Audit of Fire Department Overtime Use

Report # 2017-01| February 2017

The Fire Department Has Relied on Increasing Levels of Overtime to Meet its Operational Needs

Negotiated Overtime and Incentive Provisions May Have Unintentionally Increased Payroll Costs

The Fire Department Lacks Sufficient Controls Over the Administration and Use of Overtime

Implementing Alternative Staffing Methods Could Reduce Costs and Improve Service Delivery

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Office of the City Auditor

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City of SACRAMENTO
Office of the City Auditor

AUDIT FACT SHEET

RECOMMENDATIONS

We made several recommendations aimed at improving the Fire Department's administration and use of overtime. We also included an analysis of potential staffing options the Fire Department could consider implementing to increase efficiency. Our recommendations include:

Reduce Reliance on Overtime

- More aggressively pursue hiring employees to fill approved positions.
- Develop controls to ensure compliance with the 72-hour maximum work period.

Reevaluate Negotiated Provisions

- Renegotiate the requirement to fill vacancies using rank-for-rank.
- Bring negotiated overtime provisions more in line with minimum FLSA requirements.
- Negotiate that assignment pay not be provided to employees who do not work the shift the incentive was designed for.
- Evaluate the necessity of Primary Paramedic Pay.

Establish Policies and Controls

- Establish policies on the administration and use of overtime.
- Document supervisory approval of overtime use.
- Provide guidance on the use of Special Duty pay.
- Develop, document, and enforce system access controls for Telestaff users.
- Strengthen controls to monitor the use of timecodes to prevent and detect errors or abuse.
- Ensure the Roll Call Staffing Manual complies with the labor agreement.

Consider Alternate Staffing Methods

- Modify the ambulance staffing model to include non-firefighter paramedics and EMT's.
- Reduce staffing from four-person crews to three-person crews on select engines.
- Incorporate peak-demand ambulance units into the current staffing model.
- Add an *Audit of Fire Department Emergency Medical Services* to the Auditor's audit plan.

Audit of Fire Department Overtime Use

February, 2017 2017-01

BACKGROUND

Overtime is a tool that can be effectively used to manage temporary fluctuations in workload by providing access to a pool of trained employees. However, if it is not effectively managed, it can potentially lead to employee burnout and low morale.

The Sacramento Fire Department's front-line operation is organized into three shifts that operate on a 48/96 schedule whereby employees work two days on followed by four days off. The Fire Department staffs all suppression units on a "constant" basis meaning that if a position is vacant for that shift (i.e., someone calls in sick), then another employee is called in to fill that vacant shift.

Overtime use at the Fire Department grew from $7.4 million in FY 10/11 to over $13 million in FY 14/15.

FINDINGS

The Fire Department Has Relied on Increasing Levels of Overtime to Meet its Operational Needs. Specifically, we found the Fire Department:

- Has not hired enough employees to fill approved suppression positions;
- Could have saved approximately $280,000 in labor costs by hiring additional employees;
- Consistently relied on overtime to cover vacant shifts; and
- Does not have a formal process in place to ensure employees receive adequate rest breaks between shifts.

Negotiated Overtime and Incentive Provisions May Have Unintentionally Increased Payroll Costs. We estimate that:

- The "rank-for-rank" requirement may have added $850,000 in payroll costs;
- Bringing some negotiated overtime provisions in line with minimum FLSA requirements could save over $385,000 annually;
- Incentives are paid to employees who do not work the shift the incentive was designed for; and
- Over $30,000 was paid to employees for an incentive not included in the labor agreement.

The Fire Department Lacks Sufficient Controls Over the Administration and Use of Overtime. We determined that the Fire Department:

- Has not established a formal overtime use policy;
- Does not consistently document supervisory review/approval of overtime use or special pay codes;
- Has an excessive number of users with the ability to make changes in the system; and
- Has a complex roll call process that could provide opportunities for fraud, waste, or abuse.

Implementing Alternative Staffing Methods Could Reduce Costs and Improve Service Delivery. Some options the Fire Department could consider implementing are:

- Staffing ambulances with more cost-effective single-role employees;
- Reducing staffing from four to three on select engines; and
- Initiating an ambulance shift that operates during peak call times.

Introduction

In accordance with the City Auditor's 2015/16 Audit Plan, we have completed an *Audit of Fire Department Overtime Use.* We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The City Auditor's Office would like to thank the Fire Department for their time and cooperation during the audit process.

Background

The Sacramento Fire Department provides 24-hour response for various types of emergencies including fire suppression, medical services, ambulance transportation, hazardous materials incidents, and specialized rescues. In addition to providing these emergency services, the Fire Department also participates in fire code enforcement, public education, fire prevention, and fire investigation. The service area of the Sacramento Fire Department includes the City of Sacramento, the Natomas Fire Protection District, and the Pacific/Fruitridge Fire Protection District. The mission of the Sacramento Fire Department is "To protect our community through effective and innovative public safety services."

Administratively, the Fire Department is structured into five divisions that facilitate the department's daily operations. The figure below outlines these five divisions and the responsibilities assigned to each.

Figure 1: Fire Department Divisions

Division	Responsibilities
Fire Chief	Provides direction for the department.
Office of Emergency Operations	Shift operations, EMS (emergency medical services), and special operations.
Office of Administrative Services	Department-wide support for fire prevention, human resources, professional standards, and training.
Office of Logistical Support	Department-wide support for information technology, communications, infrastructure, and logistics.
Office of Fiscal Services	Department-wide support for accounts payable, budget, contracts, council reports, grants, procurement, and receivables.

Source: The City's FY 2015/2016 Approved Budget.

In order to support their public safety mission, the Fire Department operates various types of equipment (apparatus) housed at fire stations located throughout their service area. As of

February 2016, the Fire Department operated 24 fire stations and deployed the following apparatus from those stations:

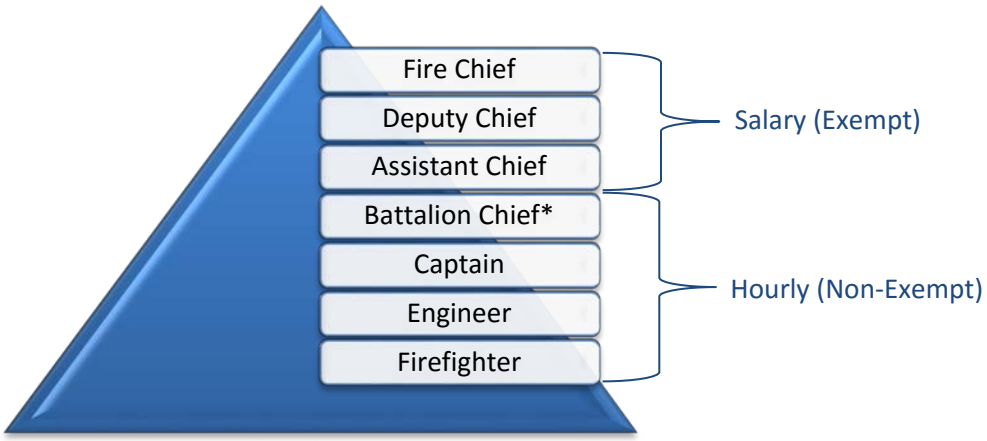
- 24 Fire Engines
- 15 Medic (Ambulance) Units
- 9 Fire Trucks
- 3 Battalion Chief Vehicles
- 1 Rescue Truck
- 1 EMS Command Vehicle

The totals above include an ambulance company[1] added to Station 30 in Natomas in 2015, a truck company added to Station 43 in Natomas in 2016, and an ambulance company added to Station 57 in South Sacramento in 2016. For the purposes of this audit, we use the term "suppression" in reference to all of the department's fire and ambulance units. The Fire Department's approved budget for FY 2015/2016 was $103,693,995.

Staffing Model

The Fire Department operates using a "chain of command" or "rank" system. The figure below shows the department's organizational structure by job classification.

Figure 2: Fire Suppression Positions by Rank (Job Classification)



**Battalion Chiefs are considered exempt under the Fair Labor Standards Act. However, the City has agreed to pay them as hourly employees.*
Source: Auditor generated based on employee job classifications.

Employees in the rank of Battalion Chief and below are represented by the Sacramento Area Firefighters Local 522 (Local 522). Captains and below are expected to maintain an Emergency Medical Technician (EMT) certification and many are also qualified with a more advanced Paramedic certification.

[1] A company is made up of a single piece of equipment and its crew members.

The Sacramento Fire Department's front-line operation is organized into three shifts that operate on a 48/96 schedule whereby employees work two days on followed by four days off. Engines and trucks are generally staffed with four personnel consisting of a Company Officer (Captain), an Engineer, and two Firefighters. Ambulances are staffed with two Firefighter/Paramedics or one Firefighter/Paramedic and one Firefighter/EMT. Based on the number of units currently in service, as of February 2016, this staffing model equates to 169 employees on shift per day.

The Fire Department staffs all suppression units on a "constant" basis. This means that if a position is vacant for that shift (e.g., someone calls in sick or is on vacation), then another employee is called in to work overtime to fill that vacant shift. On days when the department is critically short-staffed and there are not enough employees available to fill vacant positions, even on overtime, the department has the option of either temporarily reducing some companies to three-person staffing or closing a company until full staffing can be resumed.

While there is some variation, the Fire Department's Prevention Officers, Investigators, Fiscal employees, Human Resources employees, and Information Technology employees tend to work shifts that resemble a more traditional 40-hour per week schedule. Individuals working these shifts may incur some overtime; however, these types of shifts do not provide emergency services and are therefore not filled on a constant basis. If one of these employees is out for the day (e.g., on vacation or using sick leave), then their shift usually goes unfilled. As a result, these shifts tend to generate significantly less overtime than the suppression positions.

Roll Call

Roll Call is the process by which the Fire Department staffs their various apparatus on a daily basis. Based on the needs of the department, employees may be required to report to stations other than those they are normally assigned to. The roll call process lets employees know where to report for duty.

In order to facilitate the roll call process, the Fire Department employs a software solution called Telestaff. Telestaff is widely known in the public safety industry and is used by many other fire departments including Denver, San Diego, Folsom, Anaheim, and San Bernardino. The Sacramento Fire Department has written several rules into the software system that instruct Telestaff how to prepopulate many of the department's shifts. In addition to the prepopulated Telestaff assignments, administrative Roll Call staff and Staffing Captains in the field can also manually adjust the work assignments in Telestaff. This process creates a daily roster that specifies where everyone is assigned to work on a given day, and tracks when various types of leave time are being used, such as sick leave or vacation leave. Generally, the department creates the staffing roster a few days in advance, so that employees will know where they are

assigned to work; however, unforeseen circumstances such as use of sick leave or emergency Strike Team[2] deployments may cause same-day changes to the roster.

In addition to using Telestaff to create the daily roster, the Fire Department uses Telestaff as a method for assigning pay codes that ultimately feed into the City's payroll system. This practice results in Telestaff not only being used as a scheduling system, but also as the department's timekeeping system to record the number of hours worked, incentives, overtime hours, leave time, special duty time, and training hours. Hours and pay codes recorded in Telestaff are imported into the City's payroll system (eCAPS) biweekly so that Fire Department employees are paid on schedule. While Telestaff records the *number of hours,* eCAPS stores employee *hourly pay rates* and *incentive rates* which are then used in combination to calculate employee payroll.

Overtime

The Fair Labor Standards Act (FLSA) establishes minimum wage, overtime pay, recordkeeping, and employment standards affecting employees in the private sector and in Federal, State, and Local governments. Generally, employers are required to pay an overtime rate of not less than one and one-half times the regular rate after 40 hours of work in a workweek. However, special rules apply to State and Local government employment involving fire protection. Public agency fire departments may establish a work period ranging from 7 to 28 days in which overtime need only be paid after a specified number of hours in each work period.

FLSA Premium Pay

Section 7(k) of the FLSA specifies that an employee engaging in fire protection activities may work up to 212 hours in a 28-day work period before receiving overtime pay. If the work period is less than 28 days, then the same ratio of hours to days must still apply. The City of Sacramento has established a work period of 24 days for Fire Department suppression personnel. Based on the Fire Department's two days on, four days off (48/96) work schedule, suppression personnel are regularly scheduled to work 192 hours in a 24-day period (8 shifts worked x 24 hours). As FLSA only allows for a maximum of 182 non-overtime hours in a 24-day work period, 10 hours of premium (overtime) pay per 24-day work period is automatically built into their regular duty schedule. According to the City's payroll records, the Fire Department spends approximately $650,000 per year on premium pay related to this FLSA requirement.

Overtime Pay

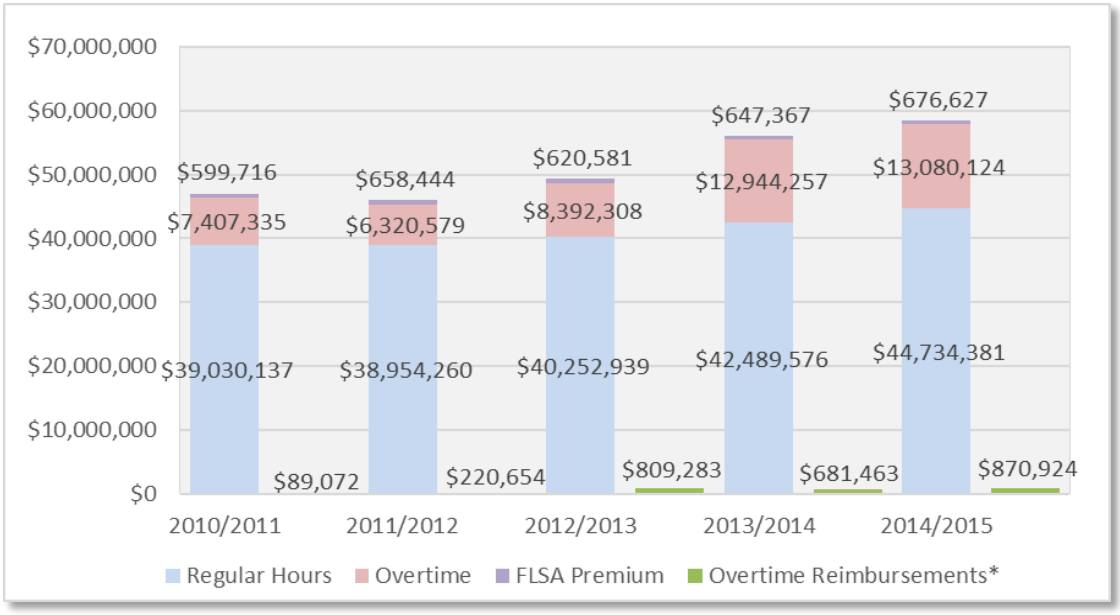
As suppression personnel's regular duty schedule already exceeds FLSA requirements for the number of non-overtime hours an employee can work before overtime pay is required, hours worked *in addition* to their regular schedule are paid at an overtime rate. The overtime rate of

[2] Strike Team is a term used to describe deployment outside of Sacramento to a wildland fire or natural disaster event, as part of the City's mutual aid agreements with other fire agencies.

pay is calculated by adding together the hourly base rate plus incentives, then multiplying by one and a half.

Using data from the City's payroll system (eCAPS) and reported overtime reimbursement amounts from the Fire Department's Fiscal Division, we developed the figure below, which shows the dollar amounts spent per fiscal year for the Fire Department's regular hours, overtime, and FLSA premium hours. The green bars in the figure show the amount of overtime reimbursed to the City by other agencies through various mutual aid agreements.

Figure 3: Fire Department Regular Pay, Overtime Pay, FLSA Premium Pay, and Overtime Reimbursements



**Overtime reimbursement associated with strike team deployments and Urban Search & Rescue (US&R).*
Source: Auditor generated based on eCAPS financial reports and Fire Department records.

It is important to note that the data above represents compensation paid to Fire Department employees for regular time, overtime, and FLSA premium only. Figure 3 does not include other types of pay such as employee sick time, vacation leave, health benefits, or retirement benefits.

Objective, Scope, and Methodology

The objective of the *Audit of Fire Department Overtime Use* was to assess the Fire Department's administration and use of overtime, and to identify areas of risk and opportunities for potential savings. The scope of our audit included a review of hours worked by individuals at the Sacramento Fire Department as identified by both the City's payroll system (eCAPS) and the Fire Department's staffing software (Telestaff) from calendar year 2013 through mid-2016. In order to gain a comprehensive understanding of Fire Department operations during our scope period, we also reviewed historical budget reports and dispatch data.

In performing our audit, we focused on the internal controls surrounding the administration of overtime use and evaluated the department's need for overtime. In addition, we assessed the controls in place designed to deter and detect fraud in relation to overtime. We reviewed industry best practices, labor agreements, interviewed staff, observed staff entering data into the system, and performed analysis and testing of overtime use.

Finding 1: The Fire Department Has Relied on Increasing Levels of Overtime to Meet its Operational Needs

The Fire Department's constant staffing model is designed so that shifts are filled on overtime when there are not enough regularly scheduled employees available to fill the roster for the day. The purpose for using this constant staffing model is to ensure the Fire Department maintains the capability for an adequate and immediate response during emergency situations, such as a medical emergency or fire. However, this constant staffing model significantly contributes to the department's overtime costs when there are not enough regularly scheduled employees available to fill the prescribed shifts. Specifically, we found the Fire Department:

- Has not hired enough employees to fill approved suppression positions;
- Could have saved approximately $280,000 in labor costs by hiring additional employees;
- Consistently relied on overtime to cover vacant shifts; and
- Does not have a formal process in place to ensure employees receive adequate rest breaks between shifts.

Overtime use can be attributed to many factors; some of which include the department's constant staffing model, the number of employees available to fill the shifts, the department's roll call procedures, negotiated overtime provisions, and the administration of overtime use. This section discusses overtime use in relation to the department's staffing levels. In later chapters we will cover other elements that contribute to overtime use, such as the department's roll call practices, negotiated overtime provisions, and the administration of overtime.

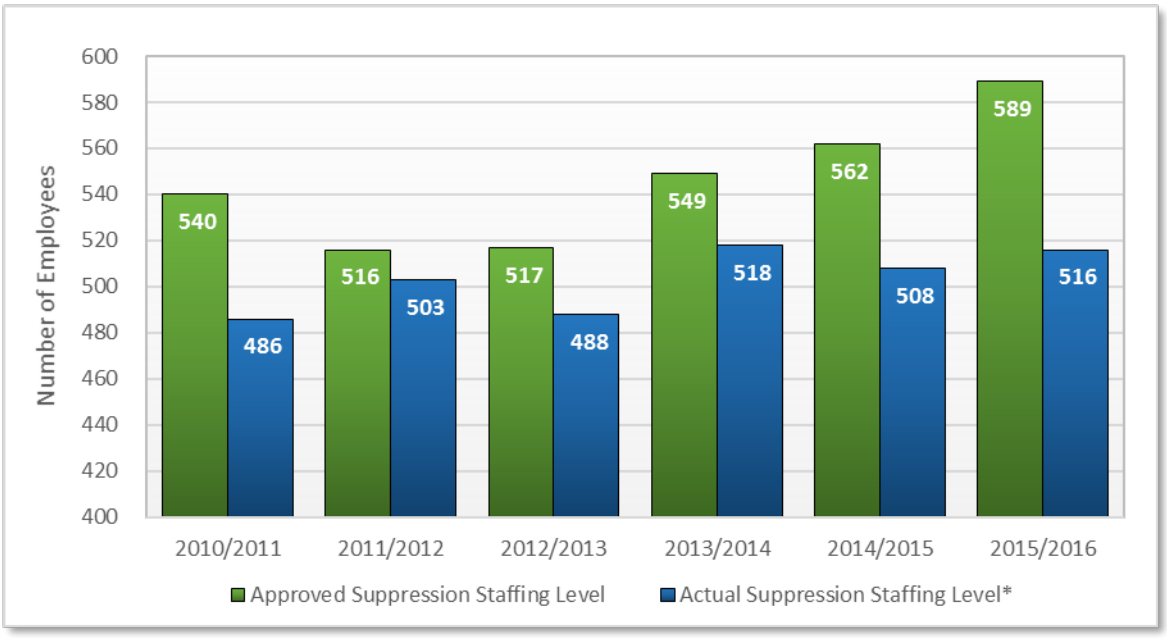
The Fire Department Has Not Hired Enough Employees to Fill Approved Suppression Positions

As of February 2016, the staffing model designed by the Fire Department requires that 169 employees be on shift per day to fully staff the department's response units. As suppression employees operate in three shifts, a minimum of 507 full time employees are needed to maintain full staffing levels (169 employees multiplied by three shifts) using regular time. In addition to the designated number of employees needed to fully staff the apparatus on a daily basis, the department must also take into account the number of employees who are out on sick leave, on vacation, injured, deployed to wildland fires, in training, or assigned to administrative responsibilities. Employees on leave or assigned elsewhere reduce the number of employees available for daily staffing and increase the need to use overtime to meet the department's operational needs.

The figure below shows the number of approved suppression positions compared to the department's actual staffing levels. As the figure demonstrates, the Fire Department suppression units have not been fully staffed to their approved staffing levels over the last six years.

As of January 2016, the Fire Department had not filled 73 approved suppression positions. In order to meet the demands of the department's constant staffing model, existing employees are brought in on overtime to fill the shifts that would have been covered by employees in these vacant positions.

Figure 4: Comparison of Approved Suppression Staffing Levels to Actual Staffing Levels

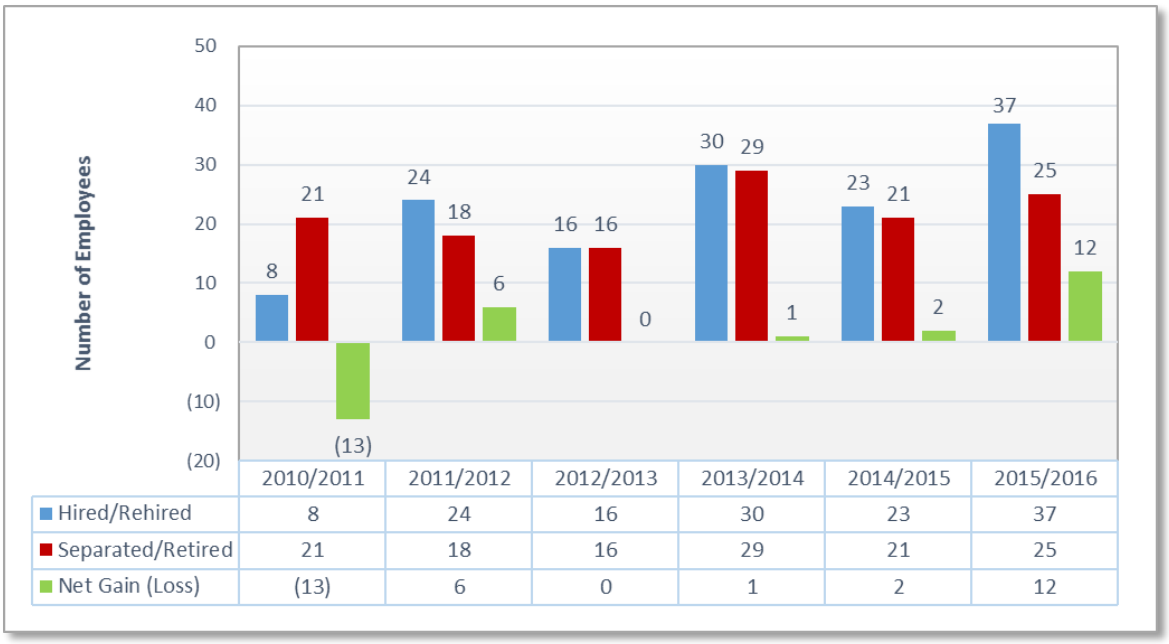


**Number of suppression employees that received a paycheck in the first pay period in January.*
Source: Auditor generated based on approved budget reports and eCAPS payroll data.

As mentioned in the Background section, the Fire Department brought three new companies online during FY 2015/2016. The number of employees required to staff these new companies, based on the department's current staffing model, equates to 24 full-time employees. The gap between the approved staffing level and the actual staffing level has continued to increase over the last few years, thereby requiring the department to compensate for the difference by paying existing employees to work increasing levels of overtime to fill the gap.

In order to learn more about the possible causes or trends related to the staffing shortage, we used eCAPS data to develop the figure below which shows the number of suppression employees hired or rehired compared to the number of employees that retired or were terminated during the last six fiscal years.

Figure 5: Comparison of the Number of Suppression Employees Hired and Separated by Fiscal Year



	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Hired/Rehired	8	24	16	30	23	37
Separated/Retired	21	18	16	29	21	25
Net Gain (Loss)	(13)	6	0	1	2	12

Source: Auditor generated based on eCAPS data.

The Fire Department hired an average of 23 employees per year over the last six years, while simultaneously losing an average of 22 employees per year due to retirement or separation[3]. This equates to an average net gain of 1 employee per year. According to the City's records, just over half of the 130 suppression employees that left the Fire Department during this six-year period left for retirement.

Delays in the employee background and hiring process were identified by both the Fire Department and the City's Human Resources Department as potential causes for the ongoing staffing shortage. We recognize that the Fire Department has recently begun implementing measures to address these issues by recruiting candidates from a state-wide candidate list and by employing a third-party vendor to perform background checks. As a result of these changes, the Fire Academy graduated nearly 40 students in November 2016, a significantly higher number of individuals than in prior academies. Continuing to address these types of recruitment issues and bringing the department more in line with approved staffing levels should significantly reduce the department's need for overtime in the future.

Hiring Additional Employees Could Have Saved Approximately $280,000

In general, hiring more employees reduces the need for overtime, while having too few employees increases the need for overtime. However, there is a tradeoff between paying

[3] Separation refers to individuals who no longer work for the City for reasons other than retirement, including employees who resigned, were terminated, or were released during an academy.

overtime to existing employees and hiring new employees. Hiring new employees involves significant costs, which include paying health and retirement benefits for those new employees.

To determine if it would have been more cost-effective to hire additional employees instead of paying existing employees to work overtime, we compared the cost of paying overtime to existing Firefighter/Paramedics to the cost of employing a new Firefighter/Paramedic. The figure below shows the estimated annual and hourly cost of a new Firefighter/Paramedic at Step 1 in the pay scale.

Figure 6: Estimated Cost Associated with a New Firefighter/Paramedic (Step 1)

Base Salary	**$**	**67,521**
Incentives	$	8,440
Base Salary + Incentives	**$**	**75,961**
FLSA Premium Pay	$	1,109
Holiday Pay	$	4,088
Uniform Allowance	$	910
Base Salary + Incentives + FLSA + Holiday + Uniform Allowance	**$**	**82,068**
Health and Retirement Benefits	$	42,918
Total Compensation + Benefits	**$**	**124,986**
Estimated Hourly Rate Including Incentives and Benefits*	**$**	**42.92**

**Assumes the example employee works 2,912 hours in the first year and does not use sick or vacation leave.*
Source: Auditor generated based on job classification and benefits data.

We then compared the estimated hourly rate above to the average overtime rate paid to existing Firefighter/Paramedics in 2015, as shown in figure 7. Using the total number of hours worked by Firefighter/Paramedics in 2015, we estimate that the City could have saved nearly $280,000 in labor costs by hiring new Firefighter/Paramedics instead of paying existing employees to work overtime.

Figure 7: Cost of a New Employee vs. Paying Overtime to an Existing Employee

Estimated Hourly Rate for a New Firefighter/Paramedic	$	42.92
Overtime Rate for an Existing Firefighter/Paramedic	$	46.03
Difference in Hourly Rate	**$**	**3.11**
Overtime Hours Worked by Firefighter/Paramedics 2015		89,947
Potential Cost Savings	**$**	**279,635**

Note: Numbers may not add up due to rounding.
Source: Auditor generated based on job classification and benefits data.

It is important to note that as employees advance through the pay scale over their first few years of employment, this cost advantage is eliminated. Employees hired laterally from other Fire Departments may also reduce this benefit as they are generally more experienced and may begin at a higher step in the pay scale. However, as the department historically averages approximately 20 employee separations per year, the department should continuously gain most of its new employees at this lower rate as normal attrition occurs and new employees are

hired on to replace employees that have separated from City employment. Based on our estimates, replacing employees that separate from the City with new employees instead of allowing existing employees to work more overtime could provide some initial cost savings and allow for more flexibility in the department's daily staffing. Another potential benefit of filling some of the approved positions is reduced fatigue in the department's existing employees. We recommend the department more aggressively pursue filling the vacant positions.

RECOMMENDATION

We recommend the Fire Department:

1. **More aggressively pursue hiring employees to fill approved positions.**

Reliance on Overtime Use

According to the Society for Human Resource Management (SHRM), the world's largest human resources professional society, overtime can be used as a way of managing fluctuations in work demand. Overtime use provides employers with immediate access to a pool of trained workers and allows for flexibility in staffing levels. However, SHRM also advises that effective overtime use "requires an understanding of the potential negative effects on employees; overtime use is not effective if it results in employee burnout, excessive turnover or a reduction in employee engagement." Fire Department suppression employees generally volunteer for overtime shifts, but they can also be subject to "mandatory" overtime when there are not enough employees signed up for voluntary overtime and day of vacancies still exist.

To evaluate the amount of overtime worked by Fire Department employees by job classification, we used eCAPS payroll data for calendar year 2015 to develop figure 8 below. Figure 8 shows the total number of overtime hours worked by employees in suppression job classifications, the cost associated with those hours, and the average cost of overtime per hour. As the vast majority of overtime was paid to suppression employees (Firefighter, Captains, Engineers, and Battalion Chiefs), we excluded overtime hours for other employees such as Fire Prevention Officers, Fire Investigators, Fiscal, and Human Resources employees.

Figure 8: 2015 Fire Department Suppression Employee Overtime Hours and Expense

Job Title[4]	Sum of Overtime Hours	Sum of Overtime Expense	Average Cost of Overtime Per Hour
Firefighter/Paramedic	89,947	$4,139,917	$46.03
Fire Captain/Paramedic	52,658	$2,969,376	$56.39
Fire Engineer/Paramedic	38,998	$2,001,106	$51.31
Firefighter	24,172	$937,727	$38.79
Fire Engineer	16,230	$794,345	$48.94
Fire Captain	13,837	$782,802	$56.57
Fire Battalion Chief	5,692	$374,123	$65.73
Fire Captain/Paramedic/Admin	5,057	$311,702	$61.64
Firefighter/Paramedic/Admin	1,975	$99,383	$50.32
Fire Battalion Chief/Admin	1,290	$90,916	$70.50
Fire Engineer/Admin	595	$33,232	$55.83
Fire Engineer/Paramedic/Admin	424	$24,401	$57.61
Fire Captain/Admin	10	$893	$89.32
Grand Total	**250,884**	**$12,559,922**	**$50.06**

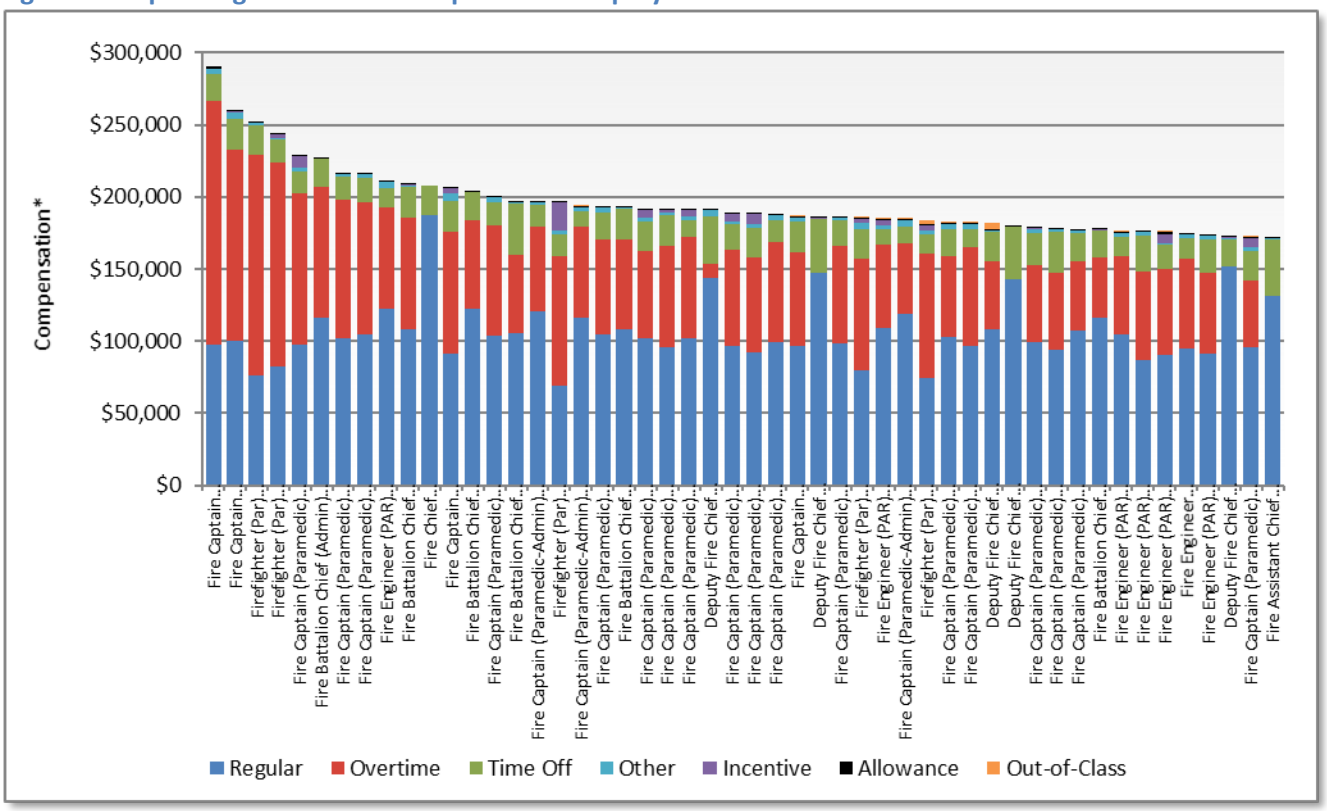
Source: Auditor generated based on eCAPS payroll data.

As the figure above demonstrates, in calendar year 2015 Fire Department suppression employees worked over 250,000 hours of overtime. This equates to an average of over 28 suppression employees earning a full shift of overtime each day (250,884 hours/365 days/24 hour shifts=28.6 overtime shifts per day). Using a 3,000-hour year for a Fire Department employee, this is also equivalent to 83 full-time employees (250,884/3,000=83.6).

Using the same eCAPS payroll data, we also developed the figure below that shows the relationship between Regular pay and Overtime pay for the top 50 highest paid employees. For comparison purposes, figure 9 includes salaried (exempt) employees, such as the Fire Chief, Deputy Chiefs, and Assistant Chiefs.

[4] "Paramedic" in the job title indicates these employees earn a Paramedic incentive. "Admin" indicates these employees earn the Administrative incentive.

Figure 9: Top 50 Highest Paid Fire Department Employees in 2015

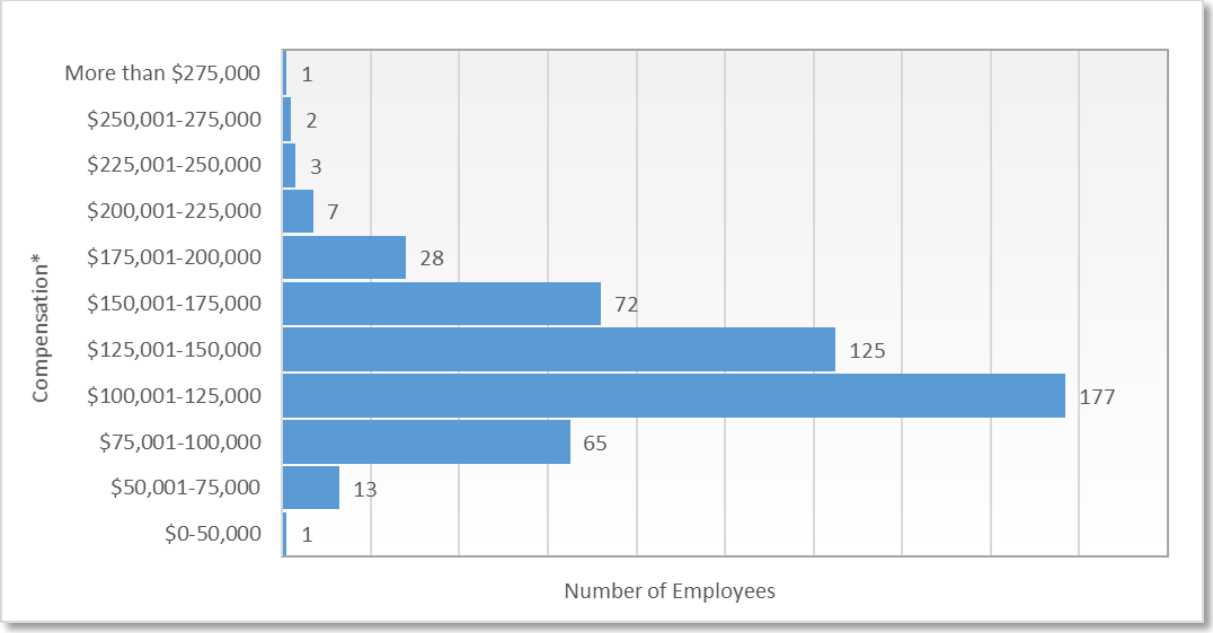


**These figures do not include employee health or retirement benefits.*
Note: Some employees earned overtime while working in positions that were eligible for overtime, prior to being promoted into exempt positions that are not eligible for overtime. Job titles are as of January 2016.
Source: Auditor generated based on eCAPS payroll data.

The blue areas in the figure above show payroll related to an employee's Regular pay, while the red areas show compensation related to Overtime pay. As shown in figure 9, some employees were able to more than double their income as a result of the availability of overtime hours. Ten Fire Department employees were able to accumulate so much overtime pay that they earned more than the Fire Chief. In our opinion, allowing this amount of overtime could result in undesirable consequences, some of which are discussed later in this report.

To demonstrate how the level of overtime worked in 2015 translates into employee payroll for all suppression employees, we developed the chart below that shows a count of employees by total hourly compensation who worked at least 2,000 hours in calendar year 2015. Incentives, allowances, and FLSA pay are included in the payroll compensation totals; however, retirement and health benefits are not included.

Figure 10: Count of Suppression Employees by Compensation Level in Calendar Year 2015



**Does not include employee health or retirement benefits.*
Source: Auditor generated based on eCAPS payroll data.

Over 300 suppression employees earned between $100,000 and $150,000 in payroll compensation and more than 100 suppression employees earned over $150,000. Again, these figures do not include other forms of employee compensation, such as health or retirement benefits, which significantly increase the overall cost of an employee.

The Fire Department Does Not Have a Formal Process in Place to Ensure Employees Receive Adequate Breaks Between Shifts

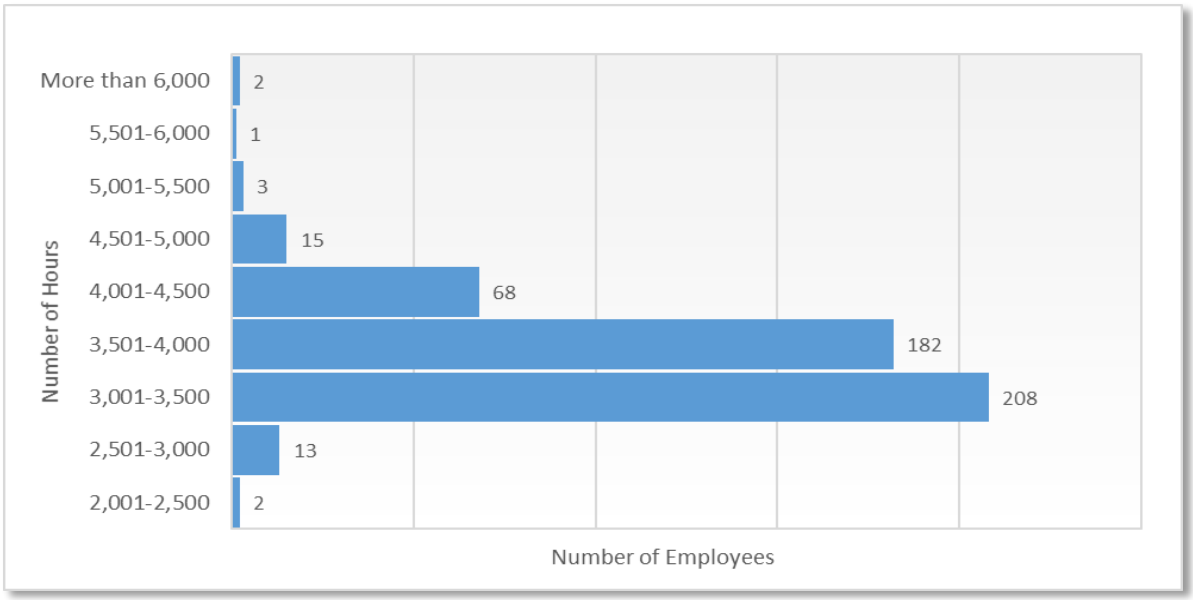
The ongoing staffing shortage has provided opportunities for the Fire Department's existing employees to work substantial amounts of overtime with no limit on the number of hours that employees can work. According to a 2007 study completed by the International Association of Fire Chiefs (IAFC)[5], the physiological and psychological impacts of working long shifts could lead to increased risk of health problems and side effects such as cardiovascular disease, motor vehicle crashes, substance abuse, and chronic fatigue. Working long shifts compounded with sleep deprivation could cause slower reaction times, lapses in attention, memory loss, and poor motor function.

Using eCAPS payroll data, we developed the figure below that shows the number of hours paid to suppression employees who worked more than 2,000 hours in calendar year 2015. As employees are paid hourly for sick, vacation, and holiday pay, these amounts are included in the totals. We only included employees eligible for overtime such as Firefighter, Engineer, Captain,

[5] International Association of Fire Chiefs. "The Effects of Sleep Deprivation on Fire Fighters and EMS Responders." June, 2007.

and Battalion Chief. This figure does not include "salaried" employees like the Fire Chief, Assistant Chiefs, or Deputy Chiefs.

Figure 11: Count of Suppression Employees by Number of Hours Paid in Calendar Year 2015



Source: Auditor generated based on eCAPS payroll data.

As the figure above demonstrates, almost 90 fire suppression employees worked more than 1,000 hours over and above their standard full-time shift of approximately 3,000 hours per year. Two employees accumulated over 6,000 paid hours in a year by working *more than double* a standard shift for a full-time suppression employee. For comparison purposes, we calculated that there are 8,760 hours in a year (365 days in a year x 24 hours per day). This means that for these two employees, nearly 70 percent of their total hours for the year were spent "on the clock."

Maximum work periods are established to help ensure the health and safety of employees who work long hours and the community they serve. Article 12.3 *Maximum Work Periods* from the Fire Department Unit labor agreement states that:

> *a. Employees, including those on mandatory callback, may work up to a maximum of seventy-two (72) hours without a break in service.*
>
> *b. Upon reaching the maximum allowable work period, employees shall be required to remain off-duty for a minimum of twelve (12) hours before being assigned to duty.*

In an effort to meet the department's constant staffing needs, the Fire Department routinely allowed employees to exceed the 72-hour maximum work period, stating that they interpreted the labor agreement to say that employees could not be "mandated" to work more than 72-hours, but could "voluntarily" work more than 72-hours. However, in our opinion, the language in the labor agreement does not appear to draw a distinction between "voluntary" and

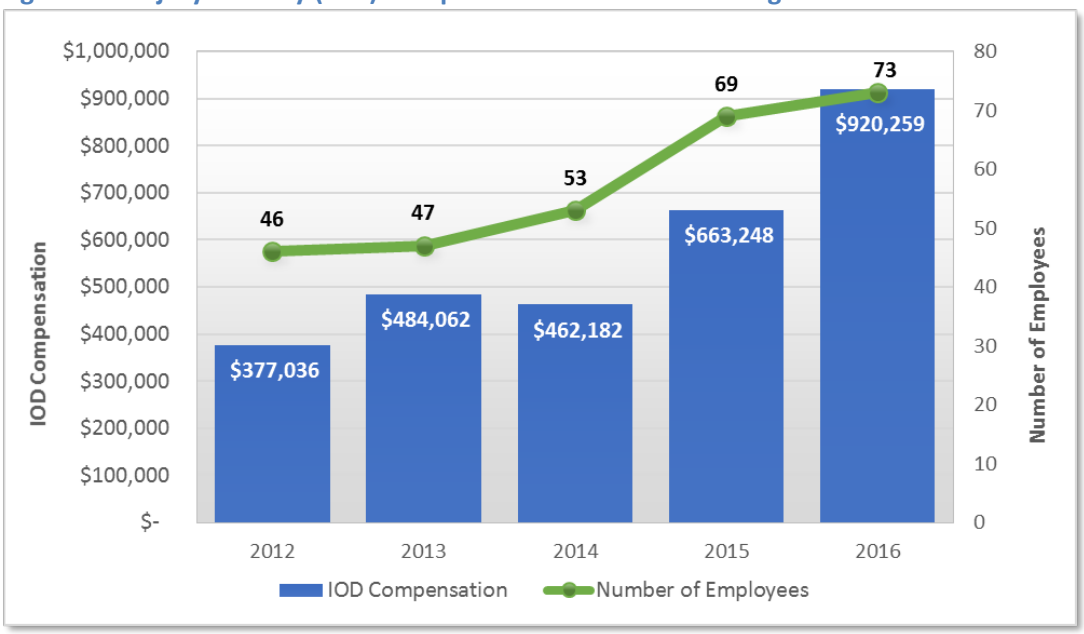
"mandatory" hours. The Roll Call Manual version 4.0 states that "with approval of the on-duty Battalion Chief, employees may volunteer to work more than the ninety-six (96) hours to maintain department staffing levels." This directive does not appear to be in compliance with the language in the labor agreement. In addition, the Fire Department does not have a formal process in place to assess whether employees are actually fit for duty when exceeding the 72-hour maximum work period defined in the labor agreement.

We reviewed roll call and timekeeping records for Fire Department employees and found employees regularly exceeded the 72-hour (3 day) maximum work period without a break in service[6]. In some instances, employees worked six 24-hour shifts in a row without a break between shifts. Allowing employees to regularly exceed the maximum work period inherently defeats the purpose for establishing a maximum work period. In our opinion, this is particularly problematic when employees have a significant financial incentive to sign up for additional shifts (i.e. overtime pay) and may not be able to objectively determine whether or not they are fit for duty.

The Use of Injury on Duty Hours Increased

Injury on Duty (IOD) hours are used when an employee is injured and cannot perform their regular duties. During our review of eCAPS and Telestaff hours, we noted an increase in the use of IOD time. Figure 12 shows the total dollar amount paid to employees for IOD time and the total number of employees that received IOD pay from 2012 through 2016. The totals in figure 12 do not include employees who received 24 hours or less of IOD pay for the entire year.

Figure 12: Injury on Duty (IOD) Compensation from 2012 through 2016



Source: Auditor generated based on eCAPS payroll data.

[6] This does not include Strike Team deployments.

In addition to the costs associated with increased IOD usage, another downside of increasing IOD use is that employees are not at work and are therefore not performing their regular job duties. As the department is not staffed to approved staffing levels, employees on IOD generally cause overtime to occur because their shifts must be backfilled with employees working overtime. While this data is simply provided to show a potential relationship, and does not establish causation, it is possible the increase in IOD hours may be a symptom of the excessive number of hours worked by suppression employees.

In our opinion, working excessive hours without a break in service could lead to a lower quality of health for employees and could reduce the quality of service to the public. We recommend the department implement controls to ensure compliance with the 72-hour maximum work period defined in the labor agreement and work to ensure employees receive sufficient rest between shifts.

RECOMMENDATION

We recommend the Fire Department:

2. **Develop controls to ensure compliance with the 72-hour maximum work period outlined in the labor agreement.**

Finding 2: Negotiated Overtime and Incentive Provisions May Have Unintentionally Increased Payroll Costs

Many of the provisions that affect employee working conditions and compensation reside in the City's various labor agreements which are negotiated between the labor unions and the City. This section discusses some of the negotiated labor agreement provisions that have contributed to the Fire Department's rising overtime costs. During our review, we found that some of the provisions negotiated in the labor agreements had adverse or unanticipated effects on the department's overtime costs and could potentially be candidates for modification or renegotiation during the next round of negotiations. Specifically we found,

- The "rank-for-rank" requirement may have added $850,000 in payroll costs;
- Bringing some negotiated overtime provisions in line with minimum FLSA requirements could save over $385,000 annually;
- Incentives are paid to employees who do not work the shift the incentive was designed for; and
- Over $30,000 was paid to employees for an incentive not included in the labor agreement.

Based on the information we reviewed, we estimate that overtime and payroll costs were increased by over $1,200,000 as a result of agreeing to some of these terms.

The Rank-for-Rank Requirement May Have Added $850,000 in Payroll Costs

Not only does the *number* of employees in the department affect overtime pay, as described in Finding 1, but the process by which the department chooses *who* to call in to fill vacant positions also influences the cost of overtime. Section 12(d) of the Local 522 labor agreement states that "*When it becomes necessary to call employees in to replace employees in non-emergency situations, employees of equal rank to the position which caused the recall shall be called for replacement*." In addition, a sentence was added to Article 18.1(b) in the 2014 labor agreement that further states "*Employees of equal rank to the position, which caused the recall, shall be assigned for replacement before an out-of-classification assignment*." The practice of replacing an employee with an employee of equal rank is more commonly referred to as "rank-for-rank" whereby employees of equal rank are called in on overtime when a shift is vacant. For example, when a Captain calls in sick, then another Captain is called in on overtime to fill the shift[7].

Prior to the implementation of rank-for-rank, the department could temporarily elect to bring up a "Captain Qualified"[8] Firefighter to substitute as a Captain for the vacant shift, pay the Firefighter a five percent out-of-class premium, and bring in another Firefighter at an overtime rate to replace the Firefighter acting as a Captain. Other City fire departments allow for the use of the out-of-class option. For example, the City of Oakland Fire Department labor agreement

[7] Rank-for-rank also applies to Engineers and Battalion Chiefs.
[8] A Firefighter that has passed the Captain exam and is on the promotional list.

allows for represented employees to work at a higher rank for up to four hours without any additional compensation.

Using out-of-class instead of rank-for-rank provides on-the-job training to Firefighters who have expressed a desire to promote to a higher classification. Firefighters gain the opportunity to temporarily work in the capacity of a Captain, thereby acquiring the valuable training and experience that comes with serving in a higher classification. Requiring that only Captains work as Captains strips lower ranking employees of this opportunity to gain experience that may otherwise help them prepare for career advancement. However, the potential downside of using the out-of-class option is that a less experienced person fills the position.

The figure below is used to illustrate an example of the difference in methodology between filling a vacant Captain position using rank-for-rank and out-of-class. Using the rank-for-rank example, a Captain is out sick and another Captain has been called in on overtime to fill the position. The Firefighter position in this example is unchanged and retains a regular pay rate. In the out-of-class example, the Captain is out sick and the Firefighter moves up to temporarily fill the Captain position and another Firefighter is called in on overtime.

Figure 13: Comparison of Rank-for-Rank to Out-of-Class for a Captain Vacancy

Captain Example					
Rank-for-Rank			**Out-of-Class**		
Rank	**Pay Type**	**Per Hour**	**Rank**	**Pay Type**	**Per Hour**
Captain	Sick	N/A	Captain	Sick	N/A
Captain	Overtime	$ 56.43	Firefighter	Out-of-Class 5%*	$ 33.51
Firefighter	Regular	$ 31.39	Firefighter	Overtime	$ 44.49
Combined Hourly Rate		**$ 87.81**	**Combined Hourly Rate**		**$ 78.00**

Per Hour Difference Between Rank-for-Rank and Out-of-Class	**$ 9.81**

**This includes an additional 35 percent PERS benefit on the 5 percent out-of-class premium.*
Source: Auditor generated.

As the figure above demonstrates, when we compared the hourly cost of bringing a Captain in on overtime to the cost of paying a Firefighter a five percent out-of-class premium we determined that on average it was nearly $10 per hour more expensive to implement the rank-for-rank staffing option. Based on the number of overtime hours worked by Captains, Engineers, and Battalion Chiefs in 2015 (less strike team overtime and holdover overtime hours) we estimate the department could have saved over $850,000 in labor costs by using out-of-class instead of rank-for-rank.

We asked the City's Budget Division about the anticipated cost of rank-for-rank and they stated that rank-for-rank, as it was implemented, was not costed by their office. In our opinion, the potential fiscal impact of negotiated contract provisions should be assessed during negotiations in order to determine the expected costs of the provisions. Failure to properly estimate the

potential impact of negotiated provisions may lead to unintended consequences, such as increased costs. We recommend the Human Resources Department renegotiate the requirement to fill vacancies using the rank-for-rank option.

RECOMMENDATION

We recommend the Human Resources Department:

3. **Renegotiate the requirement to fill vacancies using rank-for-rank.**

Bringing Some Negotiated Overtime Provisions in Line with Minimum FLSA Requirements Could Save Over $385,000 Annually

Employers are not required to pay exempt employees overtime pay for hours worked in addition to their regular schedule. Exempt employees are typically expected to work the number of hours required to complete the job. However, in some instances, provisions over and above these minimum FLSA requirements have been negotiated in the labor agreements.

Battalion Chiefs Receive Overtime Pay

The current Local 522 labor agreement states that while Battalion Chiefs are exempt from FLSA provisions, the City agrees to pay Battalion Chiefs overtime consistent with how overtime is calculated for hourly employees on all hours worked beyond their regularly scheduled shift. Prior to 2010, Battalion Chiefs were unrepresented City employees and were not eligible for overtime.

We reviewed labor agreements for eight California cities to determine if paying overtime to Battalion Chiefs was typical and found that, while most cities provided some type of additional compensation for working an extra shift, practices varied. Five of the eight cities provided overtime pay for all hours worked in excess of their regular schedule, two of the eight cities surveyed provided additional compensation only when Battalion Chiefs worked an additional shift, and one city did not provide overtime.

Figure 14: Battalion Chief Overtime Survey

City	Eligible for Overtime?
Fresno	Yes.
Long Beach	Yes.
Oakland	Yes.
Roseville	Yes, but only when covering a shift assignment.
San Diego	Yes.
San Jose	Yes.
San Mateo	No. Eligible for a flat rate of $1,900 when working an additional shift.
Santa Clara	No.

Source: Labor agreements and memorandum of understanding.

Based on the survey results, it does not appear that paying Battalion Chiefs for overtime hours is an unusual practice. However, overtime compensation for Battalion Chiefs is not required by

the FLSA and is subject to the labor negotiation process. We asked the City's Budget Division and the Labor Relations Division about the overtime provision and they stated that the potential cost associated with adding this provision to the labor agreement was not estimated by their offices during labor negotiations. Negotiated provisions such as this add to the department's overtime costs. Based on the department's payroll and timekeeping records, we estimate the cost of paying Battalion Chiefs overtime (not including strike team deployments) is approximately $385,000 per year. As this is a negotiated provision, and the cost of this provision was not estimated during labor negotiations, we recommend the cost of this provision be reevaluated to determine if it could be reduced to only being provided when working an additional shift, or be brought in line with minimum FLSA requirements.

Hours Paid Versus Hours Worked

The Fair Labor Standards Act (FLSA), requires employees be paid overtime based on the number of *hours worked*[9]. With the exception of sick leave, which was negotiated during the most recent labor agreement, overtime is currently being calculated based on the number of *hours paid* to employees, not the number of *hours worked.* This means that all other leave types, such as vacation leave, are still included in the overtime calculation.

For illustration purposes, we selected a sample employee and compared the difference in payroll costs between including and excluding vacation hours in the *hours worked* calculation. We used the employee's payroll data to develop figure 15 below. The figure shows the total number of hours reported by pay type during the 24-day FLSA period, as reported on the employee's timesheet.

Figure 15: Number of Hours Paid in a 24-Day FLSA Pay Cycle for an Example Employee

Pay Type	Hours
Regular	144
Overtime	27.5
Vacation Leave	44.8
Holiday Earned Leave	3.2
Grand Total	**219.5**

Source: Auditor generated based on eCAPS timesheet and payroll data.

In this example, the employee was paid for working 144 hours of regular time and 27.5 hours of overtime. These hours are generally representative of *hours worked* for FLSA purposes, because the employee is required to be on duty during these hours. The 44.8 hours of vacation and 3.2 hours of holiday leave generally do not represent *hours worked* because the employee is taking leave time and is not required to be on duty. However, the City currently includes these leave

[9] Hours *worked* ordinarily includes all time during which an employee is necessarily required to be on the employer's premises, on duty, or at a prescribed work place. *U.S. Department of Labor FLSA Fact Sheet #22.* https://www.dol.gov/whd/regs/compliance/whdfs22.pdf, 2008.

types when calculating the total number of *hours worked* before an employee is paid at an overtime rate.

The example employee in figure 15 was on duty a total of 171.5 hours (144 regular + 27.5 overtime), which does not meet the minimum FLSA requirement of 182 *hours worked* in a 24-day period before overtime is required. Using the $31.71 hourly pay rate this example employee earns, we estimate that by including vacation and holiday in the *hours worked* calculation, the City paid the employee approximately $436 more than was required by minimum FLSA standards. By excluding additional types of leave from the overtime calculation, such as vacation and holiday, the City could potentially reduce overtime costs.

RECOMMENDATION

We recommend the Human Resources Department:

4. **Bring negotiated overtime provisions more in line with minimum FLSA requirements.**

Incentives are Paid to Employees Who Do Not Work the Shift the Incentive Was Designed For

Pay incentives are provided to many of the Fire Department's suppression employees who maintain specific skills or certifications. For example, after 3.5 years of seniority, suppression personnel are eligible to receive a 9.5 percent incentive for maintaining a Fire Science Certificate. These incentives are generally calculated as a percentage increase to base pay that is added to an employee's hourly rate for all hours (regular, vacation, sick, and holiday). However, some incentives are earned by being assigned to a specialty shift, such as an Administrative Assignment, Medic Assignment, Hazmat Team, Rescue Team, or Boat Company.

For example, figure 16 shows the labor agreement language related to Administrative Assignment Pay and Medic Assignment pay.

Figure 16: Administrative Assignment and Medic Assignment Pay Excerpts from the Fire Labor Agreement

Administrative Assignment Pay	When Fire Administration assigns a suppression employee to an administrative assignment for a period of more than thirty (30) working days, the employee shall receive nine and one-half percent (9.5%) in addition to the regular rate of pay.
Medic Assignment Pay: Regularly Scheduled	Effective June 21, 2008, employees in the classification of Firefighter who are regularly scheduled to work on the ambulance shall receive an additional seven and one-half percent (7.5%) incentive on top of the base pay.
Medic Assignment Pay: Medic Relief Team	Effective May 31, 2014, employees in the classification of Firefighter who are on the Medic Relief Team shall receive an additional seven and one-half percent (7.5%) incentive on top of base pay for all regular duty hours worked on the ambulance.

Source: Excerpts from Local 522 labor agreement.

However, we noted some instances where administratively assigned employees received incentives when they were not actually working the shift the incentive was designed for. For example, due to the department's shift bid process, which is done by seniority, we noted that some employees were able to earn both an Administrative Assignment pay incentive (9.5 percent) and a Medic Assignment pay incentive (7.5 percent) at the same time by successfully bidding for a Medic Assignment while they were also on an Administrative Assignment. As a result, these employees receive a medic incentive even though they do not work a medic assignment.

The figure below provides an example Firefighter/Paramedic that earns both a Fire Administrative Assignment incentive and a Medic Assignment incentive. The result of earning both incentives at the same time is an increase the in the employee's overall hourly compensation rate by $3.81 per hour for the Administrative Assignment incentive and $3.00 per hour for the Medic Assignment incentive. Both incentives are being earned on all hours (regular, vacation, sick, overtime, etc.) even though this employee is not actually working the medic assignment for which the incentive was designed.

Figure 17: Example of Hourly Compensation Pay Components for a Firefighter (Paramedic-Admin) with a Medic Assignment Incentive

Rate Code	Description	Hourly Rate	Frequency	Percent
BAFIRE	Bachelor's Degree	$2.00	Hourly	5.0
FIRADM	Fire Admin Assignment	$3.81	Hourly	9.5
FIRSCI	Fire Science	$3.81	Hourly	9.5
MDASGN	Medic Assignment	$3.00	Hourly	7.5
NAHRLY	Base Pay Rate	$40.07	Hourly	
TOTAL		**$52.69**		

Source: eCAPS payroll system.

This employee earns an additional $3.00 per hour on all hours worked for the Medic Assignment Pay incentive. Therefore, while the employee is on a 2,080-hour work year, the employee earns an additional $3 x 2,080 = $6,240 per year in base compensation as a result of this incentive. As of June 2016, there were nine Fire Department employees receiving both an Administrative Assignment Pay incentive and an incentive for another assignment (Medic, Boat, Hazmat, or Rescue company). We estimate the additional cost to the City of allowing administratively assigned employees to receive an incentive for a shift they "bid" but are not actually working is approximately $44,000 per year.

The cost of this practice is further compounded when considering that a different employee must actually work the assignment the incentive was intended for. Using this method, the department is effectively doubling up on the incentive pay for these assignments. The administratively assigned employee receives the incentive because they successfully bid the shift, and another employee receives the incentive for actually working the shift.

While the labor agreement does not explicitly prohibit this practice, our opinion is that compensating employees with a salary-based incentive for assignments they do not work, is not an efficient labor practice. This practice does not appear to be in alignment with the purpose for providing these types of incentives, which is to offer a financial benefit to those who take on a less desirable or more demanding assignment. We recommend negotiating the removal of assignment pay for employees who are not working the assignment the incentive was designed for.

RECOMMENDATION

We recommend the Human Resources Department:

5. **Negotiate that assignment pay not be provided to employees who do not work the shift the incentive was designed for.**

Over $30,000 Was Paid to Employees for an Incentive Not Included in the Labor Agreement

Employee incentives and allowances are generally determined during the regular contract negotiation process between the City and various labor unions. As per the 2014 Local 522 labor agreement, Engineers and Captains receive an incentive of 4 percent of base salary for the possession of a paramedic license. Firefighters receive a 10 percent incentive for maintaining a paramedic license. Similar to other incentives, these percentages were negotiated and agreed to as part of the Fire employees' labor union agreement with the City. When we reviewed the department's roll call practices we noted the Fire Department is also providing an additional $25 per day in "Primary Paramedic Pay" when Captains or Engineers are assigned as the sole paramedic or "primary" paramedic on an apparatus for a given day. However, this $25 per day Primary Paramedic incentive is not acknowledged or defined in the labor agreement.

The Primary Paramedic Pay appears to have been implemented after the settlement of a 2002 grievance in which the City's Labor Relations Division agreed to pay a $25 daily paramedic supplement to Captains and Apparatus Operators[10] when the employees were "required to provide advanced life support paramedic services due to being the first available paramedic at the scene." The settlement agreement states that the purpose for providing this incentive is to reduce the frequency with which these employees provide advanced life support as the initial paramedic on scene. However, based on our discussions with current Labor Relations staff, it appears they were not aware of this 2002 agreement and therefore did not consider this incentive during subsequent rounds of labor negotiations.

In addition, the 2002 grievance notes that "continuation of the payment as indicated herein shall be reviewed if payment exceeds two thousand five hundred dollars ($2,500) in a fiscal year." We reviewed the amount of Primary Paramedic incentive paid to Fire employees in the last three years and used the information to develop the figure below. As shown in figure 18, from 2013 to 2015 the Fire Department paid over $30,000 in Primary Paramedic incentives. The annual yearly average of $10,000 clearly exceeds the $2,500 threshold outlined in the grievance settlement.

Figure 18: Primary Paramedic Pay from 2013 through 2015

Earn Code	Earn Code Description	2013	2014	2015	Grand Total
FPM	Primary Paramedic	$8,825	$11,075	$10,875	**$30,775**

Source: Auditor generated based on eCAPS data.

Based on the information we reviewed, the amount paid to Fire Department employees in Primary Paramedic Pay should have been reevaluated after it initially exceeded the designated $2,500 threshold. We recommend Labor Relations evaluate the necessity of this incentive. Doing so could potentially save the City approximately $10,000 per year in incentive costs.

RECOMMENDATION

We recommend the Human Resources Department:

6. **Evaluate the necessity of Primary Paramedic Pay.**

[10] Fire Apparatus Operators are now known as Fire Engineers.

Finding 3: The Fire Department Lacks Sufficient Controls Over the Administration and Use of Overtime

Policies and procedures are a foundational element of a well-controlled environment and help to establish guidelines and document expectations for both employees and managers. A lack of guidance on the proper uses for overtime or lack of direction on how to document overtime usage could potentially lead to fraud, waste, or abuse. Our review of the administration of overtime use found that policies have not been formally documented, accountability for overtime use has not been established, and several employees can enter their own overtime hours in the staffing system without supervisory approval prior to the information being uploaded to the payroll system. More specifically, we noted the Fire Department:

- Has not established a formal overtime use policy;
- Does not consistently document supervisory review/approval of overtime use or special pay codes;
- Has an excessive number of users with the ability to make changes in the system; and
- Has a complex roll call process that could provide opportunities for fraud, waste, or abuse.

Internal controls promote efficiency, reduce risk of loss, and help to ensure compliance with laws and regulations. COSO[11], a joint initiative of private sector accounting and auditing organizations, provides a brief description of internal control activities as follows:

> *"Control activities are the policies and procedures that help ensure management directives are carried out. They help ensure that necessary actions are taken to address risks to achievement of the entity's objectives. Control activities occur throughout the organization, at all levels and in all functions. They include a range of activities as diverse as approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets and segregation of duties."* [12]

The lack of sufficient internal controls over the administration and use of the Fire Department's overtime, including inadequate documentation to support overtime entries, made it difficult to decipher if the entries were legitimate. Without supporting documentation to indicate why overtime was requested or if it was approved, we were often unable to determine if overtime entries were appropriate. Therefore, we focused our analysis on entries that were clearly incorrect to highlight the need for additional oversight and approval of overtime use.

[11] The Committee of Sponsoring Organizations of the Treadway Commission (COSO).
[12] *Internal Control-Integrated Framework*, COSO, http://www.coso.org/documents/Internal%20Control-Integrated%20Framework.pdf.

The Fire Department Has Not Established a Formal Overtime Use Policy

The U.S. Government Accountability Office (GAO) recommends establishing policies that provide direction on the responsibility and accountability of timekeeping records.[13] During our review of Fire Department overtime use we noted a general lack of policies and procedures to establish direction and provide accountability by indicating who is responsible for performing the various aspects of overtime monitoring and approval. For example, the Fire Department does not have a policy that specifies the circumstances in which personnel may be authorized to work overtime or how supervisory approvals for overtime will be documented. In addition, the Fire Department does not have a clear policy that outlines the process for requesting or recording overtime.

When we reviewed the Fire Department's overtime use we noted that in some instances employees entered their own overtime and in other instances the overtime was entered by someone else. There is no policy that specifies when each method should be used, which could result in confusion over which method is appropriate. In our opinion, a system of controls to monitor overtime use should include direction from management that outlines the process for requesting overtime, approving overtime, supervisory review, monitoring for errors or abuse, timecard adjustments, and system access. A lack of clear direction and accountability regarding the use of overtime could lead to fraud, waste, or abuse.

RECOMMENDATION

We recommend the Fire Department:

7. **Establish policies on the administration and use of overtime.**

Overtime Use Does Not Require Supervisory Approval

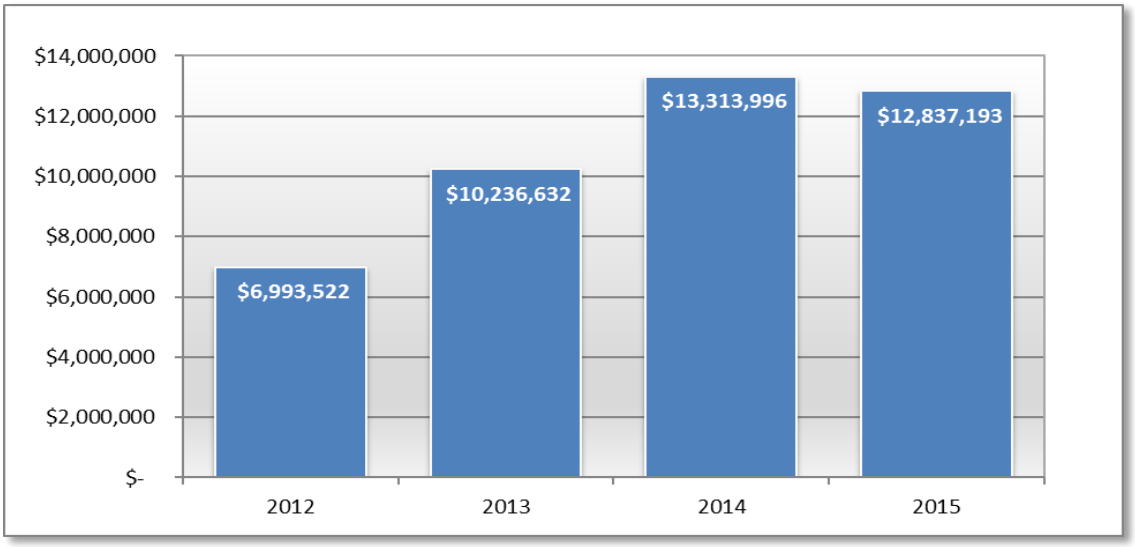
According to the GAO, supervisory authorization and approval is a key part of ensuring accuracy of time and attendance information. The *Audit of City Employee Supplemental Pay*, released by the Sacramento Office of the City Auditor in 2013, identified material weaknesses in the Fire Department's timekeeping practices. Specifically, the audit found that Fire Department supervisors do not formally approve employee timesheets, even when overtime hours are charged. The *Audit of City Employee Supplemental Pay* made a recommendation to establish approval of employee timesheets. However, this recommendation has not been implemented and formal approval is still not required.

The *Audit of City Employee Supplemental Pay* highlighted the need for supervisors to formally approve timesheets because of the large amount of overtime that the Fire Department granted to its employees. As the figure below indicates, the Fire Department's overtime costs have

[13] U.S. Government Accountability Office, GAO-03-352G *Maintaining Effective Control over Employee Time and Attendance Reporting*, 2003.

grown since the audit was issued, further emphasizing the need for supervisory review and approval of overtime use.

Figure 19: Fire Department Overtime Costs Per Calendar Year



Source: Auditor generated based on the Audit of Supplemental Pay and eCAPS payroll data.

Not only has overtime use grown *department-wide*, but our comparison of overtime use from the previous audit report indicates that *individuals* have been able to accumulate even more significant amounts of overtime. The figure below shows the top five overtime users within the Fire Department in 2012 and the cost associated with those overtime hours, compared to the top five overtime users in 2015. These totals do not include regular pay or the FLSA premium pay that is built into an employee's regular schedule.

Figure 20: Comparison of Employees with Highest Overtime Hours in 2012 and 2015

2012			2015		
Job Title	Overtime Hours	Overtime Cost	Job Title	Overtime Hours	Overtime Cost
Engineer	2,043	$ 89,110	Firefighter	3,287	$ 152,730
Firefighter	2,042	$ 94,866	Captain	2,971	$ 168,876
Engineer	1,824	$ 82,744	Firefighter	2,842	$ 140,532
Engineer	1,658	$ 73,131	Captain	2,181	$ 132,108
Engineer	1,512	$ 65,940	Firefighter	1,855	$ 86,194

Source: The Audit of Supplemental Pay and eCAPS payroll data.

During our review, we noted that on the occasions when an employee did request an "approval" for specific instances of overtime use, the request was made via email after the overtime had already been worked. In our opinion, using employee email as a recordkeeping system for overtime approval is not advisable as it is difficult to retrieve the records after the fact. For example, when we requested evidence of email approvals for a sample of approximately 40

overtime entries, the department was not able to provide it, stating it was too time consuming to locate the emails. Without adequate documentation to support overtime use, and without controls in place to monitor overtime use, the department is exposed to the risk of inaccuracies in tracking employee time, supervisors inappropriately assigning overtime, or employees being paid for time they did not work. The lack of documentation to support overtime entries made it difficult to identify instances of fraud or abuse, however we were able to identify some obvious errors in the timekeeping system as noted below.

Primary Paramedic Pay Errors

As mentioned previously, Primary Paramedic Pay is a flat $25 per day incentive paid to Captains or Engineers for being the primary paramedic in a fire company. This incentive is entered into the timekeeping system, Telestaff, as one hour of pay at $25 and then later imported into eCAPS for payroll processing. We reviewed all instances of the Primary Paramedic Pay code "FPM" in eCAPS for 2013 through 2015. Below are some examples of instances where users incorrectly entered the incentive code as 24 hours, paying the employee $600 instead of $25.

Figure 21: Examples of Paramedic Pay Errors in 2013 and 2014

Pay Period End	Job Code Description	Earn Code	Earn Code Description	Number of Hours	Amount of Incentive	Amount of Error
5/3/2013	Firefighter	FPM	Primary Paramedic	24	$600	**$600**
11/29/2013	Captain	FPM	Primary Paramedic	24	$600	**$575**
11/29/2013	Engineer	FPM	Primary Paramedic	24	$600	**$575**
3/21/2014	Engineer	FPM	Primary Paramedic	24	$600	**$575**
3/21/2014	Captain	FPM	Primary Paramedic	24	$600	**$575**
5/16/2014	Engineer	FPM	Primary Paramedic	24	$600	**$575**
Total						**$3,475**

Source: Auditor generated from eCAPS payroll data.

Six Fire Department employees were incorrectly paid $600 of Primary Paramedic Pay instead of the flat $25. In addition, the first employee on the list does not appear to be eligible for the incentive because this person is not a Captain or Engineer. The total overpayment amount for these timekeeping errors is $3,475.

We should also note that two additional incorrect entries of 24 hours were made in 2014, however these errors were caught and corrected. The City's Payroll Division now has an exception report in place that identifies this specific error; however, there are many other types of timekeeping errors that may not be caught by this type of query. In our opinion, these entries serve as an example of why it is important to have supervisory oversight of the department's timekeeping processes. If employees have the ability to make timekeeping entries without formal supervisory approval, or they are not familiar with how the payroll codes work, then incorrect entries could be made and go undetected.

Holdover Overtime Timekeeping Errors

Holdover Overtime (OH) is a timecode generally used to record instances of overtime use when an employee stays at work after their shift ends because they had to stay late and "holdover." This could be for various reasons, but generally occurs when an employee has not been relieved by the next employee on shift. Holdover Overtime is typically entered in increments of 1 hour or less. We evaluated the use of the OH code in Telestaff for calendar year 2015 and noted three erroneous uses of holdover overtime where employees were paid for 24 hours in a single day.

Figure 22: 24 Hours of Holdover Overtime in a Single Day

Job Title	Date	Work Code	Work Code Description	Assignment	Number of Hours	Amount of Error
Captain	6/6/15	FOT	Overtime Holdover Suppression (OH)	Truck 7	**24**	**$1,419**
Engineer	9/12/15	FOT	Overtime Holdover Suppression (OH)	Rescue 20	**24**	**$1,281**
Firefighter	11/7/15	FOT	Overtime Holdover Suppression (OH)	Engine 4	**24**	**$1,024**
Total					**72**	**$3,724**

Source: Auditor generated based on Telestaff and eCAPS data.

As a result of these erroneous entries, three employees were paid for 24 hours of overtime when it is likely they only worked an hour or two of overtime. The lack of accountability and oversight of the Fire Department's timekeeping system makes it difficult to determine who is responsible for detecting and preventing these types of errors. It is important to note that these entries were not made by the employees who received the overtime, but were entered by employees with Advance Staffer authority in the timekeeping system. Controls, such as supervisory review and additional exception reports, should be in place to prevent or detect these types of errors from occurring.

In addition to the errors identified above, some employees used far more than the average amount of holdover overtime. The average amount of Holdover Overtime for calendar year 2015 was less than 5 hours per employee. However, one employee recorded over 50 hours of Holdover Overtime. Due to the lack of recordkeeping and approvals, we were unable to evaluate the legitimacy of these entries. However, they do highlight the need for formal approval of overtime entries. As several employees can enter their own overtime hours, and the Fire Department's timekeeping system does not require supervisory approval, there is a serious lack of accountability regarding who is responsible for ensuring employees do not abuse overtime. In addition, policies and procedures should define who is responsible for approving these entries in order to provide accountability when errors do occur. Other City departments require supervisor approval in order to process timesheets and, in our opinion, the Fire Department should implement similar controls over their timekeeping system.

Special Duty Hours Are Increasing

Special Duty is a generic timecode the Fire Department uses for various reasons, including when an employee is assigned to work on a special project or attends training. However, we found no formal policies that guide employees on the use of Special Duty time, such as when it is appropriate, or how it is to be used. The lack of guidance on the appropriate use of this timecode could provide opportunities for abuse.

We developed figure 23 below using Telestaff data, which shows the number of Special Duty hours used from 2013 through 2015 and the estimated cost of those hours. When we reviewed the use of Special Duty time, we found the use of this time timecode has been increasing over the last few years, with over 10,000 hours of Special Duty time used in 2015. To provide context, 10,000 hours is equivalent to 3 full-time employees (10,000 / 3,000 = 3.3 FTE). Using an average rate of $32 per hour for hourly suppression employees, we estimate the cost of Special Duty time in 2015 was over $300,000.

Figure 23: Use of Special Duty Work Codes

Description	2013 Hours	2014 Hours	2015 Hours	Total Hours
Special Duty Chief/Admin (SD Chief/A)	135	431	666	1,232
Special Duty Facilitator (SDF)	19	8	34	61
Special Duty Instructor (SDI)	29	75	402	506
Special Duty Student (SDS)	2,442	860	5,443	8,745
Special Duty Suppression (SD)	3,623	7,253	4,133	15,009
Total of Special Duty Hours	6,248	8,627	10,678	25,553
Estimated Cost of Special Duty Hours	$199,936	$276,064	$341,696	$817,696

Source: Auditor generated based on Telestaff data.

While there may be a variety of reasons why this level of Special Duty time is needed, the increasing rate of Special Duty use is concerning. In our opinion, the use of Special Duty time should be closely monitored and controlled in order to prevent potential fraud or abuse. Due to the department's current staffing level, when an employee is assigned to Special Duty, another employee is generally called in on overtime to replace the person on Special Duty. These overtime costs are not represented in the figure above, but significantly increase the ancillary cost of using Special Duty time.

During our review, we also identified 16 instances in calendar year 2015 where employees had received Special Duty pay upon returning from Strike Team deployments. While not all of the entries had notes to help decipher what the Special Duty time was for, some of the notes indicated it was for "down time" so they could go home and rest, instead of returning to work to finish their regular shift. Fire Department staff stated the purpose for this was to ensure that employees received enough rest before returning to work.

While it is important to ensure that employees who work long shifts receive sufficient downtime, in our opinion it is not an efficient practice to pay hourly employees Special Duty pay

for time spent resting at home. This practice is not defined in the department's labor agreement or internal policies and could be subject to fraud, waste, or abuse. While there may be other instances of employees who received Special Duty pay after returning from a strike team, these instances would be more difficult to identify due to poor recordkeeping practices. Based on our analysis, we estimate the cost of these 16 instances to be approximately $7,500.

Allowing employees to use increasing amounts of Special Duty time add to the department's overtime costs when these shifts are backfilled. In our opinion, the Fire Department should provide guidance on the use of Special Duty codes and implement a process to monitor the use of Special Duty codes to ensure that they are only used for appropriate purposes and are not being abused.

RECOMMENDATIONS

We recommend the Fire Department:

8. **Document the purpose for overtime use in a consistent and retrievable format.**
9. **Document supervisory approval of overtime use in a consistent and retrievable format.**
10. **Provide guidance on the use of Special Duty pay, including the practice of providing rest time after returning from strike team deployment.**

Manual Adjustments to the Timekeeping System Can Be Made by Several Employees

The Institute of Internal Auditor's (IIA) *Global Technology Audit Guide on Identity and Access Management* (GTAG 9) states that "As part of its Identity and Access Management (IAM) monitoring process, the organization should establish a methodology to periodically review the access rights granted to all identities residing in its IT environment." In our opinion, user accounts should be reviewed on a regular basis to ensure the number of users and their level of permission is commensurate with their responsibilities and limits the potential for theft or abuse. When we reviewed access to Telestaff we found that several employees had the ability to make significant changes to the department's timekeeping and payroll data.

We ran a report of all user access levels in Telestaff and consolidated the information into the figure below. As of July 2016, the Fire Department had 148 users in the system with "Advance Staffer" access.

Figure 24: Number of Telestaff Users with Authorization Override Ability

Authorization Override Code	Count of Users with Authorization Override
System Administrator	5
Advance Staffer	148
HR Staffer	4
Administrative Staffer	2
Grand Total	**159**

Source: Auditor generated based on Telestaff records.

Advance Staffers have the ability to make significant changes to the Fire Department's timekeeping system, including adjustments to the roster which ultimately affect employee pay codes and incentives.

The figure below shows the rank or title of each of the 148 users with Advance Staffer access to the Telestaff system. As the figure indicates, there are various job classifications within the Fire Department that have the Advance Staffer authority.

Figure 25: Number of Users with Advance Staffer Access by Rank

Rank (Title)	Count of Users with Advance Staffer Access
Captain	110
Battalion Chief	10
Assistant Chief	5
Typist Clerk III	4
FPO Senior	3
Deputy Chief	2
Staffing Captain	2
Typist Clerk II	2
Program Specialist	1
Investigator II	1
Investigator I	1
Admin Analyst	1
Program Analyst	1
Admin Assistant	1
Fire Service Worker II	1
Admin Tech	1
FPO2	1
Cache Logistics Coordinator	1
Grand Total	**148**

Source: Auditor generated based on Telestaff records.

The IIA's GTAG 9 guidance states that an organization's policy framework should "provide sufficient information to all employees about how user identities and access rights are to be managed, reviewed, and approved. Furthermore, the policy framework needs to explain how new business processes, applications, systems, and data repositories can be configured to align with the policy framework, as well as to ensure the new policies do not expose the organization to excessive risk."

The Fire Department does not have an access policy that defines who should have access to the Telestaff system and what those levels of access should entail. As a result, there is a serious lack of direction on who should have access to the system and what their access level should be. As there is no formal guidance on Telestaff system access, users may have inappropriate or conflicting access. Since Telestaff serves as the Fire Department's timekeeping system and feeds into the City's payroll system, there should be access controls in place to ensure only appropriate and authorized users have the ability to make changes.

All users with Advance Staffer access have the ability to enter or adjust their own overtime, without formal supervisory approval. The Fire Department's timekeeping and payroll process lacks appropriate segregation of duties in that many employees can enter overtime without formal supervisory review and approval. In our opinion, allowing this many users to make adjustments to timekeeping records without proper oversight increases the risk of fraud, waste, or abuse.

Employees Entered or Modified Their Own Overtime Data Without Formal Approval

In addition to many users having the ability to make adjustments to other employee records in the Telestaff system, users can also adjust their own timekeeping records. Using Telestaff data, we reviewed timekeeping entries for all Battalion Chiefs in calendar year 2015 and found that over 2,300 hours of overtime was entered or modified by Battalion Chiefs in relation to their own timecards. The estimated value of these hours is approximately $155,000. Similarly, over 80 suppression employees below the rank of Battalion Chief, with Advance Staffer access, entered or modified just over 3,700 hours of overtime in relation to their own timekeeping records. We estimate the value of these entries to be just over $182,000.

As the Telestaff system does not require supervisory approval of employee time prior to being uploaded to the payroll system, Fire Department employees were able to enter or modify a total of approximately $337,000 worth of their own overtime hours without formal supervisory approval. In our opinion, the Fire Department is at risk of timecard fraud or abuse by allowing employees the ability to enter their own overtime without formal supervisory approval.

RECOMMENDATIONS

We recommend the Fire Department:

11. **Develop, document, and enforce system access controls for Telestaff users.**
12. **Strengthen controls to monitor the use of timecodes to prevent and detect errors, fraud, and abuse.**

The Roll Call Process is Complex and Could Provide Opportunities for Fraud, Waste, or Abuse

The *Roll Call Staffing Manual* is a document that provides direction to Fire Department employees on how to administer daily staffing assignments using the department's staffing software (Telestaff). The purpose of the roll call manual is to outline the department's daily staffing practices and to set expectations for both the employees administering the roll call process and those employees affected by staffing changes or assignments. It is important to note that the roll call manual provides direction on how to assign shifts; it does not provide direction on responsibilities related to overtime use or approval.

The direction provided by the roll call manual should be in alignment with the terms outlined in the labor agreement. However, when we reviewed the roll call manual we found that not everyone was using the same version, the manual was complex, and that instead of bringing department operations into alignment, daily staffing was often a source of contention.

Multiple Versions of the Roll Call Manual Are Being Used

Policies and procedures guide employees on how to perform the day to day operations and implement management's expectations. Document version control is important because it helps to ensure that all parties involved are operating from the same set of instructions at the same point in time. When an updated version of a manual or procedure supersedes a prior set of instructions, all affected parties should be notified of the change and directed to use the updated version of the instructions. When we spoke with employees responsible for various aspects of the roll call process and reviewed communications between department employees, we noted multiple versions of the roll call manual were in use. In our opinion, using multiple versions of a policy confuses the message surrounding management's expectations of employees and could lead to errors or misunderstandings.

In comparison, the Fire Department assembles many of its procedures in a *Manual of Operations*. The operations manual serves as the primary resource for the operational policies and procedures for the department. The procedures contained in the operations manual are signed by the Fire Chief, signifying that employees are being formally directed to follow the procedures. We noted that the roll call manual is not part of the operations manual and that none of the roll call manual versions we were provided were signed by the Fire Chief to indicate that they had been formally reviewed or approved for use. Policies should be reviewed and

approved by management prior to being implemented to ensure they are in alignment with management's expectations.

RECOMMENDATION

We recommend the Fire Department:

13. **Develop a process to ensure all relevant parties are using the same version of the Roll Call Staffing Manual.**

Lack of Direction and Understanding of How Roll Call Rules Should Be Applied

Employee compensation is governed by several internal and external factors. Some of these factors include applicable laws, regulations, job requirements, and agreed upon labor provisions. As stated previously, the roll call manual's purpose is to provide guidance to Fire Department employees on how to input the terms of those laws and agreements into the software system. We reviewed the roll call manual and found the language did not always mirror the language in the labor agreements that govern firefighter compensation and working conditions; in some instances, it appeared to create new rules that had not been addressed in the labor agreement. For example, roll call manual version 3.2 revised May 12, 2015 states that *"HM [Hazmat] Unassigned personnel in good standing, receiving the Hazmat incentive that are administratively moved to a new shift shall retain their 2.5% Hazmat incentive."* However, the Fire Department's labor agreement does not address this issue and does not explicitly state that administratively assigned employees will retain the 2.5 percent hazmat incentive. While we acknowledge that not every situation can be outlined in the labor agreement, adding practices such as this to the roll call manual could provide opportunities for the department to circumvent or contradict the terms of the labor agreement. In addition, disputes could arise over how to administer the daily roll call process and how to properly compensate employees.

We noted various disagreements between management, roll call personnel, and the labor union on how to administer the daily roll call process including how to compensate employees when they "work down" to a lower rank, when to apply incentives, and how to pay employees when a station is "browned out" and employees are moved to a different station. As the roll call system (Telestaff) is being used to determine employee pay codes, it is important that there is a clear understanding of how these pay codes should be applied to prevent employees from receiving an incorrect pay rate.

It appears the roll call manual may have been used as a vehicle to facilitate agreement between Fire Operations and the Labor Union on how these types of issues should be implemented. However, the City's Labor Relations Division was not part of the roll call manual development or editing process and therefore did not have visibility into how these items were being amended or implemented. In our opinion, the roll call manual is not the proper place to make these types of assertions and, as these changes could potentially be interpreted as "past practices" and therefore create new standards, the manual should be vetted through the City's Labor Relations Division and the City Attorney's Office to ensure it complies with the labor agreement.

RECOMMENDATION

We recommend the Fire Department:

14. **Revise the language in the Roll Call Staffing Manual to ensure it is in compliance with the labor agreement and obtain a legal review from the City Attorney's Office.**

Finding 4: Implementing Alternative Staffing Methods Could Reduce Costs and Improve Service Delivery

According to the International City/County Management Association (ICMA) Center for Public Safety Management, a non-profit professional association of local government administrators and managers, one approach often used when developing a public safety staffing model is staffing the department based upon predetermined minimum levels. Generally, agencies that use this model base their minimum staffing levels on past practice, policy, supervisory judgment, or some combination of these factors. Typically, this approach is also used to determine the number of employees required to work each shift.

With the exception of one engine company located in a remote area, the Sacramento City Fire Department currently staffs four employees on all fire trucks and engines, and two employees per ambulance. All of these employees are cross-trained in firefighting techniques and, at minimum, basic life support. Employees assigned to work on the ambulance units rotate shifts from the ambulance units to the fire suppression units on a regular schedule.

By using a data-driven approach and reevaluating the costs and benefits associated with various staffing models, opportunities exist to identify cost savings and improve service delivery. Based on the information we reviewed, some staffing options the Fire Department could consider incorporating into their existing model are:

- Staffing ambulances with more cost-effective single-role employees;
- Reducing staffing from four to three on select engines; and
- Initiating an ambulance shift that operates during peak call times.

By incorporating non-firefighter personnel into the department's staffing model, we estimate the department could save up to $4.9 million annually. By using a data-driven approach to staffing fire suppression units and reallocating resources from low demand areas to high demand areas, the department could add ambulances and improve medical service delivery.

Staff Ambulances with More Cost-Effective Single-Role Personnel

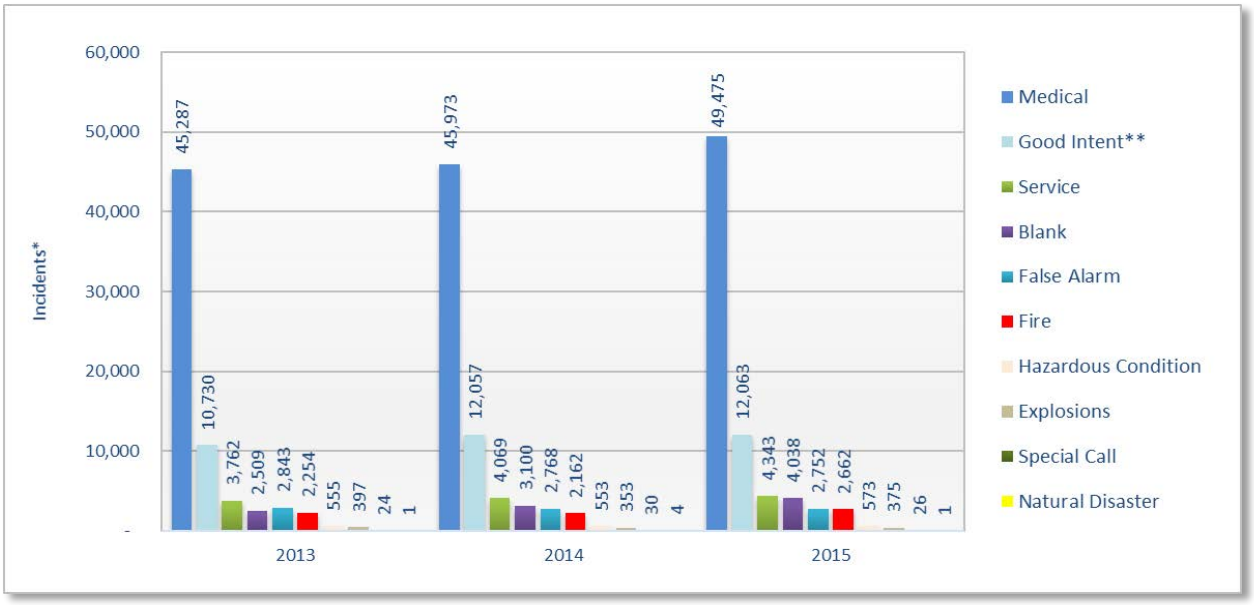
The Fire Department currently staffs its 15 ambulance units with "dual-role" personnel. These employees are considered dual-role resources because they are trained as both Firefighters and Paramedics (or EMTs)[14]. Each ambulance unit is currently staffed with either two Firefighter/Paramedics or one Firefighter/Paramedic and one Firefighter/EMT. One of the benefits of staffing ambulances with Firefighters is that these employees are cross-trained in multiple areas and can respond to "all hazards" when they arrive on scene. However, this model also uses higher-cost employees, which result in higher overall operating costs for emergency medical services. And while it may be desirable to have cross-trained employees on

[14] Paramedics are certified to provide Advanced Life Support (ALS) procedures. EMT's are certified in Basic Life Support (BLS).

all apparatus, the Fire Department could consider incorporating more cost-effective employees into its staffing model.

We obtained dispatch data for 2013 through 2015 from the Fire Department and consolidated the data into ten categories, as shown below in figure 26.

Figure 26: Number of Incidents by Type



**Includes unique incidents only. Excludes multiple units dispatched to the same incident.*
***Good Intent generally indicates that the unit was called off while en route or that no incident was found when the unit arrived at the address provided.*
Source: Auditor generated based on Fire Department dispatch data.

As shown in the figure above, the Fire Department responds to over 45,000 medical calls per year. In comparison, the Fire Department responds to an average of about 2,400 fire-related calls per year.

As the City's demand for medical services continues to dominate the Fire Department's workload (approximately 65 percent of calls per year are medical), the Fire Department may want to consider methods for reducing the cost of providing these services. One staffing option that could significantly reduce the cost of providing medical services is the incorporation of Non-Firefighters on the ambulance units. These employees would be medically qualified Paramedics and EMTs, but would be considered "single-role" personnel because they are not trained in firefighting techniques. Non-Firefighter Paramedics and EMTs can be significantly less costly per hour than Firefighter/Paramedics or Firefighter/EMTs. Staffing ambulances with medically qualified, but Non-Firefighter, Paramedics and EMTs would still provide a similar level of advanced life support to that currently being offered on the ambulances, but at a lower cost.

For example, the annual maximum base salary for a City of Sacramento Firefighter/Paramedic is approximately $82,100 per year[15] while the maximum base salary of a Sacramento Metropolitan Fire District (Sacramento Metro Fire) Non-Firefighter/Paramedic is approximately $56,800 per year[16]. This equates to a difference of $25,300 per employee in base labor costs. When we include potential costs associated with incentives, health, and retirement benefits for these classifications, the gap increases to nearly $50,000 per employee. At a difference of approximately $50,000 per employee multiplied by the costs associated with staffing 15 ambulance units, we estimate that staffing ambulances with all Non-Firefighter/Paramedics could save the City over $4.3 million per year in labor costs.

Figure 27: Potential Staffing Options for Incorporating Single-Role Employees

Staffing Model	Estimated Cost Savings
Two Non-Firefighter/Paramedics	$ 4,338,000
One Firefighter/Paramedic and One Non-Firefighter/EMT	$ 2,722,500
One Non-Firefighter/Paramedic and One Non-Firefighter/EMT	$ 4,891,500

Source: Auditor generated based on job classifications and payroll data.

Another staffing option, as shown in figure 27, includes switching to one Firefighter/Paramedic and one Non-Firefighter/EMT per ambulance. In this instance, the medic units would still have at least one person staffed on the unit that is trained in both medical services and firefighting techniques (dual-role) and one person that is trained only in medical services (single-role). We estimate that this staffing option would still provide a cost savings of just under $3 million per year, while also allowing the unit to better assist during fire or hazard-related incidents.

The final option listed in figure 27 shows the estimated cost savings associated with employing one Non-Firefighter/Paramedic and one Non-Firefighter/EMT on the ambulance units. Based on the information we reviewed, this appears to be one of the lowest cost options while still qualifying the unit as being capable of providing advanced life support. However, the potential draw back to this option is that there are no employees on the unit trained in firefighting techniques and only one employee qualified as a paramedic. It is important to note there may be other options the Fire Department could consider when incorporating Non-Firefighters on the ambulance units; these staffing models are provided to show possible scenarios and the potential cost savings associated with each.

A nearby fire department has already incorporated non-firefighters into its staffing model. Sacramento Metro Fire operates 40 stations and serves many of the City's surrounding areas including unincorporated Sacramento County and the cities of Citrus Heights and Rancho Cordova. Sacramento Metro Fire has employed non-firefighter personnel on their ambulance units since FY 2012/2013; they refer to their program as the *Single Role Paramedic Program* (SRPP). The program was originally implemented as a way to improve service delivery while

[15] City of Sacramento Firefighter (Paramedic) class specification, last revised 2015.
[16] Sacramento Metropolitan Fire District (Non-Firefighter) Paramedic class specification, last revised 2012.

generating revenue and avoiding closing engine companies. In an August 2016 memo issued by Sacramento Metro Fire Chief Mark Wells, he states that "Metro Fire's SRPP has provided significant benefits to the fiscal and operational health of Metro Fire, the community we serve and to the firefighters and single-role paramedics who are represented by Local 522. Admittedly, there have been 'lessons learned' during the launch and implementation of the program, but we continue to view the SRPP as a viable and beneficial aspect of our comprehensive emergency service delivery model." According to Sacramento Metro Fire, an additional benefit of the SRPP is that the program provides a career pathway for Paramedics and EMT's to promote into Firefighter/Paramedic positions as they become available.

As previously mentioned, the majority of calls dispatched to the Sacramento Fire Department are medical in nature and not fire-related. Therefore, staffing firefighters on the ambulance units may not be the most cost-effective option to meet the needs of the City's residents. Expanding the department's staffing model to include non-firefighters could significantly reduce the cost of providing emergency medical services. In our opinion, opportunities exist for the Fire Department to include non-firefighters in the ambulance staffing rotation. As the Fire Department currently has vacant positions, this provides a unique opportunity to fill these vacant positions with non-firefighter paramedics or EMT's without affecting existing Firefighters.

RECOMMENDATION

We recommend the Fire Department:

15. **Consider modifying the Fire Department's medic staffing model to include medically qualified, non-firefighter paramedics and EMT's.**

Reduce Staffing from Four to Three on Select Engines

With the exception of Engine 3, which is located in a remote area near the Sacramento International Airport, the Fire Department has historically staffed all engines and trucks with four-person companies. However, not all parts of the City are the same and call volume data indicates that not all areas of the City experience the same demand for service. Instead of using a one-size-fits-all approach to staffing the department's 24 engines, the Fire Department could reduce staffing in areas that are suburban in nature and have historically experienced lower demand for service. However, it is important to note that factors other than call volume should be considered when determining minimum staffing levels, including the location of the engine company in relation to the City's urban core, proximity to other Fire Department resources, and employee safety.

We reviewed the department's 2015 dispatch data and noted some engines had lower call volume and could be candidates for converting to three-person staffing. The figure below shows the number of times each unit was dispatched; therefore, incidents may be counted multiple times if more than one engine was dispatched to an incident.

Figure 28: 2015 Dispatch Data by Engine Company

Engine #	Medical	Good Intent	Fire	Service	False Alarm	Other	Total
Engine 20	3,591	854	340	150	113	163	5,211
Engine 6	3,166	1,003	333	214	212	219	5,147
Engine 2	2,822	815	265	277	317	206	4,702
Engine 10	2,962	584	316	118	172	164	4,316
Engine 4	2,542	740	243	366	241	161	4,293
Engine 56	2,433	785	519	145	98	173	4,153
Engine 17	2,795	625	218	139	107	148	4,032
Engine 16	2,631	582	185	135	95	125	3,753
Engine 15	2,328	649	277	248	117	118	3,737
Engine 57	2,459	502	325	171	110	119	3,686
Engine 7	2,254	393	171	182	134	138	3,272
Engine 14	1,655	831	330	139	149	137	3,241
Engine 1	1,582	529	164	151	230	143	2,799
Engine 11	1,789	402	112	208	83	104	2,698
Engine 5	1,358	437	185	94	209	136	2,419
Engine 8	1,275	432	150	176	151	118	2,302
Engine 13	1,499	297	119	193	98	85	2,291
Engine 12	1,243	273	292	194	97	106	2,205
Engine 60	1,298	324	178	124	82	51	2,057
Engine 18	1,160	310	199	100	171	111	2,051
Engine 19	1,059	391	239	93	71	83	1,936
Engine 30	1,236	171	99	80	117	81	1,784
Engine 43	1,041	210	109	89	96	101	1,646
Engine 3*	481	134	21	15	16	24	691
Total	**46,659**	**12,273**	**5,389**	**3,801**	**3,286**	**3,014**	**74,422**

**Already operating with a three-person company.*

Source: Auditor generated based on dispatch data.

As the figure above demonstrates, the City's engine companies experience varying levels of call volume and the majority of calls are medical in nature.

While some of the City's engines are much busier than others, a recent *Standards of Response Cover Review* completed for the Fire Department by consultant Citygate Associates, LLC (Citygate) in July 2016 found that none of the department's engine companies exceeded the maximum recommended unit-hour utilization[17] (UHU) of 30 percent. In fact, none of the engine companies exceeded even 15 percent overall UHU. By contrast, Citygate found that all but two of the City's ambulance units exceeded the recommended 30 percent UHU and three of the City's ambulance units exceeded 40 percent UHU, indicating the ambulance units are far busier than the engine units.

Three-person staffing has already been implemented in surrounding fire districts, including Sacramento Metro Fire, Roseville, Folsom, and West Sacramento. In addition, the Sacramento Fire Department has already established a practice of operating with three-person crews when

[17] Citygate Associates, LLC defines unit-hour utilization (UHU) as "…the percentage likelihood a particular unit is assigned to a 9-1-1 incident at any given hour. This number considers not only the number of emergency incidents, but also the duration time of the incidents."

they are unable to fill vacant shifts due to staffing shortages. Based on the department's 2015 records, there were approximately 90 instances between August 1 and October 31 of engines or trucks operating with three-person crews for at least 12 hours of a 24-hour shift[18].

A study completed in 2010 by consultant Management Partners, Inc. for the City of Sacramento found that "while four-person engine companies are typical for high-density urban communities, much of Sacramento's service area is suburban in nature." They noted that engine companies in suburban California fire departments are generally staffed with three-person crews. The report goes on to state that "higher staffing levels are by far most beneficial in downtown areas with multi-story buildings and higher risk occupancies. There is much less benefit to staffing above a three-person level when dealing with single story occupancies associated with suburban areas."

A common argument against switching to a three-person staffing model is the OSHA *Procedure for Interior Structural Firefighting*[19] which requires that when two firefighters enter a life-threatening atmosphere (such as a home on fire), two other firefighters must remain outside and be in communication with the firefighters inside. This is generally referred to as the "2-in/2-out" rule and is intended to ensure there are Firefighters outside the building ready to initiate a rescue of the firefighters inside, should it become necessary. However, this standard only applies to interior attacks on structural fires and does not apply to the vast majority of the calls received by the Fire Department, which are medical in nature. Furthermore, additional resources could be dispatched in the event of a serious fire, such as a second company or a Battalion Chief, if additional resources are required to meet the OSHA standard. It is also important to note that this OSHA standard goes on to state that "Nothing in this section is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled." Meaning that if Fire Department personnel are aware of a life-threatening situation, where immediate action could prevent the loss of life, deviation from the 2-in/2-out standard may be permitted.

While having a fourth person on an engine allows for a greater "weight" of response during an incident, meaning that more people are on scene to provide support, each additional employee on an apparatus comes with additional labor costs. These costs must be evaluated against the potential benefits. As the Fire Department currently operates several shifts per day on overtime, we estimate that shifting 8 of the department's 24 engines to three-person staffing in lower demand areas would reduce the Fire Department's labor costs by $3 million per year. The cost savings associated with this change could then be reallocated to higher demand areas, such as ambulance services, which we will discuss in the next section.

[18] This does not include Engine 3, which is regularly staffed with a three-person crew.
[19] United States Department of Labor, Occupational Health and Safety Administration (OSHA) Standard 1910.134(g)(4) *Procedures for interior structural firefighting*.

RECOMMENDATION

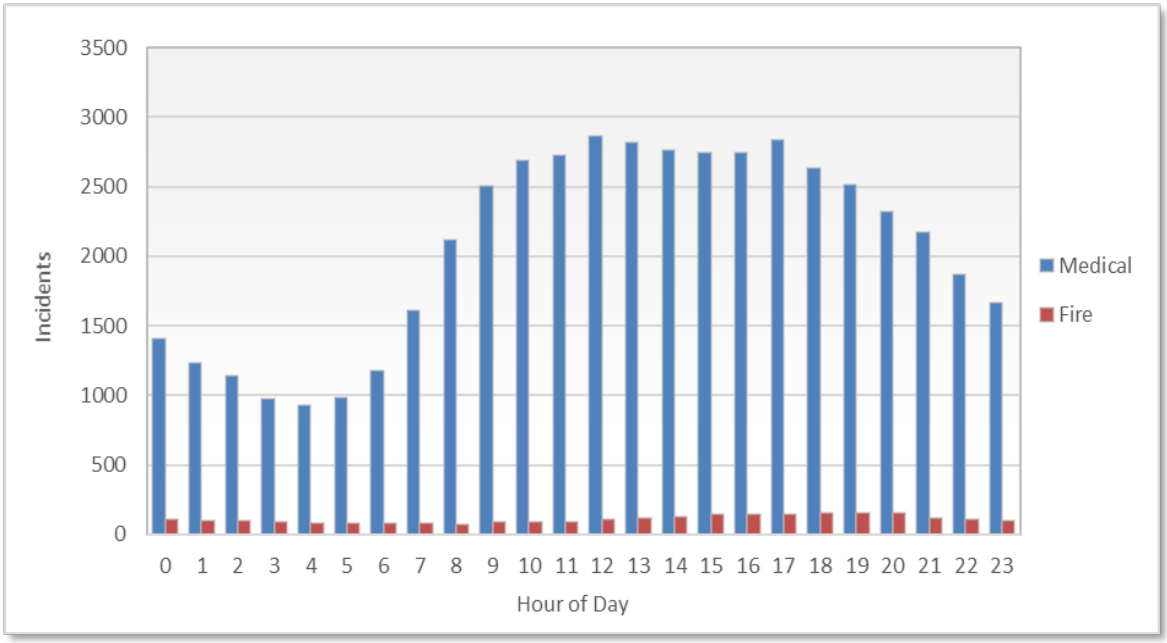
We recommend the Fire Department:

16. **Consider reducing staffing from four-person crews to three-person crews on select engines.**

Initiate an Ambulance Shift That Operates During Peak Call Times

The Fire Department's ambulances are currently staffed 24 hours a day on the same 48/96 schedule that fire suppression units operate. Employees generally start their shifts at 8am and end their shifts 48 hours later. We reviewed the department's dispatch data and, as the chart below shows, noted a significant trend in the number of calls based on the time of day. Figure 29 shows the number of calls received in calendar year 2015 that are either medical or fire related, by hour of day.

Figure 29: Number of Medical and Fire Incidents by Hour of Day in 2015



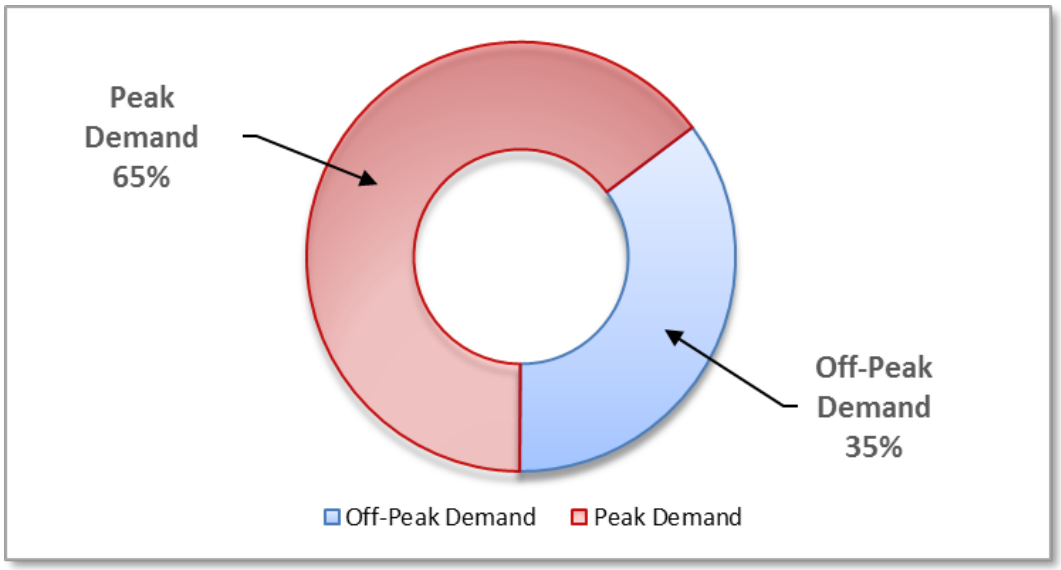
Source: Auditor generated based on Fire Department dispatch data.

Based on the dispatch information, the number of calls for medical service appears to increase significantly during the day and decrease during evening hours. The increase in calls during daylight hours is likely due to multiple factors, including the number of commuters arriving into Sacramento for work and generally more people being awake during these hours. As stated previously, a recent analysis completed by Citygate concluded that many of the Fire Department's ambulance units were operating well above 30 percent UHU and recommended bringing three additional units online, however the Citygate report does not provide cost estimates or outline a strategy on how to pay for these additional units. We propose that the Fire Department use the cost savings associated with moving to a three-person staffing model on some of the engines to bring online additional ambulance units that operate only during peak

times of the day, thereby improving service delivery when it is needed most and potentially providing some relief for the employees working on the existing ambulance units.

The figure below shows the percentage of medical calls in 2015 that were received during peak and non-peak hours. We considered peak hours to be between 8:00 am and 8:00 pm. Approximately 65 percent of the medical calls received were during those peak hours of demand.

Figure 30: Percentage of Medical Calls During Peak and Off-Peak Demand Time



Source: Auditor generated based on Fire Department dispatch data.

To provide some context on the costs associated with adding peak-hour medic units, we estimate with the cost of bringing two additional ambulance units online with Non-Firefighter/Paramedics would be just over $1.4 million in the first year, including approximately $1,000,000 in labor costs and $400,000 in one-time costs to purchase and equip the new ambulances.

When ambulances transport patients they recover some of their operating costs in the form of revenue received from billing patients for the transports. While the primary purpose for bringing additional units online would be to help alleviate some of the workload the existing ambulance units are experiencing, additional ambulances may also help to capture some call volume that is lost when the City does not have ambulances available and private ambulance companies are dispatched instead. By augmenting the Fire Department's current 24-hour staffing model to include ambulance units that operate with licensed Non-Firefighter/Paramedics and EMT's during the busiest hours of the day, the department could improve service delivery to the public when it is needed most.

During our review of overtime use, we noted various areas of the Fire Department's Emergency Medical Services (EMS) program such as this that could benefit from a closer examination.

While we were able to broadly assess some areas related to EMS staffing during this audit, and provide some options for reevaluating the department's staffing model, we believe the Fire Department could benefit from a more comprehensive assessment of their overall EMS program and are therefore recommending adding an *Audit of Fire Department Emergency Medical Services* to the Auditor's audit plan.

RECOMMENDATIONS

We recommend the Fire Department:

17. **Consider incorporating peak-demand ambulance units into the current staffing model.**

We recommend the City Council:

18. **Add an *Audit of Fire Department Emergency Medical Services* to the Auditor's audit plan.**

City of SACRAMENTO Fire Department

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M E M O R A N D U M

TO: JORGE OSEGUERA, CITY AUDITOR

FROM: WALT WHITE, FIRE CHIEF

DATE: JANUARY 30, 2017

RE: AUDIT OF FIRE DEPARTMENT OVERTIME USE: REPORT #2017-01

This communication is in response to the City Auditor's Report #2017-01, Audit of Fire Department Overtime Use.

1. The Fire Department acknowledges receipt and concurs with the findings and recommendations from the City Auditor's report.
2. Corrective actions are being taken. Draft policy is being developed and internal operational procedures are being updated to ensure that all recommendations by the City Auditor's Office are met.
3. I would like to take this opportunity to thank the City Auditor and staff for their recommendations and for their efforts in identifying areas for improvement.
4. Below please find the Fire Department's response to the 18 audit recommendations identified in the report.

1. **More aggressively pursue hiring employees to fill approved positions.**

   Response and Action Plan Strategy:
   In the last 18 months, the Sacramento Fire Department (SFD) has made a concerted effort to fill vacant positions, including conducting two basic recruit and one lateral firefighter academy, adding over 100 firefighters to the workforce within the last two years. Furthermore, SFD is the process of hiring an additional 40 to 44 firefighters and conducting another basic recruit firefighter academy, scheduled to begin on Monday, February 22, 2017, with a graduation date in July, 2017.

   SFD has streamlined its recruitment and hiring process by outsourcing candidate background screening and by simultaneously conducting multiple phases of candidate processing. SFD began utilizing the California Professional Firefighters (CPF) State hiring list at no cost to the City of Sacramento, saving the City approximately $60,000 per recruitment process and establishing an open, continuous recruit system that includes periodic candidate list replenishment through a regularly-administered candidate testing process. These changes have resulted in a roughly four-month reduction in candidate processing. Future recruitment and hiring will focus on diversity, with interest in establishing a career pathway program partnership with Sacramento Area Firefighters Local 522, CPF and local area high schools.

2. **Develop controls to ensure compliance with the 72-hour maximum work period outlined in the labor agreement.**

   Response and Action Plan Strategy:
   Although SFD supports limiting the duration of time that employees work without break, holding to strict enforcement of this labor agreement during a staffing shortage would result in the unnecessary closure of companies. There is no regulatory or legal statute that limits the amount of time that firefighters or law enforcement officers can work without break, and City Labor Relations supports Local 522's position that this restriction only applies to mandatory overtime. Therefore, employees can voluntarily work beyond the 72-hour threshold. However, employees are not mandated to work beyond that limit meeting the spirt or intent for this labor agreement. SFD will closely monitor staffing levels and routinely fill vacant positions to reduce or hopefully eliminate the likelihood of occurrences where employees may exceed the 72-hour threshold. Additionally, SFD will seek to improve contract language through a side letter to reduce misinterpretation of this agreement and more accurately reflect our practices.

3. **Renegotiate the requirement to fill vacancies using rank-for-rank.**

   Response and Action Plan Strategy:
   SFD agrees to consider renegotiation of the requirement to fill vacancies using rank-for-rank. However, SFD also recognizes the merit of filling vacancies with fully qualified replacements and is sensitive to creating equality of overtime opportunities. Therefore, SFD may seek to modify the agreement without eliminating the practice. Currently, SFD is operating within the constraints of a binding labor/management agreement, and the opportunity for change is after the existing agreement.

4. **Bring negotiated overtime provisions more in line with minimum FLSA requirements.**

   Response and Action Plan Strategy:
   SFD concurs, but this cannot be addressed outside of the labor agreement process.

5. **Negotiate that assignment pay not be provided to employees who do not work the shift the incentive was designated for.**

   Response and Action Plan Strategy:
   SFD concurs with renegotiation of incentive pay to be more consistent with paying incentives based on specialty assignment only when the employee is working in the assignment designated to receive that incentive. Labor and Management have already agreed to these discussions.

6. **Evaluate the necessity of Primary Paramedic Pay.**

   Response and Action Plan Strategy:
   SFD agrees to evaluate the necessity of Primary Paramedic Pay and will seek to reach a new labor/management agreement.

7. **Establish policies on the administration and use of overtime.**

   Response and Action Plan Strategy:
   SFD agrees to research, develop and adopt a use of overtime policy based on identified best practices by July 30, 2017. Furthermore, SFD agrees to more closely monitor overtime use and evaluate appropriateness to department mission and opportunities to have the same work performed by non-overtime employees or contracted out at a more cost-effective rate when appropriate and within labor agreements.

8. **Document the purpose for overtime use in a consistent and retrievable format.**

   Response and Action Plan Strategy:
   SFD agrees to track overtime use for purpose to determine appropriateness and fiscal responsibility.

9. **Document supervisory approval of overtime use in a consistent and retrievable format.**

   Response and Action Plan Strategy:
   SFD agrees to track overtime approval and produce and evaluate quarterly reports to determine appropriateness and fiscal responsibility. Furthermore, SFD will develop and adopt a policy requiring pre-approval and authorization of non-constant staffing overtime at the Deputy Chief level.

10. **Provide guidance on the use of Special Duty pay, Including the practice of providing rest time after returning from strike team deployment.**

    Response and Action Plan Strategy:
    SFD agrees to update guidance on the use of special duty pay and consider discontinuing the practice of Special Duty pay for employees returning from strike team deployments.

11. **Develop, document, and enforce system access controls for Telestaff users.**

    Response and Action Plan Strategy:
    This recommendation has already been implemented. All new user requests are reviewed by the Principal Systems Engineer. SFD is currently working to find the correct balance between security and functionality. Deliberate controls have been installed to limit access to only those administrators that are essential. SFD will review on a quarterly basis those members that have administrative access to ensure that access is limited.

    TeleStaff access is delegated commensurate with employee responsibilities, and access levels are audited quarterly.

12. **Strengthen controls to monitor the use of time codes to prevent and detect errors, fraud, and abuse.**

    Response and Action Plan Strategy:
    SFD agrees to evaluate quarterly the necessity of all time codes. SFD will also work to bolster administrative support to both Operations and Human Resources. This administrative support will be instrumental to the detection of errors, oversight of the program and prevention of fraud and abuse.

13. Develop a process to ensure all relevant parties are using the same version of the Roll Call Staffing Manual.

Response and Action Plan Strategy:
SFD will only use the latest formally approved version of the Roll Call Staffing Manual for staffing guidance, replacing all previous versions.

14. Revise the language in the Roll Call Staffing Manual to ensure it is in compliance with the labor agreement and obtain a legal review from the City Attorney's Office.

Response and Action Plan Strategy:
This recommendation has already been implemented. SFD has already had the latest version of the Roll Call Staffing Manual reviewed by Labor Relations and the City Attorney's Office to ensure compliance with existing contracts and agreements. Some technical, non-substantive language modifications were made, and the Manual is with Sacramento Area Firefighters Local 522 waiting on approval.

15. Consider modifying the Fire Department's medic staffing model to include medically qualified, non-firefighter paramedics and EMT's.

Response and Action Plan Strategy:
SFD will consider alternative ambulance staffing and seek to reach a labor/management agreement. Currently, SFD is operating within the constraints of a binding labor/management agreement, and the opportunity for change is after the existing agreement.

16. Consider reducing staffing from four-person crews to three-person crews on select engines.

Response and Action Plan Strategy:
Citygate Associates, LLC recently conducted a standards of cover study for the Fire Department that specifically measured the workload, response time, and ability to effectively mitigate emergency incidents with the appropriate level of staff given the existing level of hazards within the SFD's response area. The study found that staffing four per unit on engine and ladder truck companies is a recognized best practice. However, company staffing levels are a management decision and SFD agrees to continually search for efficiencies in workforce staffing models.

17. Consider incorporating peak-demand ambulance units into the current staffing model.

Response and Action Plan Strategy:
SFD has recently conducted a standards of cover survey that specifically measured the workload, response time, and ability to effectively mitigate emergency incidents with the appropriate level of staff given the existing level of hazards within the SFD's response area. The SOC specifically recommends adding peak-hour ambulance staffing to reduce the workload, decrease unit hour utilization (UHU) and ensure adequate resources are in place to meet the service demands. SFD agrees to work within the constraints of the existing labor contract to identify and implement peak-demand staffing units.

18. Add and *Audit of Fire Department Emergency Medical Services* to the Auditor's audit plan.

Response and Action Plan Strategy:
SFD welcomes an audit of its EMS program.