CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Office of the City Auditor

Report to the City Council
City of San José

AN AUDIT OF THE CITY OF SAN JOSÉ FIRE DEPARTMENT'S OVERTIME EXPENDITURES

Opportunities Exist To Better Control The San Jose Fire Department's Overtime Expenditures

Report 01-02
April 2001

CITY OF SAN JOSÉ, CALIFORNIA

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City Auditor

April 13, 2001

Honorable Mayor and Members
of the City Council
801 North First Street, Room 600
San Jose, CA 95110

Transmitted herewith is a report on *An Audit Of The City Of San Jose Fire Department's Overtime Expenditures.* This report is in accordance with City Charter Section 805.

An Executive Summary is presented on the blue pages in the front of this report. The City Administration's response is shown on the yellow pages before the Appendices.

I will present this report to the Finance and Infrastructure Committee at its April 25, 2001, meeting. If you need additional information in the interim, please let me know. The City Auditor's staff members who participated in the preparation of this report are Mike Edmonds, Eduardo Luna, and Gitanjali Mandrekar.

Respectfully submitted,

Gerald A. Silva
City Auditor

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Executive Summary

In accordance with the City Auditor's 2000-2001 Audit Workplan, we audited the San Jose Fire Department's (SJFD) use of overtime. This audit is the first audit in a series of audit reports on the SJFD. We conducted this audit in accordance with generally accepted government auditing standards and limited our work to those areas specified in the Scope and Methodology section of this report.

Finding I Opportunities Exist To Better Control The San Jose Fire Department's Overtime Expenditures

Overtime pay to San Jose Fire Department (SJFD) personnel has been a significant issue since 1992-93. Between 1993-94 and 1999-00, SJFD personnel earned $45.1 million in overtime compensation. During this period, SJFD overtime averaged $6.4 million per year. In 1999-00, SJFD overtime expenditures peaked at $9.6 million—a 55 percent increase from the previous year. The majority of the SJFD's 1999-00 overtime expenditures went to meet minimum staffing. We identified that 12 percent of SJFD personnel worked a third of the overtime hours. In April 2000, the SJFD and the City's Budget Office completed a review of the SJFD's overtime situation. Based on that review, the Administration accurately reported that the primary cause of the high overtime expenditures in 1999-00 was an increased absence rate. However, we also identified the following additional factors that contributed to the SJFD's increased overtime costs in 1999-00:

- SJFD difficulty in estimating vacancy projections and an unsuccessful targeted hiring effort;
- Specific Memorandum of Agreement and Official Action Guide provisions;
- Underestimated staffing needs in the SJFD's staffing model; and
- The SJFD need for more relief Fire Paramedics.

In order to better control overtime expenditures, the SJFD needs 1) more accurate and complete management data regarding absence rates and vacancy rates; 2) to identify current

staffing needs; and 3) to improve its ability to project future staffing needs. Furthermore, the SJFD needs to revisit its assessment of the most efficient and effective means to meet minimum staffing and take into account the various intangible factors that can affect the cost-effectiveness of using overtime versus additional relief personnel. Finally, the SJFD needs to proactively control those factors that increase absence rates and resultant overtime costs.

RECOMMENDATIONS

We recommend that the SJFD:

Recommendation #1 **Ensure that fire personnel that are held over properly document the absence they are covering. (Priority 3)**

Recommendation #2 **Calculate an absence rate for each rank using the most reliable and accurate absence rate data available for determining SJFD staffing and overtime needs and management reporting purposes. (Priority 3)**

Recommendation #3 **Analyze vacancy rate data separately for each rank using the most reliable and accurate vacancy rate data available when determining staffing and overtime needs. (Priority 3)**

Recommendation #4 **Develop procedures to ensure that the correct data and proper adjustments are entered into the PeopleSoft and SEARS systems and designate a staff person to monitor and evaluate the PeopleSoft and SEARS data on a regular basis. (Priority 3)**

Recommendation #5 **Report to the City Council updated staffing information by December of each year including staffing levels and vacancies by rank, the number of personnel on disability and modified duty, and projected short-term and long-term vacancies. (Priority 3)**

Recommendation #6 **Update its 1992 study regarding the use of relief staff and overtime to meet minimum staffing requirements and annually determine the most efficient and cost effective mix of relief staff and overtime to meet minimum staffing needs. (Priority 3)**

Recommendation #7 **Review sick leave data to establish benchmarks for sick leave use and identify possible patterns of abuse and take appropriate follow-up actions. (Priority 3)**

Recommendation #8 **Implement a proactive sick leave reduction program to inform line personnel of the benefits of conserving sick leave and rewarding personnel with perfect attendance. (Priority 3)**

We recommend that the SJFD and Administration:

Recommendation #9 **Evaluate the feasibility of implementing a comprehensive Wellness-Fitness Initiative Program for the SJFD and prepare a budget proposal should the initiative appear cost beneficial. (Priority 3)**

Introduction

In accordance with the City Auditor's 2000-2001 Audit Workplan, we audited the San Jose Fire Department's (SJFD) use of overtime. This audit is the first audit in a series of audit reports on the SJFD. We conducted this audit in accordance with generally accepted government auditing standards and limited our work to those areas specified in the Scope and Methodology section of this report.

The City Auditor's Office thanks the San Jose Fire Department for their time, information, insight, and cooperation during the audit process.

Background

SJFD Mission And Organization

The SJFD's mission is to serve the community by protecting life, property, and the environment through prevention and response. The SJFD mitigates emergencies through prevention and response, ensuring public safety and preservation of the environment.

The SJFD is organized around a hierarchical structure. The head of the SJFD is the Fire Chief. The Office of the Fire Chief represents the Fire Chief and Assistant Fire Chief, Recruitment Officer, Battalion Chief for the Safety Division, and Public Information Officer. There are five Deputy Fire Chiefs, each of whom heads a bureau and reports to the Fire Chief through the Assistant Fire Chief. These five bureaus include:

- Bureau of Field Operations (BFO),
- Bureau of Support Services (BSS),
- Bureau of Administrative Services (BAS),
- Bureau of Fire Prevention (BFP), and
- Bureau of Education and Training (BET).

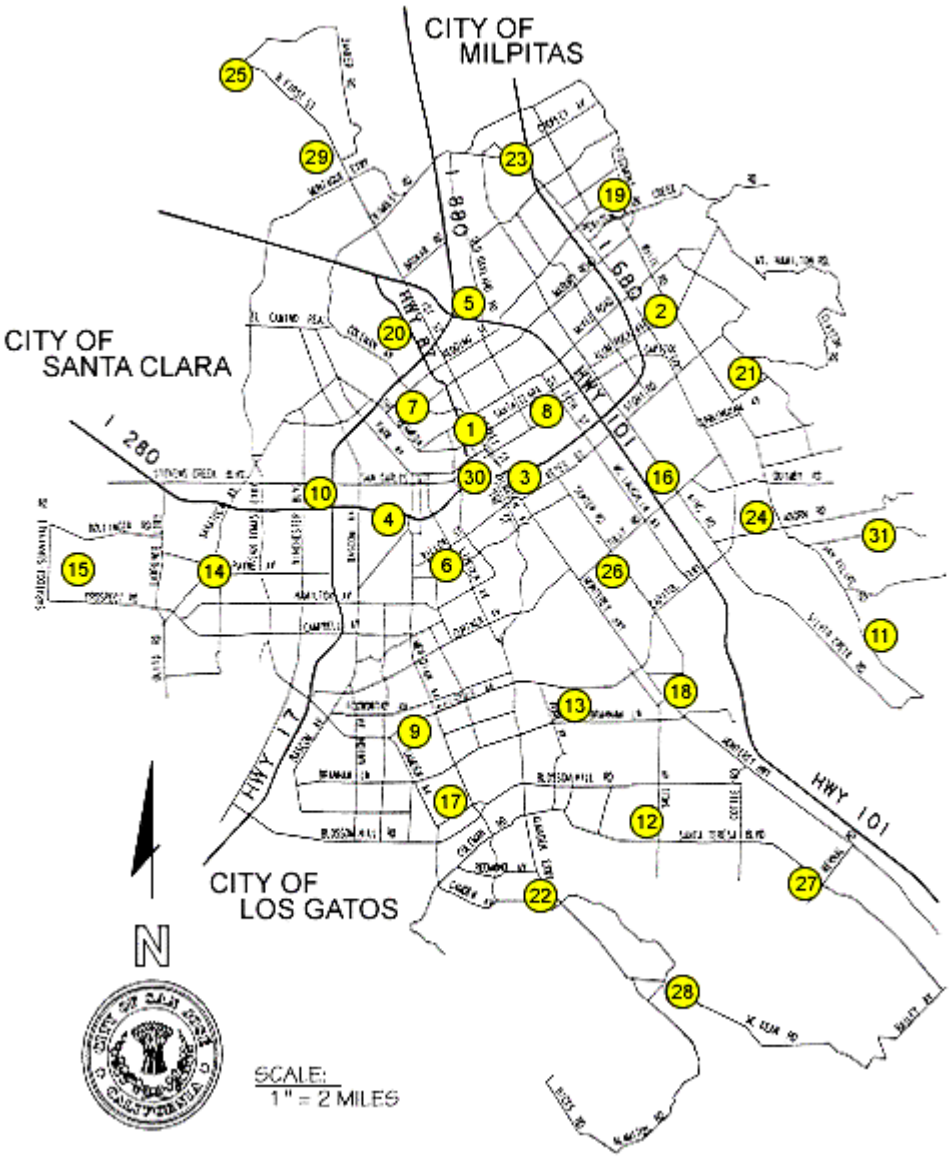
The BFO is the largest component of the SJFD because it is responsible for providing emergency response services. Under the Deputy Fire Chief of the BFO, are three Division Chiefs, each responsible for a work shift- A, B, or C. In turn, each Division Chief has command over five Battalion Chiefs, who command a set number of fire stations.

The City has a total of 31 fire stations. Each fire station is assigned an Engine Company, which includes a Captain, Fire Engineer, Firefighter/Paramedic[1], and a Firefighter. In addition, there are eight Truck Companies assigned to select fire stations. Each Truck Company consists of a Captain, two Fire Engineers, and Firefighters.[2] Exhibit 1 shows the various fire stations within the City of San Jose.

[1] In June 1994, the City adopted a paramedic program and in August 1995, the City of San Jose and County of Santa Clara entered into an agreement for the City to provide Advance Life Support First Responder Services within areas served by the City's Fire Department. The City is required to use Emergency Medical Technician-Paramedics on fire apparatus vehicles. The City staffs each of the 31 fire engine companies with a Firefighter/Paramedic position.

[2] Four of the truck companies have a firefighter/paramedic and a fire firefighter configuration.

Exhibit 1 Locations Of The 31 City Of San Jose Fire Stations



Source: SJFD.

In addition, to the Engine and Truck Companies, the SJFD operates and maintains certain specialized units which generally consist of a Captain, two Fire Engineers, and two Firefighters.[3] These specialized units include the following groups:

[3] Some of the specialized units have other configurations of Fire Engineers and Firefighters.

- Airport Crash Rescue Vehicles (FAA requirement)—Station 20;
- Hazardous Materials Unit—Station 29; and
- Three Urban Search and Rescue Companies—Stations 5, 13, and 16, which specialize in either water, collapsed trench, or collapsed structure rescues.

Minimum Staffing

The SJFD must staff 194 line positions (plus one Division Chief) on a daily basis. The practice of ensuring that these positions are filled each day is called minimum staffing in accordance with the current Memorandum of Agreement (MOA)[4]. With certain exceptions, personnel working minimum staffing will fill vacancies to maintain line positions at the MOA defined levels. According to the MOA a certain minimum number of personnel should staff the various engine and truck companies at all times. Exhibit 2 below shows the SJFD's assessment of the number of line personnel needed to cover minimum staffing in 1999-00.

Exhibit 2 SJFD's Assessment Of The Number Of Line Personnel Needed To Cover Minimum Staffing In 1999-00

Rank	Daily Minimum Staffing	Total Staffing	Relief Positions	Total
Battalion Chief	5	15	2	17
Captain	44	132	27	159
Fire Engineer	66	198	24	222
Firefighter/Paramedic	79	237	19	256
Total	**194**	**582**	**72**	**654**

Source: SJFD.

The daily minimum staffing shown above is for one shift, while the total staffing is for all three shifts—A, B, and C. Relief positions are personnel assigned to a shift and battalion, but do not have a specific engine or truck assignment. Relief positions

[4] The MOA is an understanding signed between the City of San Jose and the International Association of Firefighters, Local #230. The purpose of this agreement is to set forth the full agreements of the parties reached as a result of meeting and conferring in good faith regarding wages, hours, and other terms and conditions of employment of the employees the International Association of Firefighters, Local #230 represents.

are used to cover vacancies and absences due to sick leave, vacation, and disability or modified duty leaves.

Work Schedule

The SJFD operates 24 hours a day, 365 days a year. Fire line personnel work 24-hour work shifts on the basis of one day on, second day off, third day on, fourth day off, fifth day on, and the sixth through ninth days off. During a nine-day period, line personnel work three 24-hour day shifts. This translates to 122 days per year or about ten days per month or 56 hours per week. Personnel are assigned to either the A, B, or C work shift.

As shown in the example below, in April 2001, personnel assigned to the B shift would work on April 1st, 3rd, 5th, 10th, 12th, 14th, 19th, 21st, 23rd, 28th, and 30th. Whereas, personnel assigned to the A shift would work on April 2nd, 7th, 9th, 11th, 16th, 18th, 20th, 25th, 27th, and 29th. Finally, personnel assigned to the C shift would work on April 4th, 6th, 8th, 13th, 15th, 17th, 22nd, 24th, and 26th.

April 2001 Shift Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 B	2 A	3 B	4 C	5 B	6 C	7 A
8 C	9 A	10 B	11 A	12 B	13 C	14 B
15 C	16 A	17 C	18 A	19 B	20 A	21 B
22 C	23 B	24 C	25 A	26 C	27 A	28 B
29 A	30 B					

SJFD Budget

In 2000-01, the SJFD adopted operating budget totaled $88.7 million, of which $82 million or 92 percent of the budget was for personal services. This $82 million includes salaries, benefits, and $7.6 million for overtime compensation. In 2000-01, the SJFD increased the number of relief Firefighter/ Paramedic positions from the 19 shown in Exhibit 2 to 40 in order to meet minimum staffing requirements. The SJFD expects the cost of these 21 positions to be offset by a reduction in overtime costs. The SJFD also expects these 21 relief Firefighter/Paramedic positions to enhance deployment in major emergencies and reduce injuries.

In terms of funding, the BFO has the largest operating budget at $68.1 million, followed by the Bureau of Support Services at $8.5 million and the Bureau of Fire Prevention at $5.7 million. Exhibit 3 shows the SJFD's adopted budget by Bureau for 1999-00 and 2000-01.

Exhibit 3 The SJFD's Adopted Budget By Bureau For 1999-00 And 2000-01

Bureau	1999-00	2000-01
Administrative Services	$ 2,282,245	$2,396,358
Field Operations	67,820,646	68,079,356
Support Services	7,629,683	8,496,763
Fire Prevention	5,842,883	5,722,639
Education and Training	3,522,954	3,980,033
Total	**$87,098,411**	**$88,675,149**

Source: SJFD.

Audit Scope, Objectives, And Methodology

Our audit objective was to evaluate the causes of the SJFD's high overtime expenditures in 1999-00. We reviewed the adequacy of the methods and systems in place for controlling overtime use. We also reviewed the following:

- overtime use trends in the past five years;
- existing SJFD internal control systems used to control overtime;
- the SJFD's overtime policies and practices compared to other cities;
- the validity of the data the SJFD uses to forecast overtime expenditures; and
- opportunities and methods to control, reduce, and explain overtime costs and improve overtime management.

We also conducted interviews with SJFD personnel and other City employees. In addition, we reviewed internal reports, memoranda and other documents related to overtime use in the SJFD. We also conducted interviews with ten California cities to review their overtime management systems.

We reviewed overtime data from the SJFD's Minimum Staffing Reports filed in 1999-00; Supplemental Employee Attendance

Record System (SEARS) data from January 24, 2000 to June 30, 2000; and the City's Financial Management System (FMS). We reviewed Bi-Weekly Muster Reports and selected timesheets for selected periods and PeopleSoft earning data for 1999-00.

Major Accomplishments Related To This Program

In a memorandum (See Appendix B), the Fire Department informs us of major program accomplishments.

Finding I Opportunities Exist To Better Control The San Jose Fire Department's Overtime Expenditures

Overtime pay to San Jose Fire Department (SJFD) personnel has been a significant issue since 1992-93. Between 1993-94 and 1999-00, SJFD personnel earned $45.1 million in overtime compensation. During this period, SJFD overtime averaged $6.4 million per year. In 1999-00, SJFD overtime expenditures peaked at $9.6 million—a 55 percent increase from the previous year. The majority of the SJFD's 1999-00 overtime expenditures went to meet minimum staffing. We identified that 12 percent of SJFD personnel worked a third of the overtime hours. In April 2000, the SJFD and the City's Budget Office completed a review of the SJFD's overtime situation. Based on that review, the Administration accurately reported that the primary cause of the high overtime expenditures in 1999-00 was an increased absence rate. However, we also identified the following additional factors that contributed to the SJFD's increased overtime costs in 1999-00:

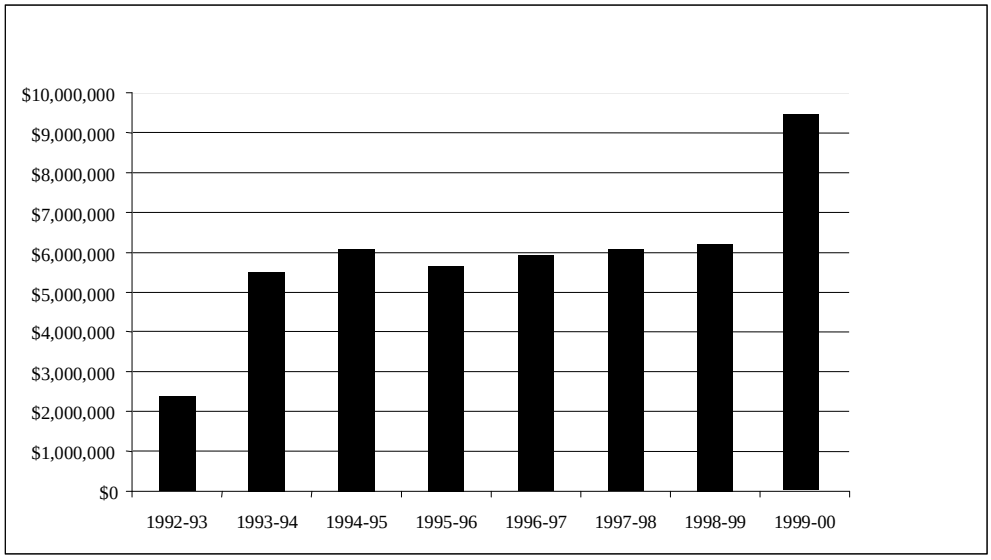
- SJFD difficulty in estimating vacancy projections and an unsuccessful targeted hiring effort;
- Specific Memorandum of Agreement and Official Action Guide provisions;
- Underestimated staffing needs in the SJFD's staffing model; and
- The SJFD need for more relief Fire Paramedics.

In order to better control overtime expenditures, the SJFD needs 1) more accurate and complete management data regarding absence rates and vacancy rates; 2) to identify current staffing needs; and 3) to improve its ability to project future staffing needs. Furthermore, the SJFD needs to revisit its assessment of the most efficient and effective means to meet minimum staffing and take into account the various intangible factors that can affect the cost-effectiveness of using overtime versus additional relief personnel. Finally, the SJFD needs to proactively control those factors that increase absence rates and resultant overtime costs.

SJFD Overtime Expenditures Increased Since 1992-93

Higher overtime expenditures began after the SJFD eliminated 41 relief staff positions in 1992-93, and the Administration decided to use overtime to staff SJFD absences. The decision was based upon an SJFD analysis that compared the cost of meeting minimum staffing with relief staff versus overtime. The SJFD reviewed absence rates, fringe benefits, and total hours of compensation and concluded that using overtime to meet minimum staffing was 22.6 percent cheaper than using relief staff. As a result of the SJFD eliminating 41 relief staff positions, SJFD overtime costs increased from $2.4 million to $5.5 million or 130 percent from 1992-93 to 1993-94. Between 1993-94 and 1998-99, SJFD overtime costs remained fairly steady at about $6 million per year, until 1999-00 when SJFD overtime costs reached $9.6 million. Exhibit 4 shows overtime expenditures from 1992-93 through 1999-00.

Exhibit 4 SJFD Overtime Costs From 1992-93 Through 1999-00



Source: SJFD.

Overtime Expenditures Peaked In 1999-00

In 1999-00, the SJFD exceeded its overtime budget of $8.5 million by 13 percent and paid $9.6 million in overtime—a 55 percent increase in overtime pay from the previous fiscal year. Monthly Financial Reports gave early warning that SJFD overtime expenditures were higher than expected. Specifically, the Budget Office reported that through September 1999, the SJFD's overtime expenditures were $2.24 million or 34.1 percent of budgeted level as compared to a budgeted level of 21.8 percent. The Budget Office reported two causes for SJFD

overtime tracking at higher levels. First, the SJFD had a decline in over-strength positions[5] as incumbents were placed in permanent positions. Secondly, higher SJFD vacation usage was resulting in additional overtime to cover minimum staffing.

The Budget Office reported that through February 2000, the SJFD's overtime expenditures were $6.2 million or 89.9 percent of the SJFD's budgeted level of $6.9 million. The SJFD should have spent 64 percent of its budgeted level or about $4.4 million through February 2000—a difference of about $2.4 million. The Budget Office reported that its staff along with SJFD staff had analyzed the SJFD's overtime expenditures to determine the causes of the higher-than-expected expenditures. The Budget Office focused its analysis on quantifying the types of absences that resulted in overtime to meet minimum staffing requirements. The Budget Office reported that the overall absence rate had increased 9.5 percent from the previous year, due to a 14 percent increase in sick leave, a 21 percent increase in disability use, and a 40 percent increase in modified duty assignments. According to the Budget Office, these absence rate increases represented $625,000 of the $2.4 million in increased overtime expenditures through February 2000.

The Budget Office reported that the SJFD had implemented various measures to control overtime expenditures. These measures included the following:

- Stopped back-filling the Division Chief position (assigned to the County's First Responder Request For Proposal) and the Division Chief and Arson Investigator positions for minimum staffing purposes;
- Reassigned a Captain from an unbudgeted assignment to a budgeted assignment; and
- Temporarily reassigned Battalion Chiefs with administrative assignments to the relief pool.

Overtime Expenditures Incurred To Meet Minimum Staffing

The Bureau of Field Operations (BFO) incurred the most overtime in 1999-00 at $8.5 million or 89 percent of overtime expenditures, as shown in Exhibit 5.

[5] An over-strength position entails carrying additional personnel in excess of projected vacancies.

Exhibit 5 Summary Of SJFD Overtime Costs By Bureau In 1999-00

Bureau	Amount	Percent
Administrative Services	$ 196,901	2.0
Support Services	175,342	1.8
Education and Training	235,829	2.5
Fire Prevention	484,394	5.0
Field Operations	8,518,220	88.6
Total	**$9,610,686**	**100.0**

Totals may not add due to rounding.

Source: SJFD.

In 1999-00, we found that almost all of the BFO overtime expenditures were related to minimum staffing and suppression activities, as shown in Exhibit 6 below. Specifically, these activities accounted for $7.5 million or 88 percent of the BFO's overtime expenditures.

Exhibit 6 Bureau Of Field Operations Overtime By Program In 1999-00

BFO Program	Overtime Amount	Percentage	Cumulative Percentage
Minimum Staffing and Suppression	$7,454,817	87.5%	87.5%
Fair Labor Standards Act[6]	$981,000	11.5%	99.0%
Other BFO Programs	$82,403	1.0%	100.0%
Total	**$8,518,220**		

Source: SJFD.

Overtime Earnings And Hours Worked

In 1999-00, SJFD personnel worked 1.7 million hours, of which, 1.5 million were regular hours (the equivalent to 63,668 work shifts) and 207,527[7] were overtime hours, which equaled 8,647 overtime shifts. In other words, about 12 percent of SJFD hours worked in 1999-00 were related to overtime. Our analysis revealed that on average, line personnel worked 329 overtime hours or the equivalent of 14 overtime shifts. As

[6] Line personnel are compensated for 112 hours each pay period or 56 hours per week. The number of hours exceeds Fair Labor Standards Act rules requiring overtime pay for more than a 53 hour workweek or 106 hours per pay period. As a result, line personnel are compensated at the overtime rate of time and half for six hours.

[7] In 1999-00, line personnel worked 203,023 overtime hours or 98 percent of all SJFD overtime hours.

shown in Exhibit 7, average SJFD overtime earnings, hours, and days varied by classification.

Exhibit 7 Summary Of SJFD Line Personnel Overtime Hours Worked By Classification In 1999-00

Classification	Average Overtime Earnings	Average Overtime Hours	Average Overtime Days
Battalion Chief	$ 19,613	370	15.4
Captain	$ 11,263	266	11.1
Fire Engineer	$ 15,413	419	17.4
Firefighter	$ 9,413	285	11.9
Fire Paramedic	$ 10,172	308	12.8

Source: Auditor analysis of SJFD data.

12 Percent Of SJFD Personnel Worked A Third Of Overtime Hours

In accordance with the Memorandum of Agreement (MOA) between the City and the Firefighter's Union, SJFD personnel sign-up to work Minimum Staffing on a voluntary basis. We identified that 12 percent of SJFD line personnel worked about a third of all overtime hours. Specifically, we found that 69 line personnel worked 65,231 overtime hours, which is the equivalent of working 2,718 overtime shifts (24 hours per shift). Each of these 69 line personnel worked from 27 to 98 overtime shifts. In terms of compensation, these 69 line personnel earned $2.4 million in overtime or an average of $34,200 per person. We found that these personnel received total compensation that averaged $102,000 per year. We also identified at least two personnel who earned more in overtime than in their regular salaries.

Potential Harmful Effects Of Working Overtime

Potential consequences of individuals working excessive overtime hours include injury, job burnout, poor morale, and increased fatigue. In an August 22, 1994 memorandum, the Fire Chief at that time reported that it was his experience that job burnout could occur with personnel working excessive overtime. Further, in an August 17, 1992 memorandum, the SJFD reported that if the use of overtime to fill absences is too high, it will eventually affect morale, which could be demonstrated in reduced volunteers to work overtime. Another potential problem with individuals working excessive overtime is fatigue, which diminishes productivity, safety, morale, and general job performance.

SJFD Overtime Study

On March 31, 2000, the SJFD and the Budget Office completed an analysis of SJFD overtime expenditures, established an overtime base, and determined that increased SJFD line personnel absences were the main force driving increased overtime expenditures. These absences were due to vacation, sick leave, disability, and modified duty. The hours associated with these absences compared to total available staff hours constitute the SJFD's absence rate. Staff reviewed the factors contributing to the absence rate from 1997-98 through the first half of 1999-00. During this period, staff found that the SJFD experienced a significant increase in the overall absence rate in the first half of each of three years, 1997-98 to 1999-00 (July to December data only). Specifically, the SJFD's absence rate was 13.26 percent, 14.18 percent, and 15.18 percent in 1997-98, 1998-99, and 1999-00, respectively.

The staff found that in the first half of each of three years, 1997-98 to 1999-00 (July to December data only), modified duty increased 40 percent, disability absences increased 21 percent, and sick leave usage increased 14 percent. Staff determined that the increased modified duty hours resulted from an increase in off-duty injuries, pregnancies, and injuries that prevented staff from returning to active line positions. Staff concluded that the significant increase in hours attributed to modified duty assignments in the first half of the year was unlikely to continue at the same rate for the remainder of the year.

Additional Factors Contributed To Increased Overtime Expenditures

The Administration reported that the increased absence rate was the primary cause of the high overtime expenditures in 1999-00. We came to the same conclusion after reviewing SJFD data. However, we also identified the following additional factors that contributed to increased SJFD overtime costs in 1999-00:

- SJFD difficulty in estimating vacancy projections and an unsuccessful targeted hiring effort;
- Specific Memorandum of Agreement and Official Action Guide provisions;
- Underestimated staffing needs in the SJFD's staffing model; and
- The SJFD need for more relief Fire Paramedics.

SJFD Difficulty In Estimating Vacancy Projections And Unsuccessful Targeted Hiring Efforts

We found two additional factors that contributed to high SJFD overtime in 1999-00. First, it was difficult for the SJFD to estimate its number of projected vacancies. Second, a SJFD and Department of Human Resources (HR) targeted hiring effort for candidates with paramedic and bilingual skills did not produce an adequate number of recruits. As a result, the SJFD cancelled a critically important Spring 1999 academy and graduated only 58 percent as many recruits in 1998-99 and 1999-00 as it did in 1996-97 and 1997-98.

According to a Bureau of Education and Training (BET) memorandum, each fire recruit academy is planned for 26 hires. The BET plans two recruit academies per fiscal year and anticipates training 52 fire recruits each fiscal year. From 1996-97 through 1999-00, the SJFD should have graduated 208 recruits (52 graduates x 4 fiscal years). However, in a December 1999 memorandum, the SJFD stated that its prior projections of SJFD vacancies did not support holding a Spring 1999 academy. While the SJFD was unable to provide us with the specifics on its projections, our analysis indicates that the SJFD had sufficient vacancies to support an academy. During the six months between January 1, 1999 and June 30, 1999, the SJFD experienced 46 vacancies—27 promotions, 18 retirements, and 1 separation. This number of vacancies is more than enough to justify a 26 recruit academy and is nearly enough to justify two 26 recruit academies. According to SJFD officials, they had difficulties in estimating the number of vacancies because of delayed retirements and intra-departmental promotions of firefighters to higher ranked positions.

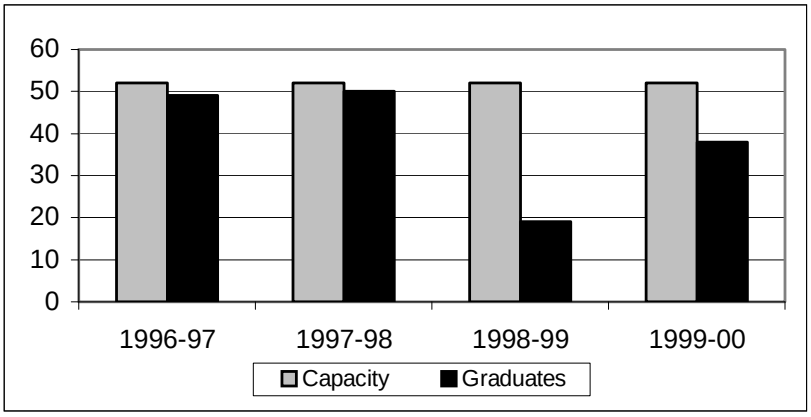
A second factor that contributed to high SJFD overtime in 1999-00 was an unsuccessful SJFD and HR targeted hiring effort for candidates with paramedic and bilingual skills. A SJFD memorandum projected a need for paramedic and bilingual skills for the Fall 1999 academy. In the same memorandum, the SJFD indicated that the paramedic and bilingual skills represented on the existing Firefighter Recruitment Eligibility List were not sufficient to meet the SJFD's needs. Consequently, the SJFD and HR recruited for paramedic and bilingual skills. The initial testing for that list was done in June 1999. After completion of the written and oral examinations, the SJFD merged new recruits with paramedic and bilingual skills onto the existing list. This resulted in a list with 1,600 names. According to the SJFD and

HR this new list provided an "unprecedented opportunity" to select a full academy of recruits who possessed a combination of skills. The SJFD and HR believed it was possible to select 26 candidates from the merged list with both bilingual and paramedic skills. In August 1999, HR began polling the entire merged list of 1,600 candidates, to selectively certify candidates with both bilingual and paramedic skills. By September 20, 1999, of the 1,600 candidates polled, 50 responded that they were interested in the job and possessed both skills.

In October 1999, the SJFD eliminated 33 of the 50 candidates that had responded to the polling for a variety of reasons, including invalid certifications or failure to pass the physical agility test. As a result, only 17 recruits started the academy in November 1999, 15 of whom graduated in February 2000.

Because of the previous two factors, the SJFD only graduated 57 recruits from its 1998-99 and 1999-00 academies instead of its target of 104 graduates. Exhibit 8 compares the number of fire recruit graduates against the capacity of the academies for 1996-97 through 1999-00.

Exhibit 8 Comparison Of Fire Academies' Capacities To Graduates For 1996-97 Through 1999-00



Source: Auditor analysis of SJFD data.

As shown in Exhibit 8, the SJFD graduated 49 and 50 recruits from academies in 1996-97 and 1997-98, respectively, but graduated only 19 recruits in 1998-99 and 38 recruits in 1999-00.

The SJFD tries to schedule recruit academies twice a year in order to graduate Firefighters in June and December to coincide with high vacation usage during those periods. The BET is

essentially limited to scheduling two recruit academies per year. In 2000-01, the BET held a recruit academy in September 2000, with 28 graduates. The BET is planning on a Spring academy in March 2001 for 32 recruits. In addition, the BET is planning on holding a lateral academy[8] in July 2001 for 32 recruits.

Memorandum Of Agreement (MOA) And Official Action Guide (OAG) Provisions Contribute To Increased Overtime

Other factors that contributed to increased SJFD overtime costs included certain MOA and OAG[9] provisions. Specifically, the MOA and OAG have provisions that result in the payment of 24.5 hours of overtime for a 24-hour shift. Further, the OAG has a provision that allows personnel of higher rank to work overtime for lower rank personnel. The MOA and OAG provisions accounted for $60,000 and $32,306, respectively in SJFD overtime costs in 1999-00.

MOA And OAG Provision Allows Rounding Of Shift Hours

We found that both the MOA and OAG allow the use of a rounding factor that results in paying up to 24.5 hours of overtime at time and half for a 24-hour work shift. The MOA specifies that any overtime worked that exceeds 30 minutes in any workday should be computed to the nearest half-hour. The OAG further specifies that personnel will be paid from the most recent half-hour before arrival at the assigned station. The OAG provides examples of how this practice is to be implemented:

> *An individual arriving at a station at 8:57 am will be paid from 8:30 am. An individual arriving at 9:04 am will be paid from 9:00 am. Those arriving at exactly the hour or half-hour will be paid from time of arrival.*

These rounding provisions often result in paying arriving personnel to the nearest half-hour of arrival and paying relieved personnel to the nearest half-hour of departure. As a result of these rounding factors, the City ends up paying line personnel 24.5 hours of overtime to cover a single 24-work shift. Paying overtime (time and half) to cover a 24-hour shift is the equivalent of paying 36 hours at regular salary. However, the

[8] A lateral academy is a six-week field training program for Firefighters with two or more years experience in a paid full-time position as a sworn uniformed Firefighter in any city, county, state, or federal fire department.

[9] The SJFD's OAG documents all official SJFD policies and procedures for administrative duties, personnel issues, and routine and emergency operations.

rounding factors result in the equivalent of paying 36.75 hours of regular salary to cover a single 24-hour shift.

We reviewed SJFD data for the last six months of 1999-00 to determine the extent to which this practice occurred. We estimate that the City paid almost $60,000 in overtime expenditures to cover the rounding provision of the MOA. Additionally, we also noted that the SJFD had routinely paid more than 24.5 hours of overtime to cover certain shift absences. For example, the SJFD had paid up to 28 hours of overtime to cover a 24-hour shift. On June 4, 2000, a Fire Engineer, assigned to Station 29, used vacation leave for 24 hours. According to the Supplemental Employee Attendance Reporting System (SEARS) database, timecards, and station journal entries, the SJFD paid one Fire Engineer 24 hours of overtime to cover the absence, and held over a second Fire Engineer for 4 hours to cover the same absence for a total of 28 hours of overtime. At time and half this was the equivalent of 42 hours of regular pay to cover the 24-hour absence. In another instance, a Firefighter who was held over 1.5 hours claimed two overtime hours, while a second Firefighter claimed 24 hours of overtime for a total of 26 overtime hours or the equivalent of 39 hours regular pay. When we reviewed station log entries with the Deputy Fire Chief, he said that a contributing factor in about half of these cases may be a documentation issue. Specifically, fire personnel who were held over did not properly document the specific absence they were covering. In our opinion, the SJFD needs to adequately document when personnel are held over to ensure that overstaffing does not occur.

We recommend that the SJFD:

Recommendation #1

Ensure that fire personnel that are held over properly document the absence they are covering. (Priority 3)

Higher Rank Personnel Can Work Overtime For Lower Ranked Personnel

Another contributing factor to increased overtime expenditures was a specific OAG provision that allows personnel of higher rank to work overtime for lower rank personnel. In the event that not enough Firefighters are signed up and agree to work, personnel will be called out-of-rank before using the mandatory call back process for Firefighters. Minimum Staffing personnel will first call Fire Engineers and then Captains using the minimum staffing process. If not enough personnel are reached

through this process, the SJFD will go to mandatory callback for Firefighters. This practice can result in higher rank personnel working overtime to fill-in for lower rank personnel.

In 1999-00, we identified 183 instances where higher-ranked personnel filled a lower-ranked position on an overtime basis. Further, of these 183 instances, 135 involved Captains relieving Firefighters, one instance involved a Battalion Chief relieving a Captain, nine instances involved Captains relieving Fire Engineers, and 38 instances involved Fire Engineers relieving Firefighters. We also identified that of these 183 instances, 143 or 77 percent occurred on Fridays, Saturdays, and Sundays and that 126 or 69 percent occurred during the four-month period of September through December. Exhibit 9 summarizes by month the number of times higher-ranked SJFD personnel filled a lower-ranked position on an overtime basis in 1999-2000.

Exhibit 9 Summary Of The Number Of Times Higher-Ranked SJFD Personnel Filled A Lower-Ranked Position On An Overtime Basis In 1999-00

Month	Number	Percent	Cumulative Percent
July	5	2.7%	2.7%
August	3	1.6%	4.4%
September	35	19.1%	23.5%
October	29	15.9%	39.3%
November	29	15.9%	55.2%
December	33	18.0%	73.2%
January	14	7.7%	80.9%
February	1	0.6%	81.4%
March	5	2.7%	84.2%
April	4	2.2%	86.3%
May	11	6.0%	92.4%
June	14	7.7%	100.0%
Total	**183**		

Totals may not add due to rounding.

Source: Auditor analysis of SJFD data.

In 1999-00, the SJFD used higher-ranked personnel to fill 4,055 hours of lower-ranked positions' absences. The SJFD paid Captains, Fire Engineers, and one Battalion Chief $167,398 in overtime compensation to cover Fire Engineer, Firefighter, and Captain absences. If the SJFD would have staffed these

absences with similarly-ranked personnel, 1999-00 overtime costs would have been reduced by $32,306.

The SJFD's Staffing Model Underestimated Staffing Needs

Another contributing factor to increased SJFD overtime costs in 1999-00 was the SJFD underestimating its staffing needs. Specifically, the SJFD used a staffing model that did not reflect the actual absence and vacancy rates. Consequently, the staffing model's calculated number of staff needed to meet minimum staffing was understated. The SJFD inaccurately projected its need for fire personnel by 49 positions because it used incorrect absence rates. Specifically, the SJFD projected the need for a total of 654 line personnel including relief personnel. We estimate that if the SJFD had used the correct absence rates, it would have projected a need for 703 line personnel, or 49 more. Exhibit 10 compares the SJFD's projected staffing needs for 1999-00 to our estimate of actual SJFD staffing needs by rank.

Exhibit 10 Comparison Of The SJFD's Projected Staffing Needs For 1999-00 To The City Auditor's Estimate Of Actual Staffing Needs By Rank

Rank	SJFD Projected Staffing Needs	City Auditor Estimate of SJFD Staffing Needs	Difference
Battalion Chief	17	18	1
Captain	159	163	4
Fire Engineer	222	237	15
Firefighter	256	285	29
Total	**654**	**703**	**49**

Source: Auditor analysis of SJFD data.

According to SJFD staff, they were aware that they were understaffed in 1999-00. Therefore, in 2000-01, the SJFD was authorized 21 additional relief Firefighter positions to augment the current 19 relief Firefighter positions used to meet minimum staffing requirements. Consequently, the SJFD will have 675 line personnel to meet minimum staffing in 2000-01. This is still 28 positions short of the 703 positions that we estimate the SJFD actually needs to meet minimum staffing and relief position coverage.

It should be noted that even if the City funded these 703 full-time equivalent positions to meet minimum staffing coverage, it

would not eliminate SJFD overtime. The SJFD would potentially still need at least $1 million in overtime to cover the absence factor for relief personnel, Fair Labor Standards Act compensation, and activities not related to minimum staffing purposes.

The Absence And Vacancy Rates In The SJFD Staffing Model Are Incorrect

During 1999-00 and 2000-01, the SJFD's staffing model included incorrect absence and vacancy rates. Specifically, the SJFD's staffing model assumed the same absence rate for the various ranks. In addition, the SJFD's staffing model assumed absence rates that were too low. Finally, the SJFD's staffing model assumed incorrect vacancy rates. As a result, the SJFD's staffing model underestimated both the staffing levels and overtime needed to meet minimum staffing.

The SJFD Underestimated The Absence Rate

The SJFD uses staffing ratios to calculate the staffing coverage required to meet minimum staffing levels, including expected absences. For example, for each firefighter position, three personnel are needed to cover the three shifts (A, B, & C). This equates to a ratio of three personnel for each position. The SJFD adds an absence rate factor to these three personnel to accommodate for absences such as sick leave, vacation leave, and disability leave. According to a SJFD official, the SJFD has historically used a National Fire Protection Handbook staffing ratio of 3.5, which translates to an absence rate factor of 15.18 percent in its staffing calculations. The SJFD used that 15.18 percent absence rate factor to staff for all ranks—Battalion Chief, Captains, Fire Engineers, and Firefighters. As such, the SJFD assumed that each position required 3.46 personnel (3 x 1.1518).

Beginning in 2000-01, the SJFD started using different personnel-to-position ratios for different ranks ranging from 3.2 for Firefighters to 3.6 for Captains. These personnel-to-position staffing ratios were the product of assumed absence rates that ranged from 6.7 percent for Firefighters to 20 percent for Captains. However, we found that the SJFD actual absence rate ranged from 14.8 percent for Fire Paramedics to 24.1 percent for Firefighters. As a result, the personnel-to-position staffing ratios that the SJFD used should have been 3.4 to 3.7, instead of 3.2 to 3.6. Exhibit 11 compares the SJFD's assumed absence rates and resultant staffing ratios to our calculated absence rates and resultant staffing ratios for 2000-01.

Exhibit 11 Comparison Of The SJFD's Assumed Absence Rate And Resultant Staffing Ratio To The City Auditor's Calculated Absence Rate And Resultant Staffing Ratio For 2000-01

Rank	SJFD Assumed Absence Rate	Resultant SJFD Staffing Ratio	City Auditor Calculated Absence Rate	City Auditor Resultant Staffing Ratio	Difference In Absence Rates	Difference In Staffing Ratios
Battalion Chief	13.3 %	3.4	20.8 %	3.6	7.5 %	.2
Captain	20.4 %	3.6	20.8 %	3.6	0.4 %	--
Fire Engineer	12.4 %	3.4	21.5 %	3.6	9.1 %	.2
Firefighter	8.0 %	3.2[10]	24.1 %	3.7	16.1 %	.5
Fire Paramedic	8.0 %	3.2	14.8 %	3.4	8.1 %	.2

Source: Auditor analysis of SJFD data.

Because the absence rate for each rank can be different depending on the years of service and seniority, the SJFD should not use the same absence rate for all ranks. Therefore, in our opinion, the SJFD should calculate an absence rate for each rank using the most accurate and reliable data available for determining SJFD staffing requirements and management reporting purposes.

We recommend that the SJFD:

Recommendation #2

Calculate an absence rate for each rank using the most reliable and accurate absence rate data available for determining SJFD staffing and overtime needs and management reporting purposes. (Priority 3)

The SJFD's Overtime Staffing Model Underestimated The Vacancy Rate

We also found that the SJFD's 2000-01 overtime staffing model included a three percent vacancy rate assumption when calculating SJFD staffing and overtime needs. According to a Budget Office analyst, they have historically used a three percent vacancy rate. This rate has been used without regard to the SJFD's actual vacancy rate. The problem with this approach is that the SJFD's vacancy rate was 50 percent higher

[10] The SJFD does not identify the Fire Paramedic as a separate rank, but as a unique skill. Consequently, the SJFD uses the same staffing ratio for Firefighters and Firefighter/Paramedics.

than the three percent vacancy rate in 1999-00. Specifically, the SJFD vacancy rate was 4.6 percent in 1999-00. Exhibit 12 lists the SJFD's vacancy rates by rank in 1999-00.

Exhibit 12 Listing Of SJFD Vacancy Rates By Rank In 1999-00

Rank	SJFD Vacancy Rate
Battalion Chief	2.9%
Captain	4.9%
Fire Engineer	3.3%
Firefighter[6]	7.1%
Average	4.6%
Total	N/A

Source: SJFD data.

The SJFD estimated that in 2000-01, a three percent vacancy rate would result in 57,290 absence hours. However, if the SJFD had applied each ranks' vacancy rates, the projected vacancy absence hours would have been 98,655 hours, or 72 percent more. Consequently, the SJFD underestimated the line personnel and overtime needed to fulfill minimum staffing requirements in 1999-00.

We recommend that the SJFD:

Recommendation #3

Analyze vacancy rate data separately for each rank using the most reliable and accurate vacancy rate data available when determining staffing and overtime needs. (Priority 3)

SJFD Should Use Complete Management Information For Determining Staffing Needs

The SJFD relies predominantly on the PeopleSoft Payroll Software System (PeopleSoft) to obtain information on absences and overtime use. However, a recent SJFD review of timesheet entries revealed potential problems with the PeopleSoft data. Specifically, SJFD staff found that personnel had incorrectly filled out timecards and adjustments were not entered into the PeopleSoft system. The SJFD recognized that timesheet errors were a problem and issued a bulletin on July 20, 2000, to inform all personnel on proper procedures for filling out timecards. Additionally, we found that the PeopleSoft system did not capture leave information that

impacted minimum staffing, such as training or when personnel performed other assignments away from the station.

In addition to the PeopleSoft system, the SJFD has SEARS, which is an in-house designed, Filemaker Pro database that the SJFD implemented on January 24, 2000. The SJFD uses SEARS to record all daily staffing transactions, such as training or other assignments that may not show up on other databases. Specifically, SEARS has information on the name and rank of the person absent, the name and rank of the person working in relief, date of absence, why the person was absent (absence code), station, pay type, charge code, and number of absence hours. The 15 Battalion Chiefs assigned to the line are supposed to enter information into SEARS to record all absences, and indicate whether or not overtime was used to cover the absence. However, we found that SEARS was not error-free and was also prone to data entry errors.

In our opinion, the SJFD would benefit from using both PeopleSoft and SEARS data to determine staffing needs. The SJFD can use the SEARS data to complement the PeopleSoft data that would result in a comprehensive picture of leave information. However, if both systems are to be of any value to the SJFD, PeopleSoft and SEARS must generate complete and reliable absence rate information. The SJFD needs to ensure that the correct data and proper adjustments are entered into both systems. Further, the SJFD needs to designate a staff person to monitor and evaluate the PeopleSoft and SEARS data on a regular basis.

We recommend that the SJFD:

Recommendation #4

Develop procedures to ensure that the correct data and proper adjustments are entered into the PeopleSoft and SEARS systems and designate a staff person to monitor and evaluate the PeopleSoft and SEARS data on a regular basis. (Priority 3)

The SJFD Did Not Have Enough Relief Fire Paramedics

A factor in the SJFD's increased overtime costs in 1999-00 was that the SJFD did not have enough relief paramedics. On a daily basis, the SJFD must staff 35 paramedic positions, which equals 105 paramedics for three shifts. The SJFD assumed an absence rate of 8 percent, which produced a personnel-to-positions staffing ratio of 3.24, or 113 paramedic personnel

(35 x 3.24 = 113). Consequently, the SJFD had eight paramedics assigned to relief paramedic positions (113 – 105 = 8). As shown in Exhibit 13, the paramedic absence rate was actually 14.8 percent, not 8 percent. This translates to a staffing ratio of 3.4 instead of the 3.24 the SJFD used. At the staffing ratio of 3.4, the SJFD needed at least 121 paramedics in 1999-00, or 8 more relief paramedics than the 113 actual paramedics.

The SJFD considers paramedics as a skill, as opposed to a separate rank. The SJFD staffing practice is that other paramedics can only replace paramedics. This means that when a paramedic is absent, his or her replacement can only be another paramedic. This problem becomes exacerbated when the SJFD does not calculate separate paramedic absence rates, even though the SJFD is limited in how it can use paramedics. Given that the SJFD did not have enough relief paramedics and was limited on how it could use the paramedics it did have, the SJFD relied on overtime to meet minimum staffing. This resulted in Fire paramedics earning more overtime than other Firefighters. Specifically, on average, Firefighters earned about $9,400 in overtime while Fire paramedics earned $10,200. Additionally, the average paramedic worked 308 hours of overtime, compared to 285 hours of overtime for the average Firefighters. According to SJFD staff, they corrected this problem by hiring and training additional paramedics.

Improved Efforts To Project Future Staffing Needed

The SJFD has begun to perform regular and systematic reviews of staffing needs in terms of projecting upcoming retirements and vacancies. In November 1999, at the request of the City Council, the SJFD projected upcoming and potential retirements in order to develop recruitment schedules and needed budget changes. The SJFD reported that as of March 2000, there were 189 line personnel with 20 or more years of service. The SJFD also projected substantial retirement in the Battalion Chief, Captain, and Fire Engineer classifications over the next three to five years. These three classifications represented 79 percent of the potential retirements.

We reviewed SJFD retirement data as of June 2000 and determined that, on average, SJFD line personnel retired with almost 27 years of service, while almost three fourths of SJFD line personnel had less than 20 years of service. Specifically, 46 percent of the line personnel had between 6 to 20 years of service; 28 percent had less than five years of service; and 26

percent had 21 or more years of service. Exhibit 13 summarizes the years of service for SJFD line personnel as of June 2000.

Exhibit 13 Summary Of SJFD Line Personnel Years Of Service As Of June 2000

Years Of Service	Number Of Line Personnel	Percent	Cumulative Percent
0 to 5 years	179	27.7%	27.7%
6 to 10 years	102	15.8%	43.4%
11 to 15 years	93	14.4%	57.8%
16 to 20 years	107	16.5%	74.3%
21 to 25 years	47	7.3%	81.6%
26 to 30 years	96	14.8%	96.4%
31 or more years	23	3.6%	100.0%
Total	**647**[1]	**100.0%**	

Totals may not add due to rounding.

[1] This number does total to 654 personnel because of seven vacancies.

Source: SJFD.

The SJFD is in the process of updating its staffing plan. According to a SJFD analyst, preliminary indications are that the SJFD will need to fill 120 Firefighter positions in 2001-02. The analyst indicated that he is working with the BET on planning to address the staffing needs and plans to update the staffing plan on a quarterly basis.

According to SJFD officials, they have attempted to increase the size of the academies to better meet staffing needs. Specifically, they expanded the size of the Fall academy class from 26 to 28 recruits, and have a goal of training 32 recruits for the Spring 2001 academy. Further, they have a goal of training 32 recruits in the Summer 2001 lateral transfer academy.

Given the limited capacity of the Fire Recruit Academy and the need to hire 21 relief Firefighters, improved planning is necessary between the BET and the BAS. In our opinion, the need to fill the latter relief positions will be compounded by existing vacancies and up to 120 vacancies that the SJFD will need to fill due to retirements. Therefore, it is very likely that

overtime costs related to minimum staffing will continue to be an issue until the SJFD can fill its vacancies.

Bi-Annual Staffing Reports Can Help

The San Jose Police Department (SJPD) reports key staffing information to the City Council Finance and Infrastructure Committee every six months. The SJPD reports hiring projections, vacancies, vacancy projections, recruitment, and current staffing. These reports provide the City Council, Administration, and SJPD management with information on efforts to reduce vacancies and achieve near-term staffing goals. In our opinion, the SJFD can benefit from issuing a similar periodic staffing report. Such a SJFD staffing report could include:

- Current staffing levels by rank;
- The number of vacancies by rank;
- The number of personnel on modified duty and disability leave;
- The number of fire recruits needed to staff academies as to accommodate vacancies caused by attrition, promotions, and retirements;
- Projected vacancies for the next six months and year; and
- A plan to fill projected vacancies so as to meet minimum staffing and stay within overtime budgets.

The SJFD Personnel Division analyst indicated that the SJFD plans to update its staffing plan on a quarterly basis. In our opinion, the SJFD should also incorporate into their staffing plan information on staffing levels by rank, vacancies by rank, number of personnel on disability and modified duty, and projected short-term and long-term vacancies.

We recommend that the SJFD:

Recommendation #5

Report to the City Council updated staffing information by December of each year including staffing levels and vacancies by rank, the number of personnel on disability and modified duty, and projected short-term and long-term vacancies. (Priority 3)

The SJFD Needs To Determine The Most Efficient And Effective Manner To Meet Minimum Staffing

In order to better control overtime expenditures, the SJFD needs to determine the most efficient and effective means for meeting minimum staffing. In 1992, the SJFD determined that overtime was the most cost effective means for meeting minimum staffing requirements. Consequently, the SJFD eliminated 41 relief staff. As noted earlier in this report, since the elimination of these positions, overtime costs have increased significantly. Moreover, sick leave and disability leave have also increased.

The SJFD's decision to eliminate the 41 relief positions in 1992 was based on a cost analysis that indicated overtime was 22.6 percent less costly than using relief personnel to meet minimum staffing. In 2000-2001, the SJFD updated this analysis to evaluate the benefit of adding 21 relief Firefighters. The SJFD's recent analysis indicated that the SJFD could save as much as $333,000 by using 21 relief Firefighters instead of overtime in 2000-2001.

We also analyzed the cost benefit of using relief staff instead of overtime to meet minimum staffing. We found that using relief staff may or may not be more cost effective depending on variables such as pay steps, employee benefits, and absence rates. For instance, our analysis indicates that using relief staff is most cost effective when the relief staff are at the first two pay steps. Conversely, when the relief staff are at the higher pay steps, overtime appears to be more cost effective. Moreover, changes in the cost of employee benefits and absence rates also affected the outcome of our cost/benefit analysis.

Although our cost/benefit analysis did not clearly favor using relief staff over overtime, we identified that additional relief staff can help reduce several operational costs or produce certain intangible benefits. For example, from an operational perspective having relief staff assigned to particular battalions and shifts allows them to become familiar with geographical areas, operational practices, and their supervisors. In addition, additional relief staff creates a larger pool of Firefighters from which to draw in the event of a major emergency.

There are also some operational cost benefits of using relief staff instead of overtime to fill absences. For instance, as we noted on page 17, the SJFD incurred additional overtime costs of $92,000 for the following situations:

- Rounding of hours at the beginning and end of shifts;
- Staff being held over for several hours at the end of a shift; and
- Higher-ranked personnel working overtime for lower-ranked personnel.

If the SJFD had more relief staff available, these costs should be reduced. For instance, if more relief staff were available, the number of instances that higher-ranked personnel work overtime for lower-ranked personnel should be reduced. Furthermore, having relief staff available should also reduce the need to hold staff over for several hours at the end of shifts.

Having an adequate complement of relief staff should also have several intangible benefits for the SJFD. For example, if the SJFD uses overtime to fill absences too often, it can affect morale and reduce the number of Firefighters who volunteer for overtime. In that event, the SJFD would have to rely more on mandatory call-backs to meet minimum staffing. Furthermore, overly relying on overtime to meet minimum staffing may increase Firefighter sick and disability leave usage.

A 1992 SJFD study reported that the most efficient and effective manner to meet minimum staffing was to staff 73 percent of absences with relief personnel and staff 27 percent of absences with overtime. The SJFD study found that as the percentage of relief staff increased above 75 percent, relief staff would report to work without absences to fill. However, the results of the SJFD's 1992 study are out-dated. In our opinion, the SJFD should update its 1992 study regarding the use of relief staff and overtime to meet its minimum staffing needs. In addition, the SJFD should annually determine the most efficient and cost effective mix of relief staff and overtime to meet minimum staffing needs.

We recommend that the SJFD:

Recommendation #6

Update its 1992 study regarding the use of relief staff and overtime to meet minimum staffing requirements and annually determine the most efficient and cost effective mix of relief staff and overtime to meet minimum staffing needs. (Priority 3)

SJFD Can Reduce Overtime Expenditures By Proactively Controlling Factors That Affect The Absence Rate

We found that the SJFD does not proactively control and manage factors that increase the absence rate, which increases the number of relief staff and/or overtime costs. In March 2000, the Administration reported that the absence rate was the driving force in the increased overtime expenditures. Administration staff reviewed the absence rate from 1997-98 through the first half of 1999-00 and found that the SJFD had experienced a significant increase in the overall absence rate. The staff found that from 1998-99 to 1999-00, modified duty increased 40 percent, disability absences increased 21 percent, and sick leave usage increased 14 percent. In our opinion, the Administration can better control two of the factors that affect the absence rate–sick leave and disability leave. To the extent the Administration can reduce the absence rate, the need for additional relief staff and/or overtime will also be reduced.

Questionable Patterns Of Sick Leave Use

In 1999-00, line personnel used a total of 51,649 sick leave hours, of which, the SJFD was able to staff 33,371 hours (65 percent) with overtime and 18,278 hours (35 percent) with relief staff. Sick leave usage was equal to 79 hours or 3.3 days per line personnel.[11] The SJFD spent $1.3 million in overtime to staff these sick leave absences. We found that Firefighters took disproportionately more sick leave on weekends and on days when vacation limits were met. Specifically, 53 percent of sick leave use that required overtime to meet minimum staffing occurred on weekend days—Friday, Saturday, and Sunday. The days when Firefighters were least likely to use sick leave were Tuesday and Thursday.

Firefighters' sick leave use also increased for certain ranks when daily vacation limits were met. The SJFD controls vacation leave by allowing a maximum of 25 personnel to use vacation leave per shift. On each shift, the SJFD has allocated Firefighters and Captains eight vacation slots for each rank and 9 slots for Fire Engineers. We found Fire Engineers had the highest sick leave usage when vacation shift limits were met. Specifically, between January 24, 2000 and June 30, 2000, there were 20 days when vacation shift limits were met for the rank of Fire Engineers. During those 20 days, Fire Engineers' sick leave usage increased by 30.4 hours or the equivalent of 1.3 Fire Engineers. While Fire Engineers averaged only 35.2

[11] There are a total of 654 projected line personnel, which include 582 positions to cover minimum staffing and 72 relief positions.

hours of sick leave per day when the vacation shift limits were not met, they averaged 65.6 hours of sick leave per day (86 percent more) when vacation shifts were filled.

According to a SJFD Chief, overuse of sick leave does not appear to be a problem for the SJFD. However, the same Chief acknowledged that the SJFD had not studied, tracked, or benchmarked sick leave use. In our opinion, a sick leave benchmark is an important management tool. Without proper control or monitoring of sick leave use, the SJFD has no assurance that sick leave abuse is not occurring. By reviewing sick leave use on a periodic basis, management can identify possible patterns of abuse and take appropriate follow-up actions.

We recommend that the SJFD:

Recommendation #7

Review sick leave data to establish benchmarks for sick leave use and identify possible patterns of abuse and take appropriate follow-up actions. (Priority 3)

Potential To Reduce Sick Leave Use And Related Overtime Costs With Proactive Approach

We found that some fire departments in California have adopted a more proactive approach toward controlling sick leave use. For example, the Long Beach, California Fire Department has a Sick Leave Reduction Program that attempts to make employees aware of the value of unused sick leave so that they will protect "this valuable asset." In Long Beach, as in San Jose, retirees can receive a sick leave payoff. According to a manager in the Long Beach Fire Department, the reduction program includes the following aspects:

1. Educate personnel at monthly drills by explaining the City's policy of allowing unlimited accrual of sick leave and that employees may, upon retirement, convert sick leave hours to years of service credit or cash at their retiring hourly rate with the funds placed in a trust fund for use in paying their health insurance premiums in retirement.

2. Send letters to personnel with perfect attendance and continually advise them of the value of their unused sick leave.

3. Reward employees with perfect attendance with "visible gifts," such as large coffee mugs or logo watches as "demonstrations of…commitment."

4. Report progress to the City Manager.

In October 2000, the Long Beach Fire Chief reported to the City Manager that after nine months, the Sick Leave Reduction Program was going to result in a 27 percent decrease in the use of sick leave, which represented a decrease of 8,556 hours. If the SJFD were to implement a similar program and achieve a 27 percent reduction in sick leave hours, it would represent a decline of almost 14,000 sick leave hours or $588,000 of overtime cost.

We recommend that the SJFD:

Recommendation #8

Implement a proactive sick leave reduction program to inform line personnel of the benefits of conserving sick leave and rewarding personnel with perfect attendance. (Priority 3)

Modified Duty And Disability Leave Usage In 1999-00

In 1999-00, line personnel incurred 63,427 disability leave hours and 33,003 modified light duty hours— a total of 96,430 hours and the equivalent of 33 full-time equivalent positions. Between 1996-97 and 1999-00, the total number of disability leave hours increased 31 percent from 48,443 hours to 63,427 hours. During the same period, the total modified duty hours fluctuated between 34,889 hours and 33,003 hours. In 1999-00, Workers' Compensation costs for fire personnel on disability and modified duty leave were $3.2 million.

Based on our review of minimum staffing data in 1999-00, the SJFD covered 31 percent of its total disability leave and modified duty leave with overtime. Specifically, the SJFD incurred 29,703 overtime hours to cover those absences— 18,953 overtime hours for disability leaves and 10,750 overtime hours to cover modified duty leaves. The associated overtime expenditures for these 29,703 overtime hours were $1.2 million. The SJFD covered the remaining 66,727 hours with relief personnel at regular pay.

Other Jurisdictions Have Attempted To Reduce Disability Leave

We learned that other local jurisdictions had reduced job-related injuries for Firefighters through the implementation of a comprehensive fitness wellness program. The International Association of Firefighters and the International Association of Fire Chiefs developed the Fire Service Joint Labor Management Wellness-Fitness Initiative (Wellness-Fitness Initiative) to improve the wellness of fire personnel. The Wellness-Fitness Initiative includes medical fitness, physical fitness, emotional fitness, and access to rehabilitation, when required. Ten U.S. and Canadian cities' fire departments require the mandatory participation of all of their uniformed personnel in this program.

There are significant cost benefits to implementing or expanding wellness programs. It was reported that in Phoenix, Arizona, during the first eight years of their program, the number of job-related injuries decreased by 26 percent and the average number of days off due to on-the-job-injuries was reduced by 42 percent. A SJFD official provided us with comparative disability leave statistics for Phoenix, Arizona and Seattle, Washington fire departments. Both of these cities had implemented the Wellness-Fitness Initiative and had lower average disability leave hours per employee than the SJFD. For instance, in 1999-00, SJFD averaged 81 disability leave hours per employee, while the Phoenix Fire Department averaged 25 hours per employee, and the Seattle Fire Department averaged 29 hours per employee.

SJFD May Benefit From Implementing The Wellness-Fitness Initiative

SJFD staff has done some preliminary research on implementing the Wellness-Fitness Initiative. In May 2000, the SJFD held a strategic planning meeting, and in December 2000, the Safety Officer briefed the SJFD's senior staff on the Wellness-Fitness Initiative. A SJFD official estimated that implementing a Wellness-Fitness Initiative program would cost $275,000 in one-time costs and about $500,000 in on-going operating costs. Currently, the SJFD spends $211,000 on a wellness program, which includes fitness evaluations, fitness self-assessments, and exercise prescriptions. Upgrading the current program would require exercise specialists, peer trainers, additional exercise equipment, rehabilitation, and data collection to track injuries and trends.

In our opinion, the SJFD may benefit from implementing a Wellness-Fitness Initiative program. Wellness-fitness type programs across the country have demonstrated benefits

ranging from 1.07 to 3.43 times the cost of the program. Research studies over the last 15 years have shown a return on investment ranging as high as 6.2 to 1. In our opinion, the SJFD and Administration need to further evaluate the program and determine the feasibility of implementing the program in San Jose.

We recommend that the SJFD and Administration:

Recommendation #9

Evaluate the feasibility of implementing a comprehensive Wellness-Fitness Initiative Program for the SJFD and prepare a budget proposal should the initiative appear cost beneficial. (Priority 3)

CONCLUSION

In order to better control overtime expenditures, the SJFD needs 1) more accurate and complete management data regarding absence rates and vacancy rates; 2) to identify current staffing needs; and 3) to improve its ability to project future staffing needs. Furthermore, the SJFD needs to revisit its assessment of the most efficient and effective means to meet minimum staffing and take into account the various intangible factors that can affect the cost-effectiveness of overtime usage versus relief staffing. Finally, the SJFD needs to proactively control those factors that increase the absence rate and resultant overtime costs.

RECOMMENDATIONS

We recommend that the SJFD:

Recommendation #1 **Ensure that fire personnel that are held over properly document the absence they are covering. (Priority 3)**

Recommendation #2 **Calculate an absence rate for each rank using the most reliable and accurate absence rate data available for determining SJFD staffing and overtime needs and management reporting purposes. (Priority 3)**

Recommendation #3 **Analyze vacancy rate data separately for each rank using the most reliable and accurate vacancy rate data available when determining staffing and overtime needs. (Priority 3)**

Recommendation #4 **Develop procedures to ensure that the correct data and proper adjustments are entered into the PeopleSoft and SEARS systems and designate a staff person to monitor and evaluate the PeopleSoft and SEARS data on a regular basis. (Priority 3)**

Recommendation #5 **Report to the City Council updated staffing information by December of each year including staffing levels and vacancies by rank, the number of personnel on disability and modified duty, and projected short-term and long-term vacancies. (Priority 3)**

Recommendation #6 **Update its 1992 study regarding the use of relief staff and overtime to meet minimum staffing requirements and annually determine the most efficient and cost effective mix of relief staff and overtime to meet minimum staffing needs. (Priority 3)**

Recommendation #7 **Review sick leave data to establish benchmarks for sick leave use and identify possible patterns of abuse and take appropriate follow-up actions. (Priority 3)**

Recommendation #8 **Implement a proactive sick leave reduction program to inform line personnel of the benefits of conserving sick leave and rewarding personnel with perfect attendance. (Priority 3)**

We recommend that the SJFD and Administration:

Recommendation #9 **Evaluate the feasibility of implementing a comprehensive Wellness-Fitness Initiative Program for the SJFD and prepare a budget proposal should the initiative appear cost beneficial. (Priority 3)**

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Gerald Silva
City Auditor

FROM: Manuel Alarcon
Fire Chief

SUBJECT: **RESPONSE TO AUDIT OF THE CITY OF SAN JOSE FIRE DEPARTMENT'S OVERTIME EXPENDITURES**

DATE: April 11, 2001

Approved Kay Winer Date 4/13/01

The Fire Department has reviewed the final draft report on *An Audit of the City of San Jose Fire Department's Overtime Expenditures.* We are generally in agreement with the results and the recommendations of the report. We are satisfied that the Audit Report recommendations address documentation and process and that there was no evidence of misuse or fraud. It should be noted that the Fire Department overtime budget for 2000-2001 is tracking, with Personal Services offsets, within budget. It is also noteworthy that there were no priority 1 or 2 recommendations. All nine recommendations have been given "Priority 3" ranking. It is our opinion that these recommendations argue in favor of an enterprise records management system, which will enhance effective and efficient data collection and tracking. Specific responses to the audit recommendations are provided below, and the recommendations will be implemented as indicated.

Recommendation #1
Ensure that fire personnel that are held over properly document the absence they are covering.

The Fire Department concurs. The Bureau of Field Operations has been directed to reinforce standing procedures with Company Officers and Battalion Chiefs when entering information on timesheets, the SEARS report, battalion muster sheets, and company and battalion journal entries. The retraining will be coordinated with the Bureau of Administrative Services and the Bureau of Field Operations.

Recommendation #2
Calculate an absence rate for each rank using the most reliable and accurate absence rate data available for determining SJFD staffing and overtime needs and management reporting purposes.

The Fire Department agrees with the recommendation to track the absence rate by each rank. The Fire Department will use a specific absence rate for determining staffing needs. The Fire Department, however, does not believe that individual absence rates will necessarily lead to a more reliable projection of overtime costs. Key to this belief is the fact that fire service personnel, for minimum staffing purposes, may fill in at higher or lower ranks, skewing cost projections by rank.

Recommendation #3
Analyze vacancy rates data separately for each rank using the most reliable and accurate vacancy rate data available when determining staffing and overtime needs.

The Fire Department will implement this recommendation; however, the City Administration generally uses a vacancy rate of 3 % for departments. The Department questions the value of tracking vacancies by rank in view of the vacancy rate applied citywide.

Recommendation #4
Develop procedures to ensure that the correct data and proper adjustments are entered into the PeopleSoft and SEARS systems and designate a staff person to monitor and evaluate the PeopleSoft and SEARS data on a regular basis.

The Department concurs. The Fire Department has an overstrength Staff Technician position to implement, monitor, analyze and evaluate the PeopleSoft and SEARS data. The Fire Department is in complete agreement that we require a full-time person to monitor and track our $7.38 M overtime budget. To that end, this Staff Technician position has been proposed for permanent status in the 2001-2002 Operating Budget process.

Recommendation #5
Report to the City Council updated staffing information by December of each year including staffing levels and vacancies by rank, the number of personnel on disability and modified duty, and projected short-term and long-term vacancies.

The Department concurs. An annual staffing report will be provided to the City Council in December of each year.

Recommendation #6
Update its 1992 study regarding the use of relief staff and overtime to meet minimum staffing requirements and annually determine the most efficient and cost effective mix of relief staff and overtime to meet minimum staffing needs.

The Department concurs. The Fire Department will update its 1992 study to determine the best possible mix of relief staff and overtime funding to meet the Department's minimum staffing needs.

Recommendation #7
Review sick leave data to establish benchmarks for sick leave use and identify possible patterns of abuse and take appropriate follow-up action.

The Department concurs. The Fire Department has analyzed sick leave data in the past; however, there have been no regular reports to Fire Senior Staff. The Bureau of Administrative Services will be directed to develop semi-annual reports. We agree that there should be reinforcement of the existing City of San Jose and Fire Department policies regarding sick leave usage and documentation.

Recommendation #8
Implement a proactive sick leave reduction program to inform line personnel of the benefits of conserving sick leave and rewarding personnel with perfect attendance.

The Department will attempt to implement this recommendation; however, any substantive proactive sick leave reduction program would be a Meet and Confer issue and require negotiations with the Firefighter's bargaining unit. The Department will meet with Employee Relations to develop a plan of implementation.

Recommendation #9
Evaluate the feasibility of implementing a comprehensive Wellness-Fitness Initiative Program for the SJFD and prepare a budget proposal should the initiative appear cost beneficial.

The Department concurs. The Fire Department has had a full time Safety Officer for 3 years, whose duties include wellness and fitness. Moreover, the Fire Department has had an active Wellness Program, which includes physical assessments and training, for a similar period. Since the implementation of both

the position and program, there has been a general decline in the number of disability claims for major injuries. The Fire Department has continued to work closely with the City's Wellness Program Director, on a monthly basis, to implement programs that will benefit and prevent lost time due to illness or injury.

M. Alarcon

MANUEL ALARCON
Fire Chief

APPENDIX A

DEFINITIONS OF PRIORITY 1, 2, AND 3 AUDIT RECOMMENDATIONS

The City of San Jose's City Administration Manual (CAM) defines the classification scheme applicable to audit recommendations and the appropriate corrective actions as follows:

Priority Class[1]	Description	Implementation Category	Implementation Action[3]
1	Fraud or serious violations are being committed, significant fiscal or equivalent non-fiscal losses are occurring.[2]	Priority	Immediate
2	A potential for incurring significant fiscal or equivalent fiscal or equivalent non-fiscal losses exists.[2]	Priority	Within 60 days
3	Operation or administrative process will be improved.	General	60 days to one year

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1 The City Auditor is responsible for assigning audit recommendation priority class numbers. A recommendation which clearly fits the description for more than one priority class shall be assigned the higher number. **(CAM 196.4)**

2 For an audit recommendation to be considered related to a significant fiscal loss, it will usually be necessary for an actual loss of $25,000 or more to be involved or for a potential loss (including unrealized revenue increases) of $50,000 to be involved. Equivalent non-fiscal losses would include, but not be limited to, omission or commission of acts by or on behalf of the City which would be likely to expose the City to adverse criticism in the eyes of its citizens. **(CAM 196.4)**

3 The implementation time frame indicated for each priority class is intended as a guideline for establishing implementation target dates. While prioritizing recommendations is the responsibility of the City Auditor, determining implementation dates is the responsibility of the City Administration. **(CAM 196.4)**

APPENDIX B

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Gerald Silva
City Auditor

FROM: Manuel Alarcon
Fire Chief

SUBJECT: **SIGNIFICANT MANAGEMENT ACCOMPLISHMENTS: OVERTIME EXPENDITURES AUDIT**

DATE: April 11, 2001

Approved | Date

This memorandum responds to the request for the Fire Department accomplishments related to overtime expenditure management.

The Fire Department administers a $7.38 million overtime budget allocation in Fiscal Year 2000-2001. The Department is required by union contract, to fully staff 31 fire stations. The result of requiring fully staffed fire stations necessitates significant overtime budget expenditures.

For the last 10 years, the development of overtime budget projection models and the control on the usage of overtime have been on going challenges. The Fire Department has implemented a number of procedures and hired a Staff Technician to address the overtime budget deficit.

The following are some of the controls put in place to improve overtime efficiency:

- Hiring of a Staff Technician has been a significant accomplishment in overtime management. The responsibility of that position is to monitor, audit, and assist in the development of procedures in the control of overtime expenditures.
- To provide improved accountability of overtime, the Supplemental Employee's Attendance Reporting Systems (SEARS), which is an internally controlled database, was developed and implemented.
- Telestaffing, a software system for managing minimum staffing and timekeeping, continues to move forward.
- The Bureau of Administrative Services is coordinating efforts providing complete charge codes and full documentation on the need for overtime rules, policies, and procedures regarding the use of overtime.

- The Fire Department and Manager's Budget Office have been routinely overseeing the Department's overtime expenditure.

M. Alarcon

MANUEL ALARCON
Fire Chief