

Secretary of State Audit Report

Kate Brown, Secretary of State

Gary Blackmer, Director, Audits Division



Department of Corrections: Managing Security Personnel Costs

Summary

The mission of the Oregon Department of Corrections (DOC) is to promote public safety by holding offenders accountable for their actions and reducing the risk of future criminal behavior. Costs for security personnel who directly supervise offenders were over \$540 million during the 2009-2011 biennium, a large component of the department's budget. The department had a legislatively adopted budget of \$1.36 billion for the 2011-2013 biennium.

The objective of our audit was to determine if the department could reduce personnel costs through better administrative practices. To that end, we analyzed security personnel costs at Coffee Creek Correctional Facility (Coffee Creek) and Two Rivers Correctional Institution (Two Rivers), considering payroll, budgeting, staffing, scheduling, and accounting functions. We found that the personnel costs of security are generally well managed. We identified a few areas where improvement may be possible.

Continuously staffing prisons

The department must staff correctional institutions 24 hours a day, every day of the year. Moreover, to maintain safe operations, the institutions need a sufficient number of staff working at assigned locations called posts which depends on the physical layout, inmate population, shift, and planned inmate activities. The department does not have the flexibility to delay work when employees are absent, unlike other business or government operations. Institutions must also accommodate unpredictable changes in workload such as hospital watches and lockdowns.

In its operations and budgeting, the department uses a post factor to calculate the number of security personnel needed to staff posts on a continuous basis. The department is budgeted to have 1.70 personnel for each daily 8-hour post, or 5.10 personnel for each daily 24-hour post. To achieve a 1.70 post factor, security staff would need to work a post for 1,718 hours a year, on average, recognizing absences due to paid leave, training, non-post work, and other leave.

Overtime is needed to staff posts in response to variability in workloads and employee absences. Because it would not be cost effective to hire enough

staff to eliminate overtime, an accurate post factor is not intended to eliminate the need for overtime.

Staffing appears reasonable

While we noted some areas where improvements may be possible, we did not identify substantial savings or inefficiencies in the management of overtime, or personnel costs of the two correctional facilities. Coffee Creek and Two Rivers had year to year variations in post factors and incurred overtime; however, variation and overtime are to be expected. We found the variation in post factor equated to a small percentage of overall hours and noted department efforts to use pull posts, and flex and variable relief staff to adapt to daily staffing variations and reduce overtime.

We analyzed the monthly overtime hours of security staff and found that 78% of the time, employees at the two institutions worked less than 16 hours of overtime each month. Approximately 41% of the time employees worked no overtime in a given month. Furthermore, about 99% of the overtime hours occurred in weeks in which the employee did not incur unpaid leave, indicating that there was not pervasive abuse of overtime and unpaid leave policies.

Overtime hiring can reduce total personnel costs

Used effectively, overtime can reduce total personnel costs when the need is inconsistent. The cost to maintain a higher overall staffing level is generally more expensive than the cost of infrequent overtime. Our analysis found the annual cost for hiring security staff or the equivalent overtime hours is approximately the same if the employees have a similar rank and salary step, and work the same number of post hours. The wage premium of overtime is offset by not having to pay a new employee's leave and insurance benefits.

When an institution uses overtime, it pays only for the number of post hours needed. When an institution hires a new employee, it runs the risk of paying for post hours it may not need. Our analysis showed that when overtime is infrequent, it is less expensive than hiring a new employee, which can result in paying for post hours that are not required. Moreover, cost should not be the sole deciding factor in using overtime or hiring a new employee. Other non-monetary factors, such as safety and staff morale, also merit consideration.

1.70 Post factor is appropriate

We concluded that the post factor at the two correctional facilities appeared reasonable based on average staff availability and the department's approved budget. The department had requested a higher post factor in previous budget proposals, but our analysis

indicates that the 1.70 post factor reasonably reflects the availability of security personnel. While salary and benefits costs may increase year after year, the post factor should remain reasonably stable over time.

However, because correctional institutions vary in layout, age, seniority of staff, inmate populations, security level and programming, a single post factor applied to all correctional institutions may not result in the most efficient staffing level at a given institution or for all staff classification levels. The department should explore whether adjusting an institution or classification post factor would improve efficiency and reduce overtime.

Furloughs and vacancy savings may not be appropriate

We question the use of unpaid furloughs for security staff in a correctional environment to achieve savings. Very limited, if any, savings may be realized, while increasing the burden for managing the furloughs. Similarly, the state's budget practice of withholding estimated vacancy savings may not be cost effective when the position is required to meet minimum staffing levels. A position held vacant to achieve vacancy savings has the potential to cause additional overtime.

Monitoring and tracking could be improved

In an effort to understand the factors that cause overtime, the department assigns a reason to each overtime occurrence. However, the department would benefit from conducting a broader analysis that includes planned workloads, unplanned workloads, planned absences, and unplanned absences. This would provide management with a better understanding of the causes of overtime than the current subjective process.

Agency Response

The agency response is attached at the end of the report.

Background

The mission of the Department of Corrections (DOC) is to promote public safety by holding offenders accountable for their actions and reducing the risk of future criminal behavior. DOC operates eleven divisions: Operations, Health Services, Community Corrections, Transitional Services, General Services, Debt Services, Capital Improvements, Capital Construction, Human Resources, Public Services and Central Administration. The Operations division manages 14 correctional institutions, which housed an average of 14,000 inmates sentenced to 12 or more months in prison, between April 2010 and March 2011. The state forecasts the inmate population will grow to an average population of approximately 15,470 in 2015.

The department had a legislatively adopted budget of \$1.36 billion and 4,421 Full-Time Equivalent (FTE) staff for the 2011-2013 biennium. Nearly all of the Department's funds are derived from the State's General Fund. Approximately \$646 million was dedicated to housing and securing inmates during the 2009-2011 biennium.

Two unions, the American Federation of State, County and Municipal Employees (AFSCME) and the Association of Oregon Corrections Employees (AOCE) represent DOC staff. The unions and DOC have five collective bargaining agreements that significantly influence the operation of correctional institutions by defining employee benefits, work hours, vacation leave, and employee safety issues.

Staffing correctional institutions

Correctional institutions must be staffed 24 hours a day, 365 days per year. In the 2009-11 biennium, approximately 3,380 FTEs were dedicated to operating institutions, including approximately 2,600 positions for correctional officers, corporals, sergeants, lieutenants, and captains who secure institutions. In addition to security staff, numerous non-security staff work inside the institutions providing services including, food, health care, counseling, administrative, and physical plant maintenance.

Personnel costs are a significant expenditure and account for approximately 84.6%, or \$540 million, of the Operations division budget. DOC reported the two institutions included in our audit - Coffee Creek and Two Rivers - spent about \$33.4 and \$35.5 million respectively on security personnel during the 2009-11 biennium.

Security posts are the basis for needed staffing

Staffing plans for each institution detail specific work assignments, called posts, which are necessary for security operations. Each post has specific duties, such as guarding a corridor or monitoring a housing unit. The number of posts required for operations can vary based on the day of the week and time of day. For example, a post monitoring the recreation yard is necessary during the day, but not needed at night.

Posts are often staffed for seven days per week. For the purposes of this report, posts are discussed in 7-day equivalents. Posts are designated as either fixed or pull posts. Fixed posts are necessary to ensure safety, are critical to operations, and must be continuously staffed. For example, the security control room is always staffed. In contrast, pull posts can be left open temporarily or for an entire shift, though not on a continual basis. For example, the recreation yard can be shut down on a temporary basis if the security staff operating that post is needed to relieve a fixed post critical to security. Staff plans for Coffee Creek and Two Rivers for the 2009-2011 biennium show both institutions planned over 1,100 posts per week, which is over 9,000 post hours per week, 39,000 post hours per month or 470,000 post hours per year. Figure 1 shows the proportions of fixed and pull posts at each institution.

Figure 1

	Coffee Creek		Two Rivers	
Pull post shifts per week	169	15%	44	4%
Fixed post shifts per week	959	85%	1,114	96%
	<u>1,128</u>		<u>1,158</u>	

Security posts in DOC facilities are costly to staff. For example, a 24/7 officer post costs around \$354,000 to continuously staff with a mid-range correctional officer. A post staffed by a mid-range captain costs around \$546,000 per year. While analyzing the need for each post was outside the scope of this audit, these costs demonstrate that safely eliminating one post can achieve significant savings.

Staffing security posts in the facilities

Institutions are generally staffed in three shifts: day, swing, and graveyard. Staffing is adjusted on a daily basis to accommodate planned and unplanned absences, and changes in workloads. Planned absences include vacations, holidays, furloughs, training, and military leave. In general, unplanned absences include sick leave, unplanned unpaid leave, injury leave, and bereavement leave.

Institutions utilize flex and variable relief staff to cover absences, in addition to staff regularly assigned to fixed or pull posts. Flex staff are assigned to specific shifts and generally cover absences such as sick leave, while variable relief staff cover different shifts and days from week to week. Variable relief staff generally fill in for employees on vacation.

Figure 2 is a hypothetical example of how the posts and staff are balanced to operate one shift. The number of staff planned exceeds the number of posts because, predictably, some staff will be absent. However, in this example, staff absences are above average. Management can cover the absences through a combination of adjusting the posts and staffing.

Figure 2

Sample Shift

Total Posts	35	Scheduled staff	42
Pull posts closed	-1	Vacation	-2
Hospital watch	+2	Sick	-3
Staff needed	<u>36</u>	Training	-1
		Furlough	-2
		Injury	-1
		Military leave	-1
		Medical leave	<u>-1</u>
		Subtotal	31
		Voluntary overtime	+4
		Mandatory overtime	<u>+1</u>
		Staff working	36

The number of posts varies based on the activities within the facility, the number of staff absent, and increases in workloads. The example in Figure 2 demonstrates all of these conditions. Changes in workloads can increase the number of staff needed beyond what is planned. For example, when an inmate requires hospital care, one or two security staff must accompany the prisoner, adding to the workload. If too many staff are absent or there are increases in the workload that cannot be accommodated with existing staff, management can temporarily close pull posts or authorize overtime hours. Staff volunteer to work overtime or are mandated to work if there are not enough volunteers. Court decisions, collective bargaining agreements, and state and national standards influence staffing requirements.

Adding to scheduling complexity, certain post duties require specific training, experience, or certifications. For example, the mobile patrol post requires weapons training, which not all staff possess, while other posts such as the vehicle inspection gate require senior security staff. Consequently, management may need to move several staff between posts to fill one absence.

Determining the number of staff needed

Since prisons operate around the clock, management must plan for staff that is unavailable to work a post or is absent. Prisons must be staffed to a minimum level unlike other business or government operations where workloads can be delayed because of employee absences. The department uses a post factor to calculate the number of security staff needed to cover a post on a continuous basis. An accurate post factor accounts for the average amount of time an employee is available to work. Inaccurate calculations can lead to higher total personnel costs. A post factor that is too high can result in overstaffing, while a post factor that is too low can lead to increased need for overtime.

The department's post factor is used for both budgeting and staffing. DOC is authorized for 1.70 FTEs for each 7-day post, with additional funding for overtime. For the 2009-11 biennium, DOC Operations had an overtime budget of \$14.2 million. In the past, the department has been allocated different proportions of positions and funding equating to 1.75 FTEs, such as 1.64 FTE positions for a 7-day post and the remaining 0.11 FTE funded through overtime.

The post factor model incorporates all the reasons employees are unavailable to work a post. These include planned absences such as vacations and training, and unplanned absences such as sick leave. The average amount of time an employee is unavailable to work a post should be calculated using past payroll data from multiple years. A normal employee work year consists of 2,086 potential work hours. The average amount of time an employee is available to work a post is referred to as Net Annual Work Hours (NAWH), and is the difference between potential work hours and the average amount of time an employee is unavailable to work a post. Accurately assessing the amount of time an employee is available to work can reduce total personnel costs by anticipating the amount of staff needed for an average day.

However, an accurate post factor does not eliminate the need for overtime. Overtime can occur when workloads or absences are above average. For example, during the flu season, it is expected that the number of employees out sick will be higher than average. A well calculated post factor in conjunction with an accurate assessment of post needs should reasonably estimate staffing needs over the course of the year. When absence rates rise above the average level, there may not be enough staff to operate the prison and management may elect to use overtime to fill the short-term need. Figure 3 shows a simplified NAWH calculation, grouping employee time into broad categories.

Figure 3

**Simplified Net Annual Work Hour Calculation
Coffee Creek & Two Rivers Security Staff**

April 2010 - March 2011	Hours
Potential Annual Work Hours	2,086
Average vacation leave	-132
Average sick leave	-89
Average training	-25
Average furlough time off*	-26
Average other paid leave	-23
Average protected unpaid leave**	-135
Average unprotected unpaid leave	<u>-3</u>
Average available hours of one security staff	1,653

Post Factor – One 7-day Post

Post Hours	2,920
Hours staff is available to work	<u>÷ 1,653</u>
Post factor	1.766

* Estimated absences for the year per bargaining agreements

** Includes family medical leave, military leave, and other legally or contractually obligated leave.

The NAWH approach relies on historical data, which is a combination of past patterns as well as past practices. Previous practices may not be desirable or appropriate for the future. If an institution was not operating efficiently in the past, that inefficiency could continue. Furthermore, management may enact changes that affect posts or staff. For example, new programming could affect the number of posts, or an increase or decrease in required training could provide a rationale for breaking with previous practices.

Previous staff availability

An analysis of Coffee Creek and Two Rivers employee time between April 2007 and March 2010 found the security staff was available 1,698 hours on average of the potential 2,086 regular hours. Figure 4 displays availability by rank at each institution and the resulting post factor.

Figure 4

Net Annual Work Hours and Post Factor

April 2007 - March 2010

	Coffee Creek					Two Rivers				
	Officer	Corporal	Sergeant	Lieutenant	Captain	Officer	Corporal	Sergeant	Lieutenant	Captain
Available Hours	1,740	1,725	1,678	1,538	1,709	1,681	1,686	1,646	1,709	1,645
Post Factor	1.678	1.693	1.740	1.899*	1.708	1.737	1.732	1.773	1.709	1.775

*This post factor is high due to long-term military leave

The department received 1.70 FTEs in staffing for each post, which assumes employees on average are available for 1,718 hours each year. Figure 5 shows the weighted average of available hours by institution. The analysis found the 1,721 hours Coffee Creek security staff was available, a 1.697 post factor, aligns with the authorized staffing the department received. However, the analysis indicated Two Rivers security staff was available only 1,676 hours, a 1.742 post factor, which did not align with the authorized staffing level. When this kind of disparity occurs, overtime, operational efficiency gains, or staffing level adjustments are needed to meet workload requirements.

Figure 5

Average Net Annual Work Hours and Post Factor

April 2007 - March 2010

	Coffee Creek	Two Rivers	Combined
Weighted Average Available Hours	1,721	1,676	1,698
Weighted Average Post Factor	1.697	1.742	1.719

Staffing and overtime proportions differed at the two institutions. Based on historic availability, Coffee Creek was sufficiently staffed with 1.70 positions to cover its posts and had additional overtime hours to cover daily variations in staffing or additional work. Since Two Rivers security staff was available for fewer average hours than supported by a 1.70 post factor, the analysis indicated an additional need for resources, overtime hours, a reduction in the time an employee was unavailable to work a post or gains in other operational efficiencies to cover the deficit. Figure 6 illustrates the difference between average availability at each institution during the three-year timeframe and what is required to support a 1.70 post factor. Higher overtime at Two Rivers contributed to the operation of the institution. To align to current post factor staffing, Two Rivers would need to increase the average amount of time staff are available to work a post or, conversely, decrease activities that make an employee unavailable.

Figure 6

Analysis of Staffing Levels

April 2007 - March 2010

	CCCF	TRCI
NAWH average staff availability	1,721	1,676
Hours needed to fulfill a 1.7 post factor	1,718	1,718
Difference	3	-42
Average employee overtime	88	141

Coffee Creek and Two Rivers

We selected Coffee Creek and Two Rivers for our audit because they are larger institutions that were collectively budgeted to house approximately 23% of the department's inmates and employed about 562 FTEs for security between April 2009 and March 2010, over one-fifth of the statewide security total. Additionally, during a preliminary analysis, Coffee Creek and Two Rivers had higher levels of leave and overtime than other institutions, indicating potential opportunities for improvement.

Coffee Creek Correctional Facility is a medium and minimum-security correctional institution located in Wilsonville, Oregon. It opened in October 2001 and is the state's only female correctional institution. Additionally, Coffee Creek is the statewide intake center for all new inmates entering the correctional system. Coffee Creek has a total budgeted capacity of 1,683 inmates, including 659 medium-security female beds, 540 minimum-security female beds, 432 male intake beds and 52 female intake beds. It is also currently operating 57 emergency beds above capacity. Coffee Creek has approximately 475 total staff, with about 286 FTEs for security. Coffee Creek has approximately 161 seven-day equivalent posts, 85% of which were fixed posts during our audit scope.

Two Rivers Correctional Institution is a medium and minimum-security correctional institution located in Umatilla, Oregon. Two Rivers began operating housing units in December 1999. Two Rivers has a budgeted capacity of 1,802 inmates, including 1,674 medium-security beds and 128 minimum-security beds. It has approximately 440 total staff, with about 280 FTEs for security. Two Rivers has approximately 165 seven-day equivalent posts, 96% of which were fixed posts during our audit.

Both institutions were designed with multiple individual housing units to provide as many services as possible in those units. For instance, food service occurs in the housing units and recreation takes place in outdoor activity yards attached to each housing unit. This design reduces inmate movement within the prison and limits interactions among inmates in different housing units.

Audit Results

Security personnel costs are a significant expense at the Oregon Department of Corrections. With this in mind, we analyzed payroll records and scheduling data at Coffee Creek Correctional Facility and Two Rivers Correctional Institution to determine if there were opportunities to reduce these costs. As part of our analysis, we considered budgeting, staffing, scheduling, and accounting related to security personnel costs at Coffee Creek and Two Rivers.

Institutions Generally Manage Post Staffing Well

While we note some areas where further improvements may be possible, we did not identify substantial savings or inefficiencies in the management of overtime or security staff at the two corrections facilities. Coffee Creek and Two Rivers had year to year variations in post factors and incurred overtime; however, some variation and overtime is to be expected. Moreover, we found the variation in post factor equated to a small percentage of overall hours and noted department efforts to use pull posts, and flex and variable relief staff to adapt to daily staffing variations and reduce overtime.

Most correctional officers at Coffee Creek and Two Rivers had one or fewer overtime shifts per month and had predictable attendance 70% of the year. The other 30% of the year, or 16 weeks, contained some unplanned absences due to illness, injury, or some other reason. The average corrections officer used 11 of the 12 accrued sick days each year. While we found sizeable amounts of unpaid leave, we noted that approximately 98% of the leave was protected by state and federal law or labor agreements. In some cases, the department double filled positions to mitigate the impact of employees on long-term leave. We found this was a prudent way to address staffing needs. We did note a few cases of corrections officers working a shift of overtime in the same week they took time off without pay, but did not see any patterns of abuse.

Overtime can be a prudent means of responding to unpredictable staffing needs. Overtime at Two Rivers appeared high between April 2010 and March 2011, relative to Coffee Creek, but we noted a number of security staff vacancies over the course of the year according to documents provided by DOC. We also identified a low number of pull posts relative to Coffee Creek, which can reduce overtime, but management has since increased its pull posts.

We found that data collection methods do not accurately capture the causes of overtime and we recommend another approach. In addition, we recommend that DOC calculate the post factor at the institution level for better staffing allocations. We also question the basis of previous budget requests for increased staffing that were not approved

in the past two legislative sessions and recommend strengthening the methodology for calculating the post factor. These areas are described in further detail below.

One post factor may not be appropriate for all institutions and classifications

The department staffs all institutions and classifications using the authorized 1.70 post factor, which requires employees work a post 1,718 hours each year, on average. However, we found differences in staff availability when comparing the institutions and classifications. Correctional institutions vary in security level, layout, age, seniority of staff, inmate populations, programming and employee culture, all of which can affect the post factor and create variation between institutions. We found Coffee Creek had a post factor of 1.740 and Two Rivers had a post factor of 1.737 between April 2010 and March 2011.

We also found variation among the employee classifications at Coffee Creek and Two Rivers. The range of differences in historic staff availability among the Two Rivers classifications was 64 hours between April 2007 and March 2010. Figure 4 illustrates the variation between the institutions and among the classifications. It also demonstrates that a one-size-fits-all approach may not appropriately staff an institution and its classifications.

Officers and corporal classifications make up about 80% of security staff and strongly influence an institution's overall post factor. Under or overstaffing these classifications will have a greater overall effect. On the other hand, it may be appropriate to pool all management security staff at an institution into one group due to their small size. By using a post factor specific to an institution and classification, the department may be able to more efficiently allocate staff positions and funding.

Actual staff availability varies slightly year to year

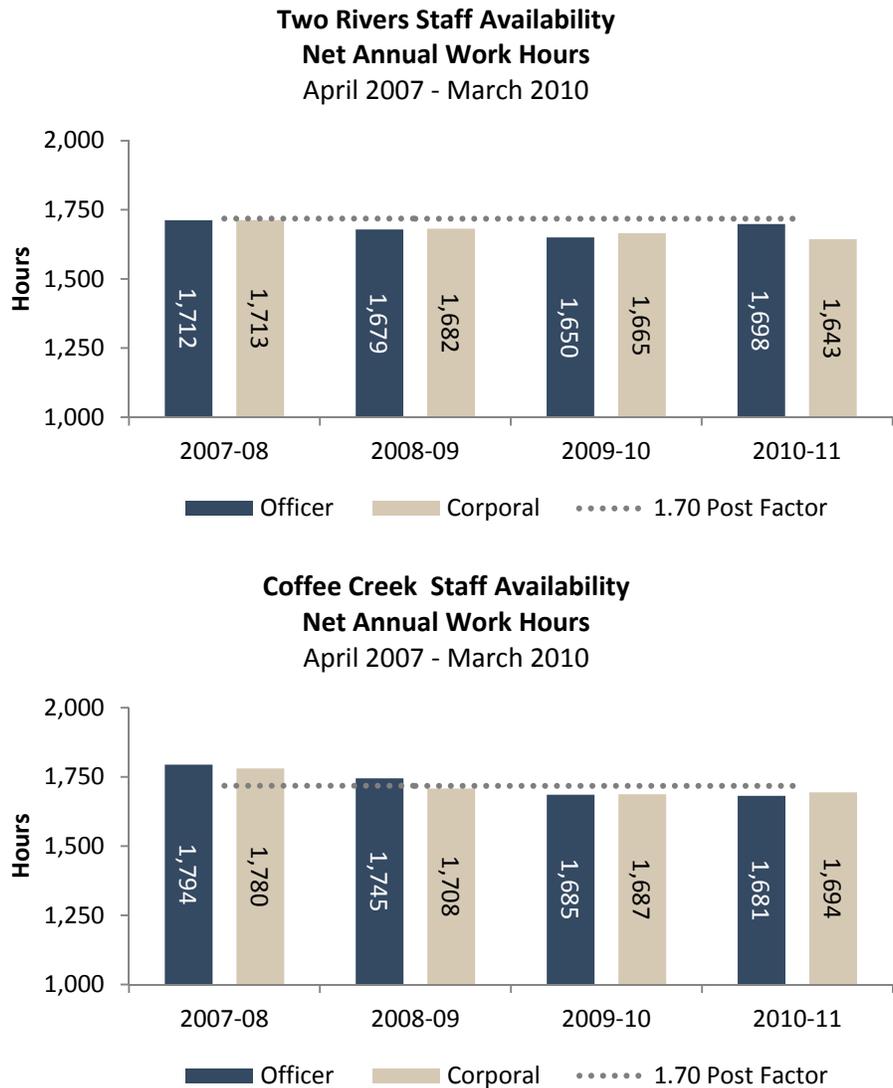
To assess the adequacy of staffing levels, we performed a Net Annual Work Hour analysis to determine the average amount of time an employee is available to work a post, and used the calculation to determine a post factor. Our analysis, which followed the approach set forth by the National Institute of Corrections, utilized payroll data from April 2007 through March 2011. We used the first three years to analyze historic staff availability at each institution, as shown in Figure 4, and the final year to calculate actual staff availability during the audit scope. The analysis included all uses of employee time identified in the payroll data.

Our analysis of employee time for April 2007 – March 2011 revealed changes in the expected availability of staff from year to year. For Coffee Creek, we saw a year-over-year decline in staff availability

between April 2007 and March 2010. Overall availability of Coffee Creek security staff was lower between April 2010 and March 2011 than the average availability of the previous three years. The change increased the effective post factor from 1.659 in 2007-2008 to 1.740 for 2010-2011.

While Two Rivers staff availability decreased between 2007 and 2010, it improved during 2010-2011. The change improved the effective post factor from 1.765 for April 2009 – March 2010 to 1.734 for the April 2010 – March 2011 period. Figure 7 shows the average time officers and corporals, who comprise the bulk of staff at each institution, were available to work. Changes in these ranks sway the effective post factor for the institutions. For comparison purposes, the analysis does not include furloughs, which occurred in the 2009-11 biennium.

Figure 7



At both institutions, we found the cumulative effect of how employees spent their time resulted in a post factor over 1.70 between April 2010 and March 2011. Both institutions had a shortfall of hours available to work a post when comparing actual availability to the expected availability for a 1.70 post factor. A deficit can be filled with overtime, reducing work, finding efficiencies within the system, managing employee time, or some combination thereof. We noted that both institutions worked enough overtime during the audit period to cover the post factor. Figure 8 illustrates the difference between average availability at each institution and what would be required to support a 1.70 post factor. While the differences in the average availability of individual staff were relatively small, collectively they resulted in a larger overall difference in hours. This NAWH analysis does not include furloughs, which decreased staff

availability at each institution by about 25 hours, on average, during the time period.

Figure 8

Analysis of Staffing Levels		
April 2010 - March 2011		
	CCCF	TRCI
NAWH average staff availability	1,678	1,684
Hours needed to fulfill a 1.70 post factor	1,718	1,718
Difference	-40	-34
 Average employee overtime	 76	 186

Opportunities are Limited to Reduce Absences

A post factor is an expression of the portion of time employees spend working a post. Maintaining a post factor requires maintaining the proportions of time employees spend working a post versus time they are absent from the post. Major sources of absences are sick leave, vacations, furloughs, vacancies, and training. Absences can be paid or unpaid, and some have legal or contractual protections.

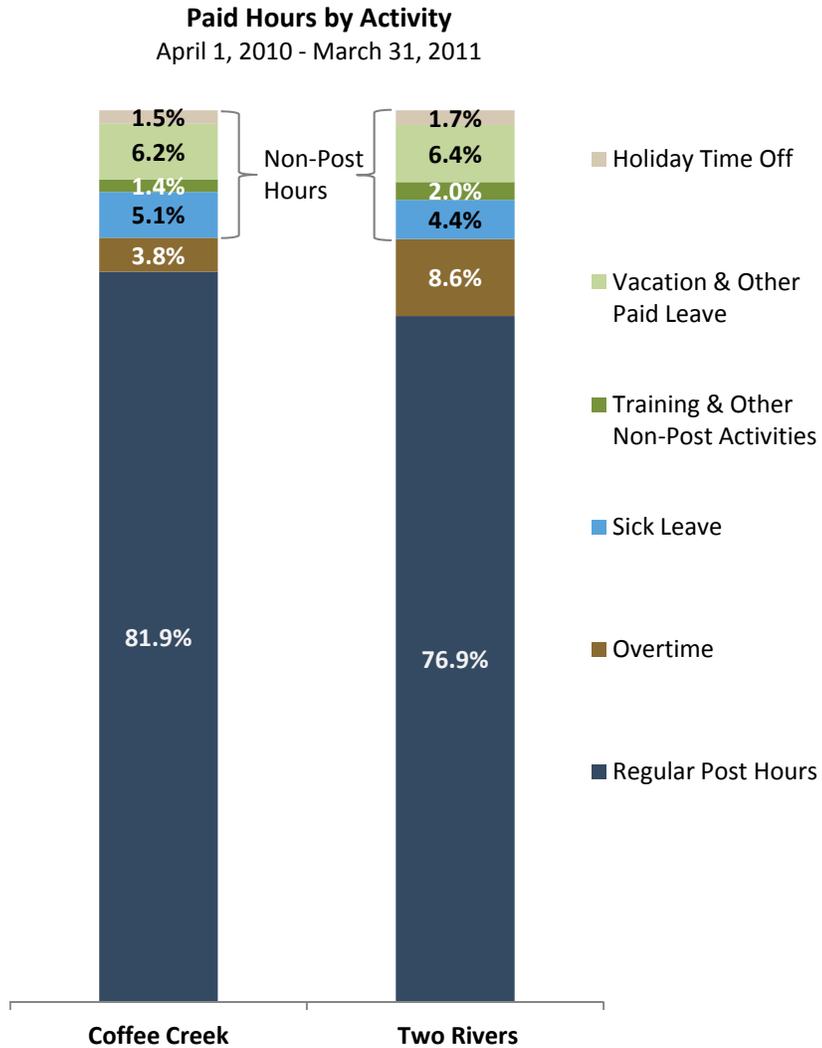
We found many similarities between the two institutions. Staff at Coffee Creek and Two Rivers both recorded over 630,000 payroll hours, excluding pay differentials. Figure 9 depicts paid hours grouped by activity types. Staff time is divided between regular post duties and time away from posts. Our analysis found 85% of employee paid time was dedicated to security operations.

Both institutions had similar portions of time away from post, about 15% of paid time. On average, employees were unavailable to work a post due to training for three days each year. Employees took roughly three weeks of vacation, on average. Employees accrue between three and six weeks of vacation each year, depending on years of service. DOC limits the number of employees who can be on vacation each week. Once a year employees bid, by seniority, for specific weeks of vacation.

The main differences we noted in paid hours were the proportion of regular and overtime, and the number of vacancies at each institution. Two Rivers had significantly higher proportion of overtime hours. Coffee Creek security staff worked 21,400 overtime hours and Two Rivers security staff worked 49,800 hours between April 2010 and March 2011. Staff vacancies are one factor that may contribute to the variation between the institutions. DOC reports show Coffee Creek maintained a steady range of security staff vacancies, between 5 and 10, and Two Rivers maintained a higher level, between 7 and 24

vacancies for most of the same year. The equivalent vacancy hours over the course of the year for both institutions are show in Figure 10.

Figure 9



*Sick leave includes leave billed to other leave categories for illness

Regular, consistent, and predictable attendance

Regular, consistent, and predictable attendance is expected of all employees. Management can better plan for staffing needs when staff attendance is consistent. Inconsistent attendance can reduce the post factor’s effectiveness and lead to higher personnel costs if management must pay overtime to cover employee absences. Our analysis found that 70% of employee weeks consisted of 40 hours of regular attendance or planned leave.

Personnel use most of the annual sick leave accrued

Sick leave is provided as a benefit to employees so that they do not lose income during illness-related absences, but can be a challenge for management if it is a significant source of unplanned absences. Full-time state employees accrue up to eight hours of paid sick leave per month.

Employees at Coffee Creek on average took 91 of the 96 sick leave hours they accrued over the year prior. In contrast, employees at Two Rivers took 86 hours over the year. Sick leave represented approximately 4.4% and 4.1% of employee's annual hours respectively at Coffee Creek and Two Rivers. Coffee Creek and Two Rivers employees used a total of 25,900 and 23,100 sick leave hours respectively between April 2010 and March 2011.

Most unpaid leave is protected

We found that approximately 98% of unpaid leave hours, 42,400 hours at Coffee Creek and 33,400 hours at Two Rivers, had legal or contractual protections. Federal and state law provides employees with protected leave for family medical needs, on the job injuries, and military service. Collective bargaining agreements provide additional protections. Unprotected unpaid leave, such as unexcused absences, are subject to a disciplinary process. Management reported the disciplinary process was not used during the April 2010 through March 2011 period included in our analysis. Since that time, both institutions have begun using the process to address attendance.

Approximately 47% of Coffee Creek and Two Rivers employees had some unpaid leave during the year, and 38% had 8 or more hours. A small number of staff on long-term leave accounted for a majority of the total unpaid leave hours. Approximately 39% of all unpaid leave hours were for 18 staff that had 6 or more consecutive months of unpaid leave. Another 13% of unpaid leave hours was due to 8 staff that were on unpaid leave for the equivalent of at least 6 months, though not on a continuous basis.

The department is able to fill vacancies caused by long-term unpaid leave through a process known as double filling. We found nine double filled positions among staff on long-term leave. A number of the double filled positions involved staff on military leave. Since the employees were on unpaid leave, the cost to double fill the positions was negligible. Double filling can potentially lead to savings from reduced overtime or paying a lower salary rate to a new hire.

Unpaid leave in combination with overtime can enlarge an employee's paycheck. An employee can earn the equivalent of 44 hours of regular pay for 40 hours in attendance if they work one shift of overtime in the same week as one shift of unpaid leave. Our analysis indicated that

approximately 2.6% of all overtime hours occurred in the same week that an employee had unpaid leave. It did not indicate that employees were systematically abusing the overtime policy.

Furloughs and vacancies do not yield savings

Employee furloughs were recently enacted throughout state government as a cost savings measure. In a traditional office environment, work is forgone when there are furloughs. In a 24/7 correctional environment, furloughs decrease the regular hours an employee can work a post, but there are limited opportunities to reduce the workload.

During the 2009-11 biennium, officers, corporals, and sergeants were required to take 32 hours of furlough and forgo 80 hours of paid holidays per employee. However, they did not begin taking the furloughs until after the labor agreement was finalized in May 2010, which limited the amount of time the department had to schedule furloughs. Lieutenants and captains were required to take 112 hours of furlough over the biennium. Coding within the payroll data prevented us from analyzing actual furlough hours during the timeframe. However, the furlough impact can be estimated from the labor agreements. Had the post factor been adjusted for the furlough absences, it would have increased by approximately 0.03 FTE per post between April 2010 and March 2011.

The department did not receive additional funding to increase the post factor during the time furloughs were required. However, the agency was able to save 80 hours of straight time pay per officer, corporal and sergeant to offset increased overtime costs. In the end, the furloughs days did not yield substantial budget savings. In fact, if the furloughs were not exchanged for holiday pay, total personnel costs could have increased.

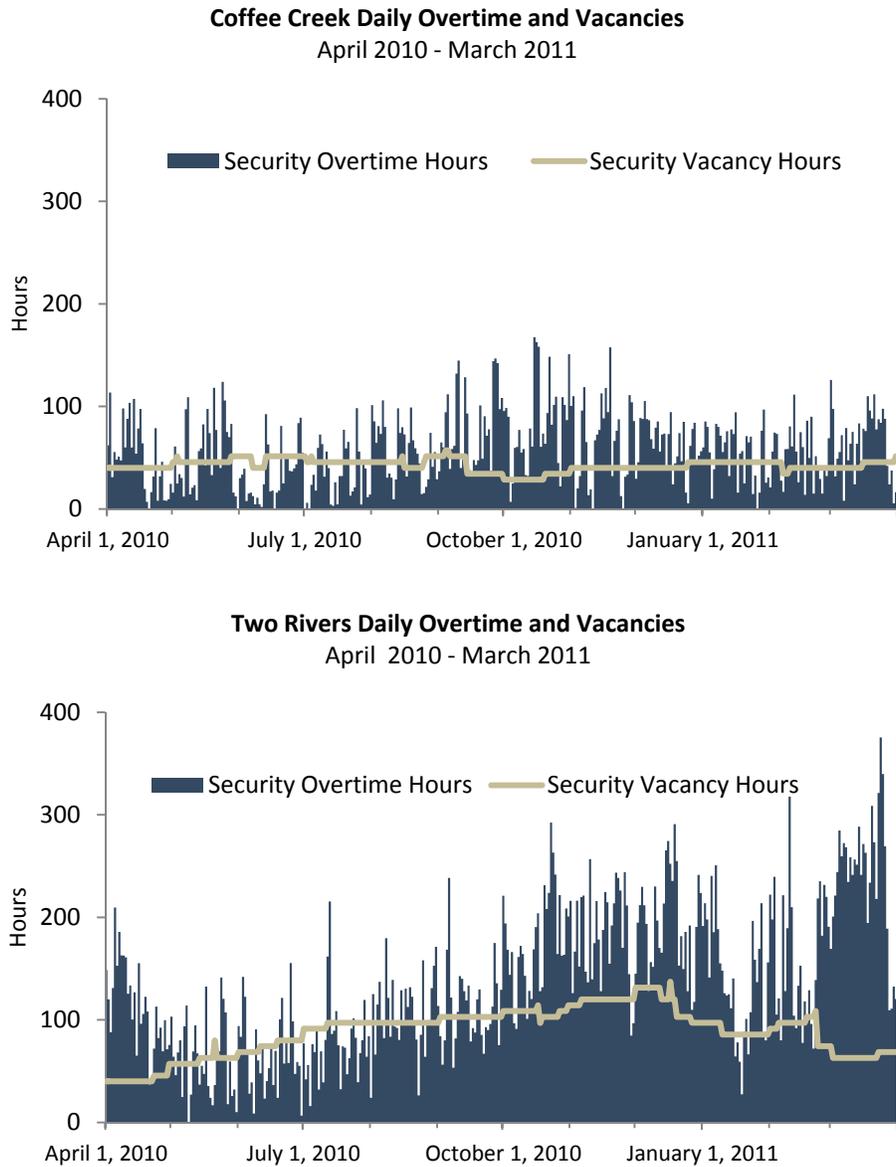
Furloughs also create a scheduling challenge. Employees are entitled to 30 days advanced notice for furloughs, and when one staff member takes a furlough, management may need to pay overtime to cover the employee's normal shift.

While employees lose regular work hours due to furloughs, they can make up the missed hours by volunteering for overtime shifts. Voluntary overtime policies favor senior staff, which can increase overtime costs. In fact, it is possible for some staff to achieve a net increase in wages by working overtime caused by furloughs. Therefore, we question the use of furloughs for security staff in a 24/7 correctional environment given the limited, if any, opportunity for savings and the increased burden for managing the furloughs.

Attempting to achieve savings by leaving positions vacant is similar to furloughs. Both result in absences that may have to be filled by

overtime. Use of vacancy savings is limited in a 24/7 environment where many duties are considered necessary for operations. Staffing plans for Coffee Creek and Two Rivers indicated 85% and 96% of posts respectively were considered fixed posts necessary for operations in the 2009-11 biennium. Figure 10 shows security staff vacancies and overtime at Two Rivers and Coffee Creek over the course of the year.

Figure 10



While Two Rivers security vacancies trended lower during the beginning of 2011, the department reported high numbers of hospital watches at Two Rivers in March 2011. Staff told us hospital watches can significantly increase overtime.

Overtime can be Cost Effective

Used effectively, overtime can reduce personnel costs. Employees are paid a premium, one and a half times their hourly rate, for overtime. However, the premium cost of overtime can be offset by the savings from not having to pay the cost of a new employee's health insurance and leave benefits, as well as one-time and on-going training costs. New employees received fixed benefits of approximately \$1,075 per month in the 2009-11 biennium. In addition, new full-time employees accrue 18 hours of paid sick and vacation leave per month after completing six months of state service.

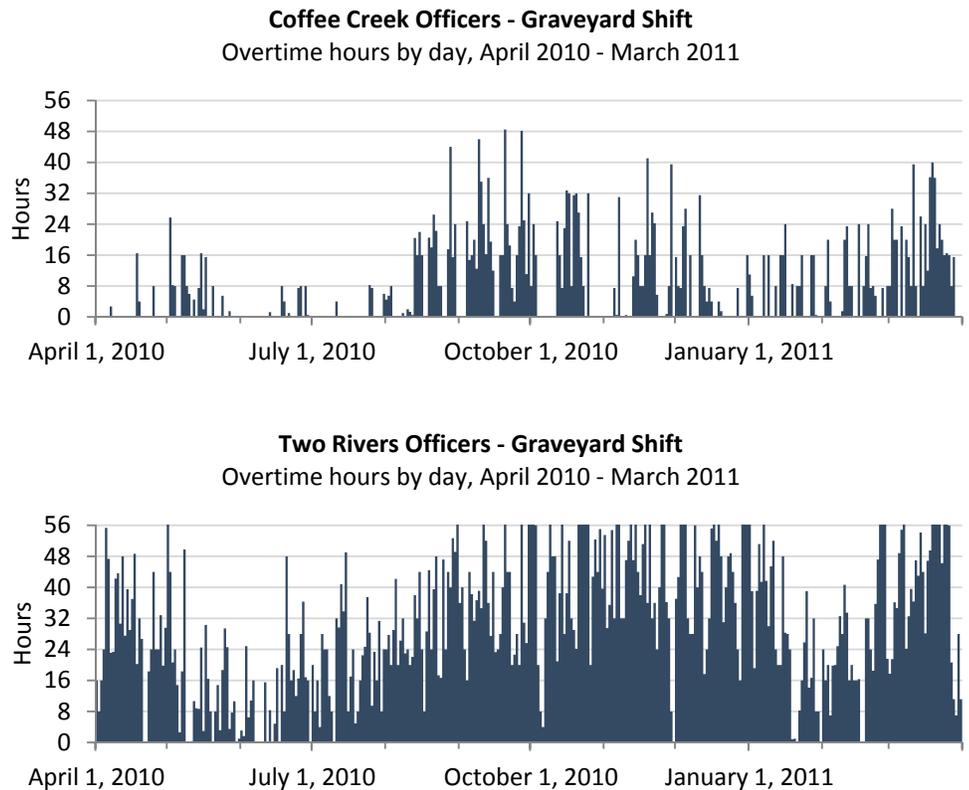
Because a position may be filled by staff with a different rank or salary, final costs depend on the employee who works the overtime. Security staff at Coffee Creek and Two Rivers was available to work an average of 1,698 hours each year, between 2007 and 2010. Overtime becomes relatively more expensive when higher classifications and salary steps are used. For example, the annual personnel cost for a senior sergeant to work 1,698 hours of overtime is approximately \$92,200, while the annual cost for an entry level officer is approximately \$59,200.

Efficiently staffed institutions will incur some overtime costs. Correctional institutions are staffed using a post factor to meet average needs. Hiring enough staff to cover all possible spikes in absences or workloads would result in overstaffing and increased costs. When an institution uses overtime, it pays only for the number of post hours needed. When an institution hires a new employee it runs the risk of paying for post hours it may not need.

On the other hand, excessive reliance on overtime can lead to increased personnel costs, unplanned leave, decreased staff productivity, and lower morale. If an institution has a sufficient and consistent need, hiring additional staff can be less costly. Figure 11 illustrates officer overtime for the graveyard shift at Coffee Creek and Two Rivers on a daily basis from April 2010 – March 2011. Two Rivers had a consistent and higher need for officer overtime on the graveyard shift.

A consistent need alone may not justify hiring another staff member. For example, what might appear to be a consistent need on one shift could, upon closer look, be a need for both captain and officer hours. Hiring an employee in one classification may not change the need for overtime in the other classification.

Figure 11



Most employees work less than one shift of overtime per month

Excessive overtime can lower staff morale, increase safety risks, and potentially cost more than a new employee. We analyzed the monthly overtime hours of security staff. Nearly all Coffee Creek and Two Rivers security staff (94%) worked some amount of overtime between April 2010 and March 2011. However, most of the employees worked little to no overtime each month. Our analysis indicated that approximately 41% of the time employees worked no overtime, 25% of the time employees worked 8 or less hours of overtime, and 12% of the time employees worked between 8 and 16 hours of overtime in a month.

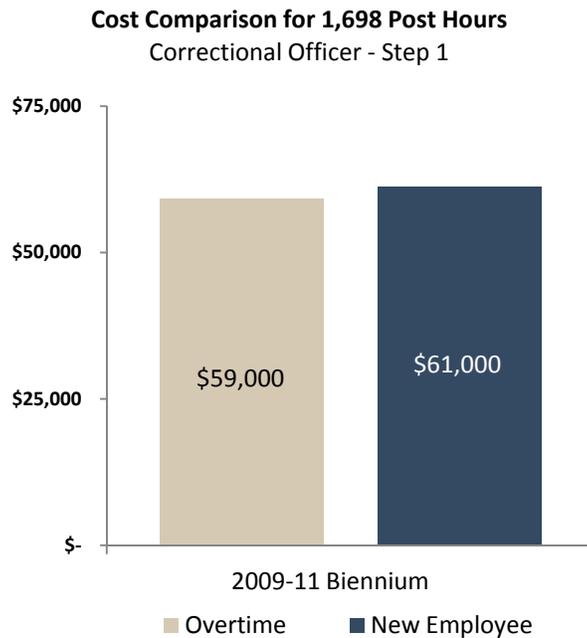
By and large, overtime appeared reasonably distributed among staff. Our analysis indicated that security staff generally worked overtime in proportion to the amount of regular hours worked. Also, employees with the lowest salaries worked the most regular and overtime hours of any group.

The annual cost of overtime is comparable to the cost of an additional hire

Our analysis found the annual cost for hiring security staff or the equivalent overtime hours is approximately the same if the employees have a similar rank and salary step, and work the same number of post hours. For example, the annual total personnel cost of hiring a new full-time correctional officer was approximately \$61,000 during the 2009-11 biennium. A new employee at Coffee Creek or Two Rivers is contracted for 2,086 hours over the course of the year, but because of training and paid time off, the employee is expected to work 1,698 post hours, on average. The cost of paying overtime using existing, more experienced correctional officers to work the equivalent 1,698 post hours ranged from about \$59,000 to \$81,000 for the 2009-11 biennium.

Figure 12 shows the annual cost of hiring a new correctional officer or paying overtime to existing officers at the same salary. Hiring a new employee does not automatically create savings for every hour worked; on days when absences are below average, the institution will have more staff than needed and no savings are gained.

Figure 12

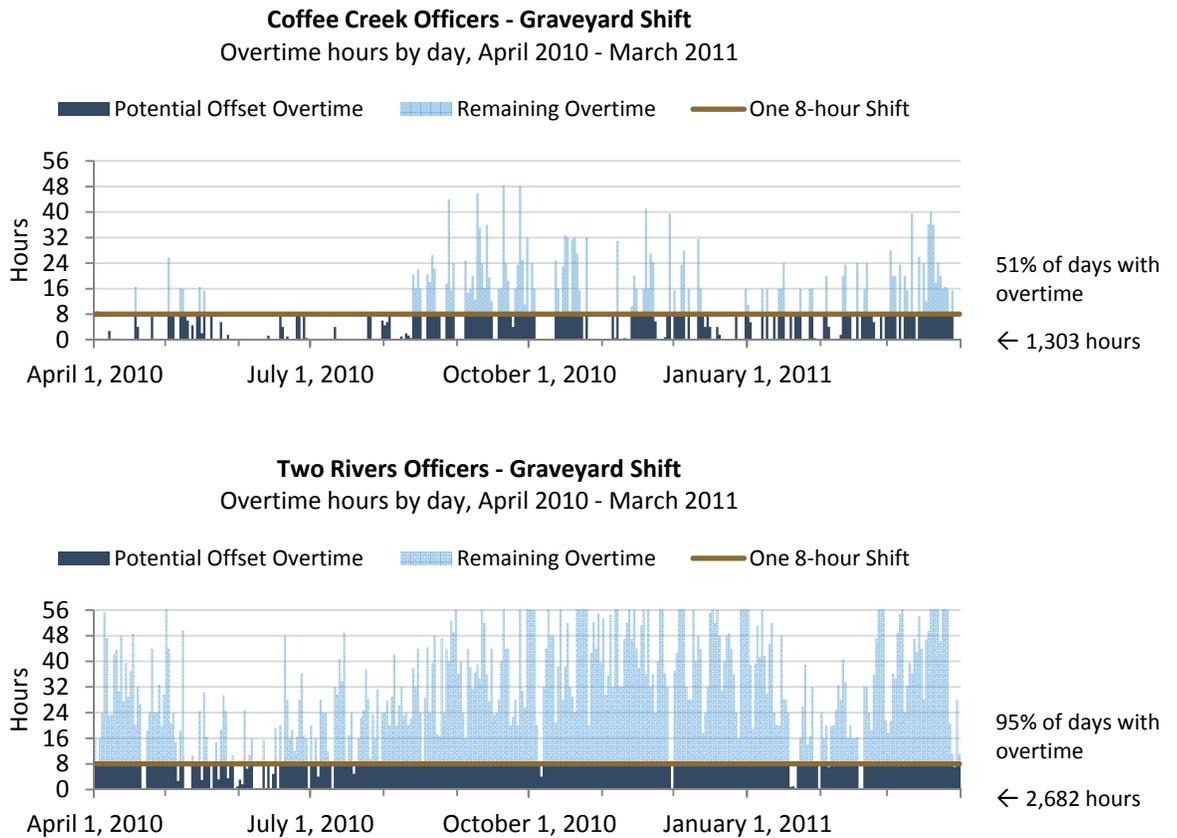


Overtime can be less costly when there is an inconsistent need

Overtime can be less expensive than hiring a new employee when there is an inconsistent need for additional hours. Consider the following examples from Coffee Creek and Two Rivers illustrated in Figure 13. The need for security officer overtime at Coffee Creek on the graveyard shift is highly variable. A total of 2,823 hours of officer overtime were

recorded on Coffee Creek’s graveyard shift over the course of the year. Each additional officer post could replace one shift of overtime per day, at most eight hours. There were 185 days that required some amount of overtime during the audit period, or 51% of the year. One new flex post could replace at most about 1,303 hours of the incurred overtime. A new post would cost approximately \$104,000, whereas the overtime would range from \$45,000 to approximately \$71,000 depending on rank and seniority working. In this example, it is significantly more economical to pay overtime than to hire new employees.

Figure 13



Two Rivers had a more consistent need for officer overtime on the graveyard shift. There were 345 days that required some amount of overtime during the audit period. One new flex post could replace about 2,682 hours of the incurred overtime. A new post would cost approximately \$104,000, whereas 2,682 hours of overtime would cost about \$94,000 to \$146,000, depending on the salary of the employee working the overtime. Adding a second post could avoid an additional 2,429 hours of the incurred overtime.

Even if a consistent need for overtime exists, the department should examine the cause to determine if it is due to absences, imbalanced

staffing among shifts, training, or other reasons that could be corrected administratively. If the cause of overtime is temporary, the department should weigh the future costs associated with hiring new employees. In addition, cost should not be the sole factor when deciding whether to pay overtime or hire a new employee. Non-monetary factors, such as safety and staff morale require consideration.

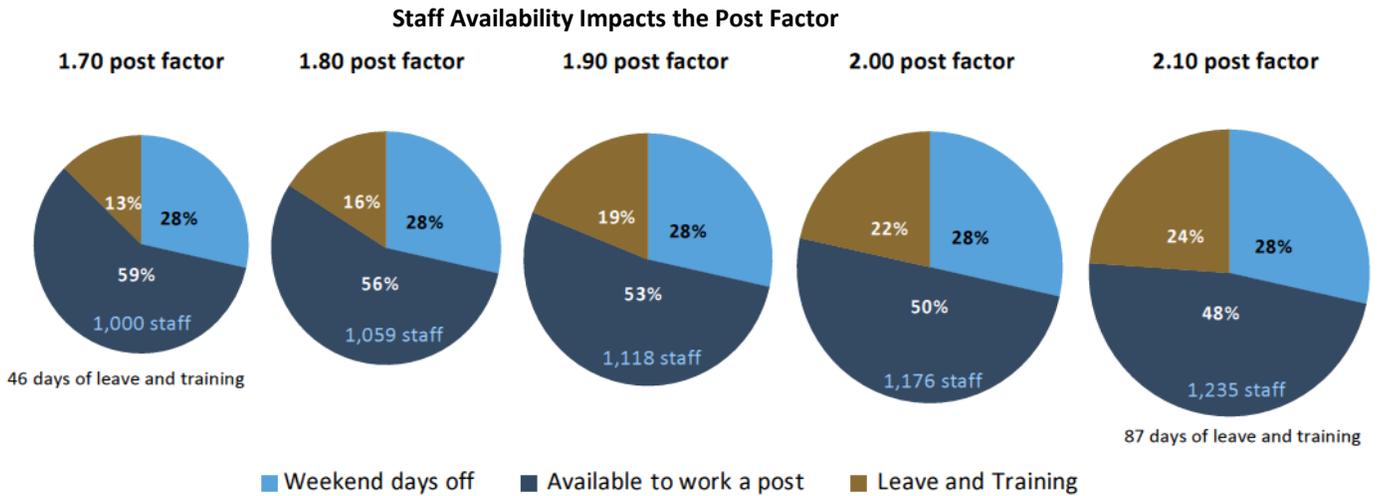
Current Post Factor is Appropriate for Budgeting

Policy makers need reliable information to inform their decision making process. The post factor is used in budgeting to establish the number of positions to staff the institutions. The current post factor funds 1.70 FTEs per post, with the department receiving additional funding for overtime. The current post factor has remained unchanged since the 1997-99 biennium.

The department requested an increase in the legislatively funded post factor for the 2009-11 and 2011-13 biennia. The department reported it needed 2.04 FTEs per post for the 2009-11 biennium and estimated the additional cost at \$62 million. However, in light of the recent economic environment, the department submitted a budget request for 1.81 FTEs per post at an estimated additional cost of \$13.7 million. This request was not approved. The department reported its need increased to 2.10 FTEs in a request to increase the post factor for the 2011-13 biennium. This request was not funded either.

Our analysis of Coffee Creek and Two Rivers did not indicate major increases in the post factor were needed at either facility. While the cost of salaries and benefits may increase from one year to the next, the post factor should remain reasonably stable over time. The post factor would change only when staff are more or less available to operate a post. For example, the post factor can increase when staff consistently use more vacation time or take furloughs, both of which reduce the amount of time employees are available to work.

Figure 14



Small changes in the post factor can have large effects on the budget and staffing. Figure 14 models increases in the post factor and its effect on the number of staff required and changes in how employees spend their time. The first chart illustrates the current authorized staffing, 1.70 FTEs per 7-day post, and the last chart shows a 2.10 post factor. The difference in the two post factors represents a substantial decrease in the amount of time an employee is available to work a post and an increased staffing need. The difference is 41 post days and a 24% increase in staffing. We reviewed portions of the department's post factor calculations and identified areas where the methodology could be improved.

The post factor calculation used for staffing institutions could be strengthened by using actual versus accrual time for all categories. For example, employees may accrue 96 hours of sick leave a year, but only use 88 hours of actual leave on average. Using sick leave accrual would overstate the amount of time employees are unavailable to work, increasing the post factor for staffing and the associated cost. Additionally, the use of actual employee payroll is a means for accounting for staff vacancies and calculating FTEs needed to compute the average availability of employees as part of the NAWH calculation.

However, when considering accrued vacation, it may be appropriate to factor for additional funding when budgeting. The department is required to pay accrued vacation time when an employee separates from state service or when security staff request to cash out portions of their vacation accrual. The department reported it paid out \$838,132 for 33,960 hours of vacation in calendar year 2010 and \$696,788 for 28,280 hours in 2011. Factoring annual vacation payout liability into the personal services budget may be an appropriate means to fund the liability without inflating staffing levels. The department has

previously used the contractual vacation accrual in an effort to account for the vacation liability. The real liability can be more accurately accounted for by using actual vacation use and the actual vacation payout.

Reconsider Current Data Collection Methods

Department institutions assign a reason to each overtime occurrence in an effort to understand the factors that cause overtime. Previous department reports have noted problems with accuracy of overtime reasons. One report recommended that the department analyze broad absenteeism categories and compare those figures to overtime usage.

We found the methodology of assigning reasons to overtime produced inaccurate results and did not facilitate the department's understanding of overtime causes. Coffee Creek and Two Rivers identified over 50 different overtime causes in the data provided by the department.

Multiple factors should be considered in combination when evaluating personnel costs and overtime, including planned workload, unplanned workload such as hospital watches or other incidents, absences, vacant positions, safety, staff morale, and the amount of flexibility in the schedule. For example, suppose 48 employees are scheduled to work 40 posts. Five employees call in sick, four are on vacation, one employee is on furlough, and one employee is needed to watch an inmate at the hospital. If there are no pull posts available, 37 staff are available to work and 3 shifts of overtime are needed to operate the institution's 40 posts. The current method requires a staff member to pick 3 of the 11 types of absences as the overtime cause. However, multiple factors contributed to above average absences on that given day, which the post factor was not designed to cover.

Efforts could be better spent conducting broader analysis of planned and unplanned absences, changes in workloads, and the number of vacant positions. This would provide management with a better understanding of overtime causes than the current method.

Recommendations

We recommend the department:

- Ensure that the calculation and management of the post factor employ sound practices and the best, most reliable data available, such as:
 - Using actual employee payroll hours;
 - Assessing staff availability by institution and classification; and
 - Monitoring the post factor of individual institutions as well as the overall department post factor.
- Revise current data collection methods for identifying overtime causes to allow more meaningful analysis. Specific examples include obtaining more information on unplanned workload, such as hospital watches, and using broad categories such as changes in workload, planned absences, unplanned absences, and vacant position as contributing factors to the need for overtime.

Objectives, Scope and Methodology

The objective of our audit was to determine if the Oregon Department of Corrections (department) could reduce overall personnel costs.

We reviewed laws and rules, the Oregon State Payroll Application (OSPA) manual, the Institution Staff Deployment System (ISDS) manual, and department policies. We also reviewed guidance from the U.S. Department of Justice's National Institute of Corrections related to staffing correctional institutions.

We reviewed staff schedules and rosters, timesheets, budget documents, collective bargaining agreements, and internal audit reports. For the purposes of our audit, we relied on the agency's own assessment of security posts and needs.

We interviewed agency staff and managers to gain an overall understanding of the agency and visited department institutions to gain an understanding of daily operations in a correctional setting.

We analyzed monthly payroll data for security personnel at Coffee Creek and Two Rivers covering the period April 1, 2007 through March 31, 2011. We analyzed daily department deployment data covering the period April 1, 2010 through March 31, 2011. OSPA contains monthly payroll records for each employee. ISDS data contains daily records of department security staff. ISDS generates timesheets that department payroll staff input in OSPA. OSPA calculates dollar amounts.

To assess data reliability, we verified that we received all data we requested, examined the data for validity, analyzed descriptive statistics to assess reasonableness, and identified duplicates or missing data. We also compared a selection of timesheets and rosters to time information in ISDS and OSPA. After performing these procedures, we concluded the data was sufficiently reliable for our audit purposes.

We performed an in-depth analysis at Coffee Creek and Two Rivers. A small number of records missing Oregon ID numbers and employees on a job rotation were removed from the population. The changes did not materially affect the analysis.

Using the Coffee Creek and Two Rivers populations, we examined the percent of hours attributed to various work activities and staffing levels by classification and shift. We analyzed attendance patterns, including sick leave use, unpaid leave, and long-term absences. We analyzed overtime by day and overtime per employee per month. We looked for employees who earned overtime in weeks with unpaid leave.

We calculated the Net Annual Work Hours for each year between April 1, 2007 and March 31, 2011. The Net Annual Work Hour analysis did not include furloughs for the 2009-11 biennium. However, we estimated

furloughs decreased staff availability at each institution by about 25 hours, on average, during the April 1, 2010 through March 31, 2011 time period.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



Oregon

John A. Kitzhaber, MD, Governor

Department of Corrections

Office of the Director
2575 Center Street NE
Salem, OR 97301-4667
(503) 945-0920
FAX: (503) 373-1173

July 24, 2012

Will Garber, CGFM, MPA, Deputy Director
Office of the Secretary of State
Audits Division
255 Capitol Street NE, Suite 500
Salem, OR 97310

Re: Department of Corrections -- Managing Security Personnel Costs Audit Report

Dear Mr. Garber:

Thank you for the opportunity to respond to the recent audit that examined how the Department of Corrections (DOC) is managing security personnel costs. The audit report illustrated many of the complexities that make it difficult to effectively manage our limited resources. For example, as stated in the report, we are constantly balancing the use of overtime to reduce total personnel costs, recognize that mandatory furloughs and forced vacancy savings may not be the best way to save money for security personnel, and are open to making improvements in the monitoring and tracking of factors that cause overtime.

We are pleased your audit team found that personnel costs for security are generally well managed and that no substantial missed savings or inefficiencies in the management of DOC's overtime or personnel costs for the two examined institutions were identified. You will find our response to each audit report recommendation below.

Recommendation #1:

Ensure that the calculation and management of the post factor employ sound practices and the best, most reliable data available, such as:

- *Using actual employee payroll hours;*
- *Assessing staff availability by institution and classification; and*
- *Monitoring the post factor of individual institutions as well as the overall department post factor.*

The department generally agrees. We are in the process of changing operational policies and practices with institution staff deployment offices, which will enable us to provide a more accurate reflection of individual staff assignments and overtime assignments. This will provide a more consistent application of DOC staff deployment practices and more accurately capture staff payroll hours, leave usage and reasons for overtime. This will also assist in placing staff in assignments based upon correct classification, as well as those staff having proper training credentials for certain post assignments.

The recommendation to monitor the post factor for individual institutions as well as the overall department would be beneficial in the assignment of overtime dollars. Breaking down leave by institution may assist those facilities who have a higher percentage of senior staff. The department would be best served by having a consistent relief factor for five-day and seven-day posts; staffing variances could be addressed with an overtime funding reallocation.

In regards to the methodology used in this report for calculating the relief factor for five-day and seven-day posts, the department would like to further explore how staff vacancies should be captured and calculated into the relief factor. While the use of actual payroll data captures the behavior of current employees, it overlooks the void created by holding positions vacant. A vacancy factor does reduce the availability of staff for post assignment. Vacant posts have to be covered by overtime or by assigning



relief staff who would normally provide relief for staff on vacation, training or other types of leave. The position vacancy rate should be part of the relief factor. Taking "time needed to fill a vacancy" into account when developing the post relief factor is recommended in the National Institute of Corrections Net Annual Work Hours model (Chapter 8, page 40).

The relief factor noted for staff training is also a concern. The department does not dispute the actual staff training of 25 hours for this period of review. However, we would like to recognize that due to severe budget reductions and constraints over the last two biennia, the department has consciously restricted training hours below the number of hours necessary to maintain a workforce that is well versed and prepared to respond to issues and challenges inherent in running correctional institutions. A long-term approach to staff training would include funding for 40 hours of annual in-service training for all veteran staff, a six-week training program for all new correctional officers, and hours for instructors. Finally, a comprehensive plan should include hours for specialty skills to provide for properly trained staff in the areas of Tactical Emergency Response Teams, Crisis Negotiators, Emergency Staff Services, and Honor Guard functions.

The relief factor calculation in this report included actual vacation hours rather than accrued vacation hours. DOC employees can bid all of the vacation hours to which they are entitled. If DOC management denies the requested vacation, the agency must pay the denied time out to employees. Therefore, DOC has a financial liability for all accrued vacation hours, whether taken as time off or paid out, which is why we respectfully disagree with the Secretary of State's statement that we inappropriately requested policy option packages for post relief factor.

Recommendation #2:

Revise current data collection methods for identifying overtime causes to allow more meaningful analysis. Specific examples include obtaining more information on unplanned workload, such as hospital watches, and using broad categories such as changes in workload, planned absences, unplanned absences, and vacant position as contributing factors to the need for overtime.

The department agrees. As noted in the above recommendation, the recent change in the staff deployment policy and operational practices will provide a more consistent application and accurate reflection of staffing needs for individual institutions. Having staff deployment coordinators assign the majority of relief staff to vacant positions, reducing the workload on shift supervisors, and reducing their need for discretionary assignments and movement of staff will assist the department in accurately capturing leave codes.

Thank you again for allowing us to respond to this audit. We appreciate the insights the audit has provided and we will continue to discuss this important issue internally. If you have any questions, please feel free to contact me at 503-945-0927.

Sincerely,



Colette S. Peters
Director

cc: Mitch Morrow, Deputy Director
Michael Gower, Assistant Director Operations
Shawn Haywood, Internal Audit Administrator

About the Secretary of State Audits Division

The Oregon Constitution provides that the Secretary of State shall be, by virtue of her office, Auditor of Public Accounts. The Audits Division exists to carry out this duty. The division reports to the elected Secretary of State and is independent of the Executive, Legislative, and Judicial branches of Oregon government. The division audits all state officers, agencies, boards, and commissions and oversees audits and financial reporting for local governments.

Audit Team

Will Garber, CGFM, MPA, Deputy Director

James Scott, MM, Audit Manager

Amelia Eveland, MBA, Senior Auditor

Ian Green, MS, Staff Auditor

This report, a public record, is intended to promote the best possible management of public resources. Copies may be obtained from:

internet: <http://www.sos.state.or.us/audits/index.html>

phone: 503-986-2255

mail: Oregon Audits Division
255 Capitol Street NE, Suite 500
Salem, OR 97310

The courtesies and cooperation extended by officials and employees of the Department of Corrections during the course of this audit were commendable and sincerely appreciated.