were originally sent to the applicant's attorney.

Settlement Valuation

Files Meeting the Criteria 12 | Files in Compliance 12

Standard 95% → Audit Score 100%

Accurate settlement valuations were evident within all claims that met this audit criteria.

Medicare's Interests Protected

Files Meeting the Criteria 0 | Files in Compliance N/A

Standard 95% → Audit Score N/A

There were no applicable claims for this category.

Settlement Authority

EIA Settlement Authority Requested

Files Meeting the Criteria 0 | Files in Compliance N/A

Standard 95% → Audit Score N/A

There were no applicable claims for this category.

Member Settlement Authority Requested

Files Meeting the Criteria 12 | Files in Compliance 12

Standard 95% → Audit Score 100%

Member settlement authority was evident within all claims that met this audit criteria.

Proof of Member/EIA Authority

Files Meeting the Criteria 11 | Files in Compliance 11

Standard 95% → Audit Score 100%

Proof of Member/EIA settlement authority was evident within all claims that met this audit criteria.

Litigated Claims

Initiate Investigation Material to Potential Litigation

Files Meeting the Criteria 1 | Files in Compliance 1

Standard 95% → Audit Score 100%

Investigation was timely initiated for the claim that met this audit criteria.

Defense Attorney on Panel with Proper Initial & Ongoing Management

Files Meeting the Criteria 24 | Files in Compliance 18

Standard 95% → Audit Score 75.00%

Approved defense counsel assigned to each file with proper initial and ongoing litigation management was evident within 18 of the 24 claims that met this audit criteria. For audit file A-6420 there is no ongoing communication with the defense attorney to develop a legal strategy to bring file to resolution. There is also no documentation of the result of the employee's deposition that was taken on 06/15/18. For audit file A-6434 the last letter from the defense attorney is dated 05/24/18 regarding notice of subpoenaed records. There have been no follow up letters regarding the upcoming AME appointment or the plan to move file to resolution. For audit file A-6443, considering that this claim has expanded quite a bit from what was originally claimed, assignment to defense counsel should be discussed with the city. For audit file A-6448 a copy of the legal updates should be copied and pasted in to this file. There is no information in this file as to where the med-legal and/or resolution process stands.

For audit file A-6449 there has been no communication with defense counsel since the notice of missed appointment was received to discuss the options to move the claim in to settlement posture. For audit file A-6458 given the potential exposures on the case, coupled with the apportionment potential, the case should have been referred to defense counsel.

Settlement Proposals Direct to Member in Concise and Clear Written Form with Reasoned Recommendation
Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A
There were no applicable claims for this category.

Member Involved in Deposition, Examinations and Trial
Files Meeting the Criteria 1 | Files in Compliance 1
Standard 95% → Audit Score 100%
The Member was involved in legal activities for the claim that met this audit criteria.

Comply with Reporting Requirements of Member
Files Meeting the Criteria 2 | Files in Compliance 2
Standard 95% → Audit Score 100%
There was compliance with the Member reporting criteria for both claims that met this audit criteria.

Subrogation

Identify & Notice 3rd Party in 14 days
Files Meeting the Criteria 2 | Files in Compliance 2
Standard 95% → Audit Score 100%
The potential 3rd party was timely noticed within 14 days for both claims that met this audit criteria.

Periodic Contact with 3rd Party Evidenced
Files Meeting the Criteria 2 | Files in Compliance 2
Standard 95% → Audit Score 100%
Periodic contact with the 3rd party was evident within both claims that met this audit criteria.

Complaint or Lien Filed Timely
Files Meeting the Criteria 1 | Files in Compliance 1
Standard 95% → Audit Score 100%
The complaint or lien was timely filed for the claim that met this audit criteria.

Member Involved in Complaint
Files Meeting the Criteria 1 | Files in Compliance 1
Standard 95% → Audit Score 100%
The member was involved in complaints vs. lien for the claim that met this audit criteria.

Subrogation Pursued for Maximum Recovery
Files Meeting the Criteria 2 | Files in Compliance 2
Standard 95% → Audit Score 100%
Subrogation was pursued for maximum recovery for both claims that met this audit criteria.

Member/EIA Approval to Waive or Settle 3rd Party Case
Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A
There were no applicable claims for this category.

Excess Coverage

Report within 5 Days of Knowledge That Reporting Criteria Met
Files Meeting the Criteria 1 | Files in Compliance 1
Standard 95% → Audit Score 100%
Reporting was done within five days for the claim that met this audit criteria.

Subsequent Reports Meet 90/180 Day Standard
Files Meeting the Criteria 4 | Files in Compliance 3
Standard 95% → Audit Score 75.00%
Subsequent reports were timely for 3 of the 4 claims that met this audit criteria. For audit file A-6465 there was a gap in excess reporting longer than 90 days from 11/02/17 to 04/16/18 and from 04/16/18 to 08/17/18.

Reimbursement Requests Meet 90/180 Standard
Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A
There were no applicable claims for this category.

Closing Report Sent
Files Meeting the Criteria 0 | Files in Compliance N/A
Standard 95% → Audit Score N/A
There were no applicable claims for this category.

Claims Handling Administration

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
Claims Handling Administrative							
Caseload							
Supervisor Caseload	1	1	100.00%	100%	YES	100.00%	0.00%
Adjuster Caseload	1	1	100.00%	100%	YES	100.00%	0.00%
Sub-Total of Category	2	2	100.00%				
Case Review & Documentation							
Examiner Plan of Action Updates	70	69	98.57%	95%	YES	60.27%	38.30%
Quality POA	70	59	84.29%	95%	NO	84.25%	0.04%
Supervisor Reviews	70	70	100.00%	95%	YES	86.30%	13.70%
File Contents	54	52	96.30%	95%	YES	97.87%	-1.58%
Medical Only Conversion	3	2	66.67%	95%	NO	42.86%	23.81%
Sub-Total of Category	267	252	94.38%				
Communication							
Return Phone Calls	18	18	100.00%	95%	YES	100.00%	0.00%
Respond To Written Inquiries	38	32	84.21%	95%	NO	83.95%	0.26%
Date Stamp Mail	54	54	100.00%	95%	YES	100.00%	0.00%
Ongoing Employee Contact	2	1	50.00%	95%	NO	50.00%	0.00%
Sub-Total of Category	112	105	93.75%				
Fiscal Handling							
Payments On Correct Claims	19	13	68.42%	95%	NO	89.57%	-21.15%
File Balancing	23	21	91.30%	95%	NO	95.92%	-4.62%
Sub-Total of Category	42	34	80.95%				
Medicare Reporting							
Medicare Reporting	69	69	100.00%	100%	YES	100.00%	0.00%
Sub-Total of Category	69	69	100.00%				
Claims Handling Administrative Score	492	462	93.90%				

City of Oakland

Other Accounts

Adjuster / Supervisor	Med Only	Future Med	Indemnity	Med Only	Future Med	Total	Weighted Value
dchristensen	5	0	240	0	0	245	125
jhom	104	0	16	0	0	120	112
jstingily	85	0	24	0	0	109	97
ajames	101	0	15	0	0	116	109
ccalizo	1	0	247	0	0	248	125
jpaiz	117	0	5	0	0	122	120
gbautista	117	0	2	0	0	119	118
Total	530	0	549	0	0	1079	805

Claim Creation

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
Claim Creation							
Three Point Contact	7	4	57.14%	95%	NO	83.33%	-26.19%
Sub-Total of Category	7	4	57.14%				
Compensability							
Initial Decision	7	7	100.00%	100%	YES	96.67%	3.33%
Delay Letter	1	1	100.00%	100%	YES	83.33%	16.67%
Final Decision	5	3	60.00%	100%	NO	75.00%	-15.00%
Sub-Total of Category	13	11	84.62%				
AOE/COE Investigation	3	2	66.67%	95%	NO	80.00%	-13.33%
Sub-Total of Category	3	2	66.67%				
Initial Reserves							
Initial Reserves for Probable Value	6	6	100.00%	95%	YES	100.00%	0.00%
Initial Reserves Timely	6	6	100.00%	95%	YES	96.55%	3.45%
Sub-Total of Category	12	12	100.00%				
Indexing	35	35	100.00%	95%	YES	99.06%	0.94%
Sub-Total of Category	35	35	100.00%				
Claim Creation Score	70	64	91.43%				

Claim Handling Technical

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
Claims Handling Technical							
Payments							
Initial TD/PD Payment	11	9	81.82%	100%	NO	76.47%	5.35%
DWC Notice	24	16	66.67%	100%	NO	81.08%	-14.41%
Subsequent TD/PD Payments	22	20	90.91%	100%	NO	97.56%	-6.65%
Timely Final Payment & Notice	17	13	76.47%	100%	NO	81.82%	-5.35%
Overpayments	0	0	N/A	95%	N/A	100.00%	N/A
Undisputed Awards Paid Timely	6	5	83.33%	95%	NO	100.00%	-16.67%
Copy of Award to Excess	0	0	N/A	95%	N/A	0.00%	N/A
Medical Bills Paid Timely	47	47	100.00%	100%	YES	100.00%	0.00%
Objection Letters	5	5	100.00%	100%	YES	100.00%	0.00%
Employee Reimbursements Timely	4	4	100.00%	95%	YES	94.74%	5.26%
Advance Travel Timely	9	8	88.89%	95%	NO	86.96%	1.93%
Self Imposed Penalties Paid	3	2	66.67%	100%	NO	60.00%	6.67%
Penalties Coded Correctly	2	2	100.00%	95%	YES	100.00%	0.00%
Penalty Reimbursement	0	0	N/A	95%	N/A	0.00%	N/A
Sub-Total of Category	150	131	87.33%				
Medical Treatment							
Proper Use of UR	24	23	95.83%	100%	NO	98.25%	-2.41%
UR Dispute Resolved Via IMR	5	5	100.00%	100%	YES	100.00%	0.00%
NCM Used Appropriately	1	1	100.00%	95%	YES	0.00%	100.00%
Sub-Total of Category	30	29	96.67%				
Apportionment							
Apportionment Ruled In/Out	8	7	87.50%	95%	NO	84.62%	2.88%
Apportionment Pursued Appropriately	10	9	90.00%	95%	NO	93.75%	-3.75%
Sub-Total of Category	18	16	88.89%				

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
Disability Management							
Proactive RTW	4	4	100.00%	95%	YES	100.00%	0.00%
Member Noticed of Permanent Work Restrictions	1	0	0.00%	95%	NO	100.00%	-100.00%
20 Day Member Follow Up on Permanent Restrictions	0	0	N/A	95%	N/A	N/A	N/A
Sub-Total of Category	5	4	80.00%				
SDB							
SDB Provided Timely	1	1	100.00%	100%	YES	N/A	N/A
SDB Concluded Appropriately	0	0	N/A	95%	N/A	N/A	N/A
Sub-Total of Category	1	1	100.00%				
Reserves							
Reserves Adjusted Timely	67	45	67.16%	100%	NO	65.75%	1.41%
TD & 4850 Reserves Separate	11	11	100.00%	100%	YES	100.00%	0.00%
PD Exposure Includes Life Pension	3	3	100.00%	95%	YES	100.00%	0.00%
FM Reserves Consistent with OSIP Standards	27	22	81.48%	100%	NO	89.19%	-7.71%
Allocated Reserves Accurate	64	57	89.06%	100%	NO	83.22%	5.85%
Sub-Total of Category	172	138	80.23%				
Resolution of Claim							
Resolution Pursued Timely	21	13	61.90%	95%	NO	67.31%	-5.40%
Settlement Valuation	12	12	100.00%	95%	YES	100.00%	0.00%
Medicare's Interests Protected	0	0	N/A	95%	N/A	N/A	N/A
Sub-Total of Category	33	25	75.76%				
Settlement Authority							
EIA Settlement Authority Requested	0	0	N/A	95%	N/A	N/A	N/A
Member Settlement Authority Requested	12	12	100.00%	95%	YES	97.06%	2.94%
Proof of Member/EIA Authority	11	11	100.00%	95%	YES	100.00%	0.00%
Sub-Total of Category	23	23	100.00%				
Claims Handling Technical Score	432	367	84.95%				

Litigated Cases

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
<i>Litigated Cases</i>							
Initiate Investigation Material to Potential Litigation	1	1	100.00%	95%	YES	100.00%	0.00%
Proper Litigation Management & Defense Attorney on Panel	24	18	75.00%	95%	NO	88.89%	-13.89%
Settlement Proposals Direct to Member in Concise & Clear	0	0	N/A	95%	N/A	100.00%	N/A
Member Involved in Legal Activities where Appropriate	1	1	100.00%	95%	YES	N/A	N/A
Comply with Member Reporting Requirements	2	2	100.00%	95%	YES	100.00%	0.00%
Litigated Cases Score	28	22	78.57%				

Subrogation

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
<i>Subrogation</i>							
Identify & Notice 3rd Party Timely	2	2	100.00%	95%	YES	40.00%	60.00%
Periodic Contact With 3rd Party	2	2	100.00%	95%	YES	100.00%	0.00%
Complaint or Lien Filed Timely	1	1	100.00%	95%	YES	N/A	N/A
Member Involved in Complaint vs. Lien	1	1	100.00%	95%	YES	100.00%	0.00%
Subro Pursued for Maximum Recovery	2	2	100.00%	95%	YES	100.00%	0.00%
Member/EIA Approval to Accept Waive or Settle 3rd Party Case	0	0	N/A	95%	N/A	100.00%	N/A
Subrogation Score	8	8	100.00%				

Excess

Category	Points Available	Points	Score	Standard	Standard Met	Prior Score	Variance
<i>Excess</i>							
Timely Initial Excess Reporting	1	1	100.00%	95%	YES	100.00%	0.00%
Timely Subsequent Excess Reporting	4	3	75.00%	95%	NO	80.00%	-5.00%
Timely Excess Reimbursement Requests	0	0	N/A	95%	N/A	N/A	N/A
Closing Excess Report Sent	0	0	N/A	95%	N/A	N/A	N/A
Excess Score	5	4	80.00%				

AUDIT TEAM

Angela Mudge

Owner, President & CEO

Over 28 years of workers' compensation claims experience. IEA Certificate, Self-Insured Certificate & WCCP Designation. Prior positions held - adjuster, supervisor, claims manager and vice president.

Leslie Cunningham

Vice President

Over 25 years of workers' compensation claims experience. IEA Certificate, Self-Insured Certificate, WCCP Designation & WC Claims Admin Certificate. Prior IEA Instructor. Prior positions held - adjuster, supervisor, unit manager and training supervisor.

Appendix D

AON

**Actuarial Review of the Self-Insured Workers'
Compensation Program**

Period ending June 30, 2018



**City of Oakland,
California**

**Actuarial Study of the
Self-Insured Workers Compensation Program
as of June 30, 2018**

October 19, 2018

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Aon Risk Solutions | Global Risk Consulting | Actuarial and Analytics



October 19, 2018

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, 2018**

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
Mujtaba Dato, ACAS, MAAA, FCA
Actuarial Practice Leader

Tracy Fleck
Tracy Fleck, ACAS, MAAA
Consultant and Actuary

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MD:bc

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II.	Objectives	3
III.	Conclusions	4

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 2019/20.

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, 2018 was provided to us by the City. The City also provided payroll for 2017/18. Payroll projections for 2018/19 and 2019/20 are based on a 1% trend. Payroll for 2016/17 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.

Payroll

As discussed above, the City provided actual payroll for 2017/18 for this study, and payroll projections for 2018/19 and 2019/20 are based on a 1% trend. For the prior study (based on data as of June 30, 2017), the City provided actual payroll through 2016/17, as well as projections for 2017/18 and 2018/19. Table I-2 provides a comparison of the payroll used in the prior and current studies for 2012/13 and subsequent.

In the prior study, we noted a payroll decrease of over \$90 million (-24%) from 2015/16 (\$390.6 million) to 2016/17 (\$298.5 million). The 2017/18 payroll provided for the current study (\$413.6 million) is \$115 million (+39%) higher than the 2016/17 payroll provided for the prior study.

The 2016/17 payroll does not look reasonable compared to the 2015/16 and 2017/18 payrolls provided by the City. As such, we did not rely on the 2016/17 payroll in our analysis. This assumption did not have a material impact on the results of this study (i.e., projected loss rates). While the projected loss rates for 2018/19 and 2019/20 are lower than the projected rates in the prior study, the projected ultimate losses for these years are approximately 20% higher than the prior projections due to the higher payroll estimates.

**Table I-2
Payroll**

Claim Period (1)	Payroll (6/30/17 Study) (2)	Payroll (6/30/18 Study) (3)	Change (3)/(2)-1 (4)
2012/13	\$355,748,269	\$355,748,269	0.0%
2013/14	373,451,270	373,451,270	0.0%
2014/15	364,736,533	364,736,533	0.0%
2015/16	390,571,251	390,571,251	0.0%
2016/17	298,494,609	N/A	N/A
2017/18	322,070,328	413,589,269	28.4%
2018/19	323,921,944	417,725,162	29.0%

Note: (2) was provided by the City.
(3) through 2015/16 and 2017/18 was provided by the City. 2018/19 is projected based on a 1% trend.

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, 2018.

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 2018/19 and 2019/20.

The projected ultimate losses are the accrual value of losses with accident dates during 2018/19 and 2019/20, regardless of report or payment date. The amounts are limited to the self-insured retention.

3. **Project Losses Paid.** Project losses paid during the 2018/19 and 2019/20 years.

The projected losses paid are the claim disbursements during 2018/19 and 2019/20, 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, 2017.

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, 2018 to be as shown in Table III-1.

**Table III-1
Estimated Outstanding Losses
at Expected (50%) Confidence Level
June 30, 2018**

Item (1)	Amount (2)
(A) Estimated outstanding losses	\$92,452,763
(B) Present value of estimated outstanding losses	79,103,623

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

The estimated outstanding losses decreased by \$1.6 million from our prior estimate of \$94,027,842 as of June 30, 2017 to \$92,452,763 as of June 30, 2018. The decrease consists of:

- +\$19.6 million from the additional year (2017/18) of exposure,
- -\$18.5 million for claim payments made during 2017/18, and
- -\$2.7 million due to a decrease in projected ultimate losses for claim periods 2016/17 and prior.

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 2018/19 and 2019/20 to be as shown in Tables III-2A and III-2B.

**Table III-2A
Projected Ultimate Losses
2018/19**

Item (1)	Projected Payroll (000) (2)	Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)
(A) Full Value	\$417,725	\$6.04	\$25,231,000
(B) Present Value	417,725	5.36	22,389,000

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

**Table III-2B
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	\$421,902	\$6.10	\$25,738,000
(B) Present Value	421,902	5.41	22,839,000

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

As discussed in the Background section, the projected payroll provided by the City is significantly higher than the projections in the prior study. This has resulted in an increase to the projected ultimate losses.

**Table III-2C
Comparison of Projected Ultimate Losses
2017/18 and 2018/19**

Claim Period (1)	Projected Payroll (000) (2)	Loss Rate per \$100 of Payroll (3)	Projected Ultimate Losses (4)
(A) 2017/18 (prior study)	\$322,070	\$6.53	\$21,041,000
(B) 2018/19 (current study)	417,725	\$6.04	25,231,000
(C) Change (B) - (A)	\$95,655	(\$0.49)	\$4,190,000

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 2018/19 and 2019/20 to be as shown in Table III-3.

Table III-3
Projected Losses Paid
2018/19 and 2019/20

Item (1)	2018/19 (2)	2019/20 (3)
(A) Projected losses paid	\$18,027,192	\$19,325,385

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

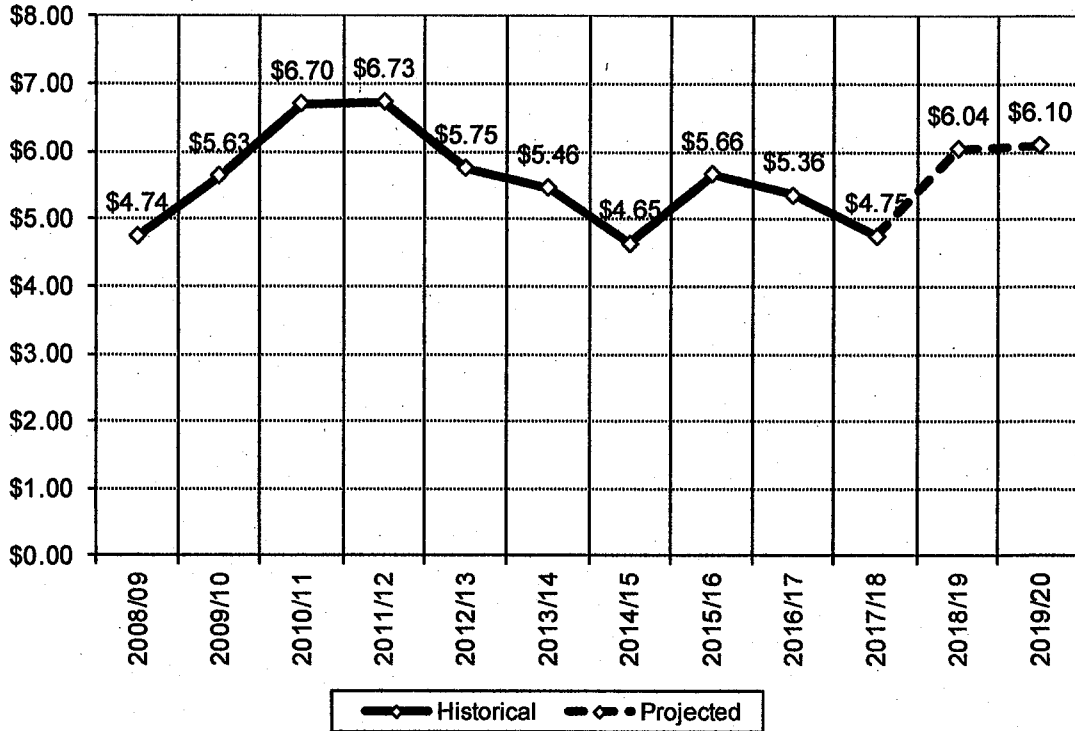
We note that there are two large open claims with case reserves greater than \$1 million (on an unlimited basis). We have assumed that these claims will be paid out according to the selected payment pattern anticipated in this report. If these claims are paid out in a lump sum, or in any manner different 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.

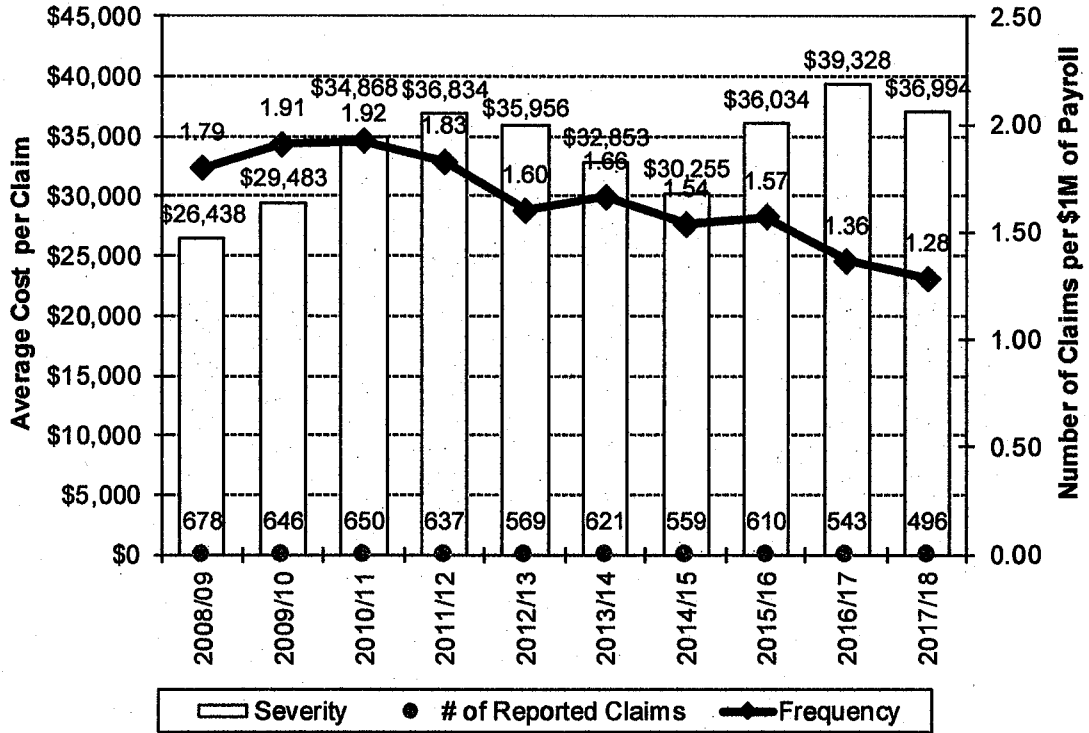
**Graph III-1
Loss Rate per \$100 of Payroll
(Workers Compensation)**



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.

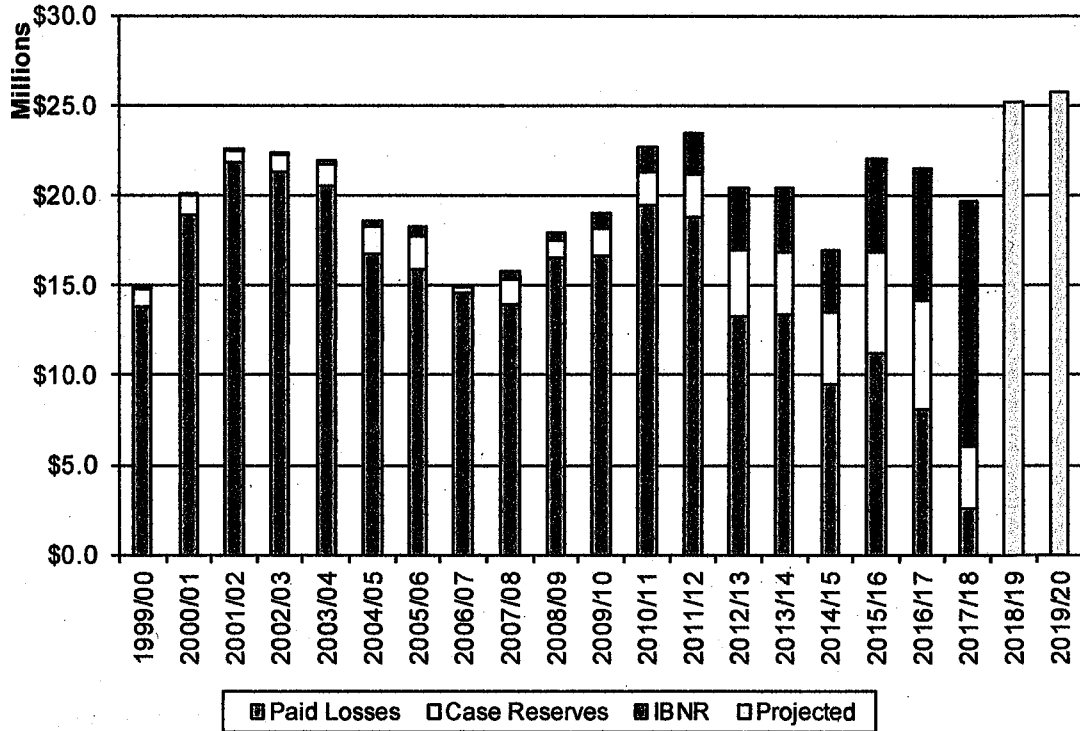
**Graph III-2
Frequency and Severity
(Workers Compensation)**



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)**



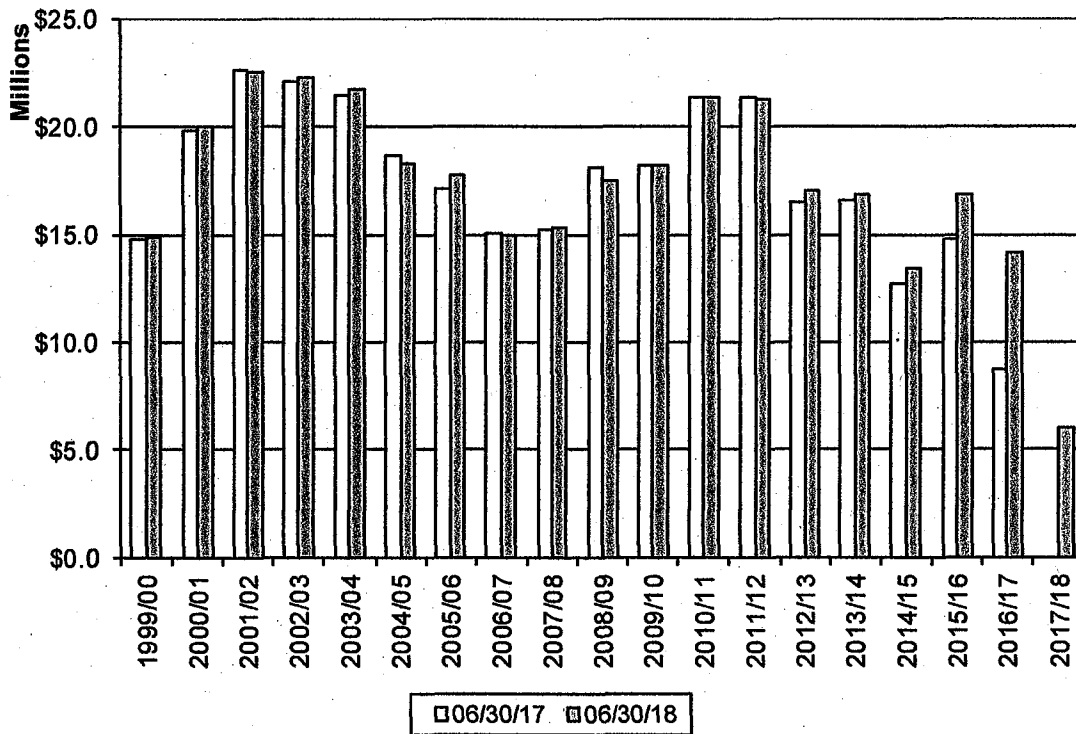
Note: Amounts through 2017/18 are from Exhibit WC-11.
Amounts for 2018/19 and 2019/20 are from Exhibit WC-10.

A list of large claims with limited reported incurred losses \$500,000 or greater as of June 30, 2018 is as shown in Exhibit WC-15.

4. Compare to Previous Actuarial Study

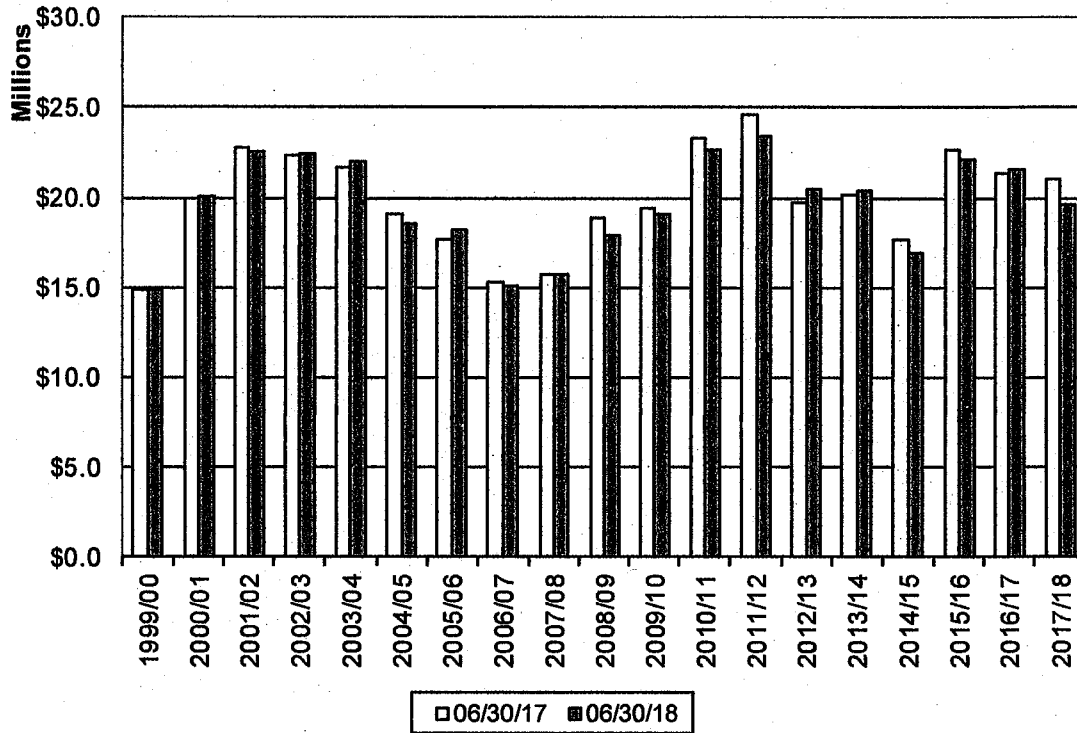
Graphs III-4 and III-5 are graphical comparisons of the reported incurred losses and projected ultimate losses, respectively, by fiscal year of occurrence of the workers compensation program from the previous study (report dated December 11, 2017) to the current study.

**Graph III-4
Comparison of Limited Reported Incurred Losses
as of June 30, 2017 and June 30, 2018**



Note: Amounts as of June 30, 2017 are from the previous actuarial study.
Amounts as of June 30, 2018 are from Exhibit WC-1.

**Graph III-5
Comparison of Projected Ultimate Limited Losses
as of June 30, 2017 and June 30, 2018**



Note: Amounts as of June 30, 2017 are from the previous actuarial study.
Amounts as of June 30, 2018 are from Exhibits WC-9.

For all claims through 2016/17, the change in the projected ultimate limited losses from June 30, 2017 to June 30, 2018 was -0.5%.

We compare the projected ultimate limited losses by year as of June 30, 2017 and June 30, 2018 as shown in Table III-4A.

**Table III-4A
Comparison of Projected Ultimate Limited Losses
as of June 30, 2017 and June 30, 2018**

Claim Period (1)	Projected Ultimate Limited Losses as of 6/30/17 (2)	Projected Ultimate Limited Losses as of 6/30/18 (3)	Change (3) - (2) (4)	Percentage Change (4) / (2) (5)
to 1998/99	\$194,193,000	\$194,653,000	\$460,000	0.2%
1999/00	14,888,000	14,931,000	43,000	0.3%
2000/01	19,945,000	20,117,000	172,000	0.9%
2001/02	22,753,000	22,604,000	(149,000)	-0.7%
2002/03	22,333,000	22,432,000	99,000	0.4%
2003/04	21,746,000	21,998,000	252,000	1.2%
2004/05	19,143,000	18,558,000	(585,000)	-3.1%
2005/06	17,648,000	18,243,000	595,000	3.4%
2006/07	15,294,000	15,070,000	(224,000)	-1.5%
2007/08	15,695,000	15,777,000	82,000	0.5%
2008/09	18,876,000	17,925,000	(951,000)	-5.0%
2009/10	19,449,000	19,046,000	(403,000)	-2.1%
2010/11	23,341,000	22,664,000	(677,000)	-2.9%
2011/12	24,653,000	23,463,000	(1,190,000)	-4.8%
2012/13	19,789,000	20,459,000	670,000	3.4%
2013/14	20,178,000	20,402,000	224,000	1.1%
2014/15	17,647,000	16,943,000	(704,000)	-4.0%
2015/16	22,705,000	22,089,000	(616,000)	-2.7%
2016/17	21,353,000	21,552,000	199,000	0.9%
2017/18	21,041,000	19,644,000	(1,397,000)	-6.6%
Total	\$572,670,000	\$568,570,000	(\$4,100,000)	-0.7%

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 2004/05 through 2017/18, resulting in a decrease in the estimated ultimate losses for most of these years. There was greater than expected incurred loss development for 2005/06 and 2012/13, resulting in an increase to the estimated ultimate loss for those years. The estimate for 2017/18 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, 2017 to June 30, 2018**

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 1998/99	\$890,446	\$717,901	(\$172,545)	\$452,402	\$483,382	\$30,980
1999/00	67,927	52,692	(15,235)	29,499	60,793	31,294
2000/01	90,547	83,113	(7,434)	48,756	184,544	135,788
2001/02	123,215	112,939	(10,276)	60,172	(94,688)	(154,860)
2002/03	120,219	191,585	71,366	78,685	144,637	65,952
2003/04	154,841	343,409	188,568	87,381	305,779	218,398
2004/05	168,696	163,644	(5,052)	100,784	(372,515)	(473,299)
2005/06	199,583	136,579	(63,004)	119,343	559,307	439,964
2006/07	209,523	84,506	(125,017)	117,261	(117,323)	(234,584)
2007/08	263,501	168,289	(95,212)	148,930	138,778	(10,152)
2008/09	341,093	579,613	238,520	264,701	(585,688)	(850,389)
2009/10	343,882	102,247	(241,635)	356,518	(21,460)	(377,978)
2010/11	634,361	454,406	(179,955)	480,979	(38,101)	(519,080)
2011/12	718,568	663,032	(55,535)	580,686	(158,984)	(739,670)
2012/13	704,268	895,295	191,028	502,824	560,053	57,229
2013/14	939,585	1,748,145	808,559	529,931	289,739	(240,191)
2014/15	1,956,500	1,468,853	(487,647)	1,195,854	791,620	(404,234)
2015/16	3,784,712	3,720,222	(64,489)	2,164,954	2,110,251	(54,703)
2016/17	5,093,876	4,272,839	(821,037)	6,017,849	5,393,873	(623,976)
2017/18	3,137,154	2,556,771	(580,383)	7,906,559	6,024,877	(1,881,682)
Total	\$19,942,496	\$18,516,080	(\$1,426,417)	\$21,244,068	\$15,658,874	(\$5,585,194)

Note: (2) and (5) are expected amounts from June 30, 2017 to June 30, 2018.
(3) and (6) are the actual experience from June 30, 2017 to June 30, 2018.

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, 2017. 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)**

Layer (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	26,912	77.5%	77.5%	\$23,584,095	4.4%	4.4%
(B) \$5,000 to \$10,000	1,888	5.4%	83.0%	13,279,978	2.5%	6.9%
(C) \$10,000 to \$25,000	1,885	5.4%	88.4%	30,590,692	5.7%	12.6%
(D) \$25,000 to \$50,000	1,349	3.9%	92.3%	48,281,221	9.0%	21.6%
(E) \$50,000 to \$100,000	1,193	3.4%	95.7%	85,374,409	15.9%	37.5%
(F) \$100,000 to \$250,000	1,140	3.3%	99.0%	178,418,787	33.2%	70.7%
(G) \$250,000 to \$500,000	264	0.8%	99.8%	85,896,440	16.0%	86.7%
(H) \$500,000 to \$750,000	46	0.1%	99.9%	27,247,593	5.1%	91.8%
(I) \$750,000 to \$1,000,000	11	0.0%	100.0%	9,430,492	1.8%	93.6%
(J) Over \$1,000,000	17	0.0%	100.0%	34,594,596	6.4%	100.0%
(K) Total (A) ... (J)	34,705	100%		\$536,698,301	100%	

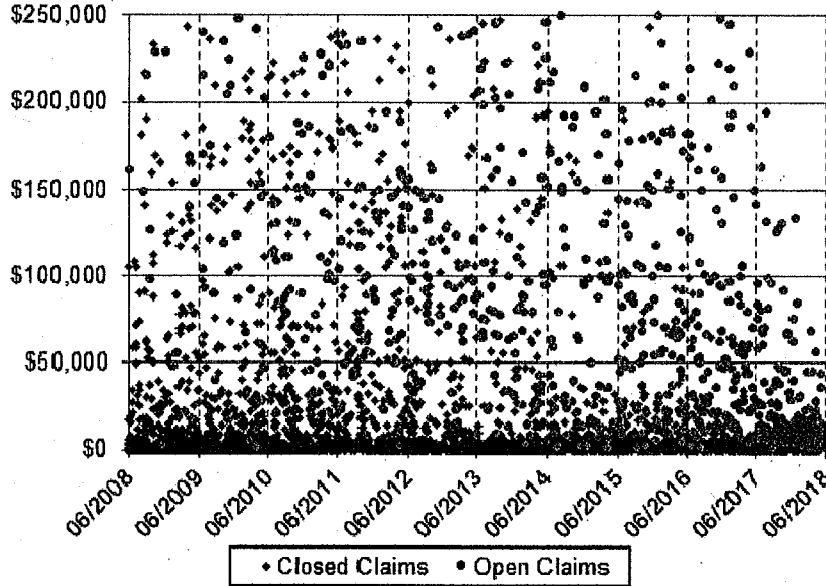
Note: See Exhibit WC-16. Claim counts exclude claims with incurred value of \$0.

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, 2018 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
2008/09 through 2017/18



Graph III-7
Distribution of Workers Compensation Losses
Incurred Greater Than \$100,000
2008/09 through 2017/18

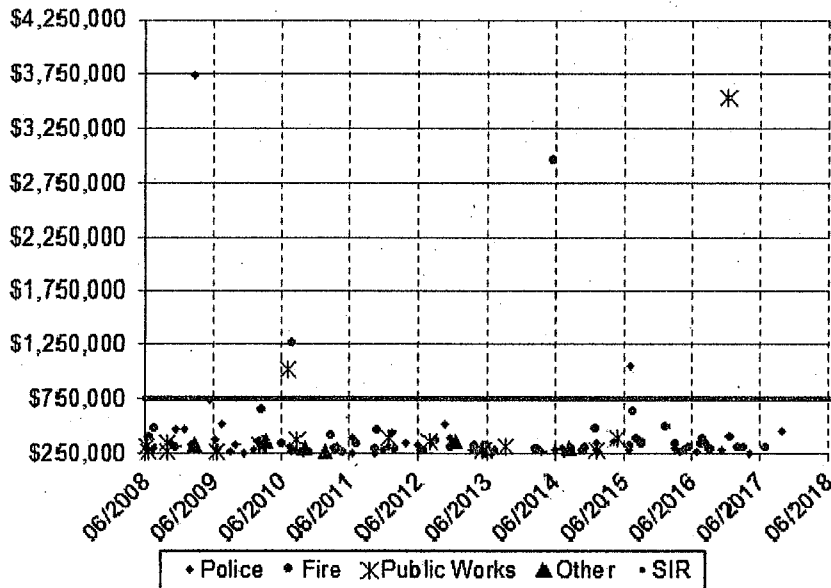


Table III-5B shows the distribution of claim counts and incurred losses (not developed or trended) by type of benefit.

**Table III-5B
Loss Distribution by Type of Benefit
(2008/09 through 2017/18)**

Year (1)	Claim Counts		Incurred Losses	
	Count (2)	% (3)	Loss (4)	% (5)
(A) Medical Only	2,632	43.8%	\$2,894,930	1.7%
(B) Claims with Indemnity				
(i) Indemnity			102,232,668	59.3%
(ii) Medical			53,253,971	30.9%
(iii) <u>Expense</u>			<u>14,112,155</u>	<u>8.2%</u>
(iv) Subtotal	3,377	56.2%	169,598,794	98.3%
(C) Total (A)+(Biv)	6,009	100%	\$172,493,723	100%

Note: See Exhibit WC-17.

About 44% of the claims reported are Medical Only claims and represent about 2% of the incurred amounts. For the Claims with Indemnity, Indemnity benefits are 59.3%, Medical 30.9%, and expense 8.2% 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.



CITY OF OAKLAND
WORKERS' COMPENSATION

Exhibit WC-1 (page 1)

Data Summary as of June 30, 2018
Losses Limited to Self-Insured Retention

Claim Period (1)	Specific Self-insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/18 (4)	Payroll (000) (5)	Reported Claims 6/30/18 (6)	Open Claims 6/30/18 (7)	Limited Paid Losses 6/30/18 (8)	Limited Case Reserves 6/30/18 (9)	Limited Reported Incurred Losses 6/30/18 (10)
to 1998/99	Unlimited	None	240.0	Not Provided	23,729	135	\$188,968,060	\$5,167,879	\$194,135,939
1999/00	Unlimited	None	228.0	256,973	1,068	14	13,821,474	1,008,613	14,830,087
2000/01	Unlimited	None	216.0	273,627	1,109	21	18,957,857	1,035,670	19,993,527
2001/02	Unlimited	None	204.0	293,519	1,013	18	21,805,028	697,123	22,502,151
2002/03	Unlimited	None	192.0	305,541	923	24	21,332,283	937,823	22,270,105
2003/04	Unlimited	None	180.0	307,406	773	27	20,565,875	1,182,462	21,748,337
2004/05	1,000,000	None	168.0	315,491	675	22	16,702,163	1,553,941	18,256,104
2005/06	1,000,000	None	156.0	326,085	748	23	15,878,467	1,831,478	17,709,945
2006/07	1,000,000	None	144.0	354,814	703	14	14,543,823	391,011	14,934,834
2007/08	1,000,000	None	132.0	370,278	704	22	13,968,327	1,375,200	15,343,527
2008/09	750,000	None	120.0	377,769	678	27	16,537,574	948,610	17,486,184
2009/10	750,000	None	108.0	338,407	646	41	16,639,971	1,524,650	18,164,622
2010/11	750,000	None	96.0	338,298	650	52	19,410,249	1,907,262	21,317,510
2011/12	750,000	None	84.0	348,514	637	59	18,803,879	2,428,708	21,232,587
2012/13	750,000	None	72.0	355,748	569	72	13,341,864	3,679,025	17,020,889
2013/14	750,000	None	60.0	373,451	621	76	13,379,386	3,494,930	16,874,316
2014/15	750,000	None	48.0	364,737	559	84	9,489,220	3,982,251	13,471,471
2015/16	750,000	None	36.0	390,571	610	120	11,275,973	5,600,430	16,876,403
2016/17	750,000	None	24.0	Not Provided	543	137	8,138,994	6,028,459	14,167,452
2017/18	750,000	None	12.0	413,589	496	202	2,556,771	3,468,105	6,024,877
Total					37,454	1,190	\$476,117,238	\$48,243,629	\$524,360,868

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

Effective Date	Retention
Prior	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, 2018
Net Unlimited Losses

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/18 (4)	Payroll (000) (5)	Reported Claims 6/30/18 (6)	Open Claims 6/30/18 (7)	Net Unlimited Paid Losses 6/30/18 (8)	Net Unlimited Case Reserves 6/30/18 (9)	Net Unlimited Reported Incurred Losses 6/30/18 (10)
to 1998/99	Unlimited	None	240.0	Not Provided	23,729	135	\$188,968,060	\$5,167,879	\$194,135,939
1999/00	Unlimited	None	228.0	256,973	1,068	14	13,821,474	1,008,613	14,830,087
2000/01	Unlimited	None	216.0	273,627	1,109	21	18,957,857	1,035,670	19,993,527
2001/02	Unlimited	None	204.0	293,519	1,013	18	21,805,028	697,123	22,502,151
2002/03	Unlimited	None	192.0	305,541	923	24	21,332,283	937,823	22,270,105
2003/04	Unlimited	None	180.0	307,406	773	27	20,565,875	1,182,462	21,748,337
2004/05	Unlimited	None	188.0	315,491	675	22	16,702,163	2,267,410	18,969,573
2005/06	Unlimited	None	156.0	326,085	748	23	17,244,905	1,831,478	19,076,383
2006/07	Unlimited	None	144.0	354,814	703	14	14,543,823	391,011	14,934,834
2007/08	Unlimited	None	132.0	370,278	704	22	14,462,354	2,049,014	16,511,368
2008/09	Unlimited	None	120.0	377,769	678	27	19,506,054	977,745	20,483,799
2009/10	Unlimited	None	108.0	338,407	646	41	16,639,971	1,524,650	18,164,622
2010/11	Unlimited	None	96.0	338,298	650	52	19,696,117	2,418,709	22,114,826
2011/12	Unlimited	None	84.0	348,514	637	59	18,803,879	2,428,708	21,232,587
2012/13	Unlimited	None	72.0	355,748	569	72	13,341,864	3,679,025	17,020,889
2013/14	Unlimited	None	60.0	373,451	621	76	13,437,163	5,640,290	19,077,453
2014/15	Unlimited	None	48.0	364,737	559	84	9,489,220	3,982,251	13,471,471
2015/16	Unlimited	None	36.0	390,571	610	120	11,275,973	5,913,447	17,189,420
2016/17	Unlimited	None	24.0	Not Provided	543	137	8,870,764	8,075,289	16,946,053
2017/18	Unlimited	None	12.0	413,589	496	202	2,556,771	3,468,105	6,024,877
Total					37,454	1,190	\$482,021,600	\$54,676,701	\$536,698,301

(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, 2018
Gross Unlimited Losses

Claim Period (1)	Specific Self-Insured Retention (2)	Aggregate Retention (3)	Months of Development 6/30/18 (4)	Payroll (000) (5)	Reported Claims 6/30/18 (6)	Open Claims 6/30/18 (7)	Gross Unlimited Paid Losses 6/30/18 (8)	Gross Unlimited Case Reserves 6/30/18 (9)	Gross Unlimited Reported Incurred Losses 6/30/18 (10)
to 1998/99	Unlimited	None	240.0	Not Provided	23,729	135	\$189,042,787	\$5,170,981	\$194,213,768
1999/00	Unlimited	None	228.0	256,973	1,068	14	14,055,589	1,008,613	15,064,202
2000/01	Unlimited	None	216.0	273,627	1,109	21	19,054,333	1,035,670	20,090,003
2001/02	Unlimited	None	204.0	293,519	1,013	18	21,985,006	697,123	22,682,129
2002/03	Unlimited	None	192.0	305,541	923	24	21,447,593	937,823	22,385,416
2003/04	Unlimited	None	180.0	307,406	773	27	21,141,166	1,182,462	22,323,628
2004/05	Unlimited	None	168.0	315,491	675	22	16,871,987	2,267,410	19,139,397
2005/06	Unlimited	None	156.0	326,085	748	23	17,348,737	1,831,478	19,180,214
2006/07	Unlimited	None	144.0	354,814	703	14	14,663,540	391,011	15,054,551
2007/08	Unlimited	None	132.0	370,278	704	22	14,645,487	2,049,014	16,694,501
2008/09	Unlimited	None	120.0	377,769	678	27	19,779,705	977,745	20,757,450
2009/10	Unlimited	None	108.0	338,407	646	41	16,925,864	1,524,650	18,450,514
2010/11	Unlimited	None	96.0	338,298	650	52	19,724,984	2,418,709	22,143,693
2011/12	Unlimited	None	84.0	348,514	637	59	18,917,582	2,428,708	21,346,290
2012/13	Unlimited	None	72.0	355,748	569	72	13,343,580	3,679,025	17,022,605
2013/14	Unlimited	None	60.0	373,451	621	76	13,445,063	5,640,290	19,085,353
2014/15	Unlimited	None	48.0	364,737	559	84	9,496,448	3,982,251	13,478,698
2015/16	Unlimited	None	36.0	390,571	610	120	11,309,221	5,913,838	17,223,058
2016/17	Unlimited	None	24.0	Not Provided	543	137	8,883,985	8,075,289	16,959,274
2017/18	Unlimited	None	12.0	413,589	496	202	2,558,682	3,468,105	6,026,787
Total					37,454	1,190	\$484,641,338	\$54,680,194	\$539,321,532

(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%	98.8%	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%	96.6%	100.0%
132.0	85.5%	95.8%	100.0%
120.0	84.0%	94.9%	100.0%
108.0	82.2%	93.5%	100.0%
96.0	80.4%	91.7%	100.0%
84.0	78.0%	89.6%	100.0%
72.0	75.0%	87.2%	100.0%
60.0	71.1%	84.7%	100.0%
48.0	65.8%	82.1%	99.9%
36.0	54.9%	75.3%	99.5%
24.0	37.8%	65.8%	99.0%
12.0	14.6%	38.1%	93.4%

(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.

CITY OF OAKLAND
WORKERS' COMPENSATION

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 1998/99																				
1999/00									12,690	12,925	13,044	13,155	13,223	13,310	13,517	13,611	13,667	13,769	13,821	
2000/01								17,498	17,835	18,095	18,243	18,384	18,520	18,608	18,688	18,771	18,875	18,958		
2001/02							18,378	18,963	19,678	20,043	20,442	20,700	20,923	21,071	21,610	21,692	21,805			
2002/03								16,745	17,702	18,322	18,692	19,444	19,819	20,358	20,586	20,776	21,141	21,332		
2003/04					15,966	16,776	17,253	18,274	18,603	19,046	19,578	19,834	20,116	20,222	20,596					
2004/05				11,109	12,288	13,255	14,081	14,562	15,529	15,627	15,961	16,191	16,539	16,702						
2005/06			9,239	10,733	11,925	12,719	13,209	13,887	14,276	15,170	15,448	15,742	15,878							
2006/07		7,705	10,428	12,123	12,969	13,467	13,788	14,031	14,145	14,375	14,459	14,544								
2007/08	3,274	6,798	9,061	10,643	11,516	12,147	12,652	13,281	13,573	13,800	13,968									
2008/09	3,500	8,732	11,787	13,716	14,403	14,980	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											
2010/11	4,875	10,288	13,545	16,083	17,050	18,197	18,956	19,410												
2011/12	2,977	10,326	14,196	16,388	17,323	18,141	18,804													
2012/13	2,401	6,100	8,993	10,823	12,447	13,342														
2013/14	2,368	6,551	9,474	11,631	13,379															
2014/15	2,240	5,593		9,489																
2015/16	2,798	7,556	11,276																	
2016/17	3,866	8,139																		
2017/18	2,557																			

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 1998/99																				
1999/00								1.018	1.009	1.009	1.005	1.007	1.016	1.007	1.006	1.006	1.004	1.004		
2000/01							1.019	1.015	1.008	1.008	1.007	1.005	1.007	1.004	1.004	1.004	1.004			
2001/02							1.032	1.038	1.019	1.020	1.013	1.011	1.007	1.026	1.004	1.005				
2002/03						1.057	1.035	1.020	1.040	1.019	1.027	1.011	1.009	1.018	1.009					
2003/04					1.051	1.028	1.059	1.018	1.024	1.028	1.013	1.014	1.005	1.017						
2004/05				1.106	1.079	1.062	1.034	1.066	1.006	1.021	1.014	1.021	1.010							
2005/06			1.162	1.111	1.067	1.039	1.051	1.028	1.063	1.018	1.019	1.009								
2006/07		1.353	1.163	1.070	1.038	1.024	1.018	1.008	1.016	1.006	1.006									
2007/08	2.077	1.333	1.175	1.082	1.055	1.042	1.049	1.022	1.017	1.012										
2008/09	2.495	1.350	1.164	1.050	1.039	1.038	1.016	1.012	1.036											
2009/10	2.327	1.333	1.139	1.100	1.039	1.025	1.031	1.006												
2010/11	2.068	1.317	1.187	1.060	1.067	1.042	1.024													
2011/12	3.469	1.375	1.154	1.057	1.047	1.037														
2012/13	2.541	1.474	1.203	1.150	1.072															
2013/14	2.767	1.446	1.228	1.150																
2014/15	2.497	1.434	1.183																	
2015/16	2.700	1.492																		
2016/17	2.105																			
2017/18																				
Average																				
All	2.505	1.391	1.176	1.094	1.055	1.039	1.035	1.024	1.025	1.016	1.014	1.011	1.007	1.016	1.006	1.005	1.005	1.004		
Wtd 3	2.391	1.460	1.206	1.111	1.061	1.035	1.024	1.013	1.024	1.012	1.013	1.015	1.008	1.020	1.006	1.005				
Last 3	2.434	1.458	1.205	1.119	1.062	1.034	1.024	1.013	1.023	1.012	1.013	1.015	1.008	1.020	1.006	1.005				
Last 5	2.578	1.451	1.191	1.103	1.051	1.038	1.024	1.014	1.023	1.017	1.016	1.012	1.007	1.017						
x-hi,low																				
Similar	2.789	1.547	1.265	1.151	1.096	1.068	1.051	1.041	1.035	1.029	1.022	1.017	1.016	1.014	1.012	1.012	1.011	1.010	1.091	
Previous	2.600	1.430	1.200	1.070	1.050	1.039	1.035	1.022	1.022	1.020	1.016	1.013	1.010	1.008	1.006	1.005	1.005	1.005	1.005	1.085
Selected	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	1.005	1.085
Cumulative	6.870	2.642	1.822	1.519	1.406	1.333	1.283	1.243	1.216	1.190	1.169	1.152	1.137	1.126	1.115	1.108	1.101	1.096	1.090	1.085
Percent	14.6%	37.8%	54.9%	65.8%	71.1%	75.0%	78.0%	80.4%	82.2%	84.0%	85.5%	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.

CITY OF OAKLAND
WORKERS' COMPENSATION

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 1998/99																				
1999/00									13,576	13,471	13,373	13,488	13,611	13,759	14,566	14,633	14,718	14,769	14,830	
2000/01								18,966	18,601	18,712	18,863	19,194	19,105	19,327	19,398	19,807	19,809	19,994		
2001/02							21,104	20,917	20,801	21,140	21,284	21,293	22,321	22,725	22,804	22,597	22,502			
2002/03						19,806	19,717	20,191	20,328	20,637	20,663	21,445	21,641	21,899	22,125	22,270				
2003/04					18,973	18,991	19,153	19,790	20,472	20,531	21,219	21,397	21,568	21,443	21,748					
2004/05				14,940	14,840	16,266	16,963	17,540	18,362	18,405	18,550	18,705	18,629	18,256						
2005/06			13,636	13,940	14,760	15,366	15,996	16,186	16,806	17,020	17,344	17,151	17,710							
2006/07		12,182	13,503	14,335	14,489	14,947	14,660	14,772	14,904	15,252	15,052	14,835								
2007/08	8,126	10,793	12,889	14,268	14,228	14,126	14,723	15,079	15,248	15,205	15,344									
2008/09	7,312	13,225	16,845	17,497	17,101	17,372	17,328	18,010	18,072	17,486										
2009/10	8,727	15,621	17,474	17,349	17,587	17,768	18,240	18,186	18,165											
2010/11	11,395	17,821	18,656	20,235	20,504	21,515	21,356	21,318												
2011/12	9,353	17,335	19,494	21,503	22,187	21,892	21,233													
2012/13	5,495	10,353	13,970	17,381	18,481	17,021														
2013/14	5,431	11,242	16,389	16,585	16,874															
2014/15	6,785	11,750	12,680	13,471																
2015/16	10,563	14,796	16,876																	
2016/17	8,774	14,167																		
2017/18	6,025																			

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 1998/99																				
1999/00								0.992	0.993	1.009	1.009	1.011	1.059	1.005	1.006	1.003	1.003	1.004		
2000/01							0.981	0.981	1.006	1.008	1.018	0.995	1.012	1.004	1.021	1.000	1.009			
2001/02							0.994	0.994	1.016	1.007	1.000	1.048	1.018	1.003	0.991	0.998				
2002/03						0.996	1.024	1.007	1.015	1.001	1.038	1.009	1.017	1.006	1.007					
2003/04					1.001	1.009	1.033	1.034	1.003	1.034	1.008	1.008	0.994	1.014						
2004/05				1.000	1.089	1.043	1.034	1.047	1.002	1.008	1.008	0.996	0.980							
2005/06			1.022	1.059	1.041	1.041	1.012	1.038	1.013	1.019	0.989	1.033								
2006/07		1.108	1.062	1.011	1.032	0.981	1.008	1.009	1.023	0.987	0.992									
2007/08	1.328	1.194	1.107	0.997	0.993	1.042	1.024	1.011	0.997	1.009										
2008/09	1.809	1.274	1.039	0.977	1.016	0.997	1.039	1.003	0.998											
2009/10	1.790	1.119	0.993	1.014	1.010	1.027	0.997	0.999												
2010/11	1.564	1.047	1.085	1.013	1.049	0.993	0.998													
2011/12	1.853	1.125	1.103	1.031	0.965	0.993														
2012/13	1.884	1.349	1.244	0.947	1.034															
2013/14	2.070	1.458	1.012	1.017																
2014/15	1.732	1.079	1.062																	
2015/16	1.398	1.143																		
2016/17	1.615																			
2017/18																				
Average																				
All	1.704	1.190	1.073	1.007	1.023	1.012	1.016	1.012	1.004	1.007	1.008	1.014	1.005	1.017	1.008	1.001	1.006	1.004		
Wtd 3	1.557	1.217	1.102	1.001	1.013	1.003	1.010	1.004	0.994	1.006	0.997	1.011	0.998	1.008	1.005	1.000				
Last 3	1.581	1.227	1.108	0.998	1.016	1.004	1.012	1.004	0.996	1.005	0.996	1.012	0.997	1.008	1.006	1.001				
Last 5	1.744	1.206	1.083	1.015	1.020	1.006	1.010	1.008	1.004	1.012	1.003	1.017	1.007	1.008						
x-hi,low																				
Similar	1.713	1.200	1.105	1.067	1.046	1.028	1.024	1.016	1.017	1.010	1.009	1.007	1.006	1.005	1.003	1.004	1.003	0.999	1.037	
Previous	1.750	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	1.005
Selected	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	1.005
Cumulative	2.623	1.521	1.328	1.218	1.181	1.146	1.116	1.091	1.070	1.054	1.043	1.035	1.028	1.022	1.018	1.015	1.012	1.009	1.007	1.005
Percent	38.1%	65.8%	75.3%	82.1%	84.7%	87.2%	89.6%	91.7%	93.5%	94.9%	95.8%	96.6%	97.3%	97.8%	98.2%	98.6%	98.8%	99.1%	99.3%	99.5%

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

Data was provided by the City.

CITY OF OAKLAND
WORKERS' COMPENSATION
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 1998/99																					
1999/00									1,068	1,068	1,068	1,067	1,067	1,068	1,067	1,068	1,068	1,068	1,068	1,068	1,068
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	1,109
2001/02							1,009	1,010	1,012	1,006	1,006	1,013	1,006	1,013	1,006	1,013	1,013	1,013	1,013	1,013	1,013
2002/03								918	918	920	918	919	922	919	922	922	923	923	923	923	923
2003/04					771	771	771	767	769	774	769	774	773	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	675	675
2005/06			740	742	747	740	740	748	740	748	749	749	748	748	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	703	703
2007/08	669	702	702	694	684	702	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	678	678
2009/10	605	615	618	642	619	642	619	642	642	645	645	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	650	650
2011/12	548	629	593	636	636	637	637	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	569	569
2013/14	587	618	620	621	621	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	559	559
2015/16	571	607	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610
2016/17	525	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
2017/18	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496	496

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 1998/99																					
1999/00									1.000	1.000	0.999	1.000	1.001	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000
2000/01							1.001	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	1.000
2001/02						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	1.000	1.000
2002/03					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	1.000	1.000
2003/04				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	1.000	1.000
2004/05			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	1.000	1.000
2005/06		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	1.000	1.000
2006/07		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	1.000
2007/08	1.058	0.997	1.001	1.006	0.996	1.006	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	1.000
2008/09	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	1.000	1.000
2009/10	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	1.000	1.000
2010/11	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	1.000	1.000
2011/12	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	1.000	1.000
2012/13	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	1.000	1.000
2013/14	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	1.000	1.000
2014/15	1.063	1.005	1.005	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	1.000	1.000
2015/16	1.034	1.004	1.004	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	1.000	1.000
2016/17	1.034	1.004	1.004	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	1.000	1.000
2017/18	1.034	1.004	1.004	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	1.000	1.000
Average																					
All	1.063	1.002	1.009	1.002	1.004	1.000	1.002	1.000	1.001	1.000	1.001	0.999	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Wtd 3	1.050	1.004	1.004	1.001	1.001	1.000	1.002	1.001	1.000	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Last 3	1.050	1.004	1.004	1.001	1.001	1.000	1.002	1.001	1.000	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Last 5	1.058	1.004	1.004	1.001	1.001	1.000	1.002	1.001	1.000	1.001	1.000	0.999	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	1.000	1.000
Previous	1.085	1.005	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	1.000	1.000	1.000	1.000	1.000	1.000
Selected	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	1.000	1.000
Cumulative	1.071	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	1.000	1.000
Percent	93.4%	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%	100.0%	100.0%

Data was provided by the City.

CITY OF OAKLAND
WORKERS' COMPENSATION
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 1998/99																					
1998/00									93.5%	95.8%	97.5%	97.5%	97.1%	96.7%	92.8%	93.0%	93.0%	93.2%	93.2%		
2000/01									92.3%	95.9%	96.7%	96.7%	95.8%	96.9%	96.3%	96.3%	94.8%	95.3%	94.8%		
2001/02							87.1%	90.7%	94.6%	94.8%	96.0%	97.2%	93.7%	92.7%	94.8%	96.0%	96.9%				
2002/03								88.8%	90.7%	92.0%	94.2%	95.9%	94.9%	95.1%	94.4%	95.5%	95.8%				
2003/04					84.1%	84.5%	88.8%	90.7%	92.3%	90.9%	92.8%	92.3%	92.7%	93.3%	94.3%	94.6%					
2004/05				74.4%	82.2%	81.5%	83.0%	83.0%	84.6%	84.9%	86.0%	86.6%	88.6%	91.5%							
2005/06			67.8%	77.0%	80.8%	82.8%	82.6%	85.8%	84.9%	89.1%	89.1%	91.8%	89.7%								
2006/07		63.2%	77.2%	84.6%	88.5%	90.1%	94.1%	95.0%	94.9%	94.3%	96.1%	97.4%									
2007/08	40.3%	63.0%	70.3%	74.6%	80.9%	86.0%	86.0%	88.1%	89.0%	90.8%	91.0%										
2008/09	47.8%	66.0%	70.0%	78.4%	84.2%	86.1%	89.6%	87.6%	88.3%												
2009/10	44.4%	57.8%	68.8%	79.0%	85.7%	88.1%	87.8%	90.9%	91.6%												
2010/11	43.7%	57.7%	72.6%	79.5%	83.2%	84.6%	88.8%	91.1%													
2011/12	31.8%	59.6%	72.8%	76.2%	78.1%	84.8%	88.6%														
2012/13	43.7%	58.9%	84.4%	62.3%	75.6%	78.4%															
2013/14	43.6%	58.3%	57.8%	70.1%	79.3%																
2014/15	33.0%	47.6%	63.3%	70.4%																	
2015/16	26.5%	51.2%	66.8%																		
2016/17	44.1%	57.4%																			
2017/18	42.4%																				
Average																					
All	40.1%	58.2%	68.3%	75.1%	82.2%	85.0%	87.9%	89.8%	90.9%	92.8%	93.4%	94.2%	93.5%	94.3%	94.8%	94.9%	95.1%	94.0%	93.2%		
Last 3	37.7%	52.1%	62.6%	67.6%	77.7%	82.6%	88.4%	89.9%	89.6%	93.2%	92.1%	91.9%	90.6%	93.4%	95.0%	95.5%	95.1%				
Last 5	39.7%	55.6%	64.8%	72.3%	80.2%	85.2%	88.4%	90.0%	89.6%	91.4%	90.8%	93.1%	92.2%	93.8%	95.0%						
x-hi,low																					
Implicit	38.2%	57.5%	72.9%	80.2%	84.0%	86.0%	87.0%	87.8%	87.9%	88.6%	89.3%	89.9%	90.4%	90.8%	91.4%	91.6%	91.9%	92.1%	92.4%	92.4%	92.6%

Developed Limited Paid Losses

Claim Period (1)	Months of Development 6/30/18 (2)	Limited Paid Losses 6/30/18 (3)	Percent Losses Paid (4)	Developed Limited Paid Losses (3)/(4) (5)
to 1998/99	Various	\$188,968,060	97.5%	\$193,826,301
1999/00	228.0	13,821,474	91.7%	15,071,281
2000/01	216.0	18,957,857	91.3%	20,775,482
2001/02	204.0	21,805,028	90.8%	24,015,110
2002/03	192.0	21,332,283	90.3%	23,635,415
2003/04	180.0	20,565,875	89.7%	22,922,980
2004/05	168.0	16,702,163	88.8%	18,802,603
2005/06	156.0	15,878,467	87.9%	17,917,058 *
2006/07	144.0	14,543,823	86.8%	16,751,537
2007/08	132.0	13,968,327	85.5%	16,160,938 *
2008/09	120.0	16,537,574	84.0%	19,482,613 *
2009/10	108.0	16,639,971	82.2%	20,216,864 *
2010/11	96.0	19,410,249	80.4%	23,945,787 *
2011/12	84.0	18,803,879	78.0%	24,122,306
2012/13	72.0	13,341,864	75.0%	17,782,935
2013/14	60.0	13,379,386	71.1%	18,509,127 *
2014/15	48.0	9,489,220	65.8%	14,410,985
2015/16	36.0	11,275,973	54.9%	20,509,521 *
2016/17	24.0	8,138,994	37.8%	20,275,299 *
2017/18	12.0	2,556,771	14.6%	17,566,192
Total		\$476,117,238		\$566,700,334

* - 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 6/30/18 (2)	Limited Reported Incurred Losses 6/30/18 (3)	Percent Losses Reported (4)	Developed Limited Reported Incurred Losses (3)/(4) (5)
to 1998/99	Various	\$194,135,939	99.9%	\$194,234,364
1999/00	228.0	14,830,087	99.3%	14,939,215
2000/01	216.0	19,993,527	99.1%	20,180,931
2001/02	204.0	22,502,151	98.8%	22,769,251
2002/03	192.0	22,270,105	98.6%	22,594,914
2003/04	180.0	21,748,337	98.2%	22,144,695
2004/05	168.0	18,256,104	97.8%	18,642,778 *
2005/06	156.0	17,709,945	97.3%	18,176,839 *
2006/07	144.0	14,934,834	96.6%	15,459,595
2007/08	132.0	15,343,527	95.8%	15,922,873 *
2008/09	120.0	17,486,184	94.9%	18,366,016 *
2009/10	108.0	18,164,622	93.5%	19,429,965
2010/11	96.0	21,317,510	91.7%	23,121,953 *
2011/12	84.0	21,232,587	89.6%	23,698,692
2012/13	72.0	17,020,889	87.2%	19,510,758
2013/14	60.0	16,874,316	84.7%	19,787,522 *
2014/15	48.0	13,471,471	82.1%	16,414,356
2015/16	36.0	16,876,403	75.3%	22,088,534 *
2016/17	24.0	14,167,452	65.8%	21,153,791 *
2017/18	12.0	6,024,877	38.1%	15,804,402
Total		\$524,360,868		\$564,441,442

* - 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.

CITY OF OAKLAND
WORKERS' COMPENSATION
Developed Limited Case Reserves

Claim Period (1)	Months of Development 6/30/18 (2)	Percent Losses Paid (3)	Percent Losses Reported (4)	Percent Losses Reserved 6/30/18 [(4)-(3)]/ [100.0%-(3)] (5)	Limited Paid Losses 6/30/18 (6)	Limited Case Reserves 6/30/18 (7)	Developed Limited Case Reserves (6)+(7)/(5) (8)
to 1998/99	Various	97.5%	99.9%	99.2%	\$188,968,060	\$5,167,879	\$194,179,451
1999/00	228.0	91.7%	99.3%	91.2%	13,821,474	1,008,613	14,927,516
2000/01	216.0	91.3%	99.1%	89.4%	18,957,857	1,035,670	20,116,508
2001/02	204.0	90.8%	98.8%	87.3%	21,805,028	697,123	22,603,994
2002/03	192.0	90.3%	98.6%	85.2%	21,332,283	937,823	22,432,398
2003/04	180.0	89.7%	98.2%	82.6%	20,565,875	1,182,462	21,997,539
2004/05	168.0	88.8%	97.8%	80.4%	16,702,163	1,553,941	18,558,002 *
2005/06	156.0	87.9%	97.3%	77.4%	15,878,467	1,831,478	18,243,386
2006/07	144.0	86.8%	96.6%	74.2%	14,543,823	391,011	15,070,478
2007/08	132.0	85.5%	95.8%	71.2%	13,968,327	1,375,200	15,777,116 *
2008/09	120.0	84.0%	94.9%	68.0%	16,537,574	948,610	17,924,738 *
2009/10	108.0	82.2%	93.5%	63.4%	16,639,971	1,524,650	19,045,547
2010/11	96.0	80.4%	91.7%	57.3%	19,410,249	1,907,262	22,613,554 *
2011/12	84.0	78.0%	89.6%	52.8%	18,803,879	2,428,708	23,403,522
2012/13	72.0	75.0%	87.2%	48.9%	13,341,864	3,679,025	20,865,382
2013/14	60.0	71.1%	84.7%	47.0%	13,379,386	3,494,930	20,811,762
2014/15	48.0	65.8%	82.1%	47.5%	9,489,220	3,982,251	17,872,115
2015/16	36.0	54.9%	75.3%	45.3%	11,275,973	5,600,430	22,879,345 *
2016/17	24.0	37.8%	65.8%	44.9%	8,138,994	6,028,459	21,561,551
2017/18	12.0	14.6%	38.1%	27.6%	2,556,771	3,468,105	15,131,094
Total					\$476,117,238	\$48,243,629	\$566,014,998

* - 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 2017/18

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 1998/99	\$193,826,301	\$194,234,364	\$194,179,451	\$194,652,727
1999/00	15,071,281	14,939,215	14,927,516	14,930,949
2000/01	20,775,482	20,180,931	20,116,508	20,116,508
2001/02	24,015,110	22,769,251	22,603,994	22,603,994
2002/03	23,635,415	22,594,914	22,432,398	22,432,398
2003/04	22,922,980	22,144,695	21,997,539	21,997,539
2004/05	18,802,603	18,642,778	18,558,002	18,558,002
2005/06	17,917,058	18,176,839	18,243,386	18,243,386
2006/07	16,751,537	15,459,595	15,070,478	15,070,478
2007/08	16,160,938	15,922,873	15,777,116	15,777,116
2008/09	19,482,613	18,366,016	17,924,738	17,924,738
2009/10	20,216,864	19,429,965	19,045,547	19,045,547
2010/11	23,945,787	23,121,953	22,613,554	22,664,394
2011/12	24,122,306	23,698,692	23,403,522	23,462,556
2012/13	17,782,935	19,510,758	20,865,382	20,458,995
2013/14	18,609,127	19,787,522	20,811,762	20,402,066
2014/15	14,410,985	16,414,356	17,872,115	16,942,898
2015/16	20,509,521	22,088,534	22,879,345	22,089,056
2016/17	20,275,299	21,153,791	21,561,551	21,141,197
2017/18	17,566,192	15,804,402	15,131,094	15,711,258
Total	\$566,700,334	\$564,441,442	\$566,014,998	\$564,225,800

(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 (2018/19 = 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)
2008/09	\$17,924,738	\$377,769	\$4.74	1.133	\$5.38	\$5.28
2009/10	19,045,547	338,407	5.63	1.122	6.31	5.33
2010/11	22,664,394	338,298	6.70	1.110	7.44	5.39
2011/12	23,462,556	348,514	6.73	1.098	7.39	5.44
2012/13	20,458,995	355,748	5.75	1.108	6.37	5.40
2013/14	20,402,066	373,451	5.46	1.087	5.94	5.50
2014/15	16,942,898	364,737	4.65	1.045	4.85	5.72
2015/16	22,089,058	390,571	5.66	1.031	5.83	5.80
2016/17	21,141,197	401,986	5.26	1.020	5.36	5.86
2017/18	15,711,258	413,589	3.80	1.010	3.84	5.92
(7) Projected 2018/19 a-priori loss rate per \$100 of Payroll						\$5.98

II. Bornhuetter - Ferguson Analysis Based on Limited Paid Losses

Claim Period (1)	Limited Paid Losses 6/30/18 (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)
2013/14	\$13,379,386	71.1%	\$5.50	\$373,451	\$5,931,443	\$19,310,829
2014/15	9,489,220	65.8%	5.72	364,737	7,128,216	16,617,437
2015/16	11,275,973	54.9%	5.80	390,571	10,219,933	21,495,906
2016/17	8,138,994	37.8%	5.86	401,986	14,647,504	22,786,497
2017/18	2,556,771	14.6%	5.92	413,589	20,918,570	23,475,342

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

Claim Period (1)	Limited Reported Incurred Losses 6/30/18 (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)
2013/14	\$16,874,316	84.7%	\$5.50	\$373,451	\$3,142,298	\$20,016,613
2014/15	13,471,471	82.1%	5.72	364,737	3,741,994	17,213,465
2015/16	16,876,403	75.3%	5.80	390,571	5,594,962	22,471,365
2016/17	14,167,452	65.8%	5.86	401,986	8,068,886	22,236,339
2017/18	6,024,877	38.1%	5.92	413,589	15,149,050	21,173,927

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 6/30/18 (2)	Reported Claims 6/30/18 (3)	Percent Claims Reported (4)	Projected Ultimate Claims (3)/(4) (5)	Payroll (000) (6)	Frequency (per \$1M of Payroll) (5)/(6)X1,000 (7)
2008/09	120.0	678	100.0%	678	\$377,769	1.79
2009/10	108.0	646	100.0%	646	338,407	1.91
2010/11	96.0	650	100.0%	650	338,298	1.92
2011/12	84.0	637	100.0%	637	348,514	1.83
2012/13	72.0	569	100.0%	569	355,748	1.60
2013/14	60.0	621	100.0%	621	373,451	1.66
2014/15	48.0	559	99.9%	560	364,737	1.54
2015/16	36.0	610	99.5%	613	390,571	1.57
2016/17	24.0	543	99.0%	548	401,986	1.36
2017/18	12.0	496	93.4%	531	413,589	1.28

II. Frequency Times Severity

Claim Period (1)	Preliminary Projected Ultimate Limited Losses (2)	Projected Ultimate Claims (3)	Average Severity (2)/(3) (4)	Severity Trend (2018/19 = 1,000) (5)	Trended Average Claim Severity (4)X(5) (6)	De-Trended Projected 2018/19 Average Claim Severity (7)/(5) (8)	Frequency Times Severity (3)X(8) (9)
2008/09	\$17,924,738	678	\$26,438	1.523	\$40,266	\$27,954	\$18,952,731
2009/10	19,045,547	646	29,482	1.463	43,142	29,095	18,795,294
2010/11	22,664,394	650	34,868	1.406	49,022	30,283	19,683,700
2011/12	23,462,556	637	36,833	1.351	49,754	31,519	20,077,420
2012/13	20,458,995	569	35,956	1.323	47,563	32,185	18,313,522
2013/14	20,402,066	621	32,854	1.260	41,411	33,777	20,975,794
2014/15	16,942,898	560	30,255	1.176	35,577	36,206	20,275,595
2015/16	22,089,056	613	36,034	1.127	40,599	37,788	23,164,153
2016/17	21,141,197	548	38,579	1.082	41,740	39,350	21,564,056
2017/18	15,711,258	531	29,588	1.040	30,780	40,926	21,731,705
					(7) Projected 2018/19 average claim severity	\$42,575	

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 2017/18

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 Losses (8)
to 1998/99	\$193,826,301	\$194,234,364	\$194,179,451				\$194,653,000
1999/00	15,071,281	14,939,215	14,927,516				14,931,000
2000/01	20,775,482	20,180,931	20,116,508				20,117,000
2001/02	24,015,110	22,769,251	22,603,994				22,604,000
2002/03	23,635,415	22,594,914	22,432,398				22,432,000
2003/04	22,922,980	22,144,695	21,997,539				21,998,000
2004/05	18,802,603	18,642,778	18,558,002				18,558,000
2005/06	17,917,058	18,176,839	18,243,386				18,243,000
2006/07	16,751,537	15,459,595	15,070,478				15,070,000
2007/08	16,160,938	15,922,873	15,777,116				15,777,000
2008/09	19,482,613	18,366,016	17,924,738				17,925,000
2009/10	20,216,864	19,429,965	19,045,547				19,046,000
2010/11	23,945,787	23,121,953	22,613,554				22,664,000
2011/12	24,122,306	23,698,692	23,403,522				23,463,000
2012/13	17,782,935	19,510,758	20,865,382				20,459,000
2013/14	18,509,127	19,787,522	20,811,762	19,310,829	20,016,613	20,975,794	20,402,000
2014/15	14,410,985	16,414,356	17,872,115	16,617,437	17,213,465	20,275,595	16,943,000
2015/16	20,509,521	22,088,534	22,879,345	21,495,906	22,471,365	23,164,153	22,089,000
2016/17	20,275,299	21,153,791	21,561,551	22,786,497	22,236,339	21,564,056	21,552,000
2017/18	17,566,192	15,804,402	15,131,094	23,475,342	21,173,927	21,731,705	19,644,000

(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 2018/19 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 (2018/19 = 1.000) (5)	Trended Limited Loss Rate per \$100 of Payroll (4)X(5) (6)
2008/09	\$17,925,000	\$377,769	\$4.74	1.133	\$5.38
2009/10	19,046,000	338,407	5.63	1.122	6.31
2010/11	22,664,000	338,298	6.70	1.110	7.44
2011/12	23,463,000	348,514	6.73	1.098	7.39
2012/13	20,459,000	355,748	5.75	1.108	6.37
2013/14	20,402,000	373,451	5.46	1.087	5.94
2014/15	16,943,000	364,737	4.65	1.045	4.85
2015/16	22,089,000	390,571	5.66	1.031	5.83
2016/17	21,552,000	401,986	5.36	1.020	5.47
2017/18	19,644,000	413,589	4.75	1.010	4.80
Total	\$204,187,000	\$3,703,070	\$5.51		\$5.98

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)
2018/19	\$6.04	\$417,725	\$25,231,000	0.89	\$5.36	\$22,389,000
2019/20	6.10	421,902	25,738,000	0.89	5.41	22,839,000

(2) is from Exhibit WC-9.

(3) 2008/09, 2009/10, 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16 and 2017/18 were provided by the City. Other periods assume a 1% trend.

(5) is from Exhibit WC-14.

(7) 2018/19 is based on (6) and actuarial judgment.
Other period(s) based on 2018/19 plus the trend in Exhibit WC-14.

(8) is based on (3) for 2017/18 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, 2018

Claim Period (1)	Limited Paid Losses 6/30/18 (2)	Limited Case Reserves 6/30/18 (3)	Limited Reported Incurred Losses 6/30/18 (4)	Projected Ultimate Limited Losses (5)	Estimated IBNR 6/30/18 (5)-(4) (6)	Estimated Outstanding Losses 6/30/18 (3)+(6) (7)	Present Value Factor (8)	Present Value of Estimated Outstanding Losses 6/30/18 (7)X(8) (9)
to 1998/99	\$188,968,060	\$5,167,879	\$194,135,939	\$194,653,000	\$517,061	\$5,684,940	0.91	\$5,184,845
1999/00	13,821,474	1,008,613	14,830,087	14,931,000	100,913	1,109,526	0.90	993,511
2000/01	18,957,857	1,035,670	19,993,527	20,117,000	123,473	1,159,143	0.88	1,019,806
2001/02	21,805,028	697,123	22,502,151	22,604,000	101,849	798,972	0.86	691,084
2002/03	21,332,283	937,823	22,270,105	22,432,000	161,895	1,099,718	0.85	937,133
2003/04	20,565,875	1,182,462	21,748,337	21,998,000	249,663	1,432,125	0.84	1,202,759
2004/05	16,702,163	1,553,941	18,256,104	18,558,000	301,896	1,855,837	0.83	1,546,233
2005/06	15,878,467	1,831,478	17,709,945	18,243,000	533,055	2,364,533	0.83	1,953,082
2006/07	14,543,823	391,011	14,934,834	15,070,000	135,166	526,177	0.82	432,433
2007/08	13,968,327	1,375,200	15,343,527	15,777,000	433,473	1,808,673	0.82	1,480,748
2008/09	16,537,574	948,610	17,486,184	17,925,000	438,816	1,387,426	0.82	1,133,546
2009/10	16,639,971	1,524,650	18,164,622	19,046,000	881,378	2,406,028	0.82	1,965,389
2010/11	19,410,249	1,907,262	21,317,510	22,664,000	1,346,490	3,253,752	0.81	2,650,232
2011/12	18,803,879	2,428,708	21,232,587	23,463,000	2,230,413	4,659,121	0.82	3,805,763
2012/13	13,341,864	3,679,025	17,020,889	20,459,000	3,438,111	7,117,136	0.82	5,833,114
2013/14	13,379,386	3,494,930	16,874,316	20,402,000	3,527,684	7,022,614	0.83	5,796,324
2014/15	9,489,220	3,982,251	13,471,471	16,943,000	3,471,529	7,453,780	0.83	6,214,078
2015/16	11,275,973	5,600,430	16,876,403	22,089,000	5,212,597	10,813,027	0.86	9,256,837
2016/17	8,138,994	6,028,459	14,167,452	21,552,000	7,384,548	13,413,007	0.88	11,766,207
2017/18	2,556,771	3,468,105	6,024,877	19,644,000	13,619,123	17,087,228	0.89	15,240,499
Total	\$476,117,238	\$48,243,629	\$524,360,868	\$568,570,000	\$44,209,133	\$92,452,763		\$79,103,623

(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, 2018 to June 30, 2019

Claim Period (1)	Months of Development 6/30/18 (2)	Percent Losses Paid (3)	Months of Development 6/30/19 (4)	Percent Losses Paid (5)	Percent Outstanding Losses Paid 7/1/18 to 6/30/19 [(5)-(3)]/[100.0%-(3)] (6)	Estimated Outstanding Losses 6/30/18 (7)	Projected Losses Paid (6)X(7) (8)	Estimated Outstanding Losses 6/30/19 (7)-(8) (9)	Present Value Factor (10)	Present Value of Estimated Outstanding Losses 6/30/19 (9)X(10) (11)
to 1998/99	240.0	92.2%	252.0	93.7%	20.0% *	\$5,684,940	\$1,138,988	\$4,547,952	0.91	\$4,158,221
1999/00	228.0	91.7%	240.0	92.2%	5.5% *	1,109,526	61,351	1,048,175	0.91	955,969
2000/01	216.0	91.3%	228.0	91.7%	5.2% *	1,159,143	60,449	1,098,694	0.90	983,812
2001/02	204.0	90.8%	216.0	91.3%	4.9% *	798,972	39,414	759,558	0.88	668,254
2002/03	192.0	90.3%	204.0	90.8%	5.6% *	1,099,718	61,115	1,038,603	0.86	898,357
2003/04	180.0	89.7%	192.0	90.3%	5.2% *	1,432,125	74,972	1,357,153	0.85	1,156,508
2004/05	168.0	88.8%	180.0	89.7%	8.0% *	1,855,837	147,571	1,708,266	0.84	1,434,674
2005/06	156.0	87.9%	168.0	88.8%	7.3% *	2,364,533	172,573	2,191,960	0.83	1,826,282
2006/07	144.0	86.8%	156.0	87.9%	8.6% *	526,177	45,062	481,115	0.83	397,396
2007/08	132.0	85.5%	144.0	86.8%	8.9% *	1,808,673	160,463	1,648,210	0.82	1,354,564
2008/09	120.0	84.0%	132.0	85.5%	9.5% *	1,387,426	131,359	1,256,067	0.82	1,028,333
2009/10	108.0	82.2%	120.0	84.0%	10.2% *	2,406,028	244,718	2,161,310	0.82	1,765,820
2010/11	96.0	80.4%	108.0	82.2%	9.1% *	3,253,752	294,507	2,959,245	0.82	2,417,290
2011/12	84.0	78.0%	96.0	80.4%	11.3% *	4,659,121	527,131	4,131,990	0.81	3,365,571
2012/13	72.0	75.0%	84.0	78.0%	11.7% *	7,117,136	833,871	6,283,265	0.82	5,132,431
2013/14	60.0	71.1%	72.0	75.0%	13.5% *	7,022,614	950,929	6,071,685	0.82	4,976,276
2014/15	48.0	65.8%	60.0	71.1%	15.4% *	7,453,780	1,149,678	6,304,102	0.83	5,203,279
2015/16	36.0	54.9%	48.0	65.8%	20.0% *	10,813,027	2,162,605	8,650,422	0.83	7,211,697
2016/17	24.0	37.8%	36.0	54.9%	20.0% *	13,413,007	2,682,601	10,730,406	0.86	9,186,107
2017/18	12.0	14.6%	24.0	37.8%	20.0% *	17,087,228	3,417,446	13,669,782	0.88	11,991,456
2018/19	0.0	0.0%	12.0	14.6%	14.6% *	25,231,000	3,672,389	21,558,611	0.89	19,228,630
Total						\$117,683,763	\$18,027,192	\$99,656,571		\$85,340,927

* - Limited to a maximum of 20% per actuarial judgment.

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

(7) to 2017/18 is from Exhibit WC-11. The amount for 2018/19 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, 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 1998/99	252.0	93.7%	264.0	95.0%	20.0% *	\$4,547,952	\$909,590	\$3,638,362	0.92	\$3,336,236
1999/00	240.0	92.2%	252.0	93.7%	20.0% *	1,048,175	209,635	838,540	0.91	766,682
2000/01	228.0	91.7%	240.0	92.2%	5.5% *	1,098,694	60,752	1,037,942	0.91	946,636
2001/02	216.0	91.3%	228.0	91.7%	5.2% *	759,558	39,611	719,947	0.90	644,667
2002/03	204.0	90.8%	216.0	91.3%	4.9% *	1,038,603	51,235	987,368	0.88	868,680
2003/04	192.0	90.3%	204.0	90.8%	5.6% *	1,357,153	75,422	1,281,731	0.86	1,108,654
2004/05	180.0	89.7%	192.0	90.3%	5.2% *	1,708,266	89,428	1,618,838	0.85	1,379,505
2005/06	168.0	88.8%	180.0	89.7%	8.0% *	2,191,960	174,299	2,017,661	0.84	1,694,517
2006/07	156.0	87.9%	168.0	88.8%	7.3% *	481,115	35,114	446,001	0.83	371,596
2007/08	144.0	86.8%	156.0	87.9%	8.6% *	1,648,210	141,154	1,507,056	0.83	1,244,814
2008/09	132.0	85.5%	144.0	86.8%	8.9% *	1,256,067	111,436	1,144,631	0.82	940,703
2009/10	120.0	84.0%	132.0	85.5%	9.5% *	2,161,310	204,629	1,956,681	0.82	1,601,921
2010/11	108.0	82.2%	120.0	84.0%	10.2% *	2,959,245	300,986	2,658,259	0.82	2,171,835
2011/12	96.0	80.4%	108.0	82.2%	9.1% *	4,131,990	373,999	3,757,991	0.82	3,069,753
2012/13	84.0	78.0%	96.0	80.4%	11.3% *	6,283,265	710,885	5,572,380	0.81	4,538,792
2013/14	72.0	75.0%	84.0	78.0%	11.7% *	6,071,685	711,382	5,360,303	0.82	4,378,517
2014/15	60.0	71.1%	72.0	75.0%	13.5% *	6,304,102	853,636	5,450,466	0.82	4,467,133
2015/16	48.0	65.8%	60.0	71.1%	15.4% *	8,650,422	1,334,249	7,316,173	0.83	6,038,622
2016/17	36.0	54.9%	48.0	65.8%	20.0% *	10,730,406	2,146,081	8,584,325	0.83	7,156,593
2017/18	24.0	37.8%	36.0	54.9%	20.0% *	13,669,782	2,733,956	10,935,826	0.86	9,361,963
2018/19	12.0	14.6%	24.0	37.8%	20.0% *	21,558,611	4,311,722	17,246,889	0.88	15,129,379
2019/20	0.0	0.0%	12.0	14.6%	14.6% *	25,738,000	3,746,184	21,991,816	0.89	19,615,016
Total						\$125,394,571	\$19,325,385	\$106,069,186		\$90,832,214

* - Limited to a maximum of 20% per actuarial judgment.

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

(7) to 2018/19 is from Exhibit WC-12, (9). 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.

Loss Rate and Severity Trend

I. Benefit Level Changes

Effective Date (1)	Benefit Level Change (2)	Cumulative Benefit Level Change (3)
01/01/09	1.013	1.013
01/01/10	1.001	1.014
01/01/12	1.001	1.015
01/01/13	0.962	0.976
01/01/14	1.058	1.033
01/01/15	1.004	1.037
01/01/16	1.003	1.040
01/01/17	1.000	1.039

II. Loss Rate and Severity Trend

Claim Period (1)	Benefit Trend (2018/19 = 1.000) (2)	Residual Trend (2018/19 = 1.000) (3)	Retention Index (2018/19 = 1.000) (4)	Loss Rate Trend (2018/19 = 1.000) (2)X(3)X(4) (5)	Wage Trend (2018/19 = 1.000) (6)	Severity Trend (2018/19 = 1.000) (5)X(6) (7)
2008/09	1.025	1.105	1.000	1.133	1.344	1.523
2009/10	1.025	1.094	1.000	1.122	1.305	1.463
2010/11	1.025	1.083	1.000	1.110	1.267	1.406
2011/12	1.024	1.072	1.000	1.098	1.230	1.351
2012/13	1.044	1.062	1.000	1.108	1.194	1.323
2013/14	1.035	1.051	1.000	1.087	1.159	1.260
2014/15	1.004	1.041	1.000	1.045	1.126	1.176
2015/16	1.001	1.030	1.000	1.031	1.093	1.127
2016/17	1.000	1.020	1.000	1.020	1.061	1.082
2017/18	1.000	1.010	1.000	1.010	1.030	1.040
2018/19	1.000	1.000	1.000	1.000	1.000	1.000
2019/20	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 6/30/18 (5)	Unlimited Case Reserves 6/30/18 (6)	Unlimited Reported Incurred Losses 6/30/18 (7)
0000190143	12/27/72	to 1998/99	Unlimited	\$722,941	\$0	\$722,941
0000190774	01/19/74	to 1998/99	Unlimited	613,638	0	613,638
0000190326	08/01/74	to 1998/99	Unlimited	771,240	0	771,240
0000190147	07/04/75	to 1998/99	Unlimited	4,157,590	471,187	4,628,777
0000190244	10/03/75	to 1998/99	Unlimited	542,435	0	542,435
0000191607	03/11/77	to 1998/99	Unlimited	2,904,822	0	2,904,822
0000190910	12/05/77	to 1998/99	Unlimited	913,798	0	913,798
0000190513	10/19/78	to 1998/99	Unlimited	925,345	0	925,345
0000120155	08/21/82	to 1998/99	Unlimited	438,907	105,468	544,375
0001305216	04/11/83	to 1998/99	Unlimited	800,100	0	800,100
0001305673	10/28/83	to 1998/99	Unlimited	608,860	297,781	906,641
0001305402	01/03/84	to 1998/99	Unlimited	583,002	0	583,002
0001305712	01/26/84	to 1998/99	Unlimited	567,073	0	567,073
0008600690	07/16/86	to 1998/99	Unlimited	560,893	0	560,893
0087580347	02/24/87	to 1998/99	Unlimited	657,717	5,835	663,552
0088580879	07/01/88	to 1998/99	Unlimited	628,550	0	628,550
0088580941	10/06/88	to 1998/99	Unlimited	612,393	0	612,393
0090000792	08/23/90	to 1998/99	Unlimited	505,087	100,559	605,646
0091000256	09/15/90	to 1998/99	Unlimited	466,539	57,967	524,506
0091001095	10/20/91	to 1998/99	Unlimited	618,800	69,436	688,236
0091000967	10/20/91	to 1998/99	Unlimited	615,883	0	615,883
0092001143	03/22/92	to 1998/99	Unlimited	474,754	36,699	511,453
0093000088	01/15/93	to 1998/99	Unlimited	418,838	139,071	557,909
0094630112	08/01/94	to 1998/99	Unlimited	1,409,190	0	1,409,190
0095630065	11/07/94	to 1998/99	Unlimited	382,369	168,693	551,061
0095630121	01/11/95	to 1998/99	Unlimited	563,902	48,815	612,718
0096630131	08/15/95	to 1998/99	Unlimited	699,538	258,831	958,369
0096630617	03/01/96	to 1998/99	Unlimited	541,404	0	541,404
0097630604	07/10/97	to 1998/99	Unlimited	478,040	49,871	527,912
0058620066	01/25/98	to 1998/99	Unlimited	440,002	81,947	521,949
0058620470	06/11/98	to 1998/99	Unlimited	685,013	375,584	1,060,598
0059620316	03/26/99	to 1998/99	Unlimited	506,947	0	506,947
0059620442	05/04/99	to 1998/99	Unlimited	642,363	109,417	751,780
0056200017	01/03/00	1999/00	Unlimited	607,571	406,616	1,014,186
0056210090	01/03/01	2000/01	Unlimited	366,593	162,498	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	790,473	63,825	854,298
0208004522	08/03/02	2002/03	Unlimited	1,600,132	98,102	1,698,234
0208003005	08/11/02	2002/03	Unlimited	752,443	0	752,443
0209003498	09/27/02	2002/03	Unlimited	620,061	112,569	732,629
0210003933	10/03/02	2002/03	Unlimited	660,762	7,575	668,337
0211004343	11/23/02	2002/03	Unlimited	892,786	148,571	1,041,357
0312004058	12/27/03	2003/04	Unlimited	588,724	65,773	654,496
0401000424	01/13/04	2003/04	Unlimited	584,135	0	584,135
0405001211	05/14/04	2003/04	Unlimited	455,033	247,252	702,285
0408000000	08/27/04	2004/05	1,000,000	132,975	446,837	579,813
0509002575	12/03/04	2004/05	1,000,000	682,935	1,030,534 *	1,713,469 *
0501000048	01/12/05	2004/05	1,000,000	483,573	17,902	501,475
0603000428	03/05/05	2004/05	1,000,000	463,444	75,505	538,949
0506001414	06/23/05	2004/05	1,000,000	736,549	144,452	881,001
0507002799	07/01/05	2005/06	1,000,000	665,427	0	665,427
0509001885	09/28/05	2005/06	1,000,000	258,578	438,555	697,133
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
0604000872	04/28/06	2005/06	1,000,000	370,738	166,479	537,217
0608001735	08/14/06	2006/07	1,000,000	434,922	168,170	601,091
0701000110	01/20/07	2006/07	1,000,000	504,355	0	504,355
0708001974	08/17/07	2007/08	1,000,000	1,494,028 *	404,702	1,898,730 *
0708002337	08/27/07	2007/08	1,000,000	698,181	570,931 *	1,269,112 *
0802000349	02/22/08	2007/08	1,000,000	399,971	187,230	587,201
0903000603	03/21/09	2008/09	750,000	3,718,479 *	29,135	3,747,615 *
0906002809	06/12/09	2008/09	750,000	677,628 *	54,396 *	732,024 *
0908002206	08/18/09	2009/10	750,000	330,785	193,295	524,080
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	583,320	678,127 *	1,261,447 *
121100167	11/14/12	2012/13	750,000	518,743	0	518,743
140600108	06/24/14	2013/14	750,000	807,778 *	2,145,360	2,953,138 *
150800000	08/03/15	2015/16	750,000	433,409 *	629,608 *	1,063,016 *
150800113	08/20/15	2015/16	750,000	198,809	425,510 *	624,319 *
170100012	01/08/17	2016/17	750,000	1,481,770 *	2,046,830	3,528,601 *

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

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

(1) through (7) were provided by the City.

Size of Loss Distribution

I. Reported Claim Count

Layer (1)	Prior (2)	2013/14 (3)	2014/15 (4)	2015/16 (5)	2016/17 (6)	2017/18 (7)	Total (2)...(7) (8)	Non-Zero Claim Cumulative Total (9)	Non-Zero Claim Cumulative % of Total (10)
0	2,660	29	11	19	5	25	2,749		
0.01 - 5,000	25,050	425	397	389	355	296	26,912	26,912	77.5%
5,000 - 10,000	1,683	30	38	37	33	67	1,888	28,800	83.0%
10,000 - 25,000	1,694	17	28	49	46	51	1,885	30,685	88.4%
25,000 - 50,000	1,226	25	20	22	29	27	1,349	32,034	92.3%
50,000 - 100,000	1,047	35	15	40	36	20	1,193	33,227	95.7%
100,000 - 250,000	982	47	35	41	27	8	1,140	34,367	99.0%
250,000 - 500,000	213	12	15	11	11	2	264	34,631	99.8%
500,000 - 750,000	45	0	0	1	0	0	46	34,677	99.9%
750,000 - 1,000,000	11	0	0	0	0	0	11	34,688	100.0%
Over 1,000,000	14	1	0	1	1	0	17	34,705	100.0%
Total	34,625	621	559	610	543	496	37,454	34,705	

II. Total Reported Incurred Losses

Layer (1)	Prior (2)	2013/14 (3)	2014/15 (4)	2015/16 (5)	2016/17 (6)	2017/18 (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	21,124,083	472,773	533,336	516,827	526,155	410,920	23,584,095	23,584,095	4.4%
5,000 - 10,000	11,855,790	202,049	265,331	241,654	220,529	494,625	13,279,978	36,864,073	6.9%
10,000 - 25,000	27,523,574	290,174	437,370	784,564	783,723	771,286	30,590,692	67,454,764	12.6%
25,000 - 50,000	43,950,247	879,686	675,683	778,358	1,050,552	946,695	48,281,221	115,735,985	21.6%
50,000 - 100,000	74,424,541	2,630,793	1,267,115	2,897,634	2,657,855	1,496,471	85,374,409	201,110,394	37.5%
100,000 - 250,000	151,905,328	8,283,407	5,662,454	6,675,631	4,750,660	1,141,307	178,418,787	379,529,181	70.7%
250,000 - 500,000	70,101,858	3,365,433	4,630,182	3,607,416	3,427,977	763,574	85,896,440	465,425,620	86.7%
500,000 - 750,000	26,623,274	0	0	624,319	0	0	27,247,593	492,673,213	91.8%
750,000 - 1,000,000	9,430,492	0	0	0	0	0	9,430,492	502,103,705	93.6%
Over 1,000,000	27,049,841	2,953,138	0	1,063,016	3,528,601	0	34,594,596	536,698,301	100.0%
Total	\$463,989,027	\$19,077,453	\$13,471,471	\$17,189,420	\$16,946,053	\$6,024,877	\$536,698,301	\$536,698,301	

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

Data was provided by the City.

Loss Distribution by Type

I. Claim Counts and Incurred Losses

Claim Period (1)	Reported Claims 6/30/18			Unlimited Reported Incurred Losses 6/30/18 Claims w/ Indemnity				Total (5)...(8) (9)
	Medical Only (2)	Claims w/ Indemnity (3)	Total (2)...(3) (4)	Medical Only (5)	Indemnity (6)	Medical (7)	Expense (8)	
2008/09	266	412	678	\$117,401	\$14,271,689	\$4,955,572	\$1,412,788	\$20,757,450
2009/10	244	402	646	121,687	11,159,876	5,686,343	1,482,608	18,450,514
2010/11	226	424	650	132,349	13,494,961	6,876,952	1,639,431	22,143,693
2011/12	279	358	637	200,521	13,528,509	5,832,334	1,784,925	21,346,290
2012/13	243	326	569	179,792	9,861,882	5,239,745	1,741,186	17,022,605
2013/14	320	301	621	254,170	11,536,183	5,788,308	1,506,693	19,085,353
2014/15	240	319	559	555,009	7,660,613	3,933,133	1,329,943	13,478,698
2015/16	274	336	610	278,516	9,991,868	5,361,204	1,591,470	17,223,058
2016/17	253	290	543	384,130	8,078,611	7,379,372	1,117,162	16,959,274
2017/18	287	209	496	671,353	2,648,476	2,201,009	505,950	6,026,787
Total	2,632	3,377	6,009	\$2,894,930	\$102,232,668	\$53,253,971	\$14,112,155	\$172,493,723

II. Percentages

Claim Period (1)	Reported Claims 6/30/18			Unlimited Reported Incurred Losses 6/30/18 Claims w/ Indemnity				Total (13)...(16) (17)
	Medical Only (2)/(4) (10)	Claims w/ Indemnity (3)/(4) (11)	Total (10)...(11) (12)	Medical Only (5)/(9) (13)	Indemnity (6)/(9) (14)	Medical (7)/(9) (15)	Expense (8)/(9) (16)	
2008/09	39.2%	60.8%	100.0%	0.6%	68.8%	23.9%	6.8%	100.0%
2009/10	37.8%	62.2%	100.0%	0.7%	60.5%	30.8%	8.0%	100.0%
2010/11	34.8%	65.2%	100.0%	0.6%	60.9%	31.1%	7.4%	100.0%
2011/12	43.8%	56.2%	100.0%	0.9%	63.4%	27.3%	8.4%	100.0%
2012/13	42.7%	57.3%	100.0%	1.1%	57.9%	30.8%	10.2%	100.0%
2013/14	51.5%	48.5%	100.0%	1.3%	60.4%	30.3%	7.9%	100.0%
2014/15	42.9%	57.1%	100.0%	4.1%	56.8%	29.2%	9.9%	100.0%
2015/16	44.9%	55.1%	100.0%	1.6%	58.0%	31.1%	9.2%	100.0%
2016/17	46.6%	53.4%	100.0%	2.3%	47.6%	43.5%	6.6%	100.0%
2017/18	57.9%	42.1%	100.0%	11.1%	43.9%	36.5%	8.4%	100.0%
Total	43.8%	56.2%	100.0%	1.7%	59.3%	30.9%	8.2%	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.