Metropolitan King County Council

Bob Ferguson, *District 1*
Larry Gossett, *District 2*
Kathy Lambert, *District 3*
Larry Phillips, *District 4*
Julia Patterson, *District 5*
Jane Hague, *District 6*
Pete von Reichbauer, *District 7*
Dow Constantine, *District 8*
Reagan Dunn, *District 9*

Cheryle A. Broom
King County Auditor

516 Third Avenue, Room W1033
Seattle, WA 98104-3272

(206) 296-1655
TTY 296-1024

M E M O R A N D U M

DATE: October 9, 2006

TO: Metropolitan King County Councilmembers

FROM: Cheryle A. Broom, County Auditor

SUBJECT: Performance Audit of Jail Overtime

Attached for your review is the Jail Overtime Performance Audit. The audit objectives were to determine whether the Department of Adult and Juvenile Detention is cost-effectively managing its staffing, overtime, and compensatory time costs for post staffing; to review the department's policies and practices relating to scheduling of employee leave, compensatory time, training, holiday time, etc., to understand how they affect overtime use; and to evaluate whether current overtime use practices have cost impacts that could be mitigated or avoided, or which may merit further study.

The general audit conclusion was that the use of overtime may be less expensive than using full-time staff, and it affords jail management flexibility it needs to address fluctuations in workload. However, overtime can be undesirable if it is used excessively or if its use is driven by staffing inefficiencies.

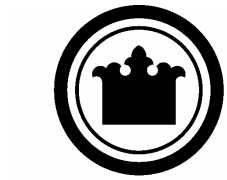
The County Executive's response to the audit concurred with the audit recommendations and is contained in the appendices of the report.

The Auditor's Office sincerely appreciates the cooperation received from management and staff of the Department of Adult and Juvenile Detention and the Office Management and Budget.

CB:BT:yr:areport.doc

PERFORMANCE AUDIT

JAIL OVERTIME



Presented to
the Metropolitan King County Council
Labor, Operations & Technology Committee
by the
County Auditor's Office

Cheryle A. Broom, King County Auditor
Bob Thomas, Senior Principal Management Auditor
Cindy Drake, Senior Management Auditor
Elizabeth DuBois, Principal Management Auditor

Report No. 2006-06
October 9, 2006

Auditor's Office Mission

We conduct audits and studies that identify and recommend ways to improve accountability, performance, and efficiency of county government.

Auditor's Office Vision

We are committed to producing substantive work of the highest quality and integrity that results in significant improvements in accountability, performance, and efficiency of county government. We share a commitment to our mission, to our profession, and to a collaborative work environment in which we challenge ourselves to accomplish significant improvements in the performance of the King County Auditor's Office.

❖

The King County Auditor's Office was created in 1969 by the King County Home Rule Charter as an independent agency within the legislative branch of county government. Under the provisions of the charter, the County Auditor is appointed by the Metropolitan King County Council. The King County Code contains policies and administrative rules for the Auditor's Office.

The King County Auditor's Office provides oversight of county government through independent audits and other studies regarding the performance and efficiency of agencies and programs, compliance with mandates, and integrity of financial management systems. The office reports the results of each audit or study to the Metropolitan King County Council.

The King County Auditor's Office performs its work in accordance with applicable Government Auditing Standards.

❖

Audit and study reports are available on our Web site (www.metrokc.gov/auditor) in two formats: entire reports in PDF format (1999 to present) and report summaries (1992 to present). Copies of reports can also be requested by mail at 516 Third Avenue, Rm. W-1033, Seattle, WA 98104, or by phone at 206-296-1655.

Alternative Formats Available Upon Request

TABLE OF CONTENTS

		PAGE
Executive Summary		ii
Chapters		
Chapter 1	Introduction	1
Chapter 2	Questions and Answers About Overtime for Corrections Officers	5
Chapter 3	Conclusion and Recommendations	31
Exhibits		
Exhibit A	Overtime Expenditures vs. Overtime Budget (for adult operations only)	1
Exhibit B	Cost of Overtime (OT) vs. Full-Time Corrections Officers (CO) 2005	13
Exhibit C	Hours of Overtime Worked, 2003-2005	17
Exhibit D	Unscheduled Leave Use, 1999-2005	18
Exhibit E	Limits on Scheduled Leave	19
Exhibit F	Average Overtime (OT) Worked by Employee Class and Gender, 2004	25
Exhibit G	Average Overtime (OT) Hours Worked in 2004	28
Appendices		
Audit Scope and Methodology		35
List of Findings, Recommendations & Implementation Schedule		37
Executive Response		39

EXECUTIVE SUMMARY

This performance audit examined the use of overtime by the Department of Adult and Juvenile Detention (DAJD) in relation to operating its two jails for adult inmates. This topic has been of interest to county policy-makers because overtime expenditures have been growing and exceeding overtime budgets over the last several years.

A major finding and conclusion of this report help to put these issues into context:

Overtime Is Not Necessarily an Expensive Option

- Strictly on an hourly cost basis, the use of overtime to carry out jail operations is not more expensive than hiring additional full time staff to perform the same functions.
- A major emphasis, therefore, should be on determining the most cost-effective mix of overtime and full time staff.

Other issues remain, however, concerning how and when overtime is used, and whether it is always necessary. This report describes the situations where overtime is desirable and where it is undesirable. An example of a desirable practice is the use of overtime to augment staffing resources when inmate population increases. In contrast, overtime is undesirable when it over burdens staff or when its use is due to staffing inefficiencies. Findings of this report identify the department's use of compensatory time and the limits set on vacation leave by the Collective Bargaining Agreement for corrections officers as two inefficient practices that are sources of avoidable overtime and lead to increased costs to the county.

These conclusions are similar to those of past audits we have conducted. For example, in the 2004 Performance Audit of the King County Sheriff's Office (KCSO), we found that overtime was substantially less expensive than using regular full time staff for

post coverage. Similarly, we also found that comp time was more expensive than overtime. However, one finding that differs is that DAJD, unlike the KCSO, does have a systematic approach to staffing management that enables it to ensure staffing is managed as planned.

The Goal Is to Identify the Most Cost-Effective Use of Staffing Resources

The report makes one recommendation for the department to address the staffing inefficiency issues related to leave scheduling and the use of compensatory time. A second recommendation is that the department continue work already begun on developing an analytical tool to help identify the most cost-effective mix of staffing resources and to evaluate the cost impact of policy changes that can reduce avoidable overtime.

Summary of Executive Response

The Executive concurs with both report recommendations.

Acknowledgement

The Auditor's Office sincerely appreciates the cooperation received from management and staff of the Department of Adult and Juvenile Detention and the Office Management and Budget.

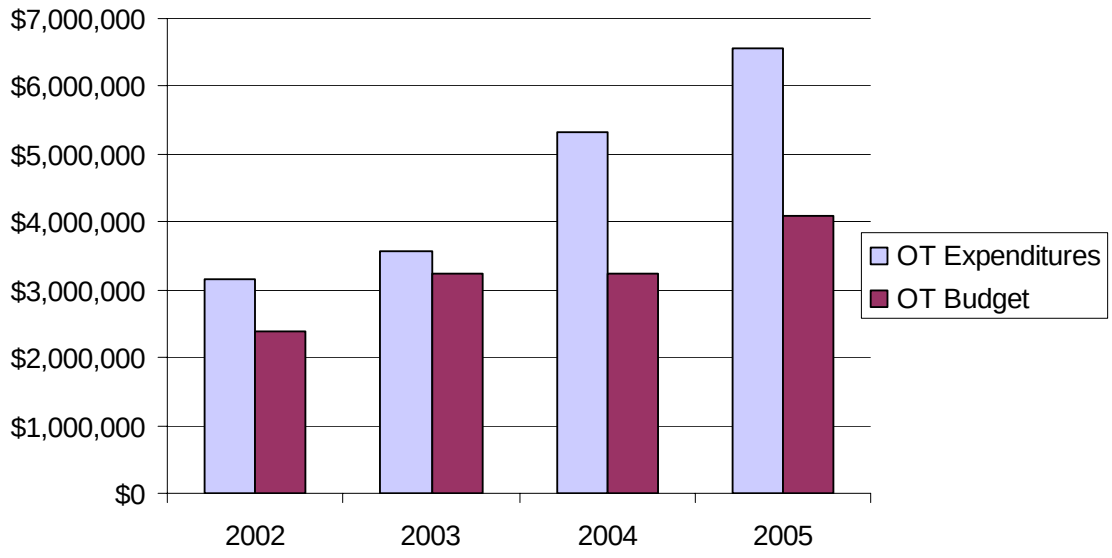
1 INTRODUCTION

Overtime expenditures for the county's jails have more than doubled over the last four years from approximately $3.1 million in 2002 to $6.6 million in 2005, a rate of growth that exceeds the increases in the overall budget and FTEs. What this means is that overtime expenditures as a percentage of the operating budget is growing and the amount of overtime worked by each staff person (on average) is also increasing.

EXHIBIT A

Overtime Expenditures vs. Overtime Budget

(for adult operations only)



SOURCE: Department of Adult and Juvenile Detention

Overtime expenditures have also been exceeding overtime budgeted amounts since 2002. In 2004 and 2005, overtime expenditures were about 60 percent higher than the overtime budget.

Exhibit A displays overtime budgets and expenditures over the last four calendar years.[1]

Since the beginning of 2002, four supplemental budget requests for the department have been linked specifically to increased expenditures for overtime in the jails. The causes of these increases have been attributed to factors such as the need to operate additional double-bunked housing units at the Regional Justice Center, increases in the inmate population, higher than anticipated use of unscheduled leave by staff (including those individuals placed on administrative leave), the number of inmates guarded at Harborview Medical Center, and the number of inmates requiring suicide watch.

The ability to provide staffing when needed, such as for operating double-bunked units when the jail population peaks, is an example of the flexibility that overtime can afford to respond to short-term demands for increased staffing resources. Nevertheless, there are questions about whether the use of overtime for long-term purposes is cost-effective, whether too much overtime can overburden staff, and whether all the overtime that is used is necessary or unavoidable.

This report addresses many of the key questions about overtime use in the county's jail operations. Our specific focus is on overtime for corrections officers and sergeants, as these individuals comprise the largest portion of jail staff. In Chapter 2, we discuss the following issues in a question-and-answer format:

[1] These figures include overtime in Community Corrections and Administration but not in Juvenile Detention. Overtime expenditures exclusive to the two jails account for approximately 91% of total overtime expenditures each year.

- How overtime is currently budgeted;
- Overtime costs and when overtime use should be avoided; and
- How overtime is used in the jails.

Chapter 3 includes our conclusion and recommendations.

[Blank Page]

2 QUESTIONS AND ANSWERS ABOUT OVERTIME FOR CORRECTIONS OFFICERS

Jail operations are complex, and in King County this complexity is heightened by the fact that the department operates two large urban jails that are separately located, have different designs and sizes of inmate housing units, and employ different approaches to inmate supervision. The determination of resource needs for the jails is therefore a complicated process. Nevertheless, it is a process that is manageable. Jails follow rules and standards for operations that govern where and when staff are required. A challenge for jail management and county budget-makers is to determine the most cost-effective mix of staffing resources to carry out jail operations.

QUESTIONS ABOUT THE BUDGET PROCESS

Question 1 **Is the amount of overtime set in the budget based on a specific analysis of the kinds of staffing resources needed to carry out jail operations?**

Answer **No, not in recent years.**

Budget Process for Overtime Focuses on Incremental Changes and Is Not Based on Analysis of Overall Resource Needs

The Department of Adult and Juvenile Detention analyzes staffing levels based on the number of jail posts to be staffed and estimates overtime costs associated with the staffing levels and with projections of other activities that may require the use of overtime (such as training). However, the Office of Management and Budget (Budget Office) has historically set the department's overtime budget by making incremental changes to previous year's budgets or by holding the overtime budget level constant, independent of DAJD's internal overtime estimates. For example, in 2003 and 2004 the department received the same

budgeted amount for overtime; the amount was increased for 2005.[2]

As Exhibit A in Chapter 1 shows, budgeted amounts for overtime may fall well below actual expenditures. On the council side, the overtime budget is reviewed when there are supplemental requests. Otherwise, the approach to annual budgeting has been to focus on the major drivers of the budget, such as inmate average daily population, and to assume, along with the Budget Office, that expenditures that exceed the overtime budget will be covered by savings elsewhere in the department's operating budget.

As one strategy for reducing overtime expenditures, the department has argued for increasing what is referred to as the "relief factor." The relief factor is a calculation that starts with the total hours that are required for a post (for example a seven-day post on an eight-hour shift requires 2920 hours per year[3]), and then divides this by the average number of hours that officers work at assigned posts per year, taking into account the fact that officers are absent from posts when they take scheduled leave (e.g., vacation) or unscheduled leave (e.g., sick leave). The relief factor is then multiplied by the number of jail posts to estimate the number of full time officers needed. Although it provides only a rough estimate of resource needs, this approach is employed widely among jails and prisons throughout the country.

The Budget Office currently uses a relief factor of 1.78 for making incremental changes to staffing levels in the budget. This is in contrast to a relief factor of 1.81, which the department based on leave usage in 2004 and used in making its own estimates for

[2] Overtime is also generally estimated with the assumption of no or limited vacancies.
[3] When taking into account that corrections officers work 8 hours and 10 minutes, the actual staff hours required is 2982.

staffing needs for 2006. The department reports that using a higher relief factor would increase staffing, which in turn would have some effect on reducing overtime.

Question 2 **Would refining the relief factor resolve the issues related to overtime expenditures?**

Answer **No.**

The relief factor is only a method for estimating staffing needs. It does not address overtime directly, and, most importantly, it does not determine the most cost-effective mix of resources that should be employed to carry out jail operations.

Relief Factor Approach to Staffing Has Inherent Weaknesses

An inherent weakness of the relief factor method is that it assumes that all leave taken by officers occurs in a uniform manner throughout the year. That is, by using annual averages, it assumes that the same number of officers will be absent each day in each operational unit. Another way of saying this is that the relief factor approach assumes that once all officers are scheduled and assigned to specific posts, there will always be enough officers present to cover the absences of officers who are on leave.

Experience shows that these assumptions are not valid for day-to-day operations. Scheduling officers who work five-day weeks to cover seven-day posts sometimes results in mismatches between the number of posts to be staffed and the number of officers that can be scheduled to cover them. Employee leave does not occur in a uniform manner; and in cases such as sick leave, family leave, and jury duty, absences may occur randomly. Even so-called scheduled leave, such as vacation leave, vary from day to day. The next section on managing staffing costs

explores the implications of these variations in leave in more detail.

Question 3 **Is there an alternative method for determining the most cost-effective mix of staffing and overtime?**

Answer **Yes, with limitations.**

A model can be developed that will identify the least costly mix of full-time staff and overtime given the number of posts to be staffed and current leave use practices. If use of leave is excessive or inefficient, however, other methods must be employed to address those issues. Also, the maximum amount of overtime that should be worked by officers is a separate policy decision that may influence how the proper mix of staffing and overtime is determined.

A Staffing and Overtime Model Can Overcome Weaknesses of the Relief Factor Approach

It is possible to construct a staffing and overtime model that takes estimated leave usage into account and uses statistical techniques to calculate how much overtime will be generated by different levels of officer staffing to cover a given number of posts. This approach, coupled with projections for other types of demand for overtime (such as hospital coverage, training, escorts, and peaks in court detail), can potentially produce an accurate estimate of overtime and can help budget-makers determine the financial break-even point between using full-time officers and overtime hours to staff needed functions.

To be most useful, however, the modeling approach must take into account policy or operational concerns regarding the amount of overtime hours that corrections officers should be expected to work without jeopardizing safety and productivity or causing other unintended consequences.

A limitation of such a model is that it starts with estimates of leave usage among staff based on current practices. If the use of unscheduled leave (such as sick leave or family leave) has been growing, or the practices regarding scheduled leave are inefficient, the model will not reduce inefficiencies. A major advantage of such a model, however, is that it can be used to estimate the budgetary impact of changes in policy that would affect overtime use and when and how much leave is taken.

Question 4 **Does the department have a model for estimating the most cost-effective mix of staff resources?**

Answer **Yes, but its use in recent years has been limited to making staffing allocations.**

In 1994 the department developed the Operations Forecast Model (OFM) to evaluate the proper mix of corrections officer salaried positions and overtime hours to support jail post coverage requirements. The OFM utilizes historical operational data and statistical and computer-modeling techniques. Model outputs provide information on the level of FTEs and the cost of overtime that would achieve the least cost scenario.

According to the department, the model has been used periodically in the past to assist in determining the jail operating budget, including the budget for overtime. However, it has not been used for this purpose for a number of years. Instead, it has been used within the department to determine the efficient deployments of corrections officer positions that have been provided in the budget.

Given the potential value of this model for conducting analyses of policy choices and for identifying the most cost-effective mix of staffing resources, the Auditor's Office asked the department to

conduct a validation test of the model during the period of this performance audit.

Scope of Validation

The OFM validation effort was limited to answering two questions using King County Correctional Facility Shift 1 operations and Roster Management System data for years 2003 and 2004. The two questions were:

> Question #1: Can OFM reproduce results, in terms of overtime utilization, based on actual leave and operational levels experience during a selected year?
>
> Question #2: Utilizing prior year event levels and patterns, can OFM provide a reasonable indication of future needs?

In its draft report on model validation submitted to the Auditor's Office in September 2006, the conclusion reached by the department was as follows:

> *The Operations Forecasting Model was found to be a valid tool to determine staffing requirement for jail operations. It could both replicate, within reliable tolerance, a year's events and forecast future requirements. When making comparisons between forecasted and actual results, factors which were not modeled produced the majority of variance. Such factors as vacancies, furlough assignment adjustments and new hire impacts, if included, would better align forecast with actual experience.*

Given the time constraints related to the completion date of the draft validation report and the publication of our report, audit staff have not conducted a detailed review of the validation results.

However, audit staff had input into the validation methodology. From our preliminary review of the narrative description of the validation steps, the methodology appeared to be sound. The Auditor's Office intends to work with DAJD in further reviewing the results of the validation. Should any additional enhancements in the model be needed, we will propose them as a follow-up to this performance audit.

QUESTIONS ABOUT MANAGING STAFFING COSTS AND OVERTIME USE WITHIN THE JAILS

Question 5 **Is overtime more expensive than hiring full-time staff?**

Answer **Not necessarily.**

Overtime is paid at a rate of time and one half of an officer's regular hourly wage, which has led to the common misconception that overtime is 50 percent more expensive than using full-time staff. However, when new corrections officers are hired, DAJD incurs expenses for providing benefits, training, and post coverage for employees when they are on leave. In the case of Adult Detention, these benefits and additional expenses add, on average, approximately 50 percent to the annual salary of a corrections officer. This means that for corrections officers working posts within the jails, full-time costs are very close to overtime costs. In fact, we found that overtime, on average, is slightly less expensive than hiring additional full-time staff.

Our analysis of Adult Detention's staffing costs shows that in 2005, the average annual salary for a full-time corrections officer was approximately $56,000. The cost of providing benefits such as retirement, health care, and social security, was approximately $18,000, bringing total corrections officer salary and benefits costs to $74,000 per annum.

Overtime Is Slightly Less Expensive than Hiring Full-Time Staff

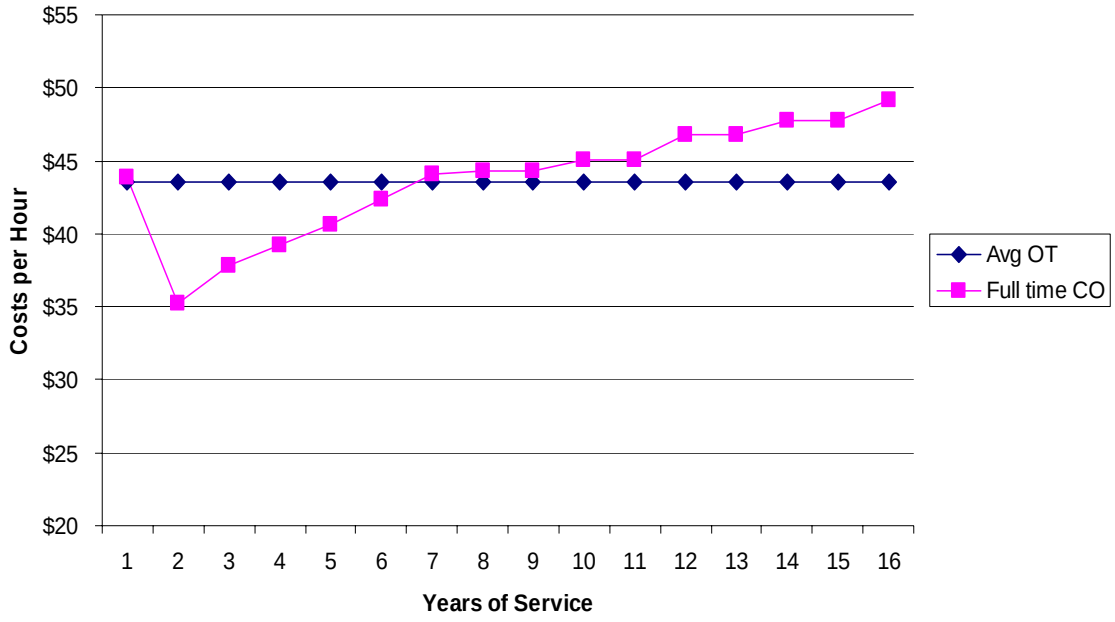
In addition, because jail posts must be continually staffed, when officers are on leave their positions must be covered by other staff members. This leave coverage requirement (backfill), which is a typical requirement of post staffing operations, accounts for a substantial cost to the county. In 2005, corrections officers were on leave from work an average of 456 hours a year primarily for vacation, sick, military, comp time, and holidays. The cost of paying other staff to cover these absences averaged $20,000, bringing total salary, benefit, and leave coverage costs to about $94,000 per employee. On an hourly basis this is equivalent to approximately $44.40 per hour, whereas the hourly cost of overtime is $43.50, or one dollar less than a full-time employee's hourly cost.[4]

As the chart below indicates, officers with fewer years of service have lower salary costs and lower leave accruals and therefore cost less than the average cost of overtime. However, once officers reach seven years of service the hourly costs exceed the average cost of overtime. The reason first-year full time and overtime costs are approximately the same is because first year officers are compensated while they receive initial training.

[4] Because the costs of full-time employees and overtime are so similar, small changes in leave use patterns or the average years of service of corrections officers could affect these figures and make overtime a slightly more expensive option

EXHIBIT B

Cost of Overtime (OT) vs. Full-Time Corrections Officers (CO) 2005



SOURCE: Audit analysis of data from Payroll, DAJD, and Office of Management and Budget

Using Overtime for Jail Post Coverage Is Not Necessarily a Concern

The cost of using officers on overtime to cover posts within the jails is very similar to the cost of using a full-time employee. Therefore, some of the additional overtime expenditures incurred by DAJD in recent years for jail staffing are not necessarily a concern from a cost perspective. This is because it was necessary to provide the required staffing coverage, and it would have cost the same amount to hire additional staff as it did to use overtime. However, this strictly financial comparison does not address other overtime issues, such as whether all overtime is unavoidable and whether high overtime use negatively affects personnel and operations.

Question 6 **Are there other advantages to using overtime?**

Answer **Yes.**

Overtime can also be a cost-effective staffing option when officers' absences from their posts are intermittent or short term. For example, if employees need to attend infrequent training sessions throughout the year it may be more cost effective for management to use officers working overtime to cover their posts than it would be to permanently hire additional officers. Overtime also provides management with the flexibility to meet short term operational needs, such as increasing staffing to accommodate temporary inmate populations increases, construction projects, or operational emergencies.

Question 7 **Would the use of compensatory time (comp time) or part-time staff be cost-effective alternatives?**

Answer **No.**

Comp time offers flexibility to employees and, depending on the type of staffing environment, can cost employers the same amount as overtime. However, within post staffing operations in which every officer absence must be covered by someone else, comp time is more expensive than overtime. This is because comp time generates the need to cover leave in the future, and this coverage is typically worked at an overtime rate.

Part-time employees can, in some situations, provide a cost savings to employers. However, part-time staff would require many of the same benefit and overhead costs that full-time employees do and therefore would be more costly on an hourly basis than either full-time employees or overtime.

Comp Time Is 50 Percent More Expensive Than Overtime

Within Adult Detention, comp time, like overtime, is awarded at the rate of one and one half times each extra hour worked. Unlike overtime, however, comp time generates the need for additional leave coverage at a later date. For example, an officer

who covers an eight-hour shift and is paid overtime is compensated for 12 hours shortly after working the extra shift. In the case of comp time, an officer who works an extra eight-hour shift earns 12 hours of comp time leave that can be taken later. When the officer takes this leave, the absence must be covered by another officer who is typically working overtime. In this scenario, the cost of covering the initial eight-hour absence at time and one half increases to covering a 12-hour absence at time and one half.

Our analysis of comp time in Adult Detention shows that when officers on overtime must be used to cover comp time absences, comp time is, on average, 50 percent more expensive than paying overtime for the extra shift worked.

In 2005, the cost of backfilling for the additional leave created by comp time may have totaled as much as $433,000, or an average of $800 per officer.[5] Further, the use of comp time may be contributing to the growing amount of overtime needed to cover the jails' posts and compounding the staffing challenges currently faced by DAJD. This subject is discussed more in the following section.

Question 8 **Are there situations in which the use of overtime should be avoided?**

Answer **Yes.**

Although overtime is not necessarily more expensive than hiring additional full-time staff and offers valuable staffing flexibility, jail

[5]This is an estimate that assumes that when officers were off duty taking comp time, there were not excess officers working that shift who could backfill for them. At the county's jails, given the high level of overtime being used in 2005, there were not many instances when excess staff were available. Also, this estimate does not take into account the compounding effect that can occur when officers backfilling for other officers due to comp time earn comp time themselves.

leadership reported to us that the current high level of mandatory overtime is straining corrections officer morale. Additionally, we found that some of this overtime could be avoided by exercising more control over unscheduled leave, establishing more appropriate caps on scheduled leave, and making changes in policies regarding the administration of compensatory time.

The department is currently working to implement some of these improvements.

Mandatory Overtime

High Level of Mandatory Overtime Can Hurt Morale and Lead to Increased Unscheduled Leave

Mandatory overtime is necessary when there are not enough corrections officers to cover the posts on a shift and the number of overtime volunteers is not sufficient to fill in the gaps. As shown in Exhibit C, the percentage of mandatory overtime has more than doubled since 2003. The captains and majors we met with at the jails explained that mandatory overtime is almost always a shift extension, as it is challenging to get staff to work on a furlough day or before their shift starts. When the shift commander can see that there will be a gap in staffing on the next shift, he or she calls officers who are currently working and alerts them that they will be required to work a shift extension. The result is that officers usually learn they will be required to work a shift extension only after they report for their regular shift. This means that officers have very little control over or knowledge of when they will be required to work double shifts. This is a factor cited by jail management that can lead to poor morale.

EXHIBIT C
Hours of Overtime Worked, 2003-2005

Year	Total Hours of Overtime	Percentage of Overtime That Was Mandatory
2003	87,156	10.4
2004	118,694	16.9
2005	136,128	23.2

Source: Department of Adult and Juvenile Detention

Moreover, staff reported that their experience is that officers required to work double shifts are more likely to call in sick or request vacation.[6] They attribute this partly not only to the physical and mental strain of the job but also to the mandatory overtime schedule. As previously discussed, corrections officers are almost always called for mandatory overtime when they are already at work. If an individual needs to ensure they will not have to work a double shift, they can take leave for all or part of their shift. If there are vacation slots open, an officer can request one of these slots up to one hour before the start of the shift. Otherwise, the officer can call in sick.

High leave use is especially problematic because it can drive up the need for additional staffing resources. The jails are currently experiencing a cycle in which officers are working a high level of overtime and using a high level of leave. The option of earning comp time off rather than pay only exacerbates this cycle, as officers have more leave to use.

Avoidable Overtime

In the answer to Question 4, we explained why overtime is not necessarily more expensive than using additional full-time

[6] In our analysis of overtime and leave data, we did not have the data necessary to test for a correlation between working double shifts and taking leave in the same way we tested for other relationships between overtime and leave. We did determine that, across the entire corrections officer population, there was not a strong correlation between total number of overtime hours worked and total number of leave hours taken by individuals in 2004. See Question 12 for more on this issue.

officers to staff posts. However, we found that the county could avoid some overtime by exercising more controls over unscheduled leave, establishing more appropriate caps on scheduled leave, and making changes in policies regarding the administration of comp time.

Unscheduled Leave

The Use of Unscheduled Leave Has Grown Dramatically in the Past Several Years

As can be seen in Exhibit D, the use of unscheduled leave (which includes sick leave, bereavement leave, jury duty, and military leave, among other categories) has grown dramatically in the past several years. In 2005, the average corrections officer was absent on unscheduled leave for almost 28 shifts. This is equivalent to taking off at least one full shift every two weeks on unscheduled leave alone. During our meetings with department and jail staff, we heard many reasons for the increase in unscheduled leave use. Among the reasons given were that the jail work force is aging, the number of Family and Medical Leave Act certifications is increasing, military call-ups are driving high Military Leave, and corrections officers have a relatively high rate of worker's compensation claims.

EXHIBIT D

Unscheduled Leave Use, 1999-2005

Year	Average Days of Unscheduled Leave per Corrections Officer
1999	16.6
2000	22.6
2001	24.0
2002	27.0
2003	29.1
2004	26.7
2005	27.7

Source: Department of Adult and Juvenile Detention

Scheduled Leave

In addition to the high use of unscheduled leave, the average corrections officer currently takes off about 32 shifts of scheduled leave each year. Scheduled leave includes vacation, holiday, and comp time. This time off is equivalent to more than one full shift every two weeks for each officer. Unlike unscheduled leave, which the department cannot directly restrict or schedule, the department can manage scheduled leave.

Currently, the Collective Bargaining Agreement (CBA) between King County and the King County Corrections Guild specifies the number of vacation slots available for corrections officers on each shift as shown in Exhibit E:

EXHIBIT E
Limits on Scheduled Leave

	KCCF	RJC
1st Shift	10	5
2nd Shift	10	5
3rd Shift	9	5
4th Shift (Court Detail)	5	3

Source: Collective Bargaining Agreement between King County and King County Corrections Guild

This means that a maximum of 10 people can be approved for scheduled leave from the first shift at the King County Corrections Facility (KCCF), a maximum of five people can be approved for leave from the first shift of the Regional Justice Center (RJC), and so on for each shift at each facility.

During our audit, we evaluated whether the limits set by the CBA for corrections officers were an effective control over scheduled leave at the jails. We found that the limits in the agreement are set to allow leave in excess of what can be handled by the current staffing level, and this means that overtime is likely to be required when every leave slot on a shift is taken.

Caps on Scheduled Leave Are Set too High for Current Staffing Level

Caps Are Too High for the Current Staffing Level

For each shift at each jail, there is a limited number of scheduled vacancies that can be handled by the number of officers assigned to cover the posts. This number of vacancies is fixed and is based on the average amount of leave taken. However, we found that actual leave use varied on a daily basis such that the number of officers on scheduled leave is frequently higher than the average. This is not surprising since the caps on leave set in the CBA are in some cases higher than the annual average. We analyzed leave data from 2004 and found that in five of the eight shifts at the jails, the limit on scheduled leave in the CBA is significantly higher than the average leave taken over the course of the year. This means that more people are taking leave than the current staffing level can accommodate, and it is likely that in most cases overtime is necessary to cover posts when the absences exceed the average.

In 2004, corrections officers took over 10,300 hours of scheduled leave above the average that could be covered but below the allowed caps.

Management of Scheduled Leave

As part of our audit, we also evaluated whether the Department is sufficiently managing scheduled leave within the limits set by the CBA. We found that in 2004, corrections officers took about 3,000 hours of scheduled leave in excess of the limits, and actual scheduled leave exceeded the limits by at least one individual seven percent of the time.

We discussed this leave in excess of the CBA limits with staff at the department, and they explained to us that they follow a formal process for managing corrections officer scheduled leave within the CBA limits. Staff reported that the current process has been in place for over 15 years and includes the following controls:

- Leave is managed by only a few employees to ensure consistency in leave policy application.
- Leave is processed and tracked electronically to ensure the accurate calculation of available slots and the assignment of leave according to date of request and seniority.
- Leave slot information is available to all officers to ensure the transparency of leave management. Making the process transparent allows officers to assess whether leave policies have been appropriately followed when requests are denied. Any officer whose request is denied can file a grievance if the actual leave on the requested date exceeds the limit.

Department staff also reported a number of reasons that scheduled leave may exceed the CBA limits on any particular day. These reasons include the following:

- Corrections officers can use scheduled leave to cover absences protected under the federal Family Medical Leave Act (FMLA) and the King County Family Medical Leave policy

(KCFML). Leave protected as family and medical leave would not count against the CBA limits. Staff reported to us that family and medical leave use by corrections officers is high and it is not unusual for several corrections officers to be out at one time. However, because neither the department nor the county tracks FMLA and KCFML leave electronically, we could not determine how many hours of family and medical leave were taken by corrections officers annually.

- Current staffing practices allow corrections officers to take scheduled leave even when all allowed leave slots have been taken if an officer requests five consecutive days of leave and there are slots available for only four of those days.

Additionally, there are other operational reasons scheduled leave may exceed the limits. For example, corrections officers are sometimes transferred between shifts and facilities mid-year in order to meet changing needs at the jails. If an officer has already received approval for leave on a particular day, the Department must still honor that approval after the transfer, even if it means total scheduled leave will exceed the limit for that day.

Compensatory Time (comp time)

The CBA between King County and the King County Corrections Guild states that corrections officers can request comp time, in lieu of overtime pay, at the rate of time and one half for each hour of overtime worked. The CBA specifies that all comp time must be authorized by department management. Up to the present, it has been the department's practice to approve requests for comp time, and in 2004 corrections officers earned over 25,000 hours of comp time.

As previously discussed, granting comp time in lieu of overtime pay can be the most expensive way to augment staffing

resources. Although the CBA between the county and the guild gives the department discretion over the approval of comp time, it is our understanding that, because the department has not acted on its right to eliminate or reduce comp time in the past, the department might need to discuss the effects of ending comp time with the guild.

Additionally, staff in the jails reported to us that comp time is a benefit that corrections officers appreciate, especially in light of the high amount of mandatory overtime. Nevertheless, eliminating comp time or significantly reducing the amount of time that can be accrued or carried over from one year to the next is desirable both because comp time is more costly than overtime and also because it further strains staffing resources.

Question 9 **Can some of the problems associated with avoidable overtime be addressed?**

Answer **Yes.**

In order to reduce the amount of avoidable overtime being worked in the jails, the department needs to implement incentives to reduce unscheduled leave use and improve management controls over scheduled leave, including comp time.

Incentives Needed to Reduce Leave and Improve Controls Over Scheduled Leave, Including Comp Time

We learned that staff at the Department of Adult and Juvenile Detention and the county's Human Resources Division are aware of many of the issues described above, and they are working to improve leave rates and reduce the amount of avoidable overtime. Current priorities include changing practices that allow for excessive scheduled leave, tracking and better managing leave protected under FMLA and KCFMLA, implementing a new attendance policy that will provide incentives for saving sick

leave, and developing new transitional duty positions in the jails that will allow injured workers to return to work sooner.

QUESTIONS ABOUT OVERTIME USE IN THE JAILS

In order to understand better the high levels of overtime in the jails, we requested overtime, leave, and personnel data from the Department of Adult and Juvenile Detention and the Human Resources Division. DAJD was able to provide us with data from 2004 alone, and so we were not able to examine in detail records beyond that one year. DAJD did provide us with the results of their own historical analysis, and we have presented that information in some of the questions here and in previous sections.

In addition to investigating general trends in overtime and leave use, we were also interested in whether there are any working patterns or correction officer traits associated with exceptionally high overtime rates. We tested the 2004 data to determine whether there were patterns of overtime or leave use that might explain the increases in leave or overtime or that might add additional costs to the current level of overtime (such as officers working higher amounts of overtime as they approach retirement).

Question 10

Is there a relationship between working overtime and job class, gender, pay step, or leave balances?

Answer

No.

We analyzed 2004 overtime and personnel records and found no correlation between overtime hours worked and job class, gender, pay step, or leave balance. Although some corrections

officers work a lot of overtime while others work very little, we saw no general trend related to these categories.

The average corrections officer works about 236 hours of overtime each year. This is equivalent to an extra nine hours every pay period. Although we saw a wide variation in how much overtime is worked by individual employees (as we discuss in the following question), we did not see wide variations in how much overtime is worked by groups of individuals. Exhibit F shows overtime use by employee class and gender.

EXHIBIT F
Average Overtime (OT) Worked by Employee Class and Gender, 2004

	Average Hours of OT	Average Shifts of OT
Corrections Officers	235.5	29
Sergeants	277.2	34
Captains	274.8	34
	Average Hours of OT	**Average Shifts of OT**
Male	245	30
Female	215	26

SOURCE: Auditor analysis of data from the Department of Adult and Juvenile Detention

Question 11 **Do all corrections officers work high amounts of overtime?**

Answer **No.**

Although most corrections officers work some overtime, we found that in 2004 only 54 percent of corrections officers worked 90 percent of the overtime.

Department staff reported to us that many corrections officers are excluded from working overtime due to an injury or illness. This means that the group of corrections officers shouldering the

burden of overtime is smaller than the entire population. We found that 95 percent of corrections officers worked some overtime in 2004.

Question 12 **Do officers who work a lot of overtime tend to take a disproportionate amount of leave?**

Answer **No.**

We analyzed overtime and leave data from calendar year 2004 and found that there was little correlation between total overtime hours worked and total leave hours taken by individuals over the course of the year. This was true for all categories of leave, including sick leave and vacation leave.

In 2004, Corrections Officers Working Higher Amounts of Overtime Did Not Take Higher Levels of Leave

We tested 2004 leave and overtime data to determine whether there was a detectable pattern of corrections officers working high levels of overtime and taking increased levels of leave. In our analysis, the correlation between two variables (such as overtime hours worked and leave hours taken) indicates the strength of a linear relationship between the two.[7]

We found that the correlation between overtime hours worked and leave taken by individuals was very weak.[8] The strongest correlation between overtime and leave was between overtime hours worked and compensatory leave taken. This correlation was not high, at 0.26, although it was stronger than the correlation between overtime and other categories of leave. It is also not surprising that officers working a lot of overtime would

[7] A correlation coefficient (r) of 1 indicates an increasing linear relationship, a correlation of -1 indicates a decreasing linear relationship, and a value in between indicates the degree of linear relationship. The closer the correlation is to 1 or -1, the stronger the correlation is between the two variables. If there is no linear relationship between the two variables, the correlation will be 0.

[8] The correlation between overtime hours worked and total leave hours taken by corrections officers in 2004 was -0.12. Although this correlation is weak, the fact that it is negative means that as the number of hours of overtime increased, the number of hours of leave decreased.

take an increased amount of comp leave, as officers can currently opt to earn compensatory leave, rather than increased pay, for any overtime they work.

We examined in detail the records of the 10 corrections officers who worked the highest levels of overtime in 2004. Two of these individuals worked, on average, over three overtime shifts per week; all of these officers worked, on average, two overtime shifts per week. Only three of these officers took a higher than average amount of total leave in 2004, and only one of the officers took a higher than average amount of sick or family leave.

Question 13 **Do officers approaching retirement tend to work more overtime hours?**

Answer **No.**

We examined overtime and personnel records from 2004 and found that there was little correlation between overtime hours worked and years of service or age.

In General, Corrections Officers Approaching Retirement Do Not Work More Overtime

There is a potential incentive for officers to work more overtime as they approach retirement because the additional income figures into the base used to determine the retirement benefit. We examined the overtime records of individuals with over 20 years of service who were over 50 years of age. Although staff at the jails reported instances of officers working high levels of overtime in order to increase their pensions, we did not find a pattern or trend indicating this in 2004.

In fact, as shown in Exhibit G, we found that in 2004 older and more senior officers worked, on average, relatively fewer hours of overtime than officers as a whole.

EXHIBIT G
Average Overtime (OT) Hours Worked in 2004

Population	Average OT Hours Worked
All corrections officers	236
Corrections officers with over 20 years of service*	154
Corrections officers over 50 years of age*	172
Corrections officers over 50 years of age with over 20 years of service*	128

*These averages result from analysis of hours worked by officers who worked overtime and do not include data from the 5% of corrections officers who did not work overtime in 2004.

SOURCE: Auditor analysis of data from the Department of Adult and Juvenile Detention and the county's payroll system.

Question 14 **Is the use of overtime in the Integrated Security Project (ISP) negatively impacting the jail's current operating budget?**

Answer **Yes, and this problem is being evaluated by the department.**

Costs Related to Transferring Inmates Have Not Been Charged to the Capital Budget

When the council appropriated funds to the capital budget for the ISP,[9] the costs associated with providing escorts to project workers and for temporarily relocating inmates from housing floors in the King County Correctional Facility were intended to be billed to the capital project. Auditor and council staff learned that only the escort portions of the project had been billed. At the present time, the department is identifying the full costs that should be billed to the capital project.

Had this problem not been identified, the jail operating budget would have subsidized the capital project, which might eventually

[9] The ISP consists of a major upgrade/replacement of the electronic security system at the King County Correctional Facility (KCCF) and also includes a reconfiguration and remodeling of the portion of the jail designated for inmate intake, transfer, and release (ITR).

have contributed to another supplement request. To the extent that the department's operating budget subsidizes the capital project, this means that there might be potential surpluses in the capital budget that eventually will be spent. If this were to occur, there would be a net negative impact to the county budget. In response to this situation, the department indicates that it has been reconciling project costs to ensure the jail operating budget will not subsidize the capital project.

This is not the only potential problem. In the event of delays in carrying out project work in the inmate housing units (as occurred on the 11th floor—the first floor to be vacated), the costs of relocating inmates is increased. This happens because the staffing costs of the units where the inmates are temporarily placed are higher than the staffing costs of the units from which they were transferred. Thus, when work on the housing floors takes longer than originally expected, costs go up. When the county negotiates with the construction manager over potential delays to the project, it must know the full cost consequences of any delays.

[Blank Page]

3 CONCLUSION AND RECOMMENDATIONS

Conclusion

As described in this report, the use of overtime in lieu of hiring full-time officers to carry out jail operations is not something to be avoided strictly for budgetary reasons. Two advantages of overtime are that it is slightly less expensive than using full-time staff and it affords jail management the flexibility it needs to address fluctuations in workload.

Nevertheless, overtime can be undesirable if it is used excessively, which can adversely affect morale, or if its use is driven by staffing inefficiencies. One staffing inefficiency in the jails occurs on the days and shifts when more staff take leave than can be backfilled by the remaining staff. For some types of leave, such as sick and administrative leave, the situation is unavoidable; but for other types of leave, such as annual and holiday leave, the situation can be avoided if the amount of leave is restricted and is not allowed to fluctuate. Another staffing inefficiency relates to the use of compensatory time. Granting comp time in place of overtime increases the total amount of leave taken. Under circumstances in which overtime usage is already high, this additional leave translates into additional (and avoidable) overtime.

Several means can be used to address the overtime issues identified in this report:

- Develop policies and practices that will create incentives to reduce the use of leave. (Jail management is currently exploring this option.)
- Discontinue granting compensatory time in lieu of overtime.

- Lower the caps on the amount of vacation, holiday, and compensatory leave allowed per shift.

In addition to reducing the cost of avoidable overtime, decreasing overtime use would also ease the demands on staff caused by the current level of mandatory overtime. We recognize, however, that some of the practices that could be changed may have to be addressed as part of the collective bargaining process.

Changes initiated in overtime practices should also include budgeting and planning practices. Currently, the amount budgeted for jail overtime is not based on an analysis of the most cost-effective mix of full-time staff and overtime. The Operational Forecast Model, which is undergoing further development and review by the department, has the potential to identify the most cost-effective mix of resources and to quantify the cost impact of policy changes, such as savings to the county that would result from lowering the limits on scheduled leave per shift.

RECOMMENDATION 1 The department should complete further development and evaluation of the Operational Forecast Model with the objective of using it for its 2008 operating budget proposal.

RECOMMENDATION 2 The department should take steps to eliminate the use of comp time in lieu of overtime and to lower the caps on the amount of vacation, holiday, and compensatory leave that can be taken so that the caps more closely match the amount of leave that can be covered by existing staffing levels.

APPENDICES

[Blank Page]

AUDIT SCOPE AND METHODOLOGY

Scope

This performance audit evaluated the Department of Adult and Juvenile Detention's (DAJD's) uses of staff, overtime and compensatory time for covering posts and special assignments at the King County Correctional Facility and the Regional Justice Center.

Study Objectives

- Determine whether DAJD is cost-effectively managing its staffing, overtime, and compensatory time costs for post staffing.

- Review DAJD's policies and practices relating to scheduling of employee leave, compensatory time, training, holiday time, etc., to understand how they affect overtime use.

- Evaluate whether current overtime use practices have cost impacts that could be mitigated or avoided, or which may merit further study.

Methodology

In conducting this performance audit we interviewed staff at DAJD headquarters and at the county's two jails, the King County Corrections Facility and the Regional Justice Center. We analyzed documentation from DAJD, and we toured the King County Corrections Facility.

The data we used in our analysis came principally from DAJD's Roster Management System (RMS) and the county's payroll system. We performed data reliability tests by reconciling both data sets. Because there are time lags between earning overtime or taking leave and reporting that information to payroll, we could not perfectly reconcile the two sets of data for specific time periods. However, we did determine that both data sets documented work and leave for the same individuals, and that all differences in the data could be accounted for. We performed correlation analyses of the data to answer several of the questions about overtime use in the jails. We used payroll information coupled with RMS leave and overtime data to calculate the cost of overtime and compensatory time relative to the cost of adding full time staff.

The work performed in this audit was carried out in conformance with generally accepted government auditing standards.

Scope of Work Related to Internal Controls

We evaluated internal controls relevant to the audit objectives. This included a review of staffing policies and procedures; analysis of leave, overtime, and payroll data; observations of actual staffing practices; and meetings with staff at DAJD.

[Blank Page]

LIST OF RECOMMENDATIONS & IMPLEMENTATION SCHEDULE

Recommendation 1: The department should complete further development and evaluation of the Operational Forecast Model with the objective of using it for its 2008 operating budget proposal.

> **Implementation Date:** In time for the development of the 2008 budget. The Department of Adult and Juvenile Detention indicates in its response that it plans to complete development and evaluation of the Operational Forecast Model in the first quarter of 2007.
>
> **Estimate of Impact:** Use of the model has the potential to identify the most cost-effective mix of overtime and full-time staff subject to policy constraints on the amount of overtime that corrections officers should work.

Recommendation 2: The department should take steps to eliminate the use of comp time in lieu of overtime and to lower the caps on the amount of vacation, holiday, and compensatory leave that can be taken so that the caps more closely match the amount of leave that can be covered by existing staffing levels.

> **Implementation Date:** The Department of Adult and Juvenile Detention indicates that the matters of compensatory time and leave cap thresholds will be subject to collective bargaining negotiations. The current agreement remains in effect until the end of 2006.
>
> **Estimate of Impact:** Reduction in the amount of avoidable overtime hours will result in savings to the operating budget.

[Blank Page]

EXECUTIVE RESPONSE

King County
Ron Sims
King County Executive
701 Fifth Avenue, Suite 3210
Seattle, WA 98104
206-296-4040 Fax 206-296-0194
TTY Relay: 711
www.metrokc.gov

RECEIVED
OCT 04 2006
KING COUNTY AUDITOR

October 4, 2006

Cheryle A. Broom, County Auditor
Room 1033
COURTHOUSE

Dear Ms. Broom:

Thank you for the opportunity to comment on your Jail Overtime Performance Audit report. We appreciate your staffs' efforts and cooperation in determining whether the Department of Adult and Juvenile Detention (DAJD) is cost-effectively managing its staffing resources, overtime, employee leave usage, and its policies and practices. We concur with the recommendations as indicated in the more detailed response contained in the table below:

Recommendation	Agency Position	Schedule for Implementation	Comments
Recommendation # 1 The department should complete further development and evaluation of the Operational Forecast Model with the objective of using it for its 2008 operating budget proposal...	Agency concurs that the department should complete development of the model and evaluates its potential effectiveness as a staffing model in the 2008 budget.	DAJD plans to complete the development and evaluation of the Operational Forecast Model in the first quarter of 2007.	The goal is to ensure staffing and overtime allocations are appropriate to operate safe, secure, humane detention facilities and alternative programs in an innovative and cost-effective manner.
Recommendation #2 The department should take steps to eliminate the use of compensatory time in lieu of overtime and to lower the caps on the amount of vacation, holiday, and compensatory leave that can be taken so that the caps more closely match the amount of leave that can be covered by existing staffing levels.	Agency concurs.	DAJD is presently engaged in collective bargaining agreement negotiations. The current agreement remains effective until year end 2006. The changes contained in your recommendation must be bargained before they can be implemented.	DJAD fully recognizes the financial impact of compensatory time and leave cap thresholds. The agency is working with labor relations and the union to address the issues during collective bargaining.

King County is an Equal Opportunity/Affirmative Action Employer and complies with the Americans with Disabilities Act

Question No. 1 of your report asks: *Is the amount of overtime set in the budget based on a specific analysis of the kinds of staffing resources needed to carry out jail operations.* You conclude that it is not, and that while DAJD analyzes staffing levels, the Office of Management & Budget has historically set the DAJD overtime budget by making incremental changes to prior budgets or by holding overtime budget levels constant.

OMB's budgeting and analysis of DAJD overtime has been developed within the system limitation described in the audit and given the following factors that contribute to mitigating the impact of overtime expenditures in excess of the budget:

- A sizable portion of overtime over expenditures is made up by salary savings resulting from vacancy rates and other conditions that create savings in budgeted salary levels.
- A second component of actual overtime expenditures exceeding budgeted levels results from population increases over original estimates that are historically funded by revenue-backed supplementals. These amounts cannot be funded at the time the budget is adopted and must be funded as the year progresses and population increases have occurred.
- The Executive has maintained a reserve in the CX financial plan for jail population changes that are not funded by outside revenues, thus providing resources for overtime above the budgeted level if necessary.

The Office of Management and Budget is however, anxious to evaluate the Operation Forecast Model and will work with the department to determine its utility as a budgeting tool during development of the 2008 budget. OMB will also analyze the Auditor's excellent points related to unplanned leave usage and use of scheduled leave in excess of allowable contract limits to determine if adjustments can be made that improve management of overtime use.

Question No. 14 of your report asks: *Is the use of overtime in the Integrated Security Project (ISP) negatively impacting the jail's current operating budget*? Our response is that it does and that the department is evaluating the issue. DAJD is actively monitoring expenditures and working with the ISP Advisory Committee to ensure the project does not have an adverse impact on the operating budget.

If you have any questions regarding the response, please contact David Lawson, Executive Auditor, at 206-205-0780.

Sincerely,

Ron Sims
King County Executive

cc: Sheryl V. Whitney, Assistant County Executive
Reed Holtgeerts, Director, Department of Adult and Juvenile Services
Bob Cowan, Director, Office of Management and Budget
David Lawson, Manager, Executive Audit Services