



Legislative Budget and Finance Committee

A JOINT COMMITTEE OF THE PENNSYLVANIA GENERAL ASSEMBLY

Offices: Room 400 Finance Building, 613 North Street, Harrisburg

Mailing Address: P.O. Box 8737, Harrisburg, PA 17105-8737

Tel: (717) 783-1600 • Fax: (717) 787-5487 • Web: <http://lbfc.legis.state.pa.us>

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PA Department of Corrections Overtime Study

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January 2017

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Summary

Senate Resolution 263 (2016) directs the Legislative Budget and Finance Committee (LB&FC) to study the issue of staffing shortages and overtime costs within the Department of Corrections. The study is to consider the costs associated with hiring a new employee (including salary, benefits, retirement, training, and equipment) as compared to paying current employees overtime. The study is also to include information regarding the inmate population and staffing in Pennsylvania as compared to other states. See Appendix A for a copy of Senate Resolution 263 (2016).

Findings and Conclusions

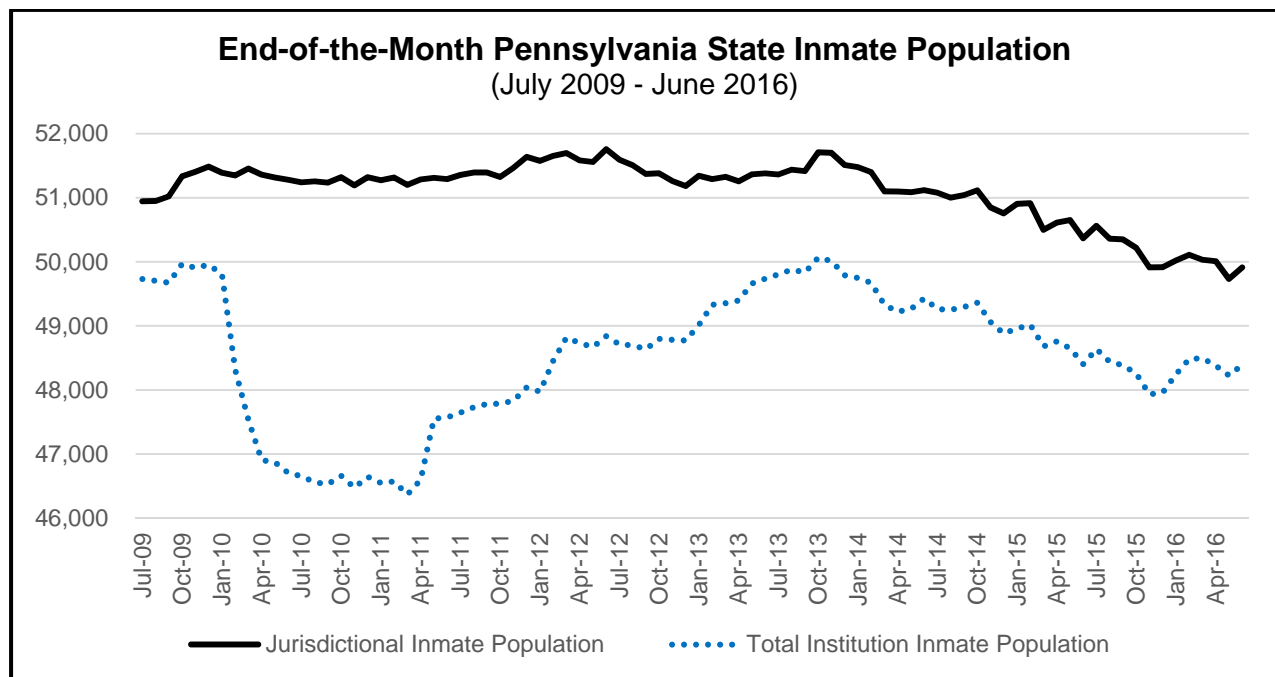
The Department of Corrections (DOC) maintains responsibility for the custody and rehabilitation of convicted adult criminals through the operation of 26 state correctional institutions (SCI), including a motivational boot camp, and 57 state-operated or contracted community corrections centers. See page 61 for a map showing the location of the Department's facilities. At the end of June 2016, there were 49,913 state inmates under the jurisdiction of the DOC. The Department has a total authorized complement of approximately 17,000 positions, of which approximately 9,600 are corrections officers (CO). In FY 2015-16, the DOC paid approximately \$74.9 million in overtime wages and \$30.4 million in overtime variable benefits for the security hours worked as overtime by security staff.¹ This represents 17.3 percent of total wages (regular and overtime hours) and 16.8 percent of the total variable benefits for security staff.

¹ Overtime hours only includes overtime worked at the straight time, one-and-one-half time, and double time overtime hourly rates. We did not include overtime such as half time, holiday time, or walk time because even if all vacancies were filled these types of overtime hours generally would not be avoided; variable benefits include Social Security, Medicare, Worker's Compensation, Leave Payout, and pension contributions, though, there is no Leave Payout costs for overtime hours; security hours includes the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by corrections officers 1 and 2 (CO 1-2s), and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s); security staff includes CO 1-2s and COT 2-4s.

Our study found the following:

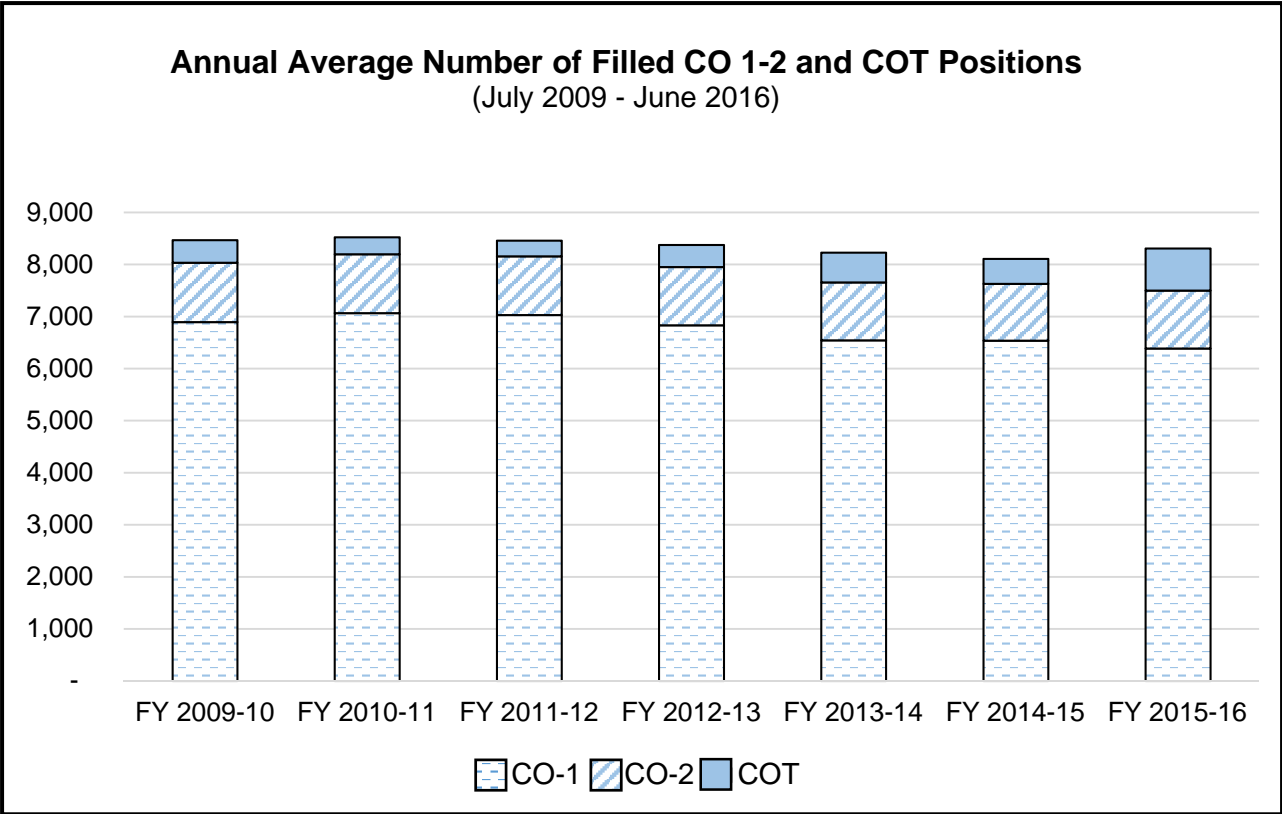
Pennsylvania's Inmate Population and Security Staffing Levels Mirror Those of Comparable States

As shown below, from FY 2009-10 to FY 2015-16, Pennsylvania's average annual jurisdictional inmate population² declined by 1,180 state inmates, and its average annual institution inmate population³ declined by 437 state inmates. This decrease follows the national trend as well as the trend in states comparable to Pennsylvania, i.e., Michigan, New York, and Ohio. As shown in the next chart, during that same time period, the number of filled corrections officer 1 and 2 (CO 1-2) and corrections officer trainee (COT) positions in Pennsylvania declined by an average of 159 positions, despite an increase of 201 positions during FY 2015-16.



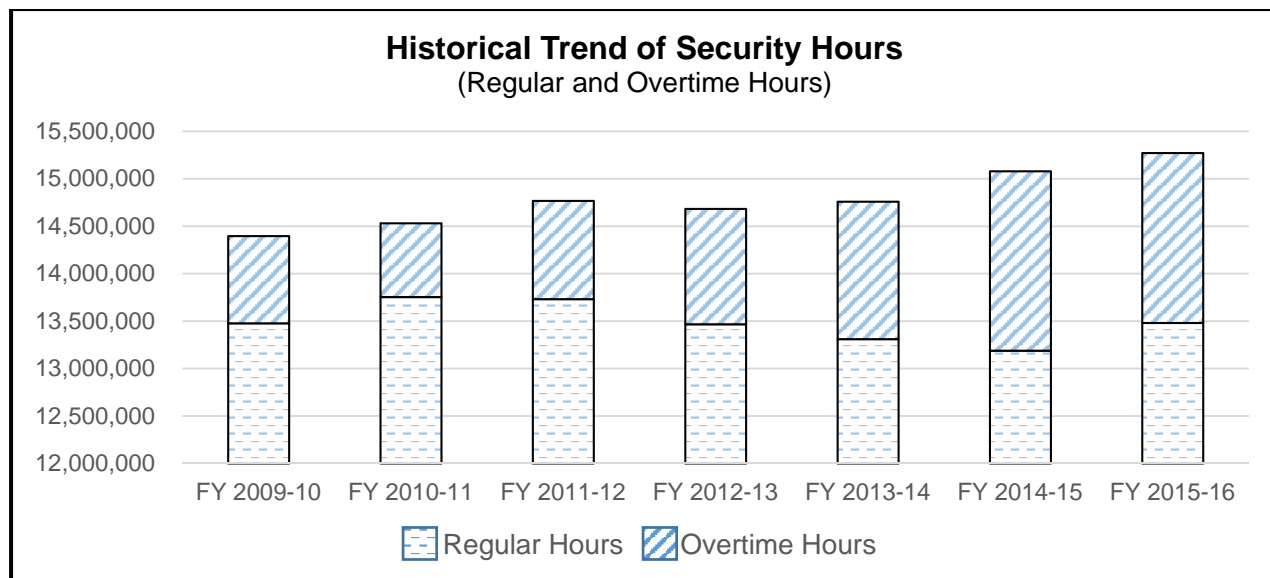
² Jurisdictional inmate population includes Pennsylvania state inmates held in out-of-state prisons, federal prisons, state prisons, county jails, boot camps, contract facilities, and community corrections centers. This does not include the parolees or the halfway back population, which includes Penncapp participants (Pennsylvania Community Alternatives to Prison Program).

³ Total institution inmate population only includes inmates held in the state-run prisons and Quehanna boot camp, but does not include inmates held in out-of-state prisons, federal prisons, county jails, contract facilities, and community corrections centers, or parolees and the halfway back population.



The Number of Security Hours, in Particular Overtime, Have Increased Significantly Since FY 2009-10 Even as the Inmate Population Has Declined

Although the inmate population and security staffing levels have declined, the total number of security hours worked annually has increased by 875,203 hours (6.1 percent) since FY 2009-10. Because the average number of filled security staff positions has declined during that time period, 99.5 percent (871,141 hours) of the increase in security hours worked per fiscal year was worked as overtime. Most (93.4 percent) of the overtime was at time and a half, but 6.6 percent was at double-time. The total number of overtime hours worked by security staff has increased from 918,555 overtime hours in FY 2009-10 to 1,789,696 hours in FY 2015-16, an increase of 94.8 percent. (See the chart below). The percent of the security hours worked as overtime per fiscal year has increased from 6.4 percent in FY 2009-10 to 11.7 percent during FY 2015-16.



Due to the amount of overtime available, some COs have worked large numbers of overtime hours, especially those approaching retirement. For example, the average number of overtime hours worked per year by the top ten overtime earning COs has increased by an average of 1,079 overtime hours during FY 2009-10 to 1,979 hours in FY 2015-16. Since FY 2009-10, 35 of these 42 top ten overtime earning COs have retired as of June 30, 2016. The single top overtime earning CO for the past two years worked almost 2,700 overtime hours with combined wages and benefits of over \$288,000 during FY 2014-15 and 2,600 overtime hours with combined wages and benefits of over \$293,000 in FY 2015-16, making him the highest paid employee of the DOC for two consecutive years.⁴

Oversight of Security Hours Worked

In recent years, the DOC has taken steps to implement tighter controls to improve their monitoring of overtime hours actually worked. However, despite the DOC maintaining timeclocks and/or a biometric sign-in system called the Identification Verification System (IDVS) at most of their SCI facilities, there is currently no consistently used and/or accurate tracking of either regular or overtime hours worked by COs.

Similar to prior findings by the Department of the Auditor General, we found inconsistencies with the time sheets when we compared punch times to payroll records.⁵ As noted in the Department of Auditor General report, relatively small inaccuracies in the number of hours paid, given the large number of employees, could

⁴ The total wages earned by the top overtime earning CO was \$199,871 during FY 2014-15 and \$197,295 during FY 2015-16. This calculation does not include the costs of benefits.

⁵ The DOC explained most of the inconsistencies as COs on security posts outside the secure perimeter. DOC corrected the inconsistencies and adjusted the pay for a CO who was paid a half hour of overtime on two separate days within the same pay period for overtime that was not actually worked.

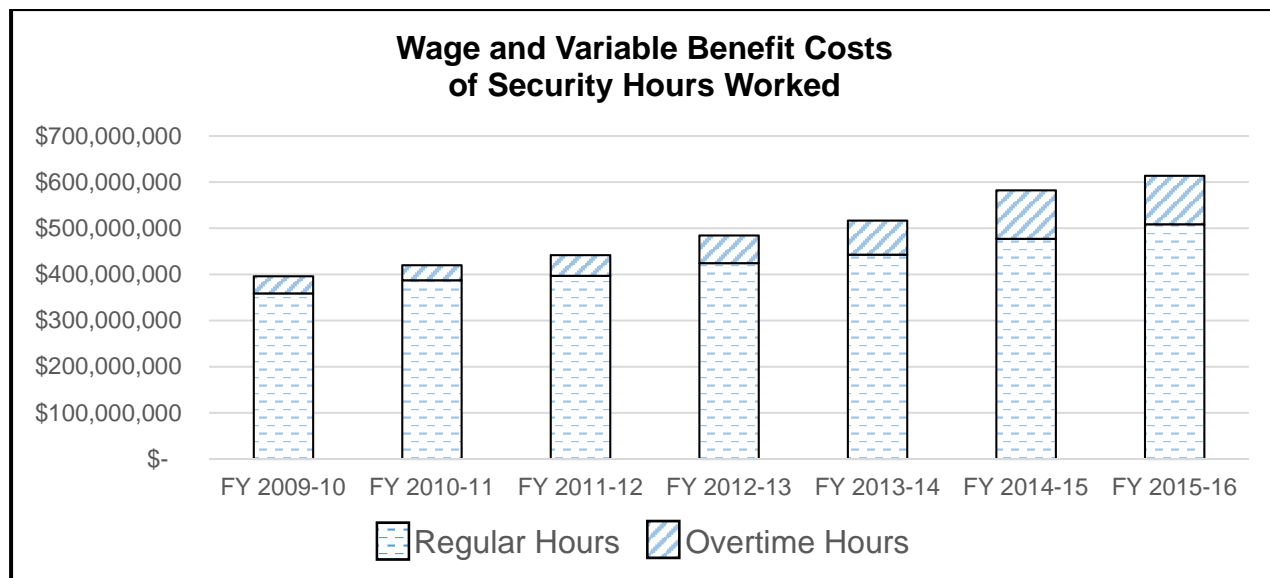
result in significant over or under payment. However, without an accurate and consistently used time tracking system, making this determination would be very difficult. According to staff, one of the purposes of IDVS is to monitor which staff are inside the secure perimeter at any given time in case of an emergency. However, IDVS was found to be inconsistently used by the COs, especially for overtime hours and, therefore, fails to achieve this purpose due to the inaccuracies created by its inconsistent use.

In response to these concerns and in the Department's efforts to increase staffing efficiencies within SCI facilities, the DOC has been pursuing the purchase of roster management software, called Telestaff, which will interface with the new timekeeping software, Kronos – Workforce Timekeeper, that is currently being implemented by the Office of Administration.

The Hourly Costs of Security Hours Has Also Increased Since FY 2009-10

In addition to the increased number of security hours worked per fiscal year, increases in the average hourly rates of CO 1-2s and COTs has also contributed to the \$97.6 million increase in the costs of the security hours worked since FY 2009-10. Without adjusting for inflation, since FY 2009-10, the average hourly rate has increased by 21.3 percent for CO-1s, by 17.0 percent for CO-2s, and by 10.3 percent for COTs. As a result, the average hourly wage cost of an overtime hour for all security staff positions combined has increased by 21.3 percent, from \$34.48 per hour in FY 2009-10, to \$41.84 per hour in FY 2015-16.

Variable benefit rates, particularly workers' compensation and retirement contributions, have also increased during this time period. When including the costs of the variable benefits, the annual costs of the wages and variable benefits for security staff working regular hours have increased by \$149.5 million (41.6 percent increase) and working overtime hours have increased by \$68.4 million (185.3 percent increase), a total increase of \$217.9 million since FY 2009-10. (See the chart below). This does not include fixed benefits costs, such as health and life insurance, which do not increase with overtime, nor does it factor in the increased pension costs as a result of the overtime hours worked by COs approaching retirement. Therefore, total costs to the Commonwealth are considerably higher.



Overtime Increases Pension Payments

The increase in the number of overtime hours worked by COs approaching retirement has resulted in further increasing the costs of pension benefits. According to staff from the State Employees' Retirement System (SERS), of the 240 CO 1-2s who retired during FY 2015-16, 191 COs had a SERS Final Average Salary (FAS) that was higher than the final annual salary of the employee. The FAS reflects a three-year average salary, which, without overtime, would naturally be less than the individual's final year salary. However, for these 191 COs who retired in FY 2015-16, due to overtime, the SERS FAS averaged \$14,033 above their last year's regular salary.

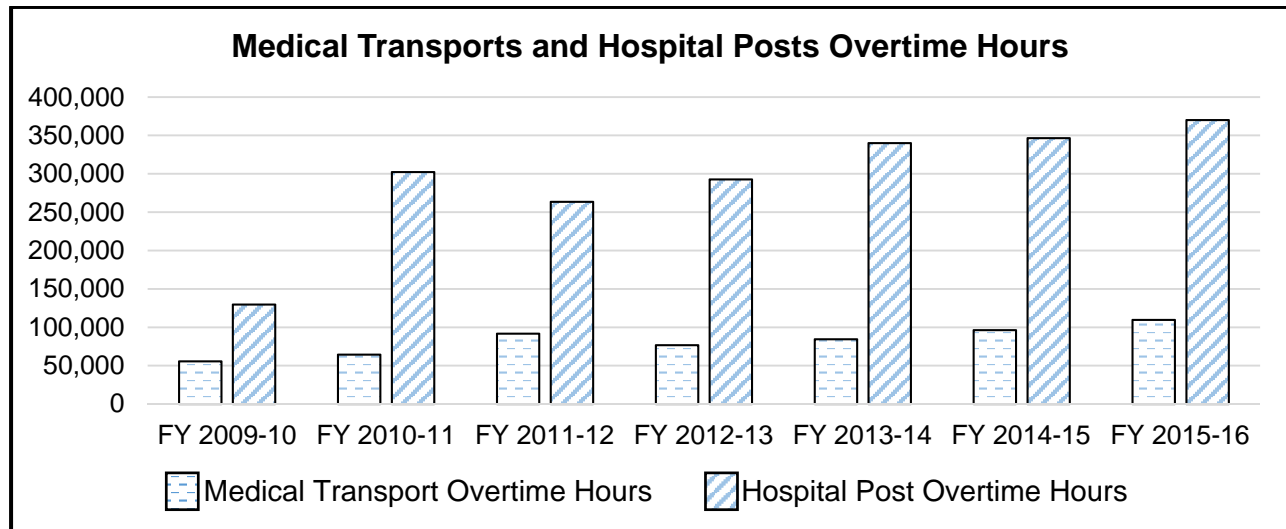
When factoring in their average of 25.6 years of service, this translates into an additional \$8,616 in annual retirement annuity payments per CO under the Maximum Single Life Annuity (MSLA) option. This equates to an additional \$1.6 million per year in pension benefits for all of the 191 COs combined. With an average retirement age of 55.7 years during FY 2015-16 and an average life expectancy of 82.7 years, the 191 COs that retired during FY 2015-16 with a higher FAS than their annual salary are estimated to cost the Commonwealth an additional \$44.5 million in pension benefits due to the overtime hours worked during their last three years of employment.

Increased Demands in Medical Services Have Increased Security Staffing Needs and, Therefore, Security Hours

The aging inmate population has increased the security staffing levels necessary to meet the needs of the DOC. Despite the DOC's jurisdictional inmate population decreasing by 1,573 inmates since the end of calendar year (ECY) 2009, the

number of prisoners age 55 years or older has increased by 1,968 inmates during that same time period, a 48.2 percent increase. According to DOC staff, a significant portion of the increased number of overtime hours worked since FY 2009-10 is due to the aging inmate population, which has resulted in a substantial increase in the number of medical transports and hospital posts.

The DOC has taken several steps to reduce their overall medical costs, including: screening inmates in-house; internally providing sub-acute care, personal care, ventilators, and x-rays in-house; and by negotiating regionalized care with local hospitals. The DOC does not, however, maintain full-time security staff positions for medical transports or hospital posts, with only a few COs assigned full-time to medical transports and hospital posts at 5 of the 26 SCI facilities. As a result, almost all medical transports and hospital posts are worked as overtime. Consequently, since FY 2009-10, the annual number of medical transport overtime hours increased by 53,962 hours, and the annual number of hospital post overtime hours increased by 240,247 hours. (See the chart below.) Therefore, the increased demand for medical transports and hospital posts accounts for 294,209 (33.8 percent) of the total increase of 871,141 security hours worked as overtime since FY 2009-10.



Increased Demands in Mental Health Services Have Also Increased Security Staffing Needs and, Therefore, Security Hours

In response to a settlement agreement with the Disabilities Rights Network (DRN) and the findings of a U.S. Department of Justice investigation of the Pennsylvania prison system’s mental health services for seriously mentally ill inmates, as well as the DOC’s own review, the number of inmates receiving mental health treatment has increased in recent years. For example, while the overall inmate population declined by 363 inmates from the end of June 2013 to the end of June

2014, the number of inmates placed in roster D (placed in secured residential treatment units due to, e.g., significant mental illness or psychiatric/intellectual disability) increased by 3,058. Using the inmate population and mental health score from June 30, 2016, approximately 28 percent of all inmates are receiving some mental health services, and 8.5 percent are considered seriously mentally ill.

The DRN settlement agreement requires that inmates in restricted housing have 20 hours per week out of their cells (10 hours structured and 10 hours unstructured). For security reasons, a two-person escort is required, which increases the need for security staff. As a result, the increased demand for mental health services has increased the number of security hours and, therefore, overtime hours needed to meet these needs.

DOC's Manpower Surveys Underestimate the Number of COs Needed

The DOC performs security manpower surveys at each SCI facility to determine the security staffing levels needed to meet the needs of the institution. A “relief factor” is then added to account for leave usage, training days, etc., and according to the DOC, the relief factor should be periodically reviewed to account for changes. The relief factor, however, does not account for short-term absences related to call offs, inmate escorts, hospital trips, military activations, construction, and other short-term posts that create the need for overtime. However, despite the increased demands for medical and mental health services in recent years, the DOC has failed to adhere to its policy to perform a security manpower survey at each SCI facility every three years, and has not updated its relief factor in roughly ten years.

We performed a full-time equivalent (FTE) security staffing analysis as a comparative analysis of the most recent security manpower surveys performed at each of the 26 SCI facilities and found that a filled complement of 8,902 CO 1-2s (which can also be staffed in part by COT 2-4s) was needed to meet the security needs of each SCI facility to minimize the use of overtime hours.⁶ In comparison, the most recent manpower surveys conducted by the DOC at each separate SCI facility specifies a filled complement of 8,784 CO 1-2s is needed. The authorized complement (as approved by the Office of Budget) calls for a filled complement of 8,767 CO 1-2s and COTs. These findings suggest that the current security manpower surveys are insufficient.

The DOC Has Hired a Consultant to Review Staffing Needs at the SCIs

To address the rising number of security hours worked, especially as overtime, the DOC recently contracted with a prison staffing consultant to conduct a

⁶ Corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s) contribute 40 security hours per week and fill a full-time equivalent slot on the security staffing roster, though, COT 2-4s have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

new operational staffing and overtime analysis to increase the efficiency of their staffing needs. Unlike the manpower surveys conducted by the DOC, this analysis will focus on how operations can be re-structured to maximize efficiency and use of staff. In comparison, the DOC surveys focus on the level of staffing necessary to carry out activities in their current operational structure. The contractor will review three SCI facilities: SCI-Mahanoy, SCI-Benner Township, and SCI-Phoenix and create a template that can be used by the DOC to identify the staffing needs of the remaining SCI facilities to increase their efficiency. Additionally, according to DOC staff, the consultant will analyze the need for full-time security staff positions assigned to medical transports and hospital posts.

Vacancies Are the Primary Cause of Overtime

Despite the security staffing complement specified by the DOC's security manpower surveys or the authorized complement, the DOC has not been able to fill a significant portion of these positions largely due to employee turnover and the 2014 hiring freeze. As a result, the DOC only had an average of 7,499 filled CO 1-2 and 808 filled COT positions during FY 2015-16. However, an estimated fifteen percent of COTs are in training phase 1 at any given time and, therefore, do not contribute any productive security hours or fill a full-time slot in the security staffing roster. Therefore, in comparison to the manpower surveys, the DOC had an average of 568 security staff vacancies during FY 2015-16. Consequently, as the average number of filled security staff positions has declined from 8,401 in FY 2009-10 to 8,216 in FY 2015-16, the percentage of security hours worked as overtime has increased from 6.38 percent to 11.72 percent.

The DOC has increased their hiring efforts since the end of their last major hiring freeze in 2014 and, as a result, the Department has gradually reduced the number of unfilled security staff positions throughout FY 2015-16 and the first half of FY 2016-17.

It Is More Cost Effective to Hire COs Than to Continue to Use Overtime to Provide Security Hours

A certain amount of overtime is deemed inevitable by prison staffing experts, however, maintaining an efficient number of security staff would minimize the number of overtime hours needed to meet the needs of the DOC, therefore, reducing the Department's overall personnel expenditures. We estimate that training a single COT will save the DOC \$30,519 in overall personnel expenditures in the first year. Furthermore, the total cumulative savings of hiring a single COT is estimated to be \$213,915 over a five-year period and \$381,127 over a ten-year period.

A Cost Estimate for Security Hours if Fully Staffed During FY 2015-16

Using the expected percentage of overtime hours that we calculated in our FTE security staffing analysis (the DOC will always need some level of overtime), we estimate that the DOC would have saved over \$16.2 million in wages if the Department had an optimal number of filled security staff positions during FY 2015-16. When including the costs of variable benefits, those savings increase to \$22.0 million.⁷ See below.

Actual Security Costs Versus Security Wage and Variable Benefit Costs With Minimized Overtime* (FY 2015-16)				
	Hourly Rate Including Variable Benefit Costs	Actual Security Costs	Security Costs With Minimized Overtime ^a	Savings
Regular Hours	\$37.74	\$508,739,766	\$548,819,806	(\$40,080,039)
Overtime Hours	58.45	104,607,715	42,528,084	62,079,631
Total		\$613,347,481	\$591,347,889	\$21,999,592

* This calculation includes the costs of wages and variable benefits. It does not include the costs of fixed benefits (health and life insurance) or the Commonwealth pension costs.

^a 4.8 percent overtime was calculated to be a reasonable estimate for the smallest percent of overtime hours that could be realistically expected to be necessary to meet the needs of the DOC. See Appendix C (Percent of Expected Overtime Hours) for detailed data and methodology.

The 2014 Hiring Freeze Is Estimated to Have Cost the DOC \$4.6 Million in FY 2014-15 and \$9.1 Million in FY 2015-16

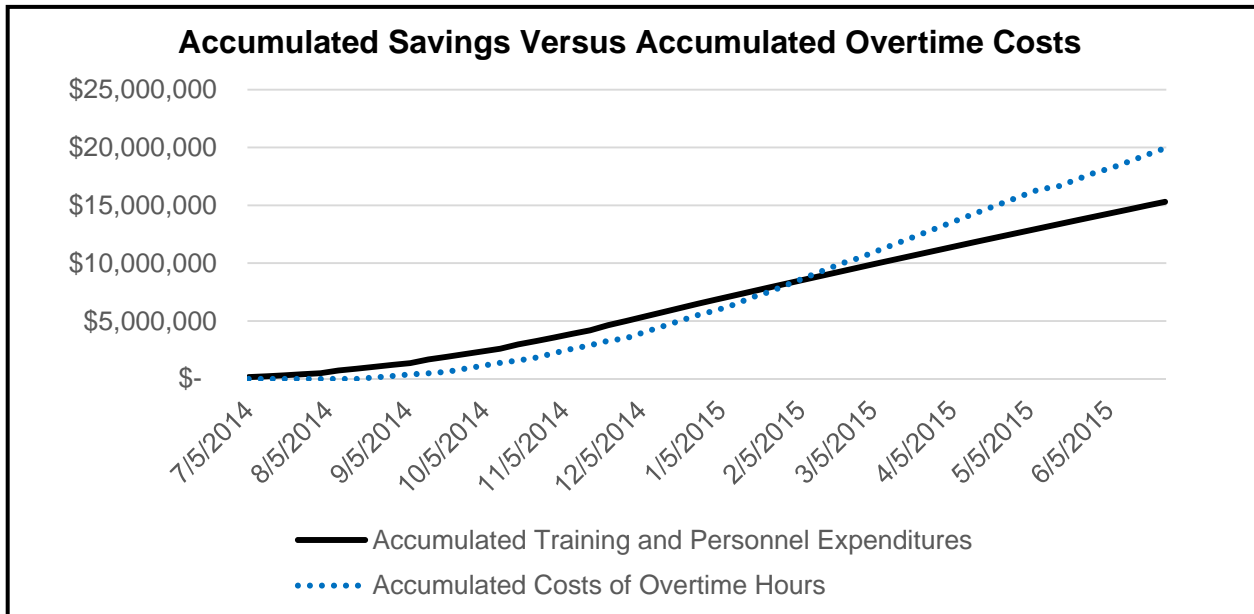
While the DOC recognizes that using overtime rather than filling security staff positions reduces personnel expenditures in the short term but increases costs in the long term, the Department announced a major hiring freeze in May 2014, although it did not take full effect until July 2014.⁸ Additionally, while the hiring freeze was officially over by the end of August 2014, CO training did not completely resume until the beginning of calendar year 2015. During this time period, the number of filled COT positions declined by over 300 positions, from an average of 722 in May 2014 to 417 in January 2015.

Using an estimated reduction of roughly 300 COTs not hired during the first half of FY 2014-15, we calculated that the 2014 hiring freeze reduced training and personnel expenditures by \$15.3 million during FY 2014-15. However, we estimate that the hiring freeze also caused an additional 358,371 overtime hours during FY

⁷ Variable benefits include Social Security, Medicare, Worker's Compensation, Leave Payout, and pension contributions, though, there is no Leave Payout costs for overtime hours. This calculation does not include fixed benefit costs (health and life insurance) or Commonwealth pension costs.

⁸ Unlike previous hiring freezes, this one included security staff and had a direct and significant impact on the number of corrections officer trainees hired to fill vacant CO positions.

2014-15. As a consequence, we calculated that the wages and benefits of the resulting overtime hours cost a total of \$19.9 million during that same time period, exceeding the savings in training costs by \$4.6 million. Using these calculations, we found that the accumulated costs of the overtime wages and benefits needed to cover the vacant positions caused by the hiring freeze exceeded the accumulated savings in training and personnel expenditures by early February 2015. (See graph below.) However, these costs continue to accumulate as the DOC remains unable to fill a portion of vacant CO positions.



Because COT training costs occur entirely in the first year and a COT did not contribute productive security hours during the first seven weeks of training in FY 2014-15, the savings attributable to hiring a new CO are greater in subsequent years (i.e., they are not offset by training costs and more overtime hours are avoided). We therefore estimate, over a three-fiscal-year period, the 2014 hiring freeze will cost the DOC an additional \$22.5 million in personnel expenditures. To some extent, these additional costs may be reduced as the DOC continues to fill CO vacancies. This calculation does not include the increase in future pension benefit costs due to the increased use of overtime hours.

Recommendations:

1. **The DOC should avoid implementing hiring freezes for security staff.** Although not completely within the control of the DOC, hiring freezes affecting security staff provide few short-term savings and significant long-term costs.
2. **The DOC should revise its security manpower surveys to include medical transports and hospital posts to calculate staffing needs.** The DOC should

accurately track the number of medical transports and hospital posts, including the hours worked by COs during these posts. This would allow the DOC to make an accurate assessment of their security staffing needs for providing these services. Currently, the Department uses imprecise data from annual SCI surveys on medical transports and hospital posts and medical invoices provided by the health providers.

3. ***The DOC should use their consultant's operational analysis of SCI activities and an updated relief factor to develop staffing requirements for new facilities as well as existing facilities.*** The manpower surveys and relief factor should be revised whenever significant changes to the CO function occur (e.g., out-of-cell time for inmates with mental health diagnoses) that affect the amount of time necessary to perform their duties. SCI-Phoenix, for example, should use the consultant's analysis so that it can begin operations as efficiently as possible to reduce the need for overtime hours at that facility.
4. ***The DOC should develop policies and procedures for the consistent and uniform use of a time tracking system at all SCI facilities to ensure more accurate timekeeping and improved monitoring of hours worked.*** The consistent use of a uniform time tracking system will enable the DOC to accurately track hours worked for future staffing analysis purposes and to provide greater oversight of hours paid. The implementation of the new Kronos timeclocks and the time keeping and roster management software, Telestaff and Kronos-Workforce Timekeeper, may serve this purpose.
5. ***The DOC should require SCIs to consistently develop overtime justification reports on a monthly basis as a method to inform future staffing decisions and address developing overtime problems.*** The consistent use of overtime justification reports will provide useful information to the DOC in responding to staffing requests from the individual SCIs. Requiring them on a monthly basis would also allow the DOC to respond to issues resulting in overtime in a more timely manner. The DOC should develop uniform guidelines for the information to be included in the report.

I. Introduction

Senate Resolution 263 (2016) directs the Legislative Budget and Finance Committee to study the issue of staffing shortages and overtime costs within the Department of Corrections. The study is to consider the costs associated with hiring a new employee (including salary, benefits, retirement, training, and equipment) as compared to paying current employees overtime. Further, the resulting report is to provide information relating to what other states do as far as best practices in terms of corrections spending.

Scope and Objectives Statement

1. To determine the overtime costs of the Department of Corrections.
2. To examine other states' staffing to inmate levels and trends related to inmate population.
3. To determine costs of new hires including training, equipment, and associated benefits.
4. To compare the costs of hiring new employees to the cost of paying current employees overtime.
5. To develop findings and recommendations relating the Department of Corrections' cost of overtime versus hiring new employees.

Methodology

We met with staff of the Department of Corrections for a review of agency operations, facilities, and personnel. Due to the large percentage of the overtime costs being for security hours, we focused our analysis on corrections officer staff. We analyzed Department data for FY 2009-10 through FY 2015-16 related to filled and vacant security officer positions, use of leave and costs associated with training and overtime. We reviewed the collective bargaining agreements and applicable arbitration decisions to understand the processes and requirements for assigning overtime among security staff. We conducted a full-time equivalent staffing analysis to determine the level of security staff needed to minimize overtime hours.

We toured two State Correctional Institutions (one a prototype facility and the other an assessment facility) to view operations and speak with security personnel. We also reviewed a specifically identified CO's time sheets as well as a random selection of security staff time sheets for two separate pay periods in FY 2015-16 as

a follow-up to findings in the 2012 report, *A Special Performance Audit of the Department of Corrections, Inefficiencies Further Strain Budget and Retirement Funds of the Commonwealth*, by the Department of the Auditor General.

Using states identified by the Department of Corrections as comparable to Pennsylvania, we analyzed their inmate populations, security staffing levels, and inmate-to-security-staff ratios and compared them to Pennsylvania. We reviewed Department of Justice data for national trends, and other literature related to corrections staffing and staffing issues.

Detailed methodology statements related to specific analyses are included in the Appendices.

Note: The DOC announced it planned to close State Correctional Institution – Pittsburgh just as we were completing our work on this report. We have not attempted to incorporate into this report the potential impact of such a move.

Acknowledgements

We thank Corrections Secretary Wetzel and his staff for their assistance with this study. In particular we thank Andrew Barnes, Legislative Liaison; Chris Oppman, Deputy Secretary for Administration; Harry Jones, Director of the Bureau of Administration; Ty Stanton, Director of the Bureau of Human Resources; Wendy Mongold, Chief, Employee Services Division; and Steve Freeman, Organizational Planning. We also thank the various facility staff who met with us during our visits. In addition, we thank Joseph Torta, Director, Office of Member Services of the Pennsylvania State Employees' Retirement System, for his assistance with our study. Finally, we thank the Office of Administration staff for their assistance.

Important Note

This report was developed by Legislative Budget and Finance Committee staff. The release of this report should not be construed as an indication that the Committee or its individual members necessarily concur with the report's findings and recommendations.

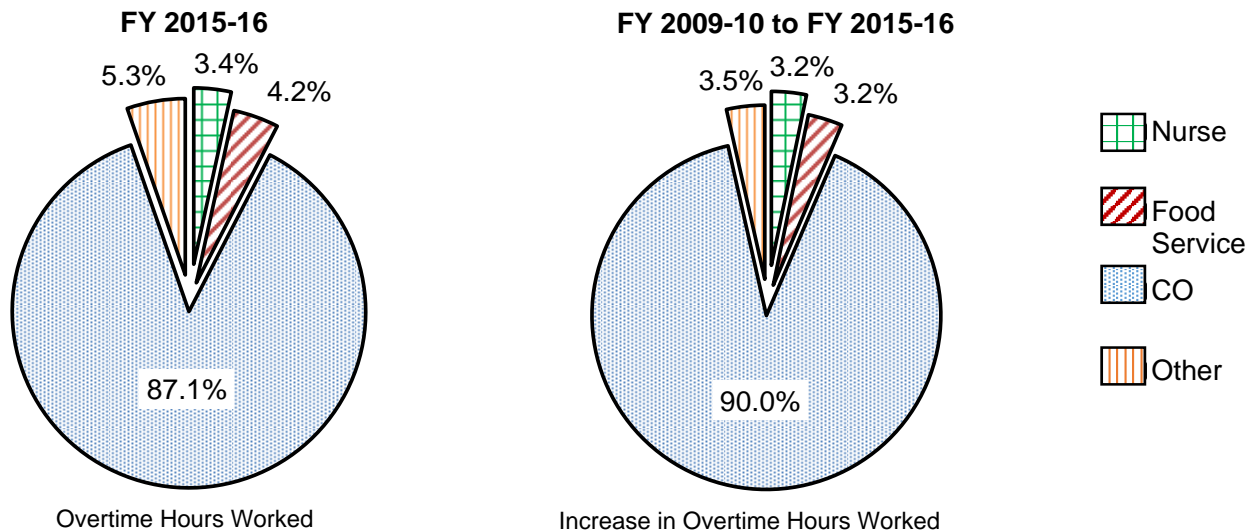
Any questions or comments regarding the contents of this report should be directed to Philip R. Durgin, Executive Director, Legislative Budget and Finance Committee, P.O. Box 8737, Harrisburg, Pennsylvania 17105-8737.

II. While Pennsylvania’s Inmate Population and Security Staffing Levels Have Both Declined, the Number of Security Hours, Particularly Overtime, Have Increased Significantly

Since FY 2009-10, Pennsylvania’s state inmate population and security staffing levels have both declined. However, during that same time period, the total annual number of overtime hours worked within the Pennsylvania Department of Corrections (DOC) has increased by 929,511 hours (52.2 percent).¹ Three different categories of DOC employees make up a substantial portion of this increase: nurses, food service, and corrections officers (CO).² However, the increase in the number of overtime hours worked by nurses and food service combined only accounts for 6.4 percent of the total increase. In comparison, as shown in Exhibit 1, COs account for 87.1 percent of the total overtime hours worked during FY 2015-16 and 90.0 percent of the total increase in overtime hours worked since FY 2009-10. Furthermore, 98.0 percent of the overtime hours worked by COs is worked by corrections officers 1 and 2 (CO 1-2s) and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s). Therefore, we focused our study on the overtime hours worked by CO 1-2s and COT 2-4s.

Exhibit 1

Percent of Overtime Hours Worked (FY 2015-16) and Percent of Increase in Overtime Hours Worked (FY 2009-10 - FY 2015-16)



Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

¹ Total overtime includes overtime hours worked by all DOC staff at the straight time, half time, holiday time, walk time, one-and-one-half time, and double-time hourly overtime rates.

² This includes corrections officers 1, 2, 3, 4, and 5, and corrections officer trainees (COT).

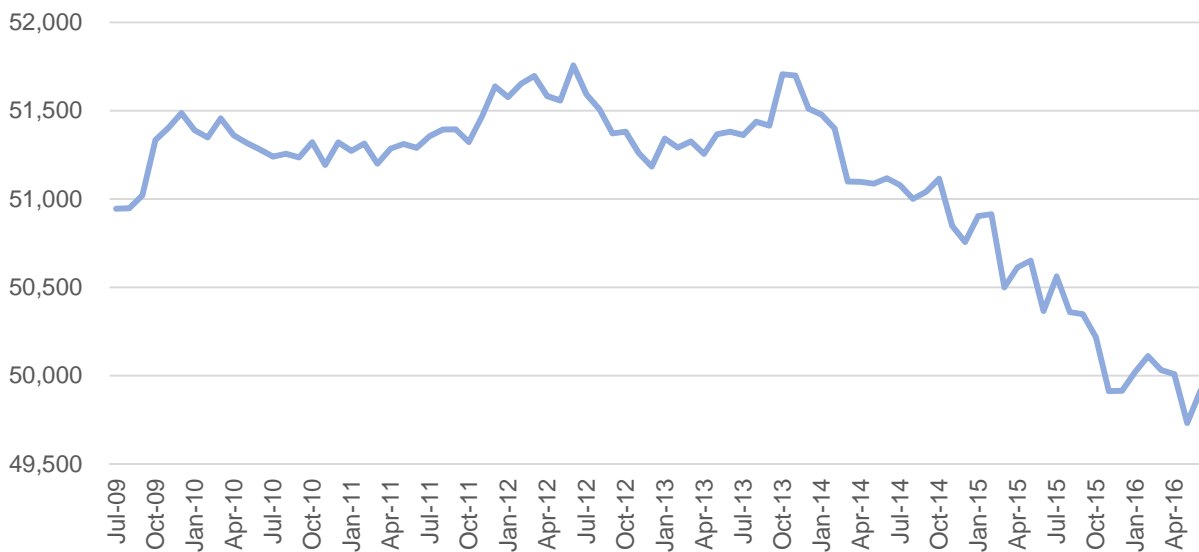
A. The Downward Trend in Pennsylvania’s State Inmate Population

Pennsylvania Department of Corrections’ Jurisdictional Inmate Population.³

On September 7, 2016, the Pennsylvania Governor’s Office and the DOC announced that Pennsylvania’s end-of-the-calendar-year (ECY) state inmate population under the jurisdiction of the DOC decreased by 842 inmates during 2015, which represents the greatest one-year decline in population over the last 40 years. Furthermore, the DOC reported that over the past two calendar years, the year-end population decreased by a total of 1,598 offenders. As shown in Exhibit 2, when using end-of-the-month population reports, the jurisdictional inmate population began to decline toward the end of 2013, after four years of a relatively stable inmate population.

Exhibit 2

End of the Month – Monthly Jurisdictional Inmate Population Trend
(July 31, 2009 - June 30, 2016)



Source: Developed by LB&FC using Pennsylvania Department of Corrections Monthly Population Reports.

³ Jurisdictional inmate population includes Pennsylvania state inmates held in out-of-state prisons, federal prisons, state prisons, county jails, boot camps, contract facilities, and community corrections centers. This does not include the parolees or the halfway back population, which includes Penncapp participants (Pennsylvania Community Alternatives to Prison Program).

Pennsylvania Department of Corrections' Institution Inmate Population.⁴

From FY 2009-10 to FY 2015-16, the average annual inmate population under the direct custody of the DOC decreased by 437 inmates.⁵ As indicated in Table 1, after a steep decline of an average of 2,028 state inmates (4.2 percent) under the direct custody of the DOC from FY 2009-10 to FY 2010-11, the average inmate population increased by 2,943 inmates (6.3 percent) over the following three fiscal years. As shown in Exhibits 3 and 4, the sudden decline was primarily due to the DOC temporarily sending approximately 2,200 inmates to Michigan and Virginia from February 2010 to February 2012. At the same time, the DOC also began to hold 600 to 1,000 state inmates in county jails.

Pennsylvania's institution inmate population steadily increased over the following three years as the DOC gradually returned out-of-state inmates to Pennsylvania from April 2011 to February 2012 and then began to reduce the number of inmates held in contract facilities by over 800 inmates during FY 2012-13. Even so, after reaching a peak of 49,672 inmates on average during FY 2013-14, the average population has steadily declined by 1,352 offenders (2.7 percent) over the past two years, with a reduction of 646 inmates (1.3 percent) in the last fiscal year.

⁴ Total institution inmate population only includes inmates held in the state-run prisons and Quehanna boot camp, but does not include inmates held in out-of-state prisons, federal prisons, county jails, contract facilities, and community corrections centers, or parolees and the halfway back population, which includes Penncapp participants (Pennsylvania Community Alternatives to Prison Program).

⁵ Inmate population levels can fluctuate significantly on a monthly basis and only the inmate population under the direct custody of the DOC would have a significant effect on the number of security staff and security hours needed, so we compared the average annual total institution inmate population with the average annual number of filled security staff positions and security hours worked from FY 2009-10 to FY 2015-16. Security staff includes CO 1-2s and COT 2-4s. Security hours include the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by security staff. Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

Table 1

Average Annual Inmate Population by Institution
(FY 2009-10 - FY 2015-16)

State Correctional Institution (SCI)	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Albion	2,337	2,285	2,311	2,321	2,301	2,274	2,243
Benner Township ^a	0	0	0	301	2,030	2,094	2,075
Cambridge Springs	1,009	932	921	1,002	1,005	1,048	1,150
Camp Hill	3,778	3,312	3,544	3,573	3,633	3,519	3,478
Chester	1,300	1,248	1,254	1,267	1,253	1,253	1,260
Coal Township	2,056	2,051	2,094	2,295	2,311	2,281	2,287
Cresson ^b	1,579	1,533	1,561	1,035	0	0	0
Dallas	2,132	2,115	2,092	2,109	2,126	2,131	2,133
Fayette	2,041	2,055	2,057	2,064	2,023	2,050	2,032
Forest	2,274	2,269	2,277	2,281	2,236	2,277	2,293
Frackville	1,142	1,140	1,149	1,172	1,165	1,177	1,169
Graterford	3,502	2,942	3,300	3,693	3,911	3,521	3,233
Greene	1,889	1,808	1,752	1,790	1,748	1,748	1,736
Greensburg ^c	1,006	952	1,053	777	0	0	0
Houtzdale	2,346	2,295	2,450	2,570	2,552	2,519	2,502
Huntingdon	2,168	2,135	2,139	2,153	2,127	2,123	2,145
Laurel Highlands	1,356	1,225	1,333	1,513	1,540	1,544	1,505
Mahanoy	2,332	2,365	2,350	2,441	2,520	2,485	2,451
Mercer	1,600	1,470	1,456	1,490	1,480	1,472	1,446
Muncy	1,493	1,443	1,499	1,402	1,437	1,419	1,407
Pine Grove	959	828	873	997	1,154	1,088	955
Pittsburgh	1,707	1,658	1,653	1,673	1,896	1,857	1,754
Quehanna	423	426	482	485	489	485	472
Retreat	1,132	1,126	1,130	1,139	1,131	1,104	1,108
Rockview	2,171	2,128	2,399	2,449	2,446	2,334	2,379
Smithfield	1,209	1,363	1,365	1,378	1,369	1,361	1,337
Somerset	2,334	2,249	2,289	2,331	2,351	2,378	2,390
Waymart	1,483	1,377	1,410	1,377	1,439	1,425	1,379
Total Institution	48,757	46,729	48,193	49,075	49,672	48,966	48,320
Comm. Corrections	565	844	882	603	320	336	347
Contract Facilities	969	1,103	1,274	1,089	548	621	628
Federal Prisons	10	13	11	9	8	7	7
County Jail	239	620	587	579	821	886	793
Out-of-State Prisons	734	1,963	586	0	0	0	0
Jurisdiction Total	51,275	51,270	51,533	51,355	51,368	50,816	50,094

^a SCI-Benner Township opened in 2013.

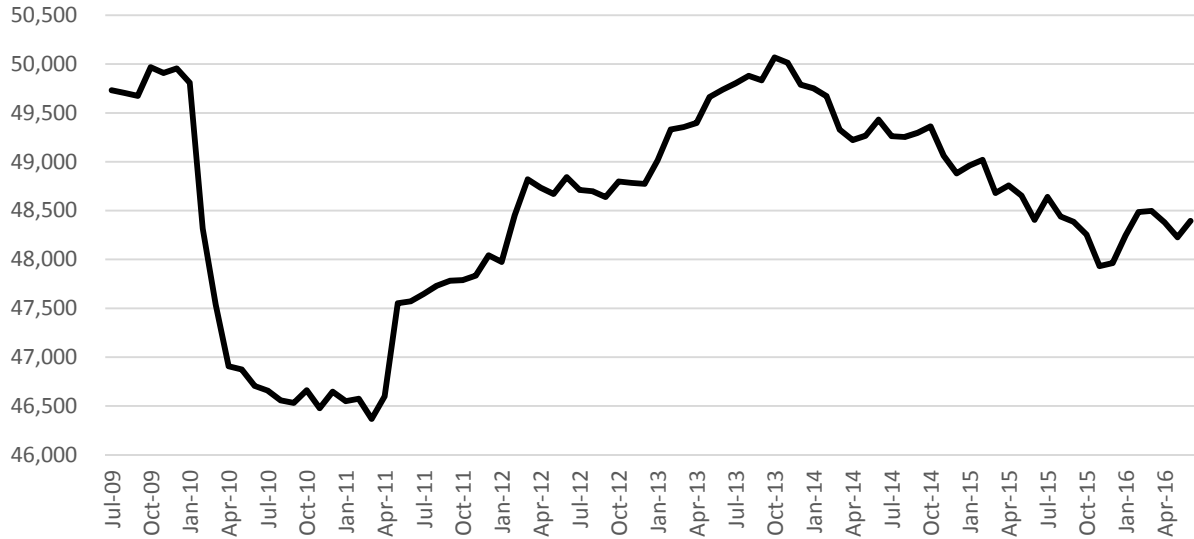
^b SCI-Cresson closed in 2013.

^c SCI-Greensburg closed in 2013.

Source: Developed by LB&FC using Pennsylvania Department of Corrections Monthly Population Reports.

Exhibit 3

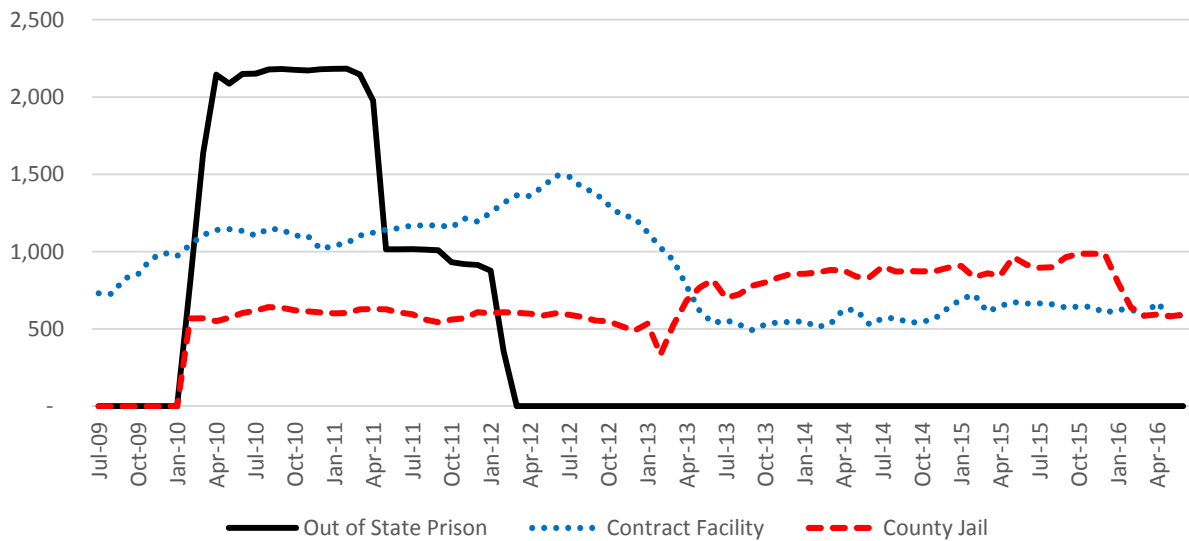
End of the Month – Monthly Total Institution Inmate Population
(July 31, 2009 - June 30, 2016)



Source: Developed by LB&FC using Pennsylvania Department of Corrections Monthly Population Reports.

Exhibit 4

End of the Month – Monthly Inmate Population Held Outside SCI Facilities
(July 31, 2009 - June 30, 2016)



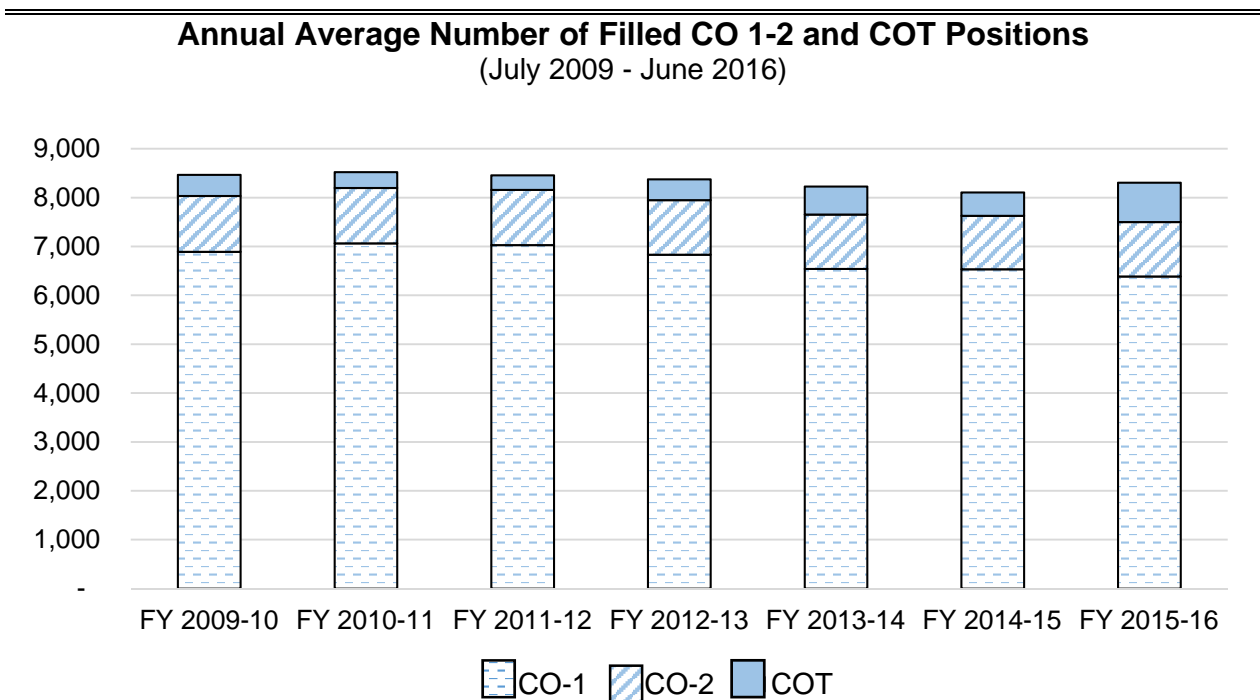
Source: Developed by LB&FC using Pennsylvania Department of Corrections Monthly Population Reports.

B. The Number of Filled Security Staff Positions Has Also Declined⁶

The average number of filled CO 1-2 and corrections officer trainee (COT) positions has declined from FY 2009-10 to FY 2015-16. After the average number of filled CO 1-2 and COT positions declined by 359 positions, from a total of 8,466 positions in FY 2009-10 to a low of 8,107 in FY 2014-15, the number increased by 201 positions the following fiscal year due to increased training efforts to address the last major hiring freeze that took place during the first half of FY 2014-15. Therefore, the average number of filled positions has declined by a total of 159 positions since FY 2009-10, which includes a decrease of 506 corrections officer 1 (CO-1) positions and 30 corrections officer 2 (CO-2) positions, but an increase of 377 COT positions. See Exhibit 5.

The average number of unfilled and vacant CO 1-2 and COT positions per fiscal year has increased from 172 in FY 2009-10 to 460 during FY 2015-16. See Exhibit 6. However, only CO 1-2s and COT 2-4s can contribute productive security hours.⁷

Exhibit 5



Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

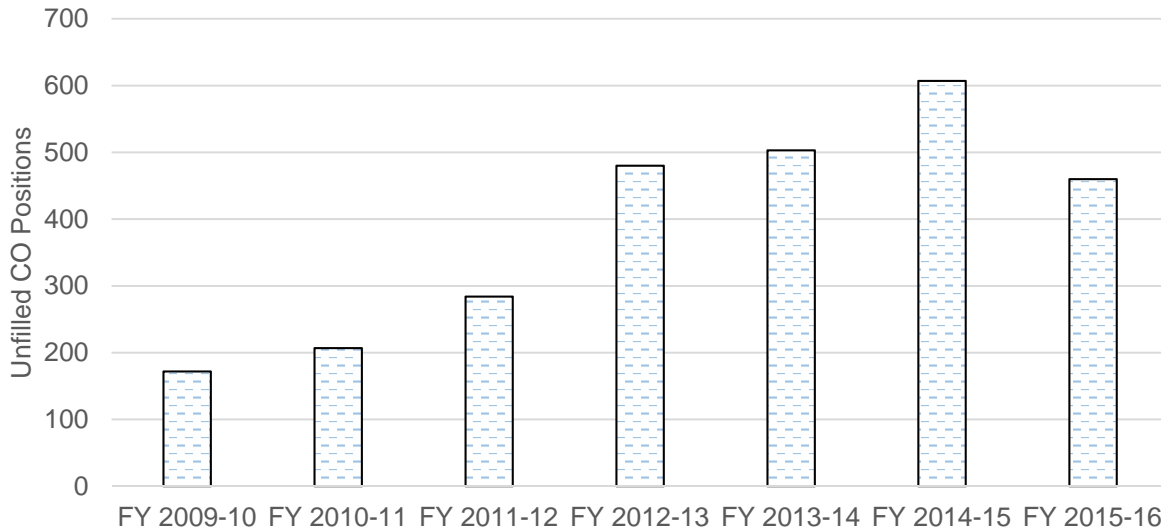
⁶ Security staff includes CO 1-2s and COT 2-4s.

⁷ COTs in training phase 1, the first eight weeks of training (after Jan. 2016), do not contribute any productive security hours and, therefore, do not fill a full-time slot on the security staffing roster. Training phase 1 only includes orientation, basic training, and observation. COT 2-4s, the following 44 weeks of training, contribute 40 security hours per week and fill a full-time equivalent slot on the security staffing roster, though, COT 2-4s have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

Exhibit 6

Annual Average Number of Unfilled CO 1-2 and COT Positions*

FY 2009-10 – FY 2015-16



* Number was calculated by subtracting the authorized complement for CO 1-2 and COT positions by the average number of filled CO 1-2 and COT positions. Authorized complement includes all salaried and hourly CO positions, but excludes the central office position pool.

Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

C. Pennsylvania’s Inmate Population and Inmate-to-Security-Staffing Ratio Trends Mirror Those of Comparable States⁸

State Comparison of Inmate Population Trends.⁹ As shown in Exhibit 7 and Table 2, from ECY 2009 to ECY 2014, the total institution inmate population decreased in every comparison state, including Pennsylvania, with the exception of Illinois. During this time period, the institution inmate population decreased by 2.1 percent in Pennsylvania, by 4.7 percent in Michigan, by 10.3 percent in New York, and by 0.4 percent in Ohio. In contrast, the total institution inmate population in Illinois increased by 9.0 percent.¹⁰ At the national level, the overall state inmate population of all fifty states combined decreased by 4.2 percent.

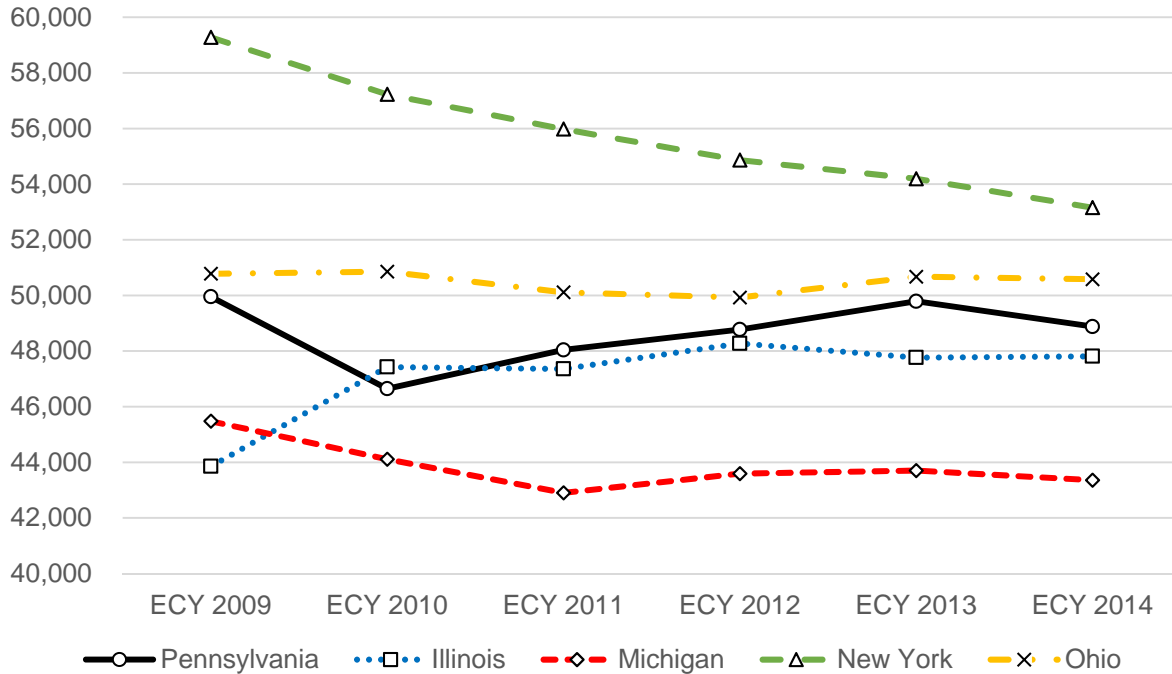
⁸ We compared four other states’ total institution inmate populations and state inmate-to-security-staffing levels with Pennsylvania’s from ECY 2009 to ECY 2015. We used ECY data from 2009 to 2015 from each of the four states’ government websites to develop historical trends relating to state institution inmate populations and state inmate-to-security-staffing levels in Illinois, Michigan, New York, and Ohio. For comparison to the national state inmate population, we collected ECY data from 2009 to 2014 from the United States Department of Justice’s annual *Prisoners* reports.

⁹ It is important to note that inmate population levels can fluctuate significantly on a monthly basis and, therefore, averaging annual inmate populations would be a more accurate measurement for comparison. However, end of the calendar year data from ECY 2009 to ECY 2014 was used for comparison because only year-end data on the inmate population and security staffing levels was available for each comparison state.

¹⁰ Illinois’ total institution inmate population declined by 2,500 inmates from ECY 2014 to ECY 2015.

Exhibit 7

Annual Total Institution Inmate Population*
(End of the Calendar Year)



*Total institution inmate population only includes inmates held in state-run prisons and boot camps that are under the direct custody of the department of corrections and does not include parolees or inmates held in out of state prisons, federal prisons, county prisons, contract facilities, community corrections centers, or halfway houses.

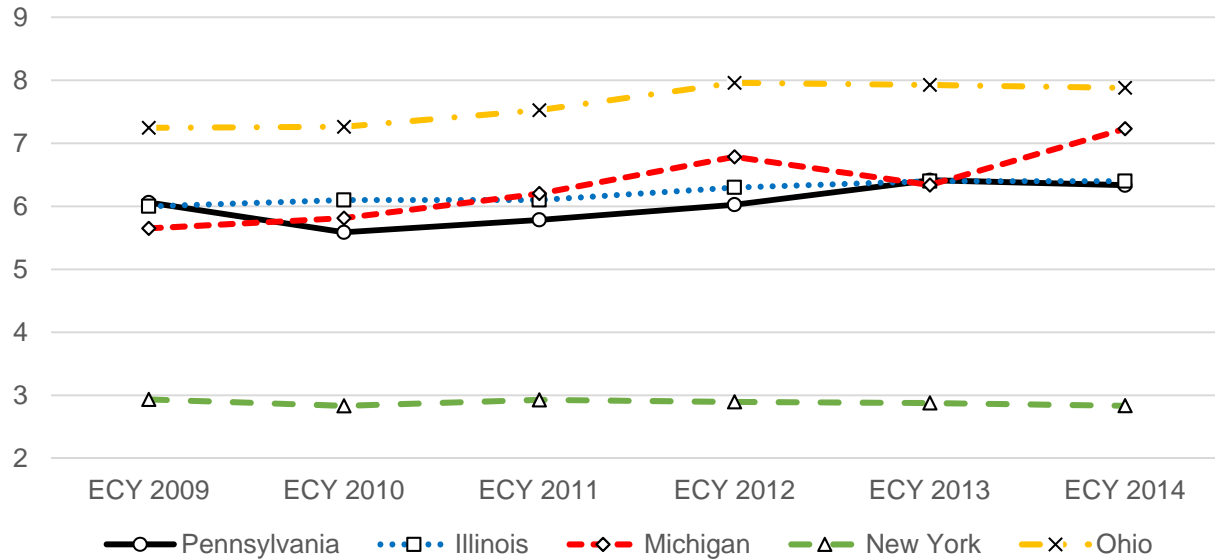
Source: Developed by LB&FC staff from state websites and U.S. Department of Justice annual *Prisoners* report.

State Comparison of Inmate-to-Security-Staff Ratios.¹¹ As shown on Exhibit 8 and Table 2, the total institution inmate-to-security-staff ratio has increased in every comparison state, including Pennsylvania, with the exception of New York. During this time period, the inmate-to-security-staff ratio increased by 4.5 percent in Pennsylvania, by 6.7 percent in Illinois, by 8.8 percent in Ohio, and by a substantial 28.0 percent in Michigan. This is largely due to a 25.5 percent reduction in the number of CO 1-2s employed in Michigan. In contrast, New York's inmate-to-security-staff ratio is far lower than Pennsylvania's or the other comparison states' security staffing ratios. Despite a total institution inmate population relatively similar to the comparison states, New York currently staffs over twice as many CO 1-2s. As a result, New York's inmate-to-security-staff ratio, at 2.84 to 1, is less than half of Pennsylvania's and the other comparison states.

¹¹ The inmate-to-security-staffing ratio used for the state comparison is the total institution inmate population at the end-of-the-calendar-year divided by the number of filled CO 1-2 positions at the end-of-the-calendar-year. The number of security staff used for the state comparison does not include COTs because data on the number of filled COT positions was not available for each comparison state.

Exhibit 8

Annual Total Institution Inmate Population to Security Staff Ratio*
(End of the Calendar Year)



*Total institution prison population only includes inmates held in state-run prisons and boot camps that are under the direct custody of the department of corrections and does not include parolees or inmates held in out of state prisons, federal prisons, county prisons, contract facilities, community corrections centers, or halfway houses. The number of security staff only includes Correctional Officers 1 and 2 (Sergeant) whose employment status was either active or on leave with or without pay (unassigned, disability, military leave, or leave without pay).

* Michigan: COs counted include corrections officers, corrections medical officers, and corrections medical unit officers.

Source: Developed by LB&FC staff from individual state websites and the Pennsylvania Department of Corrections.

Table 2

Annual Total Institution Inmate Population and Security Staffing Comparison (End of the Calendar Year)*

	ECY 2009	ECY 2010	ECY 2011	ECY 2012	ECY 2013	ECY 2014	2009-14 Change
Pennsylvania^a							
State Inmate Population:	49,954	46,646	48,041	48,774	49,789	48,881	-2.1
Number of Security Staff:	8,244	8,349	8,305	8,095	7,764	7,717	-6.4
Inmate-to-Staff Ratio:	6.06	5.59	5.78	6.03	6.41	6.33	3.7
Illinois^b							
State Inmate Population:	43,857	47,427	47,360	48,276	47,768	47,814	9.0
Number of Security Staff:	7,310	7,775	7,764	7,663	7,464	7,471	2.2
Inmate-to-Staff Ratio:	6.00	6.10	6.10	6.30	6.40	6.40	6.7
Michigan^c							
State Inmate Population:	45,478	44,113	42,904	43,594	43,704	43,359	-4.7
Number of Security Staff:	8,048	7,588	6,917	6,425	6,895	5,996	-25.5
Inmate-to-Staff Ratio:	5.65	5.81	6.20	6.79	6.34	7.23	28.0
New York							
State Inmate Population:	59,279	57,229	55,980	54,865	54,196	53,157	-10.3
Number of Security Staff:	20,191	20,186	19,114	18,937	18,817	18,744	-7.2
Inmate-to-Staff Ratio:	2.94	2.84	2.93	2.90	2.88	2.84	-3.4
Ohio							
State Inmate Population:	50,783	50,857	50,114	49,928	50,674	50,583	-0.4
Number of Security Staff:	7,008	7,002	6,658	6,272	6,393	6,418	-8.4
Inmate-to-Staff Ratio:	7.25	7.26	7.53	7.96	7.93	7.88	8.8
All 50 States							
State Inmate Population:	1,409,852	1,404,032	1,382,421	1,352,582	1,361,084	1,350,958	-4.2%

* Total institution prison population only includes inmates held in state-run prisons and boot camps that are under the direct custody of the department of corrections and does not include parolees or inmates held in out of state prisons, federal prisons, county prisons, contract facilities, community corrections centers, or halfway houses. Security staff only includes Correctional Officers 1 and 2 (Sergeant) whose employment status was either active or on leave with or without pay (unassigned, disability, military leave, or leave without pay).

^a Pennsylvania's number of SCI facilities includes all state prisons and Quehanna Boot Camp.

^b Illinois' number of security staff was calculated by dividing the institution inmate population by the inmate to security staff ratio.

^c Michigan's security staff counted includes corrections officers, corrections medical officers, and corrections medical unit officers.

Source: Developed by LB&FC staff from individual state websites and U.S. Department of Justice annual *Prisoners* report.

Comparing Inmate-to-Staffing Levels Is Less Than Ideal. The comparison of inmate-to-staff ratios is not, however, considered to be an appropriate approach in determining staffing needs. According to several National Institute of Corrections studies, determining staffing ratios is a complex process that requires a detailed staffing analysis for each separate facility.^{12, 13} Several factors that play a role in determining staffing levels are largely determined by the correctional philosophy governing the operation of the jail or prison. The operational philosophy of a jail or prison determines the degree of emphasis placed on each of the facility's three primary responsibilities: to provide security, safety, and service. This largely determines the level of service that will be made available for inmates, such as education, counseling, or work, and, therefore, significantly affects staffing needs.

The size and design of a jail or prison also plays a key role because larger facilities typically benefit from economies of scale, and the physical layout of the facility determines where and how many staff are needed to supervise a particular area and how much movement of inmates and staff will be required. The number of inmates versus the facility's inmate capacity and the level of security, custody level, age, gender, and mental health of the inmate population will also dictate the level of control to be exercised, and thus the number and types of staff needed. The scheduling, deployment, training, and experience of staff also determines the inmate-to-staff ratio that is needed for the secure and efficient operation of a jail or prison.¹⁴

As a result of the diverse range of factors that all play a role in determining the staffing needs of each individual facility, comparing inmate-to-staffing levels is at best only a rough measure. "Even when comparing two facilities with similar physical layouts, the same number of inmates, and the same general management philosophy, their inmate-to-staff ratios are much more likely to differ than to be alike. Because no two jails are exactly alike, it is impossible to apply a standard ratio."¹⁴

D. Despite a Decline in Inmate Population and Security Staffing, the Number of Security Hours, Especially Overtime, Have Increased¹⁵

As shown on Exhibit 9 and Table 3, since FY 2009-10, the total annual number of security hours worked has increased by 875,203 hours (6.1 percent). However, because the average number of filled security staff positions has declined

¹² Camp, C, Hardyman, P., May, R., & Camp, G. (2008). "Prison Staffing Analysis: A Training Manual." National Institute of Corrections, U.S. Department of Justice. Washington D.C.

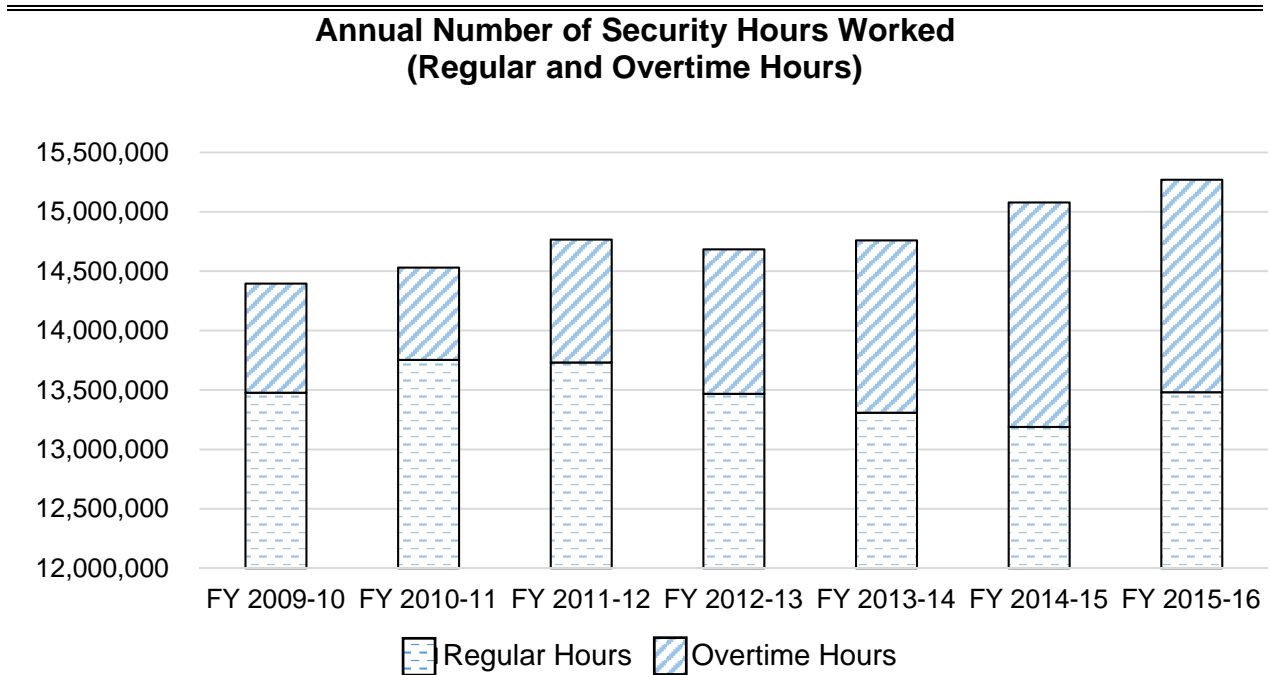
¹³ Miller, R., Wetzel, J., & Hart, J. (2016). "Jail Staffing Analysis, 3rd Edition." National Institute of Corrections, U.S. Department of Justice. Washington D.C.

¹⁴ Krauth, B. (1988). "Staff-inmate ratios: Why it's so hard to get to the bottom line." L.I.S.I. Retrieved July, 2016 from <http://nicic.gov/library/files/007105.pdf>.

¹⁵ Security hours includes the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by CO 1-2s and COT 2-4s. Overtime hours worked as half time, holiday time, or walk time was not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

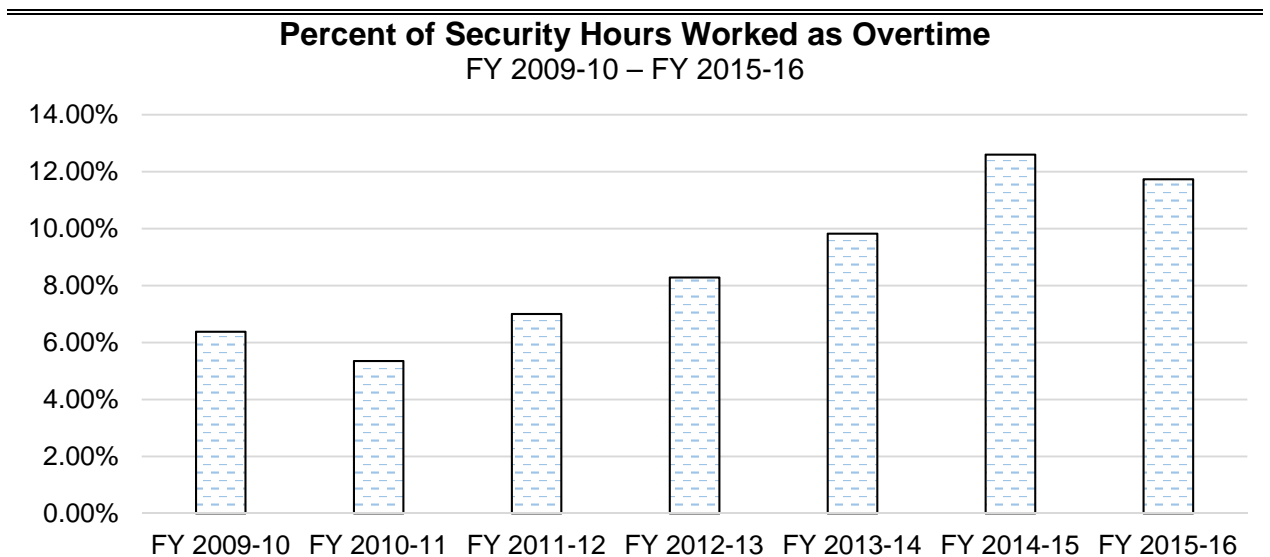
during that time period, 99.5 percent (871,141 hours) of the increase in security hours was worked as overtime. As a result, the percent of security hours worked as overtime has increased from 6.4 percent in FY 2009-10 to 11.7 percent during FY 2015-16. See Exhibit 10.

Exhibit 9



Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

Exhibit 10



Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

Table 3

Annual Number of Security Hours Worked by CO Position*
(in Thousands)

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	6-Year Change
Corrections Officer 1								
Regular Hours	11,020	11,433	11,448	11,021	10,621	10,624	10,410	-5.5%
Overtime Hours	751	637	877	1,040	1,231	1,619	1,491	98.6
Total Security Hours	11,771	12,070	12,325	12,061	11,852	12,243	11,901	1.1
Corrections Officer 2								
Regular Hours	1,833	1,826	1,830	1,801	1,796	1,757	1,792	-2.3%
Overtime Hours	137	122	146	158	193	236	235	71.0
Total Security Hours	1,970	1,949	1,976	1,959	1,988	1,994	2,027	2.9
Corrections Officer Trainee in Training Phases 2-4								
Regular Hours	625	495	454	646	895	808	1,280	104.9%
Overtime Hours	30	18	11	18	26	34	63	109.3
Total Security Hours	655	513	465	664	921	842	1,343	105.1
Total All Positions								
Regular Hours	13,477	13,754	13,732	13,468	13,312	13,190	13,481	0.0%
Overtime Hours	919	778	1,035	1,216	1,450	1,889	1,790	94.8
Total Security Hours	14,396	14,531	14,767	14,684	14,762	15,079	15,271	6.1

*Security hours include the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by security staff. Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

As also shown on Table 3, despite an increase of 192,184 security hours since FY 2014-15, the DOC reduced the number of overtime hours worked by security staff by 99,439 hours (5.3 percent). As previously mentioned, this is largely due to the increased number of COTs hired since the end of the 2014 hiring freeze. As a result of the increased hiring, the total number of security hours worked by COT 2-4s increased by 501,011 hours (59.5 percent) in FY 2015-16, with 94.1 percent (471,552 hours) of the increased hours worked at the regular hourly rate. In contrast, the total number of security hours worked by CO 1-2s decreased by 308,829 (2.2 percent) during that same time period. This includes a decline of 179,928 regular hours (1.5 percent) and 128,898 overtime hours (7.0 percent). Nonetheless, the significant increase in the demand for overtime hours has provided ample opportunity for corrections officers to volunteer for overtime hours as outlined in the DOC collective bargaining agreements.

Voluntary Overtime Provisions of the Commonwealth of PA and PA State Corrections Officers Association (PSCOA) Collective Bargaining Agreements. Article 18 of the DOC collective bargaining agreements (CBA) in place during FY 2009-10 through FY 2015-16 outlines a detailed procedure for volunteering for overtime hours and for the equalization of the overtime hours distributed, in which the DOC is required to assign overtime using a fair and equitable process between or among employees in the same job classification within each voluntary overtime unit.

As shown in Exhibit 11, COs volunteering for overtime are required to sign up for overtime in a voluntary overtime sign-up book. Upon selection of overtime volunteers, the DOC is required to begin with the most senior employee who has the least overtime hours credited. Furthermore, management must offer voluntary overtime in the order of job classification. For example, the order starts with CO-1 volunteers at the one-and-one-half hourly overtime rate, followed by CO-1s that are eligible for double-time overtime. If no CO-1 is available as a result of canvassing for volunteers, including those eligible for double-time overtime, then COT 2-4s may be selected. Lastly, CO-2 volunteers may be selected to fill a CO-1 post if no CO-1 or COT 2-4 volunteer is available for overtime.¹⁶ However, despite this detailed process, issues related to the equalization of overtime have led to grievances and arbitration.

¹⁶ There are eighteen separate local bargaining agreements that provide further stipulations on the overtime provisions.

Commonwealth of PA and PCSOA Collective Bargaining Agreements – Article 18 Overtime Provisions: Voluntary Overtime*
 (2008-2011; 2011-2014; and 2014-2017)

Voluntary Overtime	Agreement
-The employer will attempt to equalize overtime during each one-half calendar year between or among employees in the same classification within each equalization unit who have previously stated in writing a willingness to accept overtime assignments.	2008-2011 2011-2014
-The employer will assign voluntary overtime in a fair and equitable process as outlined below during each one-half calendar year between or among employees in the same job classification within each voluntary overtime unit. -Employees will express their willingness to work an overtime assignment by signing up for the specific day and specific shift they are able to work. -A voluntary overtime sign up book will be made available for each established shift at the workplace. -Employees signing up for voluntary overtime must be available to work the entire overtime opportunity. -Upon selection of overtime volunteers, the employer will begin with the most senior employee who has the least overtime credit during the one-half calendar year. -An employee declining overtime shall be credited with the overtime hours worked by the employee accepting the overtime only for credit purposes. -Management is not required to accept a volunteer who is entitled to double time overtime pay, except if there are no other one and one-half time volunteers. -Management is not required to accept a volunteer who is entitled to double time overtime pay, except if there are no other one and one-half time volunteers. -Management reserves the right to canvass (All Call) the shift for one and one-half time volunteers prior to accepting the double time volunteer. -Employees may be passed over for overtime in order to comply with the equalization requirements or when the performance of such overtime would result in the employee working three consecutive shifts. -Employees may be passed over for overtime when the performance of such overtime would result in the employee working three consecutive shifts.	2014-2017
-CO Trainees 2, 3, and 4 will only be available to work CO-1 overtime assignments when no other CO-1 is available as a result of canvassing (All Call) for volunteers, including double time volunteers.	2008-2011 2011-2014
-Management will offer overtime in the order listed below: <u>CO-1 Classification:</u> -Call CO-1 volunteers at time and a half rate of pay in order of bargaining unit seniority with the least amount of accumulated credited hours. -Conduct an all call for CO-1 time and one half volunteers on shift. -Call CO-1 volunteers eligible for double time. -Phase 2, 3 and 4 CO Trainees may accept a voluntary overtime assignment consistent with their training phase prior to mandating a CO-1. <u>CO-2 Classification:</u> -Call CO-2 volunteers at time and a half. -Conduct an all call for time a half volunteers on shift. -Call CO-2 volunteers eligible for double-time.	2014-2017

* There are eighteen separate local bargaining agreements that provide further stipulations on the overtime provisions.

Grievances and Arbitration Related to Overtime. The CBAs in place from 2001 through 2011 included the requirement that the DOC “. . . will attempt to equalize overtime during each one-half calendar year between or among employees in the same job classification within each equalization unit who have previously stated in writing a willingness to accept overtime assignments.” See Exhibit 12. Issues related to the equalization of overtime have led to grievances that resulted in payments by the DOC for overtime hours not worked by the aggrieved parties.

In a grievance arbitration involving SCI-Mahanoy, at issue was the disparity between overtime hours offered to COs in the unit and the remedy for that disparity if the Commonwealth was found to have violated the agreement by failing to “equalize” the overtime opportunities for the period January 1 through June 30, 2004. The arbitrators found that the Commonwealth had failed to equalize the overtime opportunities during that time period and sustained the grievance. The arbitration awarded each CO the overtime pay (less eight hours that was considered to be the difference for “equalized” overtime opportunities) they should have received had the overtime been equalized. As a result of this order, between 2007 and 2010, the DOC paid approximately \$3 million for hours not worked as the result of grievances related to overtime equalization.

The DOC and the PSCOA participated in interest arbitration to resolve outstanding issues related to the terms of the 2011-2014 CBA. At issue was the overtime equalization provision of the prior CBA. The panel issued an award stating that the overtime award process was intended to equalize opportunities among those who are offered overtime, but does not entitle any member of the bargaining unit to be paid for overtime not worked, nor does it provide payment to an employee for not being offered as many overtime opportunities or hours as others on the list.¹⁷

The remedy for an error in the voluntary overtime process that is validated through a grievance investigation requires a voucher for the number of overtime hours missed at the pay rate applicable to be issued to the employee. The voucher can be redeemed for work hours or, in certain cases, compensatory time.¹⁸ Between July 1, 2014, and June 30, 2016, 1,802 vouchers have been issued and approximately 60 percent have been redeemed.¹⁹

¹⁷ This decision was upheld by the Commonwealth Court.

¹⁸ An employee can choose to take a voucher as compensatory time if the voucher is due to a third or subsequent voucher in the accumulation period.

¹⁹ Vouchers expire within 120 days of the date they are issued

Exhibit 12

**Commonwealth of PA and PSCOA Collective Bargaining Agreements – Article 18
Overtime Provisions: Overtime Equalization Grievance
(2008-2011; 2011-2014; and 2014-2017)**

Overtime Equalization Grievance	Agreement
If a grievance arises prior to an agreement or an arbitration award establishing the applicable equalization unit, an arbitrator shall not award back pay due to the employer's use of the incorrect equalization unit.	2008-2011 2014-2017
<p>If an error occurs in the hiring process for voluntary overtime and is validated through a grievance investigation, the employee who was missed will receive a voucher as follows:</p> <ul style="list-style-type: none"> • The affected employee will receive an overtime voucher for the number of OT hours missed and the rate at which earned when missed (i.e., straight time, time and a half or double time). • It is clearly understood that employees will not receive pay for hours not worked and Vouchers can only be redeemed for work hours. <ul style="list-style-type: none"> ○ However, if an employee receives a third and subsequent voucher during the six month voluntary overtime period, the employee may choose to redeem the voucher for compensatory time. The compensatory time will be equal to the number of hours worked for the overtime assignment that was missed. The compensatory time may only be used as time off from work and will never be paid out. 	2014-2017

Source: LB&FC review of DOC Collective Bargaining Agreements (2008-2011; 2011-2014; and 2014-2017).

Overtime, however, continues to be an issue that is subject to grievances. In 2013, 699 grievances related to overtime were filed, in 2014, 920 grievances related to overtime were filed and in 2015, 672 grievances related to overtime were filed. As of June 30, 2016, 461 such grievances have been filed. The DOC, however, could not identify the number of these grievances related specifically to overtime equalization. Reportedly, the electronic roster management system and timekeeping software discussed in Chapter IV will automate the scheduling of overtime hours, increasing efficiency and reducing scheduling errors.

The “Vicious Cycle” of Mandatory Overtime Exacerbates the Need for Overtime Hours. Despite the detailed procedures for the equalization of voluntary overtime hours and the grievances filed, the need for overtime hours has consistently surpassed the supply of overtime volunteers at many of the SCI facilities. As a consequence, the DOC has had to assign mandatory overtime hours to meet the needs of their institutions. As outlined in Exhibit 13, the CBA specifies that “in the event there are insufficient number of volunteers, the employer has the right to assign overtime work on a non-volunteer basis.”

Since FY 2009-10, the annual number of mandatory overtime hours assigned has increased by 146,327 hours (334.3 percent), though, the DOC reduced the number of mandatory overtime hours by 38,653 during FY 2015-16. See Table 4 and Exhibit 14. Nonetheless, the use of mandatory overtime varies by facility. For example, according to SCI-Camp Hill staff, the facility has little difficulty finding volunteers for overtime hours and, therefore, only needs to mandate overtime to address serious weather conditions or to cover CO call-offs. In contrast, mandatory overtime at SCI-Coal Township is a substantial problem, although, the facility's staff noted

that there has been a reduction in the number of mandatory overtime hours assigned at the facility in the past fiscal year due to increased security staffing. This is significant because, according to SCI-Coal Township staff, excessive mandatory overtime results in poor employee morale and, therefore, increases employee turn-over and the number of CO call-offs. Furthermore, DOC Human Resources staff explained that call-offs typically occur for two consecutive days due to it only resulting in one disciplinary occurrence. Consequently, an increase in employee turn-over and call-offs results in an increased demand for overtime hours, including mandatory overtime. Therefore, the high number of mandatory overtime hours creates a vicious cycle, which exacerbates the demand for overtime hours.

Exhibit 13

Commonwealth of PA and PSCOA Collective Bargaining Agreements – Article 18 Overtime Provisions: Mandatory Overtime (2008-2011; 2011-2014; and 2014-2017)

Mandatory Overtime	Agreement
In the event there are insufficient number of volunteers, the employer has the right to assign overtime work on a non-volunteer basis.	2008-2011 2011-2014 2014-2017
The employer shall maintain a list, in bargaining unity seniority order, comprised of all employees in the same job classification within each equalization unit. <ul style="list-style-type: none"> • Mandatory overtime shall be assigned to the least senior employee on the list who has not had a mandatory overtime assignment. • Once an employee has been assigned mandatory overtime, the employee will be taken off the mandatory list until all employees above the employee on the list have either been assigned mandatory overtime or have been excused for good and sufficient reasons, regardless of the number of hours of overtime worked or length of time between mandatory overtime assignments. • There shall be no requirement to equalize mandatory overtime. • Mandatory overtime shall not be included in the hours calculated to equalize voluntary overtime. 	2008-2011 2011-2014 2014-2017
Any overtime worked for Special Team training or activation will not be considered voluntary overtime for the purposes of assigning mandatory overtime.	2014-2017

Source: LB&FC review of DOC Collective Bargaining Agreements (2008-2011; 2011-2014; and 2014-2017).

Table 4

Annual Number of Voluntary and Mandatory Overtime Hours Assigned

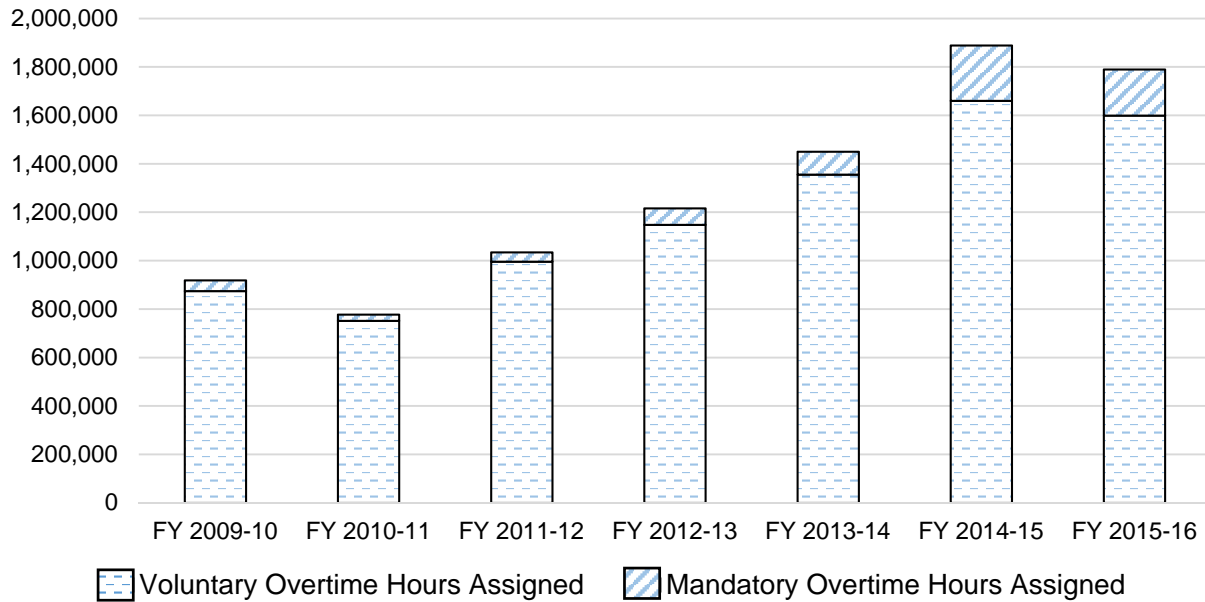
Fiscal Year	Total Overtime Hours Worked	Voluntary Overtime Hours Assigned	Mandatory Overtime Hours Assigned	Percent of Total Overtime Hours Mandated
FY 2009-10	918,555	874,786	43,769	4.8%
FY 2010-11	777,541	751,391	26,150	3.4
FY 2011-12	1,034,570	996,157	38,413	3.7
FY 2012-13	1,216,274	1,147,819	68,455	5.6
FY 2013-14	1,450,156	1,355,630	94,526	6.5
FY 2014-15	1,889,135	1,660,386	228,749	12.1
FY 2015-16	1,789,696	1,599,600	190,096	10.6
6-Year Change	94.8%	82.9%	334.3%	122.9%

Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

Exhibit 14

Annual Voluntary and Mandatory Overtime Hours

FY 2009-10 – FY 2015-16



Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

The Negative Impact of Overtime. The significant increase in the demand for overtime hours, exacerbated by mandatory overtime, has provided ample opportunity for COs to volunteer for a significant number of overtime hours. However, within the last 25 years, an increasing body of research has found that both overtime and extended work shifts adversely affect the health, safety, and performance of workers.

In 2004, the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health performed a meta-analysis of 52 research reports, including one meta-analysis, which focused on overtime and/or extended work shifts.²⁰ Their findings indicated that several studies have associated both overtime and extended work schedules with an increased risk of hypertension, cardiovascular disease, fatigue, stress, depression, musculoskeletal disorders, chronic infections, diabetes, general health complaints, increased mortality, poor health behaviors, workplace accidents, and poor performance from workers. The report did note that some reports, though few, did not find an association between overtime and health risks.²¹

²⁰ Caruso, C. C., Hitchcock, E. M., Dick, R. B., Russo, J. M., & Schmit, J. M. (2004). Overtime and extended work shifts: recent findings on illnesses, injuries, and health behaviors. DHHS (NIOSH) Publication, (2004-143), p. 13.

²¹ The 52 reports reviewed included the following: twenty-nine studies and one meta-analysis examined the impacts of overtime; twelve field studies and three laboratory studies examined the effects of working extended shifts; six field studies examined the effects of extended work shifts combined with overtime; and three studies examined working very long shifts.

The impact of overtime on a worker's ability to perform their duties is especially important for security staff. For example, restrictive housing, sometimes called administrative segregation or solitary confinement, is used by correctional administrators to manage disruptive offenders within their facilities by physically removing inmates from the general population of a prison, separating them from other inmates, and imposing significant restrictions on their movement, behavior, and privileges. The purpose of these Restrictive Housing Units (RHU) is to: maintain control of the correctional facility; prevent violence from occurring; protect inmates who may be in danger; reduce gang violence; and control inmates who are an escape risk.²² As such, for the safety of the inmates, the security staff, and the surrounding communities, it is vital that the security staff that are assigned to RHUs are able to perform their assigned duties to the best of their abilities.

During our tour of SCI-Coal Township, we briefly interviewed four COs who were assigned to an RHU and asked if working overtime hours had a negative impact on their ability to perform their duties. All four COs agreed that consistently working overtime hours definitely affected their cognitive functions, response times, and their decision-making abilities. However, they did note that occasionally working overtime had little to no negative effect.

²² Kane, M., Pierce, B., & Haynes, M. (2013). Restrictive housing FAQ.

III. Overtime Increases Both DOC SCI Personnel Costs and Commonwealth Pension Costs

A. The Costs of Security Hours Have Increased Since FY 2009-10¹

In addition to the increased number of security hours worked each year, increases in the average hourly rates of CO 1-2s and COTs have also contributed to the \$97.6 million increase in the costs of the security hours worked since FY 2009-10. Without adjusting for inflation, since FY 2009-10, the average hourly rate has increased by 21.3 percent for CO-1s, by 17.0 percent for CO-2s, and by 10.3 percent for COTs. See Table 5. As a result, since FY 2009-10 the annual cost for regular wages for CO 1-2s and COT 2-4s has increased by \$54.4 million (17.9 percent increase) and the cost for overtime wages has increased by \$43.2 million (136.4 percent increase). Although the cost of overtime wages increased from \$31.7 million in FY 2009-10 to \$74.9 million in FY 2015-16, the \$74.9 million is a \$3.0 million decrease from the prior year. See Table 6.

Benefit rates, particularly workers' compensation and retirement contributions, have also increased during this time period. When including the costs of the variable benefits, the annual costs of the regular wages and variable benefits for CO 1-2s and COT 2-4s have increased by \$149.5 million (41.6 percent increase) and the cost for overtime has increased by \$68.4 million (185.3 percent increase), a total increase of \$217.9 million.² See Table 7 and Exhibit 15. However, this does not include fixed benefits costs, such as health and life insurance, nor does it account for the increased pension costs as a result of the overtime hours worked by COs approaching retirement. Total costs to the Commonwealth, therefore, are considerably higher.

Table 5

Average Regular Hourly Rate by Position*								
(FY 2009-10 - FY 2015-16)								
Position	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	6-Year Change
CO-1	\$22.04	\$23.25	\$23.17	\$24.60	\$25.26	\$26.25	\$26.73	21.3%
CO-2	27.85	29.36	29.19	30.49	30.89	32.22	32.58	17.0
COT	15.37	16.00	15.95	16.10	16.39	16.76	16.96	10.3

* The hourly rates were calculated as the total cost of the regular hours worked divided by the number of regular hours worked, but the hourly rates were not adjusted for inflation.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

¹ Security hours includes the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by corrections officers 1 and 2 (CO 1-2s) and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s). Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

² Variable benefits, meaning benefits whose cost varies by the gross amount in an employee's paycheck, include Social Security, Medicare, Worker's Compensation, Leave Payout, and Pension. Leave Payout is not included in the costs of overtime hours.

Table 6

Annual Wage Costs of Security Hours*
(FY 2009-10 - FY 2015-16)
(\$ Millions)

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	6-Year Change
Corrections Officer 1 (CO-1)								
Regular Hours	\$242.9	\$265.9	\$265.3	\$271.1	\$268.3	\$278.8	\$278.3	14.6%
Overtime Hours^a	25.2	22.1	30.6	40.1	47.4	65.3	61.4	144.0
Total Security Hours	\$268.1	\$287.9	\$295.9	\$311.2	\$315.7	\$344.1	\$339.7	26.7%
Corrections Officer 2 (CO-2)								
Regular Hours	\$51.0	\$53.6	\$53.4	\$54.9	\$55.5	\$56.6	\$58.4	14.3%
Overtime Hours^a	5.8	5.4	6.5	7.6	9.1	11.7	11.8	103.1
Total Security Hours	\$56.8	\$59.1	\$59.9	\$62.5	\$64.5	\$68.3	\$70.1	23.4%
Corrections Officer Trainee in Training Phases 2-4 (COT 2-4)								
Regular Hours	\$9.6	\$7.9	\$7.2	\$10.4	\$14.7	\$13.0	\$21.3	122.2%
Overtime Hours^a	.7	.4	.3	.4	.6	.9	1.7	138.9
Total Security Hours	\$10.3	\$8.4	\$7.5	\$10.8	\$15.3	\$13.8	\$23.0	123.4%
Total - All CO 1-2 and COT 2-4 Positions								
Regular Hours	\$303.6	\$327.4	\$326.0	\$336.4	\$338.4	\$348.4	\$358.0	17.9%
Overtime Hours^a	31.7	28.0	37.3	48.2	57.2	77.8	74.9	136.4
Total Security Hours	\$335.2	\$355.4	\$363.3	\$384.5	\$395.6	\$426.2	\$432.8	29.1%

* Variable and fixed benefit costs are not included in the calculations.

^a Overtime costs only includes overtime worked at the straight time, one-and-one-half time, and double time overtime hourly rates.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Table 7

Annual Wage and Variable Benefit Costs of Security Hours*
(FY 2009-10 - FY 2015-16)
(\$ Millions)

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	6-Year Change
Corrections Officer 1 (CO-1)								
Regular Hours	\$287.4	\$314.5	\$323.3	\$342.3	\$351.7	\$382.6	\$396.9	38.1%
Overtime Hours^a	29.3	25.7	36.8	50.0	61.4	88.4	86.5	194.9
Total Security Hours	\$316.7	\$340.3	\$360.2	\$392.4	\$413.1	\$471.0	\$483.4	52.6%
Corrections Officer 2 (CO-2)								
Regular Hours	\$60.4	\$63.4	\$65.1	\$69.4	\$72.7	\$77.7	\$83.2	37.8%
Overtime Hours^a	6.8	6.3	7.8	9.5	11.7	15.8	16.6	145.4
Total Security Hours	\$67.2	\$69.8	\$72.9	\$78.8	\$84.5	\$93.5	\$99.8	48.7%
Corrections Officer Trainee in Training Phases 2-4 (COT 2-4)								
Regular Hours	\$11.4	\$9.4	\$8.6	\$12.7	\$18.4	\$16.8	\$28.5	151.3%
Overtime Hours^a	.8	.5	.3	.5	.8	1.1	2.2	170.5
Total Security Hours	\$12.2	\$9.9	\$9.0	\$13.2	\$19.2	\$17.9	\$30.7	152.5%
Total - All CO 1-2 and COT 2-4 Positions								
Regular Hours	\$359.2	\$387.3	\$397.1	\$424.4	\$442.8	\$477.1	\$508.7	41.6%
Overtime Hours^a	36.9	32.6	44.9	60.0	73.9	105.3	105.3	185.3
Total Security Hours	\$396.1	\$419.9	\$442.0	\$484.4	\$516.7	\$582.3	\$613.9	55.0%

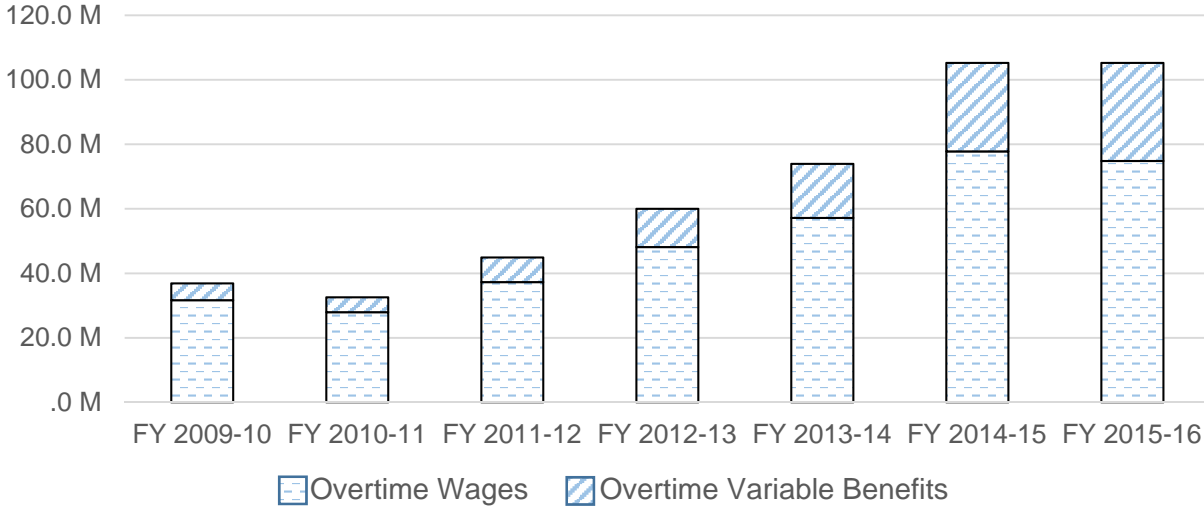
* Fixed benefits costs are not included in the calculations.

^a Overtime costs only includes overtime worked at the straight time, one-and-one-half time, and double time overtime hourly rates.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Exhibit 15

**Annual Wage and Variable Benefit Costs of Security Hours Worked As Overtime
(FY 2009-10 - FY 2015-16)**



Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

B. Historical Comparison of the Top Ten Overtime Earning Corrections Officers

As previously noted, the high demand for overtime hours provides COs with ample opportunity to volunteer for a large number of overtime hours each year. For those approaching retirement, working overtime within their last three years of employment offers the ability to significantly increase their future pension benefits. The average age of the top ten overtime earning COs for the last seven fiscal years was 51.1 years old, with an average of 18 years of service.³ Since FY 2009-10, 35 of the 42 top ten overtime earning COs have retired. However, neither we, nor DOC officials, have been able to identify any factors that would indicate that less senior COs would pass up the opportunity to volunteer for overtime hours to allow those approaching retirement to do so.

We reviewed the overtime hours worked and the costs of the wages and benefits of the top ten overtime earning COs in each of the last seven fiscal years and found that the total number of overtime hours worked by all ten combined has increased by over 9,000 overtime hours (83.5 percent) since FY 2009-10. This substantial increase in the number of overtime hours worked per year has resulted in the combined total annual wages and benefits of the top ten overtime earning COs to increase by more than \$1.2 million (90.3 percent). See Table 8.

³ Corrections officers hired prior to January 1, 2011, are eligible for full retirement benefits at the age of 50-years-old with 20 years of service.

Table 8

Overtime Hours, Wages, and Benefit Costs of the Top Ten Overtime Earning COs
(FY 2009-10 - FY 2015-16)

Fiscal Year	Overtime Hours	Wages (Regular and Overtime)	Wages and Benefits^a
FY 2009-10	10,788	\$1,052,763	\$1,376,197
FY 2010-11	8,898	1,059,526	1,389,475
FY 2011-12	11,754	1,112,972	1,494,941
FY 2012-13	16,958	1,402,937	1,917,081
FY 2013-14	17,020	1,465,692	2,060,388
FY 2014-15	20,643	1,659,832	2,432,261
FY 2015-16	19,791	1,733,089	2,618,654
6-Year Change	83.5%	64.6%	90.3%

^a Wages and benefits include regular and overtime wages, shift differential, paid leave, Social Security, Medicare, worker's compensation, leave payout, retirement, life insurance, and health insurance.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Additionally, we reviewed the number of overtime hours worked by the single top overtime earning CO for each of the last seven fiscal years and found that the total number of overtime hours worked has increased by 1,454 overtime hours (128.8 percent) since FY 2009-10. This considerable increase in the number of overtime hours worked in one year by a single CO has resulted in the total annual wages and benefits of the top overtime earning CO to increase by more than \$145,000 (98.1 percent). See Table 9.

Table 9

Overtime Hours, Wages, and Benefit Costs of the Top Overtime Earning CO
(FY 2009-10 - FY 2015-16)

Fiscal Year	Overtime Hours	Wages (Regular and Overtime)	Wages and Benefits^a
FY 2009-10	1,129	\$114,557	\$148,149
FY 2010-11	1,080	114,779	149,385
FY 2011-12	1,415	122,716	163,259
FY 2012-13	2,542	188,717	250,846
FY 2013-14	2,217	193,814	259,268
FY 2014-15	2,678	199,871	288,621
FY 2015-16	2,583	197,295	293,412
6-Year Change	128.8%	72.2%	98.1%

^a Wages and benefits include regular and overtime wages, shift differential, paid leave, Social Security, Medicare, worker's compensation, leave payout, retirement, life insurance, and health insurance.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

We calculated that the same top overtime earning CO for the last two fiscal years has worked an average of 101.7 hours per week during FY 2014-15 and 97.4 hours per week during FY 2015-16.⁴ To assess this possibility, we randomly selected a single bi-weekly pay period (8/2/2015 – 8/15/2015) for the top overtime earning CO during FY 2015-16 and found that the CO worked a total of 216 hours during that two-week pay period. That equates to working the equivalent of 5.4 40-hour work weeks within a two-week period. Consequently, the same top overtime earning CO for the past two years worked almost 2,700 overtime hours with combined wages and benefits of over \$288,000 during FY 2014-15 and 2,600 overtime hours with combined wages and benefits of over \$293,000 in FY 2015-16, making the CO-1 the highest paid employee of the DOC for two consecutive years.⁵

The Impact of Overtime on the Commonwealth’s Pension Costs. In addition to the rising costs of overtime and the negative impact of working overtime, the substantial number of overtime hours worked by COs approaching retirement has resulted in further increasing the costs of pension benefits. According to staff from the State Employees’ Retirement System (SERS), of the 240 CO 1-2s that retired during FY 2015-16, the agency was able to identify 191 COs with a higher Final Average Salary (FAS) than their final annual salary. This is significant because the FAS reflects a three-year average salary, which, without overtime, would be less than the final annual salary.

As shown in Table 10, the increased FAS for the 191 COs averaged \$84,103 per CO, \$14,033 above their final salaries that averaged \$70,070. When factoring in their average of 25.6 years of service, this translates into \$51,600 in annual retirement annuity payments per CO under the Maximum Single Life Annuity (MSLA) option, \$8,616 more than if their FAS equaled their final salary. Additionally, a CO retiring with an FAS equal to the gross income of the top overtime earning CO during FY 2015-16, would receive \$98,724 in annual retirement annuity payments, \$55,741 more than if their FAS equaled the final salary of \$70,070. See Table 11.

As demonstrated in Table 12, the \$8,616 in additional annual retirement annuity payments per CO equates to more than \$1.6 million per year for all 191 COs combined. With an average retirement age of 55.7 years during FY 2015-16 and an average life expectancy of 82.7 years, the pension benefits of the 191 COs that retired during FY 2015-16 with a higher FAS than their annual salary are estimated to cost the Commonwealth an additional \$44.5 million over their expected lifetime due to the overtime hours worked.⁶

⁴ The number of weeks actually worked per year was determined by dividing the total number of security hours worked at the regular rate by the CO per fiscal year by 40 hours per week.

⁵ The total wages earned by the top overtime earning CO was \$199,871 during FY 2014-15 and \$197,295 during FY 2015-16. This calculation does not include the costs of benefits.

⁶ The 82.7 years life expectancy for a 55.7-year-old male retiring during FY 2015-16 was calculated with the U.S. Social Security Administration’s life expectancy calculator.

Table 10

Pensions Costs Per CO Using Final Salary and Final Average Salary as Basis*

	Final Salary	Final Average Salary	Difference
Salary Calculated	\$ 70,070	\$ 84,103	\$ 14,033
Annual MSLA Payments	42,983	51,600	8,616
Lifetime MSLA Payments ^a	1,162,260	1,395,264	233,004

* Calculations per CO are based on the average final salary and Final Average Salary (FAS) of the 191 COs that retired during FY 2015-16 with a higher FAS than their final salary.

^a The 82.7 years life expectancy for a 55.66-year-old male retiring during FY 2015-16 was calculated with the U.S. Social Security Administration's life expectancy calculator.

Source: Developed by LB&FC staff from data provided by the State Employees' Retirement System (SERS).

Table 11

Pensions Costs Per CO Using Final Salary, Final Average Salary, and FY 2015-16 Top Overtime Earning COs Salary*

	Salary	Maximum Monthly Benefit	Maximum Annual Benefits	Lifetime Pension Cost^a
Final Salary	\$ 70,070	\$3,582	\$42,983	\$1,162,260
Final Average Salary	84,103	4,300	51,600	1,395,264
FY 2015-16 Top Overtime Earning CO Salary	197,295	8,227	98,724	2,669,497

* Calculations per CO are based on the average final salary and Final Average Salary (FAS) of the 191 COs that retired during FY 2015-16 with a higher FAS than their final salary.

^a The 82.7 years life expectancy for a 55.66-year-old male retiring during FY 2015-16 was calculated with the U.S. Social Security Administration's life expectancy calculator.

Source: Developed by LB&FC staff from data provided by the State Employees' Retirement System (SERS).

Table 12

Combined Pension Costs for the 191 COs in Sample*

	Final Salary	Final Average Salary	Difference
Salary	\$ 70,070	\$ 84,103	\$ 14,033
Combined Annual MSLA Payments	8,209,753	9,855,600	1,645,847
Combined Lifetime MSLA Payments ^a	221,991,721	266,495,424	44,503,703

* Calculations per CO are based on the average final salary and Final Average Salary (FAS) of the 191 COs that retired during FY 2015-16 with a higher FAS than their final salary. Calculated costs per CO were multiplied by the sample size for the combined total (191 COs).

^a The 82.7 years life expectancy for a 55.66-year-old male retiring during FY 2015-16 was calculated with the U.S. Social Security Administration's life expectancy calculator.

Source: Developed by LB&FC staff from data provided by the State Employees' Retirement System (SERS).

IV. Update of the Auditor General's 2012 Special Performance Audit of the Department of Corrections

In October 2012, the Pennsylvania Department of the Auditor General (DAG) issued a performance audit report on the Department of Corrections (DOC) that found weaknesses in the recording of payroll expenditures and the retention of appropriate payroll and attendance records, and inadequate monitoring and evaluation of potentially excessive overtime within various state correctional institutions (SCI) and the community correction centers.¹ In the report, DAG made five recommendations for the DOC:

- Adhere to its existing policies and procedures in the Human Resources and Labor Relations Procedures Manual related to the approval of shift commander rosters at the SCIs;
- implement policies and procedures requiring record retention for all payroll related documentation, including the retention of shift commander rosters and STD-330 forms;
- implement adequate controls for secondary/supervisory review of information entered into the payroll operating system by the timekeepers to ensure accuracy and completeness of the information;
- improve the monitoring of overtime to ensure that all overtime charges can be substantiated and that regular time charges coincide with all overtime charges for each employee; and
- consider hiring additional corrections officers (CO) as a way to reduce overtime charges and effectively make DOC operations more cost effective in the process, including reducing the Commonwealth's future pension obligation as occurs with employees "spiking" their overtime charges.

In its response to the 2012 DAG report, the DOC generally agreed with the findings and stated that DOC Policy 4.1.1 Section 16, Overtime was being revised to include a retention schedule and specify requirements for rosters to be reviewed and approved by management. The DOC also noted that the agency was pursuing a full-time evaluation solution that will automate the collection of work time data and roster management with a system of controls between the scheduled roster and time actually worked. It was noted that implementation for this software program was anticipated for early 2013 and should reduce overtime usage.

¹ Pennsylvania. Department of the Auditor General. *A Special Performance Audit of the Department of Corrections: Inefficiencies Further Strain Budget and Retirement Funds of Commonwealth*. October, 2012. www.paauditor.gov/Media/Default/Reports/depdepartmentofcorrections101512.pdf

However, the agency disagreed that the DOC failed to monitor excessive overtime pay because each institution constantly monitors overtime usage with bi-weekly overtime alert reports and, centrally, the Bureau of Administration tracks overtime expenditures and issues monthly overtime monitoring reports. If actual overtime expenditures are projected to exceed budgets by 20 percent, the institutions are asked to provide justifications for their overtime expenditures exceeding their budget allotment and to submit plans to reduce future overtime payments.

Furthermore, in reference to the recommendation for hiring additional COs, the DOC stated that the CO complement is determined by security manpower surveys where staff visit the SCIs and reviews the requirements for CO posts. These surveys are then carefully reviewed by management to determine the number of posts. The DOC then adds a relief factor to the number of posts to determine the need for complement. The relief factors are reviewed periodically for changes in leave usages, training days, etc. According to the DOC, the relief factor does not account for short term absences related to call offs, inmate escorts, hospital trips, military activations, construction, and other short-term posts that create the need for overtime, noting that it was not prudent to hire full-time staff to address temporary situations.²

DOC Revised Its Human Resources and Labor Relations Procedures Manual. DOC Policy 4.1.1 Section 16, Overtime was revised two years after the 2012 DAG report to include a retention schedule and to specify requirements for rosters to be reviewed and approved by management.³ See Exhibit 16. For that reason, we reviewed the Daily Shift Commander's Reports at two of the 26 SCI facilities, SCI-Coal Township and SCI-Camp Hill, for two separate bi-weekly pay periods in December 2015 and June 2016.

At SCI-Coal Township, we reviewed the daily shift rosters for the DOC's top overtime earning CO during FY 2015-16 and two other corrections officer 1s (CO-1) randomly selected from a complete list of all CO-1s employed at SCI-Coal Township during FY 2015-16. We found that the revised policies and procedures were being followed and that the number of regular and overtime hours manually recorded in the daily shift rosters matched the payroll data.

However, despite the SCI facility maintaining timeclocks and a biometric sign-in system called the Identification Verification System (IDVS), neither system is used to track and/or monitor the actual time worked by COs. According to the DOC, the timeclocks at SCI-Coal Township are only used to track the number of

² In January 2017, the Department of the Auditor General published a performance audit of the Pennsylvania State Correctional Institution (SCI) Waymart, which found that a lack of sufficient corrections officer staffing led to excessive amount of paid overtime and that deficiencies in SCI-Waymart's timekeeping process resulted in overpaying overtime to two corrections officers.

³ Pennsylvania Department of Corrections. 4.1.1, Human Resources and Labor Relations Procedures Manual Section 16, Overtime.

walk-time hours to be paid, and the purpose of IDVS is to monitor which staff are inside the secure perimeter at any given time in case of an emergency, not to track hours worked.⁴ However, IDVS was found to be inconsistently used by COs and, therefore, fails to achieve this purpose due to the inaccuracies created by its inconsistent use.

Exhibit 16

**4.1.1, Human Resources and Labor Relations Procedures Manual
Section 16 – Overtime (Revised January 6, 2015)**

Section	Provision
16 B(5)	The Shift Commanders shall schedule overtime work for Corrections Officers through the completion of the standard duty rosters for their shifts, which shall be reviewed and approved by the Major of the Guard.
16 B(6)	Source documentation of overtime authorized for processing will be maintained for seven years.
16 D(1)	All overtime and absences shall be recorded via daily attendance roster or overtime report extracted from the daily attendance rosters. Each roster or report shall be approved by the Shift Commander by electronic acknowledgement or physically initialing and dating the form. The approved roster or report with corresponding STD-330, Request for Leave Slips will be submitted to the Timekeeper as the source documents for entry into SAP.
16 E(1)	Each leave calendar quarter (as defined in Management Directive M530.7 Amended, Absence Program; Appendix B; Definitions) the Time Advisor will perform a post audit of Timekeeper entries made in SAP. This post audit will be performed on a random selection of five employee records that contain overtime.
16 E(2)	For non-ESS employee records, the Time Advisor will compare the information for the pay period found on the source documents in accordance with Subsection D. above. The Time Advisor will verify all overtime attendances and absences have been entered and that overtime entitlement has been allocated accurately.
16 E(5)	The Timekeeper Entry Audit Form (Attachment 16-A) will be completed by the Time Advisor for each Timekeeper each leave calendar quarter. The Time Advisor will follow up with the Timekeeper regarding any discrepancies discovered during the review and annotate the corrective actions taken on the form.
16 E(6)	The facility's Human Resource Office will initial the completed audit form. The original audit form will be maintained by the Time Advisor for seven years (with copies of applicable source documents). The Timekeeper and the Timekeeper's supervisor will receive a copy of the packet. Retention of the copies will be at the discretion of the recipients.
16 E(7)	The facility Human Resource Office will scan and email the audit form to the CR, CEN Transactions resource account no later than four weeks after the quarter ends.
16 E(8)	Central Office will review audits and make recommendations for improving the timekeeping process.

Source: Pennsylvania Department of Corrections. 4.1.1, Human Resources and Labor Relations Procedures Manual Section 16, Overtime.

At SCI-Camp Hill, we reviewed the daily shift rosters for 18 CO-1s randomly selected from a complete list of all CO-1s employed at SCI-Camp Hill during FY

⁴ Corrections officers are paid for walk-time, the time it takes to walk from their post to the facility's exit.

2015-16.⁵ Similar to SCI-Coal Township, we found that the revised policies and procedures were being followed and that the number of regular and overtime hours manually recorded in the daily shift rosters matched the payroll data.

Although, SCI-Camp Hill does not have timeclocks like SCI-Coal Township, instead, the facility uses IDVS to track walk-time in addition to monitoring which staff are inside the secure perimeter at any given time in case of an emergency. Similar to our findings at SCI-Coal Township, IDVS was found to be inconsistently used, with some senior staff requiring COs to scan in outside the perimeter while others do not. Nonetheless, by comparing the scan times recorded in the IDVS to the times manually recorded in the staffing rosters and payroll system, we found several inconsistencies including a CO-1 who was paid a half hour of overtime on two separate days within the same bi-weekly pay period for time that was not actually worked.⁶ As noted in the 2012 DAG report, relatively small inaccuracies in the number of hours paid, given the large number of employees, could result in significant over or under payment. However, without an accurate and consistently used time tracking system, making this determination would be very difficult. As of January 2017, a few SCI facilities use either timeclocks or IDVS for time tracking purposes, however, most manually enter the hours worked on the daily shift rosters.

DOC Use of Time Tracking and Roster Management Software. In its response to the 2012 DAG report, the DOC stated that the agency was pursuing time tracking and roster management software that would reduce overtime usage and that its implementation was anticipated for early 2013. However, there is no timekeeping and/or roster management software being used at this time. We were informed by DOC staff that the software was just an idea at the time of the DAG report.

The DOC is currently pursuing the purchase and implementation of an electronic roster management system called Telestaff, which will interface with the new timekeeping software, Kronos - Workforce Timekeeper. The purpose of Telestaff is to automate the scheduling of COs during their regular shifts and for overtime hours when needed. COs will manually sign up for overtime hours through the Telestaff system, which will automate calls to overtime volunteers when overtime hours are needed. According to DOC staff, the automation of the scheduling process will increase efficiencies through the reduction in human error during the scheduling process and the time spent on scheduling, and the new software will adhere to the main and local collective bargaining agreements for overtime equalization, thereby reducing overtime grievances.

⁵ One of the CO-1s did not work during December 2015, so a bi-weekly pay period in January 2016 was selected.

⁶ Most of the inconsistencies at SCI-Camp Hill were explained as COs on security posts outside of the secure perimeter.

Kronos - Workforce Timekeeper, the timekeeping software being implemented statewide for DOC by the Office of Administration (OA), is designed to track the actual time worked by employees and to directly report to SAP, the electronic payroll system. According to DOC staff, new Kronos timekeeping punch clocks will be installed at all SCI facilities, and all COs will be required to punch in and out for timekeeping purposes. However, supervisors will have to manually monitor and report the hours worked for COs assigned to duties outside of the secure perimeter.

According to DOC staff, Telestaff was tested in November 2016 but the test failed due to several errors in the scheduling. However, the DOC plans to test pilot a partial version of Telestaff at SCI-Laurel Highlands in August 2017, though, the test pilot will only be executed in a training capacity so that COs may practice using the system and to test for errors. The Telestaff system will not be fully automated and will still require manual entries and phone calls to overtime volunteers. Thereafter, SCI-Somerset is scheduled to begin testing the pilot version in November/December 2017, but there is no date set at this time for its full implementation.

The DOC's Use of Bi-Weekly Overtime Alert Reports and Overtime Justification Reports. In response to the report's findings that the DOC failed to monitor excessive overtime pay, the agency stated that each institution constantly monitors overtime expenditures through bi-weekly overtime alert reports and, centrally, the Bureau of Administration tracks overtime expenditures and issues monthly overtime monitoring reports. These reports require the institutions that are projected to exceed their overtime budget by 20 percent to provide justifications and plans to reduce their future overtime expenditures. However, bi-weekly overtime alert reports do not appear to be consistently used by the SCIs. Furthermore, although the DOC has consistently generated monthly and annual overtime monitoring reports, the DOC did not require the SCI facilities to submit overtime justification reports prior to July 2016. As a result, the DOC was only able to provide us with annual overtime justification reports for FY 2015-16.

Nonetheless, the annual overtime monitoring report for FY 2015-16 highlighted the facilities that exceeded their budgeted overtime and holiday compensation expenditures.⁷ As shown on Table 13, 22 of the 26 SCI facilities exceeded their budgeted overtime and holiday compensation expenditures during FY 2015-16, with 13 of the SCI facilities and the Community Corrections Centers exceeding their budgeted amount by over 20 percent.⁸ While the DOC reduced their overall overtime and holiday expenditures by almost \$5.9 million in comparison to FY 2014-15, the nearly \$99.7 million in expenditures exceeded the \$80.0 million budgeted for overtime and holiday compensation expenditures for all DOC institutions by 24.6 percent.

⁷ The DOC monthly and annual overtime monitoring reports provided combine overtime and holiday compensation expenditures.

⁸ The Community Corrections Centers were not included in our analysis.

Table 13

Overtime and Holiday Compensation - Expenditures Versus Budgeted*
 FY 2015-16
 (\$ Thousands)

Facility	Budgeted	Overtime/Holiday Expenditures	Dollar Difference	Percent Difference
Central Office	\$ 111,000	\$ 92,190	\$ 18,810	-17.0%
Albion	3,174,000	3,891,991	-717,991	22.6
Benner	2,852,000	3,750,538	-898,538	31.5
Cambridge Springs	2,110,000	2,100,948	9,052	-0.4
Camp Hill	4,626,000	5,605,524	-979,524	21.2
Chester	3,834,000	3,695,365	138,635	-3.6
Coal	3,585,000	3,960,065	-375,065	10.5
Dallas	3,944,000	4,584,840	-640,840	16.3
Fayette	2,823,000	4,357,720	-1,534,720	54.4
Forest	2,990,000	5,025,061	-2,035,061	68.1
Frackville	2,025,000	2,149,163	-124,163	6.1
Graterford	5,527,000	6,282,320	-755,320	13.7
Greene	3,641,000	5,712,615	-2,071,615	56.9
Houtzdale	2,795,000	4,271,022	-1,476,022	52.8
Huntingdon	2,488,000	3,105,297	-617,297	24.8
Laurel Highland	2,027,000	3,046,527	-1,019,527	50.3
Mahanoy	2,677,000	3,240,402	-563,402	21.1
Mercer	2,249,000	2,436,125	-187,125	8.3
Muncy	3,797,000	4,453,731	-656,731	17.3
Pine Grove	1,606,000	1,344,921	261,079	-16.3
Pittsburgh	6,033,000	8,532,444	-2,499,444	41.4
Quehanna	,758,000	447,100	310,900	-41.0
Retreat	1,447,000	2,135,388	-688,388	47.6
Rockview	3,182,000	3,427,718	-245,718	7.7
Smithfield	2,578,000	2,781,263	-203,263	7.9
Somerset	3,090,000	4,364,457	-1,274,457	41.2
Waymart	2,953,000	3,029,048	-76,048	2.6
Community Corrections^a	1,078,000	1,848,840	-770,840	71.5
Institutional Total	\$80,000,000	\$99,672,626	-\$19,672,626	24.6%

* Annual overtime report based on 26.2 pays posting & includes holiday compensation expenditures.

^a Community Corrections Centers were not included in our analysis.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

V. Employee Leave Contributes to Overtime, but the Rising Demand for Inmate Medical and Mental Health Services Has Increased Security Staffing Needs

According to Department of Corrections (DOC) officials and the majority of the overtime justification reports submitted for FY 2015-16, an increased demand in inmate medical and mental health services and employee leave have been the major factors in the increased security staffing needs of the DOC. Without adequate staffing to meet those needs, the DOC has had to rely on assigning overtime hours.

A. Review of the Overtime Justification Reports for FY 2015-16

The FY 2015-16 overtime justification reports submitted by the 13 SCI facilities that exceeded their budgeted overtime and holiday compensation expenditures by more than 20 percent, cited 16 explanations for exceeding their budgeted overtime. As shown on Exhibit 17, we categorized these explanations as an Increased Demand in Services, Staffing Shortages, Scheduled and Unscheduled Leave, and Other.

DOC officials and the 13 SCI facilities that provided overtime justification reports for FY 2015-16 cite insufficient security staffing, largely due to an increased demand in medical and mental health services, overdue security manpower surveys, vacancies exacerbated by hiring freezes and employee turnover, corrections officers (CO) on detached assignments, the number of prescheduled and unscheduled leave days taken, and training requirements as the primary causes of the increased number of overtime hours worked since FY 2009-10.

A Statistical Analysis of the Increasing Overtime Hours.¹ We performed a regression analysis of the explanations provided by DOC staff and the 13 overtime justification reports submitted, and determined that there was a statistically significant relationship between the increased demand in inmate mental health services, insufficient inmate-to-security-staff levels, and the number of security staff on disability and leave without pay with the number of overtime hours worked by security staff since September 2009.² Furthermore, the effect was found to be very large, with 76 percent of the variation in the number of overtime hours worked explained. Unfortunately, measurable data on the increased medical needs of the aging inmate

¹ In statistical modeling, regression analysis is a statistical process for estimating the strength of relationships among variables. See Appendix B for a detailed data and methodology statement.

² Security staff includes corrections officers 1 and 2 (CO 1-2) and corrections officer trainees (COT 2-4). Security hours include the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by security staff. Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

population was not available for this analysis. Nonetheless, these results substantiate the claims made by DOC officials and the 13 overtime justification reports. See below and Chapter VI for further analysis.

Exhibit 17

FY 2015-2016 – Overtime Justification Reports*

Facilities	Explanation for Excessive Overtime Exceeding 20 Percent
	Increased Demand in Services
10	Medical transports
9	Hospital posts
3	Mental health requirements
	Staffing Shortages
5	A new security manpower survey is needed
12	Corrections officer vacancies
6	Turnover in CO staff, typically from retirement
3	Detached assignments (appointed to headquarters or training academy as an instructor)
	Scheduled and Unscheduled Leave
8	Disability Leave
5	Military Leave (active military orders and military reserve)
3	Non-Prescheduled Leave (call offs)
2	Compensatory Leave in Lieu of Overtime
	Other
6	Required Training
1	Requirements for gun range qualifications
1	Lack of interest for promotion
1	Walk-time scheduling
1	Disciplinary actions (suspensions)

*13 of the 26 Pennsylvania SCI facilities submitted overtime justification reports for exceeding their overtime budget by over 20 percent.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

B. An Aging Inmate Population Has Increased Security Staffing Needs and, Therefore, Overtime Hours

The aging inmate population has increased the need for overtime. For the past several decades, the U.S. prison population has experienced steady and persistent growth in its aging inmate population with prisoners age 55 or older being the fastest growing age group since 2003. Research from the Department of Justice that analyzed the age demographics of the states’ inmate populations from 1993 to 2013 has found that two primary factors contributed to this growth—a greater proportion of prisoners were sentenced to, and serving longer periods in state prisons,

and admissions of older prisoners increased.³ One of the reasons that this is significant is because an aging inmate population accounts for a significant portion of the escalating correctional health care costs and has created new and costly challenges for correctional institutions.⁴ Correctional institutions increasingly must provide care to older persons with multiple, costly chronic medical conditions, with their overall healthcare costs estimated to be approximately two to three times as high as younger prisoners.⁵

According to DOC staff and the overtime justification reports, a significant portion of the increased number of overtime hours worked since FY 2009-10 is largely due to their aging inmate population, which has resulted in a substantial increase in the number of medical transports and hospital posts. Despite the DOC's jurisdictional inmate population decreasing by 1,573 inmates since ECY 2009, the number of prisoners age 55 or older has increased by 1,968 inmates during that same time period.⁶ See Table 14. As shown in Exhibit 18, the percent of the DOC's jurisdictional inmate population that is 55 or older has increased from 7.9 percent at ECY 2009 to 12.1 percent at ECY 2015.

Table 14

Jurisdictional Inmate Population Versus 55 or Older Inmate Population

End of Calendar Year	Jurisdictional Inmate Population	55 or Older Inmate Population
ECY 2009	51,487	4,083
ECY 2010	51,321	4,426
ECY 2011	51,638	4,719
ECY 2012	51,184	5,068
ECY 2013	51,512	5,365
ECY 2014	50,756	5,709
ECY 2015	49,914	6,051
6-Year Change	-3.1%	48.2%

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

³ Carson, E. A., Sabol, W. J., Bureau of Justice Statistics (BJS), U.S. Department of Justice, Office of Justice Programs, & United States of America. (2016). Aging of the State Prison Population, 1993–2013. Washington: Bureau of Justice Statistics.

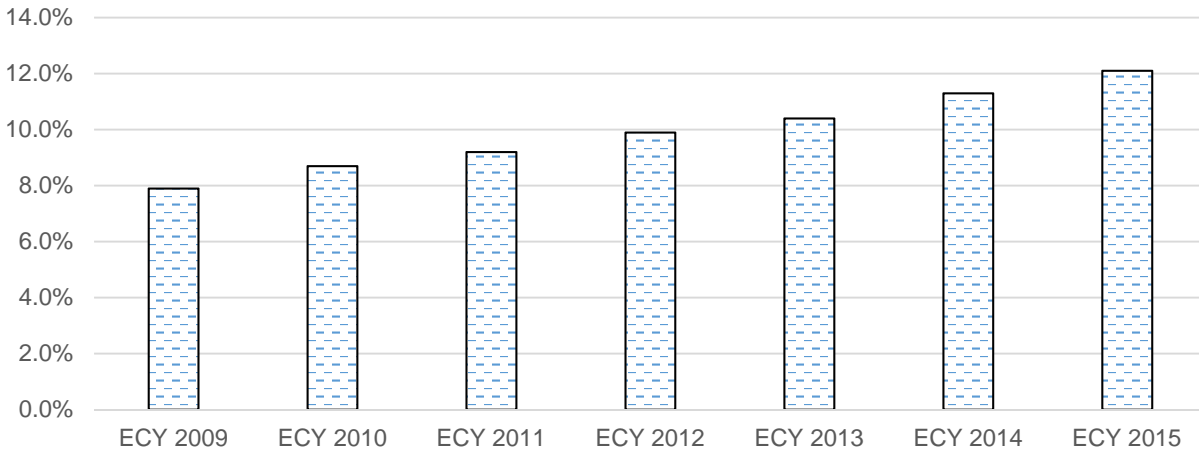
⁴ Williams, B. A., Stern, M. F., Mellow, J., Safer, M., & Greifinger, R. B. (2012). Aging in correctional custody: setting a policy agenda for older prisoner health care. *American journal of public health*, 102(8), 1475-1481.

⁵ Luallen, J., & Kling, R. (2014). A method for analyzing changing prison populations explaining the growth of the elderly in prison. *Evaluation review*, 38(6), 459-486.

⁶ Jurisdictional inmate population includes Pennsylvania state inmates held in out-of-state prisons, federal prisons, state prisons, county jails, boot camps, contract facilities, and community corrections centers. This does not include the parolees or the halfway back population, which includes Penncapp participants (Pennsylvania Community Alternatives to Prison Program).

Exhibit 18

Percent of Inmate Population (55 or Older) at the End of the Calendar Year

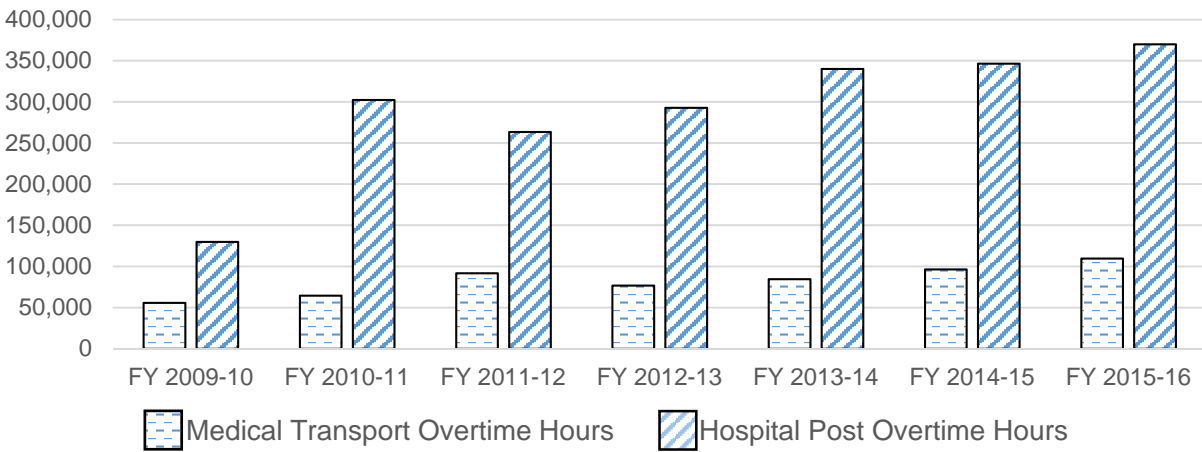


Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

In response to their aging inmate population, the DOC has taken several steps to reduce their overall medical costs, including: screening inmates in-house; internally providing sub-acute care, personal care, ventilators, and x-rays in-house; and by negotiating regionalized care with local hospitals. The DOC does not, however, maintain full-time security staff positions for medical transports or hospital posts, with only a few COs assigned full-time to medical transports and hospital posts at five of the 26 SCI facilities. As a result, almost all medical transports and hospital posts are worked as overtime. Consequently, since FY 2009-10, the annual number of medical transport overtime hours increased by 53,962 hours while the annual number of hospital post overtime hours increased by 240,247 hours. See Exhibit 19. Therefore, the increased demand for medical transports and hospital posts accounts for 294,209 (33.8 percent) hours of the total annual increase of 871,141 security hours worked as overtime since FY 2009-10.

Exhibit 19

Medical Transports and Hospital Post Overtime Hours



Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

C. The High Prevalence of Inmates Diagnosed With Mental Illnesses Has Increased Demands for Mental Health Services

People with mental illnesses are overrepresented in the American criminal justice system. A 2006 study from the U.S. Department of Justice found that over half of inmates in state prisons had a mental health problem, but only a third of these inmates had received treatment since their admission.⁷ “For the corrections system, which was not designed or equipped to provide mental health services, the high prevalence of people with mental illnesses has capacity, budgetary, and staffing ramifications.”⁸

In response to a settlement agreement with the Disabilities Rights Network (DRN) and the findings of a U.S. Department of Justice investigation of the Pennsylvania prison system’s mental health services for seriously mentally ill inmates, in addition to the DOC’s own review of the entire mental health area, the number of additional mental health services provided and the number of inmates receiving mental health treatment has increased considerably in recent years. According to DOC staff and the overtime justification reports, this increased demand in mental health services has directly contributed to the increased number of overtime hours worked. See Exhibit 20 for the key provisions of the DRN settlement agreement.

⁷ James DJ, Glaze LE: Mental Health Problems of Prison and Jail Inmates. Washington, DC, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2006. Available at www.ojp.usdoj.gov/bjs.

⁸ Prins, S. J. (2014). Prevalence of Mental Illnesses in U.S. State Prisons: A Systematic Review. *Psychiatric Services*, 65(7), 862-872.

Key Provisions of the DRN Settlement Agreement

- Requirements for screening and development of the Individual Rehabilitation Plan (IRP) at the Diagnostic and Classification Center (DCC) for the purpose of, among others, determining whether the inmate has a significant mental illness (SMI).
- Housing of inmates with SMI in other than restricted housing units (RHU) unless necessary.
- Placement of inmates on the Mental Health/Intellectual Disabilities roster (MH/ID) in Residential Treatment Units (RTU).
- Procedures for placement of inmates on the active mental health roster in Secure Residential Treatment Units (SRTU). These inmates are to be offered a minimum of 20 hours out-of-cell time per week consisting of 10 hours of structured activity and 10 hours of unstructured activity.
- Use of Diversionary Treatment Units (DTU) for SMI subject to sanction for a disciplinary infraction and on Disciplinary Custody (DC) status.
- Disciplinary process for inmates with SMI.
- Placement of inmates with SMI in DC or AC status during the transition period.
- Evaluation of inmates who have not been identified as having SMI housed in an RHU in either administrative custody or disciplinary custody status.
- Suicide prevention and use of psychiatric observation cells.
- Use of force and restraints.
- DOC staff training.
- Staffing of units housing inmates with SMI.

Source: Disability Rights Network settlement agreement with the DOC.

Although the provisions of the settlement agreement became effective in January 2015, according to DOC officials, the assessment of both current and new inmates began in early to mid-2014. The assessment determines the mental health needs on a four-point nominal scale system:

1. **Roster A:** inmate has no identified psychiatric/intellectual disability (ID) needs or history of psychiatric treatment.
2. **Roster B:** inmate has identified history of psychiatric treatment, but no current need for psychiatric treatment; inmate is placed on inactive mental health (MH/ID) roster.
3. **Roster C:** inmate is currently receiving psychiatric treatment, but is not currently diagnosed with a serious mental illness (SMI) or functional impairment, and does not have ID or is not guilty but mentally ill (GBMI).
4. **Roster D:** inmate is currently diagnosed with a SMI, ID, credible functional impairment, or is GBMI. The psychiatric review team (PRT) generates an individual recovery plan (IRP) for him/her. An IRP for a newly incarcerated inmate is to be developed within 30 days of intake and updated every 120 days, or more frequently if clinically indicated. A new IRP is to be generated annually. The psychology staff is to coordinate with the education department to ensure that any inmate with an ID who is 21 years of age or younger receives an individual education plan (IEP).

As shown on Table 15 and Exhibit 21, while the overall inmate population declined by 363 inmates from the end of June 2013 to the end of June 2014, the number of inmates placed in roster D increased by 3,058. Using the inmate population and MH score from June 30, 2016, approximately 28 percent of all inmates are receiving some mental health services, and 8.5 percent are considered seriously mentally ill. This is due, at least in part, to the new screening requirements implemented by the DOC.

Table 15

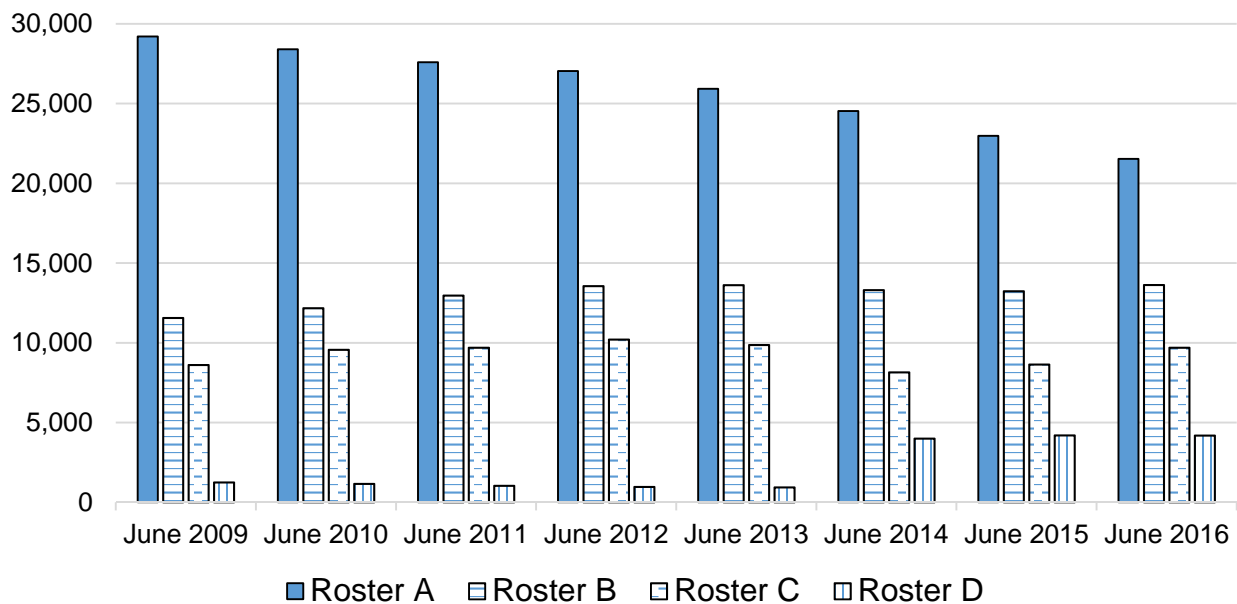
Number of Inmates by Mental Health Score on June 30th of Each Year

MH Score	June 2009	June 2010	June 2011	June 2012	June 2013	June 2014	June 2015	June 2016
A	29,208	28,403	27,593	27,037	25,926	24,531	22,976	21,530
B	11,565	12,172	12,964	13,557	13,613	13,303	13,234	13,623
C	8,611	9,562	9,695	10,202	9,861	8,145	8,638	9,692
D	1,244	1,156	1,041	964	933	3,991	4,199	4,187
Total	50,628	51,293	51,293	51,760	50,333	49,970	49,047	49,032

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Exhibit 21

Number of Inmates by Mental Health Score



Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Due to the provisions of the DRN settlement agreement, the DOJ investigation, and the review of the entire mental health area by the DOC, additional manpower needs have been identified by the DOC to address inmate mental health needs. As shown on Exhibit 20, for example, inmates in restricted housing are required to have 20 hours per week out of their cells (10 hours structured and 10 hours unstructured). For security reasons, a two person escort is required, which increases the need for security staff. As a result, the increased demand for mental health services has increased the number of security hours and, therefore, overtime hours needed to meet the needs of the DOC.

D. Employee Leave Contributes to Overtime, but Has Not Contributed to the Increase

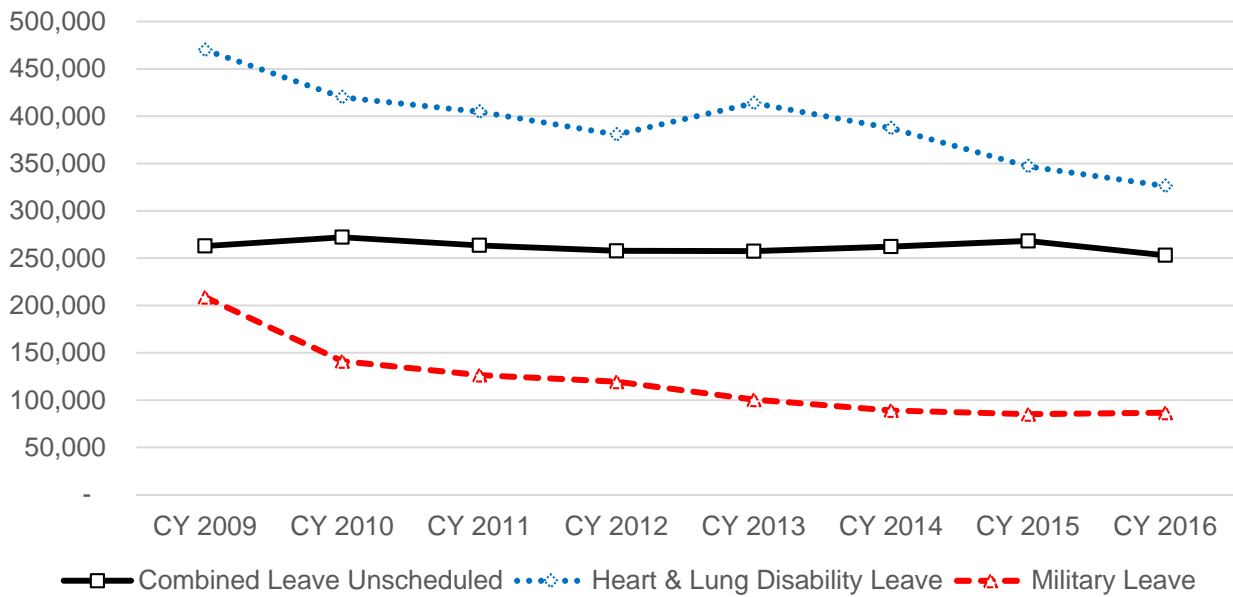
According to DOC staff and the overtime justification reports, the need for overtime is also affected by the number of security staff on employee leave, such as disability leave, leave without pay, and unscheduled leave (call-offs).⁹ For example, during FY 2015-16, there was an average of 162 CO 1-2s and COTs on disability leave and another 102 on leave without pay at any given time.

A significant portion of the disability claims made by COs is under the Pennsylvania Heart and Lung Act, though, the total hours paid per calendar year has gradually decreased since 2009. Furthermore, leave without pay (both with and without benefits), which includes Family and Medical Leave Act (FMLA) leave, Parental and Family Care (SPF) leave, and Military Leave, as well as other types of leave also contribute to overtime, although, these numbers have generally been declining since 2009. While the number of hours paid for unscheduled leave (call offs) has remained relatively stable since 2009, averaging 260,080 hours per calendar year, the use of military leave, in particular, has declined significantly as military deployments have dropped in recent years. See Exhibit 22. Nonetheless, the temporary vacancies created by the COs on disability leave and leave without pay cannot be filled by new hires, therefore, overtime hours are used to meet the needs of the DOC.

⁹ This includes employees on Heart and Lung Act disability leave and Act 632 disability leave. The Heart and Lung Act grants full compensation and continuation of employee benefits to certain public safety personnel, including employees of the DOC whose principal duty is the care, custody and control of inmates, who are injured in the performance of their duties and temporarily incapacitated from performing their duties. Act 1959-632, as amended, grants full compensation for an employee of a state correctional institution who is injured during the courses of that employment by the act of an inmate or any person committed to the institution.

Exhibit 22

The Number of Hours Paid for Employee Leave by Calendar Year



Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

The overtime justification reports also state that COs on detached assignments and the training and gun range qualification requirements also contribute to overtime, however, there were only eleven COs on detached assignments at the end of 2016 and, according to the DOC, training schedules have been adjusted to reduce the need for overtime. While both of these explanations do impact the need for overtime, the amount is insignificant in comparison to other factors.

VI. Insufficient Security Staffing Is the Primary Cause of Overtime

A. Security Staffing Shortage

Although a certain amount of overtime is considered inevitable when staffing jails and prisons, we determined that unfilled/vacant security staff positions are the primary cause of the increasing number of overtime hours.¹ However, even if all current security staff positions were filled, there would still be more overtime than necessary due in part to inaccurate/outdated security manpower surveys. The DOC acknowledges the significant increase in the demands for inmate medical and mental health services in recent years, yet the department has failed to adhere to its policy to perform a security manpower survey at each SCI facility every three years. Additionally, the relief factor used to account for the number of leave and training days used by COs has not been updated in approximately ten years. We performed a full-time equivalent (FTE) security staffing analysis as a comparative analysis of the most recent security manpower surveys performed at each of the 26 SCI facilities.²

DOC Manpower Surveys Are Not Up-to-Date. A security manpower survey is a staffing analysis conducted by a correctional agency or facility to determine the number of security staff required to operate safely and efficiently. The analysis accomplishes this through a systematic evaluation of what work has to be done, where, and by how many persons at a given time; what schedule is most suitable for the work; and how many hours and days an average staff person is available to work per year.³ However, security manpower surveys do not typically account for short-term absences related to call-offs, inmate escorts, military activations, medical and nonmedical transports, hospital posts, or other short-term posts that create the need for overtime.

According to DOC officials, DOC policy is to perform a security manpower survey at each SCI facility every three years. However, as shown in Table 16, as of end-of-calendar-year 2016, 12 of the 26 facilities have not had a survey conducted in the last three years, with six of these facilities exceeding the three-year benchmark

¹ Security staff includes corrections officers 1 and 2 (CO 1-2s) and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s).

² Full-time equivalent (FTE). A term used to translate staffing requirements into the number of full-time staff needed to fill the required hours. FTE calculations consider the net amount of time a full-time staff member is available (net annual work hours) after subtracting time away from the post (e.g., vacation, sick leave, holidays, training time).

³ Camp, C, Hardyman, P., May, R., & Camp, G. (2008). "Prison Staffing Analysis: A Training Manual." National Institute of Corrections, U.S. Department of Justice. Washington D.C.

by at least one year.⁴ According to DOC staff, the manpower surveys fell behind schedule because of the 2014 hiring freeze. Furthermore, although the relief factor is to be periodically reviewed for changes in leave usages, training days, etc., it has been approximately ten years since the relief factor was recalculated, using data from FY 2005-06.⁵ While there is no DOC policy that specifies how often the relief factor should be recalculated, DOC staff noted that the operations of the DOC have changed significantly in the last ten years and acknowledged that it should be recalculated.

Table 16

Most Recent Security Manpower Surveys Performed by Facility			
State Correctional Institution (SCI)	Date of Last Manpower Survey	Years Since Last Performed	Exceeding 3 Years
Albion	12/16/2015	0.9	
Benner	3/12/2013	3.6	X
Cambridge Springs	12/18/2015	0.8	
Camp Hill	12/23/2013	2.8	
Chester	6/18/2011	5.4	X
Coal	12/28/2012	3.8	X
Dallas	8/28/2014	2.2	
Fayette	10/17/2012	4.0	X
Forest	3/13/2015	1.6	
Frackville	11/24/2014	1.9	
Graterford	4/8/2010	6.5	X
Greene	10/20/2012	4.0	X
Houtzdale	12/23/2015	0.8	
Huntingdon	10/1/2012	4.1	X
Laurel Highland	2/14/2014	2.7	
Mahanoy	11/21/2014	1.9	
Mercer	5/19/2015	1.4	
Muncy	7/16/2014	2.3	
Pine Grove	4/22/2013	3.5	X
Pittsburgh	2/15/2012	4.7	X
Quehanna	6/12/2013	3.4	X
Retreat	7/25/2014	2.2	
Rockview	7/29/2013	3.2	X
Smithfield	8/16/2013	3.2	X
Somerset	12/15/2015	0.9	
Waymart	1/9/2015	1.8	

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

⁴ This includes SCI-Graterford, which is projected to be replaced by a new SCI facility in Phoenixville during FY 2017-18.

⁵ The DOC relief factor is based on a three-year average of 365 days per year minus 104 days off from work (combined leave, sick days, training days, and unscheduled leave). The DOC relief factor is used to compensate for the expected number of corrections officers that would be on leave at any given time.

The most recent security manpower surveys performed at each SCI facility call for 8,784 CO 1-2 positions, in which various posts can be filled by COT 2-4s.⁶ In comparison, the authorized complement (as approved by the Office of Budget) for FY 2015-16 called for a total of 8,767 CO 1-2 and corrections officer trainee (COT) positions. See Table 17.

Table 17

Comparison of Security Manpower Surveys to the Authorized Complement

	COT 2-4	CO-1	CO-2	Total
Most Recent Security Manpower Surveys ^a	0	7,624	1,160	8,784
Authorized Complement (FY 2015-16)	827	6,745	1,195	8,767

^a Security Manpower Surveys only specify the number of CO-1 and CO-2 positions needed to meet the needs of the SCI facility, although, a CO-1 slot in the staffing roster can be filled, in part, by a COT 2-4. COT 2-4s have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

B. LB&FC Full-time Equivalent Security Staffing Analysis⁷

We performed our own full-time equivalent (FTE) security staffing analysis to calculate the total number of full-time equivalent security staff that would be needed to cover the number of security hours actually worked in the most recent fiscal year.⁸ By calculating the average number of security hours worked per fiscal year by security staff for comparison to the total number of security hours that would be expected to be worked at the regular hourly rate, we sought to determine the number of security staff needed to minimize the costs of overtime hours.⁹

As shown on Table 18, our FTE security staffing analysis found that an overall filled complement of 8,902 CO 1-2s and COT 2-4s, would minimize the use of overtime hours. Therefore, with an average population of 48,320 inmates under the direct custody of the DOC institutions during FY 2015-16, an overall 5.43 to 1 inmate-to-security-staff ratio would minimize the number of otherwise avoidable overtime hours. In comparison to the inmate-to-security-staff ratios and the percent of overtime hours worked per fiscal year over the last seven fiscal years, FY 2010-11 had the lowest staffing ratio (5.51 to 1) and the lowest overall percentage of overtime hours worked (5.4 percent). See Table 19.

⁶ Corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s) contribute 40 security hours per week and fill a full-time equivalent slot on the security staffing roster, though, COT 2-4s have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

⁷ See Appendix C for a detailed methodology statement.

⁸ Security hours include the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by security staff. Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

⁹ Miller, R., & Liebert, D. (2003). "Staffing Analysis Workbook for Jails, 2nd edition." National Institute of Corrections, U.S. Department of Justice. Washington D.C.

Table 18

LB&FC FTE Security Staffing Analysis for Corrections Officers 1-2 and CO Trainees in Phases 2-4

State Correctional Institution (SCI)	Inmate Population	FY 2015-16 Security Hours	Percent OT	Expected Overtime Hours	Expected Regular Hours	Productive Hours (3-Year Average)	Active Status (3-Year Average)	FTE Ratio	FTE Staffing Analysis
Albion	2,243	558,198	4.8%	26,865	531,332	1,714	96.5%	6.98	321
Benner	2,075	601,365	9.1	54,624	546,741	1,761	97.6	6.52	318
Cambridge Springs	1,150	313,322	8.2	25,576	287,745	1,752	99.3	6.95	165
Camp Hill	3,478	945,384	4.1	38,926	906,458	1,731	95.3	6.33	549
Chester	1,260	408,071	8.8	35,758	372,314	1,662	94.7	5.33	236
Coal	2,287	501,835	5.6	28,103	473,731	1,641	95.1	7.54	303
Dallas	2,133	673,666	3.4	22,888	650,777	1,614	95.4	5.05	423
Fayette	2,032	692,649	6.1	42,119	650,530	1,677	97.0	5.08	400
Forest	2,293	718,817	5.6	40,182	678,635	1,737	96.1	5.64	407
Frackville	1,169	443,072	7.0	31,189	411,883	1,673	96.3	4.57	256
Graterford	3,233	1,209,578	3.2	38,757	1,170,821	1,744	94.2	4.54	712
Greene	1,736	751,869	2.0	15,172	736,696	1,680	95.3	3.77	460
Houtzdale	2,502	559,337	3.1	17,404	541,933	1,706	96.1	7.57	331
Huntingdon	2,145	682,597	2.5	17,217	665,379	1,726	97.7	5.43	395
Laurel Highland	1,505	495,354	5.6	27,760	467,595	1,577	98.7	5.01	300
Mahanoy	2,451	569,686	5.0	28,636	541,050	1,680	98.3	7.48	328
Mercer	1,446	409,695	3.9	16,026	393,669	1,703	97.6	6.10	237
Muncy	1,407	560,151	4.2	23,582	536,569	1,669	98.7	4.32	326
Pine Grove	955	470,146	3.3	15,377	454,770	1,688	97.1	3.44	277
Pittsburgh	1,754	656,744	14.1	92,510	564,234	1,663	94.9	4.90	358
Quehanna	472	191,936	3.3	6,315	185,622	1,739	97.9	4.33	109
Retreat	1,108	356,775	2.4	8,696	348,079	1,618	97.2	5.01	221
Rockview	2,379	740,737	0.8	5,752	734,986	1,730	97.2	5.44	437
Smithfield	1,337	552,474	4.3	23,480	528,994	1,728	97.2	4.24	315
Somerset	2,390	543,928	5.4	29,247	514,681	1,695	96.8	7.62	314
Waymart	1,379	663,624	2.3	15,438	648,186	1,661	96.6	3.41	404
Total	48,320	15,271,008	4.8	727,598	14,543,410	1,694	96.7	5.43	8,902

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Table 19

Comparison of Average Annual Inmate-to-Security-Staff Ratio to Percentage of Overtime Hours Worked
(FY 2009-10 – FY 2015-16)

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Average Filled CO 1-2 & COT 2-4 Positions	8,401	8,474	8,416	8,305	8,165	8,089	8,216
Average Total Institution Inmate Population	48,757	46,729	48,193	49,075	49,672	48,966	48,320
Inmate Population to Security Staff Ratio	5.80	5.51	5.73	5.91	6.08	6.05	5.88
Percentage of Security Hours Worked as Overtime	6.4%	5.4%	7.0%	8.3%	9.8%	12.5%	11.7%

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Comparison With DOC Manpower Surveys and Authorized Complement. In the DOC overtime justification reports for FY 2015-16, five of the 13 DOC institutions stated that new security manpower surveys needed to be performed, largely due to an increased demand in inmate mental health and medical services. As shown on Table 20, our FTE staffing analysis substantiates these claims by indicating that 118 more security staff positions may be needed than what is specified by the most recent manpower surveys. In comparison with the authorized complement for CO 1-2s and COTs for FY 2015-16, our analysis indicates that an additional 135 positions would have been warranted. It is important to reiterate, however, that an estimated 15 percent of COTs are in training phase 1 and, therefore, do not contribute any productive security hours or fill a full-time slot in the security staffing roster. However, regardless of the security staffing needs specified by the most recent security manpower surveys or the authorized complement, each SCI facility had a significant number of unfilled CO 1-2 and COT 2-4 positions during FY 2015-16. See Table 21.

As previously mentioned, the DOC has increased their hiring efforts since the end of the 2014 hiring freeze and, as a result, the Department has gradually reduced the number of unfilled security staff positions throughout FY 2015-16 and the first half of FY 2016-17. Therefore, the number of unfilled positions at the end-of-calendar-year 2016 has been reduced in comparison to the annual average for FY 2015-16. Nonetheless, these findings suggest that the current security manpower survey results are outdated and new manpower surveys with an updated relief factor should be performed at each SCI facility after the new operational staffing and overtime analysis is completed by the prison staffing consultant recently hired by the DOC.

Table 20

LB&FC FTE Security Staffing Analysis by Facility

State Correctional Institution (SCI)	FTE Staffing Analysis Results	Most Recent Manpower Surveys ^a	Average Filled Security Staff Positions ^b	FTE – Manpower Surveys	Filled – Manpower Surveys
Albion	321	305	291	16	(14)
Benner	318	325	305	(7)	(20)
Cambridge Springs	165	169	154	(4)	(15)
Camp Hill	549	558	517	(9)	(41)
Chester	236	224	213	12	(11)
Coal	303	291	269	12	(22)
Dallas	423	403	372	20	(31)
Fayette	400	398	379	2	(19)
Forest	407	406	376	1	(30)
Frackville	256	262	239	(6)	(23)
Graterford	712	715	674	(3)	(41)
Greene	460	442	408	18	(34)
Houtzdale	331	321	299	10	(22)
Huntingdon	395	387	365	8	(22)
Laurel Highland	300	276	262	24	(14)
Mahanoy	328	327	308	1	(19)
Mercer	237	233	224	4	(9)
Muncy	326	327	291	(1)	(36)
Pine Grove	277	282	269	(5)	(13)
Pittsburgh	358	342	303	16	(39)
Quehanna	109	114	108	(5)	(6)
Retreat	221	218	207	3	(11)
Rockview	437	423	400	14	(23)
Smithfield	315	312	294	3	(18)
Somerset	314	308	281	6	(27)
Waymart	404	416	380	(12)	(36)
Total	8,902	8,784	8,186	118	(598)

^a A security manpower survey is a staffing analysis conducted by a correctional agency or facility to determine the number of CO 1-2s required to operate safely and efficiently, although, a CO-1 slot in the staffing roster can be filled, in part, by a COT 2-4. COT 2-4s have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

^b Filled security staff positions include the annual average number of corrections officers 1 and 2, and CO trainees in training phases 2, 3, and 4 on active status, leave without pay with benefits, leave without pay without benefits, and disability during FY 2015-16.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Table 21

LB&FC FTE Security Staffing Analysis by Position

	COT	CO-1	CO-2	Total
LB&FC FTE Staffing Analysis ^a	0	0	0	8,902
Most Recent Manpower Surveys ^b	0	7,624	1,160	8,784
Authorized Complement (FY 2015-16)	827	6,745	1,195	8,767
Average Filled CO 1-2 & COT Positions (FY 2015-16)	808	6,387	1,112	8,308

^a Our FTE Staffing Analysis specifies the number of security staff needed to cover the number of security hours worked during FY 2015-16, after accounting for the number of overtime hours that would be expected and considered necessary to meet the needs of the DOC. Security staff include COT 2-4 and CO 1-2.

^b A security manpower survey is a staffing analysis conducted by a correctional agency or facility to determine the number of CO 1-2s required to operate safely and efficiently, although, a CO-1 slot in the staffing roster can be filled, in part, by a COT 2-4. COT 2-4s have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

A Prison Staffing Consultant Has Been Hired by the DOC. To address the rising number of security hours worked, especially as overtime, the DOC recently contracted with a prison staffing consultant to conduct a new operational staffing and overtime analysis to increase the efficiency of their staffing needs. Unlike the manpower surveys conducted by the DOC, this analysis will focus on how operations can be structured to maximize efficiency and use of staff. In comparison, the DOC manpower surveys (and our FTE security staffing analysis) focus on the level of staffing necessary to carry out activities in their current operational structure. The contractor will review three SCI facilities—SCI-Mahanoy, SCI-Benner Township, and SCI-Phoenix—and create a template that can be used by the DOC to identify the staffing needs of the remaining SCI facilities to increase their efficiency.¹⁰ Additionally, according to DOC staff, the consultant will analyze the need for full-time security staff positions assigned to medical transports and hospital posts.

¹⁰ According to the DOC, the staffing analysis process began in late 2016 and will be completed in five months at a cost of \$49,940.

VII. The Costs of Overtime Exceed the Costs of Hiring Additional COs

According to DOC staff and the Department's response to the 2012 DAG report, the rising costs of medical benefits have decreased the cost differential between hiring new corrections officers (CO) and paying overtime to current employees because the cost of medical benefits is a fixed cost that does not increase with overtime. Therefore, starting in July 2016 and spanning over a ten-fiscal-year period, we compared the weekly training and personnel costs of a single new corrections officer trainee (COT) to the average weekly costs of the overtime hours that would be avoided by hiring the COT. Our findings indicate that, even when including medical benefit costs, the overall training costs and the salary and benefits of a new COT are significantly less expensive than using overtime hours to staff a 40-hour work-week.

A. A Cost-Benefit Analysis for Hiring a New Corrections Officer¹

As shown on Table 22, training a single COT is estimated to save the DOC \$30,519 in overall personnel expenditures in the first year. This is despite a COT in training phase 1 not being able to contribute any productive security hours and, therefore, not reducing the need for overtime hours for the first eight weeks of training.² However, a COT entering the second training phase on the ninth week, and each subsequent training phase thereafter (3-4), contributes 40 security hours per week and fills a full-time equivalent position on the CO security staffing roster.³ Therefore, with the exception of when the COT would use holiday leave, combined leave, or sick leave throughout each year, 40 hours of overtime would be avoided every week after the first eight weeks of training is completed.⁴ In addition, the average corrections officer 1 (CO-1) attends five days of continued training each year. Nonetheless, the accumulated costs of the overtime hours avoided by hiring a new COT exceeds the accumulated training and personnel costs for the COT in less than six months (23 weeks). See Exhibit 23. The total cumulative savings of hiring a single COT is estimated to be \$213,915 over a five-year period, and \$381,127 over a ten-year period.

¹ See Appendix D for a detailed data and methodology statement.

² Basic training was expanded from 4 to 5 weeks starting in Jan. 2016, therefore, extending training phase 1 from 7 to 8 weeks.

³ Corrections officer trainees in training phases 2, 3, and 4 are limited to certain positions dependent on the current training phase and number of weeks in that training phase.

⁴ According to DOC staff, in addition to 11 holidays per year, COTs used an average of 25 hours of combined leave and sick days and CO-1s used an average of 82.2 hours of combined leave and sick days during FY 2015-16.

Table 22

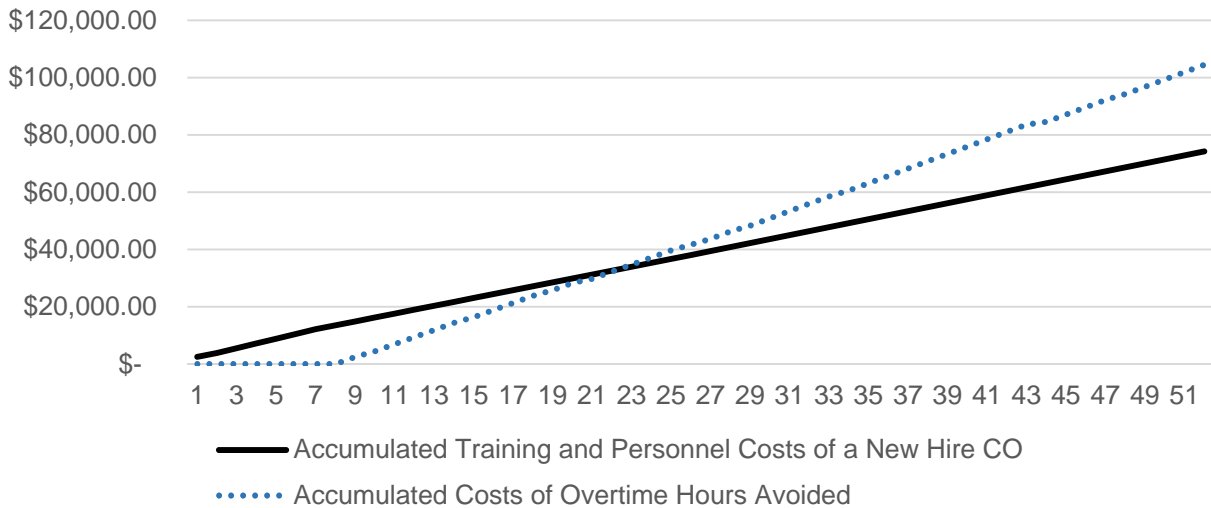
Difference in Annual Training and Personnel Costs and Overtime Costs Avoided
(FY 2016-17 – FY 2025-26)

Fiscal Year	New Hire Training and Personnel Expenditures	Costs of Overtime Hours Avoided	Difference
FY 2016-17	\$74,234	\$104,753	\$30,519
FY 2017-18	79,032	126,206	47,174
FY 2018-19	84,678	130,692	46,013
FY 2019-20	91,818	137,657	45,839
FY 2020-21	96,380	140,750	44,370
FY 2021-22	102,680	145,134	42,453
FY 2022-23	113,633	150,296	36,663
FY 2023-24	122,400	155,643	33,244
FY 2024-25	131,332	161,182	29,850
FY 2025-26	141,917	166,919	25,002
Total: 5-Years	\$426,143	\$640,058	\$213,915
Total: 10-Years	\$1,038,105	\$1,419,232	\$381,127

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Exhibit 23

First Year Accumulated Training and Personnel Costs of a New Hire CO
Versus Accumulated Costs of Overtime Hours Avoided by Week
(FY 2016-17)



Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

B. A Cost Estimate for Security Hours if Fully Staffed During FY 2015-16⁵

After the new operational and overtime analysis is conducted by the prison staffing consultant, new security manpower surveys with an updated relief factor need to be performed to determine the appropriate security staffing levels for each SCI facility.⁶ Using the expected percentage of overtime hours that was calculated in the FTE security staffing analysis, we estimate that the DOC would have saved over \$16.2 million in wages if the Department had an optimal number of filled security staff positions during FY 2015-16.⁷ See Tables 23 and 24. Furthermore, as shown in Table 25, when including the costs of variable benefits, those savings increase to \$22.0 million.⁸ This does not include increased fixed benefit costs (health and life insurance) due to the increased security staffing levels, nor does it include the Commonwealth's decreased pension costs due to the reduced number of overtime hours worked.

Table 23

Actual Security Hours Versus Security Hours With Minimized Overtime* (FY 2015-16)

	Actual Security Hours	Security Hours With Minimized Overtime ^a	Difference
Percent Overtime	11.7%	4.8%	-
Regular Hours	13,481,312	14,543,410	1,062,098
Overtime Hours	1,789,696	727,598	(1,062,098)
Total Security Hours	15,271,008	15,271,008	0

* Overtime only includes security hours worked at the straight time, one-and-one-half time, and double time overtime hourly rates. Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

^a 4.8 percent overtime was calculated to be a reasonable estimate for the smallest percentage of overtime hours that could be realistically expected to be necessary to meet the needs of the DOC. See Appendix C (Percentage of Expected Overtime Hours) for detailed data and methodology.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

⁵ Security hours include the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by corrections officers 1 and 2 (CO 1-2s) and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s). Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

⁶ Security staff includes CO 1-2s and COT 2-4s.

⁷ See Appendix C for a detailed data and methodology statement.

⁸ Variable benefits, meaning benefits whose cost varies by the gross amount in an employee's paycheck, include Social Security, Medicare, Workers' Compensation, leave payout, and pension. Leave payout is not included in the costs of overtime hours.

Table 24

Actual Security Costs Versus Security Costs With Minimized Overtime*
(FY 2015-16)

	Hourly Rate	Actual Security Costs	Security Costs With Minimized Overtime ^a	Savings
Regular Hours	\$26.55	\$357,960,451	\$386,161,645	(\$28,201,194)
Overtime Hours	41.84	74,875,724	30,440,595	44,435,129
Total		432,836,175	416,602,240	16,233,935

* This calculation only includes the costs of wages. It does not include the costs of variable benefits, fixed benefits (health and life insurance), or the Commonwealth's pension costs.

^a 4.8 percent overtime was calculated to be a reasonable estimate for the smallest percentage of overtime hours that could be realistically expected to be necessary to meet the needs of the DOC. See Appendix C (Percentage of Expected Overtime Hours) for detailed data and methodology.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Table 25

Actual Security Costs Versus Security Wage and Variable Benefit Costs With Minimized Overtime*
(FY 2015-16)

	Hourly Rate Including Variable Benefit Costs	Actual Security Costs	Security Costs With Minimized Overtime ^a	Savings
Regular Hours	\$37.74	\$508,739,766	\$548,819,806	(\$40,080,039)
Overtime Hours	58.45	104,607,715	42,528,084	62,079,631
Total		613,347,481	591,347,889	21,999,592

* This calculation includes the costs of wages and variable benefits. It does not include the costs of fixed benefits (health and life insurance) or the Commonwealth pension costs.

^a 4.8 percent overtime was calculated to be a reasonable estimate for the smallest percentage of overtime hours that could be realistically expected to be necessary to meet the needs of the DOC. See Appendix C (Percentage of Expected Overtime Hours) for detailed data and methodology.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

C. Impact of the 2014 Hiring Freeze on Overtime⁹

Despite the cost savings of hiring a new COT in comparison to the costs of overtime hours, the DOC has often enacted hiring freezes due to budgetary constraints, with the last major hiring freeze taking place during the first half of FY 2014-15. However, hiring freezes that impact the number of security staff only reduce overall personnel expenditures temporarily, with the costs of the resulting overtime hours exceeding those savings in only a few months. The enacted budget during FY 2014-15 was \$26.5 million less than the amount requested by the DOC, with \$73 million in additional appropriations made later in the fiscal year.

⁹ See Appendix E for a detailed data and methodology statement.

Following a major hiring freeze in 2012 and a number of minor hiring freezes in 2013 due to budgetary constraints, the DOC announced another major hiring freeze in May 2014. Although the hiring freeze was announced in May 2014, the freeze did not take full effect until July 2014.¹⁰ Additionally, while the hiring freeze was officially over by the end of August 2014, CO training did not completely resume until the beginning of calendar year 2015. During this time period, the number of filled COT positions declined by over 300 positions, from an average of 722 in May 2014 to 417 in January 2015. As a consequence of the reduced security staffing, we calculated that the accumulated costs of the wages and benefits of the resulting overtime hours accrued exceeded the accumulated savings in training and personnel expenditures by early February 2015. Furthermore, even after accounting for attrition, the overall costs continue to accumulate as the DOC remains unable to fill a portion of vacant CO positions.

With an estimated reduction of roughly 300 COT positions, we determined that an average of 60 COTs every five weeks were not hired during the first half of FY 2014-15.¹¹ Therefore, after adjusting for attrition, we calculated that the 2014 hiring freeze reduced training and personnel expenditures by \$15.3 million during FY 2014-15. However, because COTs in FY 2014-15 contributed 40 security hours per week and filled a full-time equivalent slot in the staffing roster after seven weeks in training phase 1, the loss of new hires during the hiring freeze is estimated to have caused an additional 358,371 overtime hours during the year.¹² As a consequence, the wages and benefits of the resulting overtime hours are calculated to have cost over \$19.9 million during that same time period, exceeding the savings in training costs by over \$4.6 million. As shown in Exhibit 24, the accumulated overtime expenditures are estimated to have exceeded the accumulated savings in training and personnel expenditures by early February 2015.

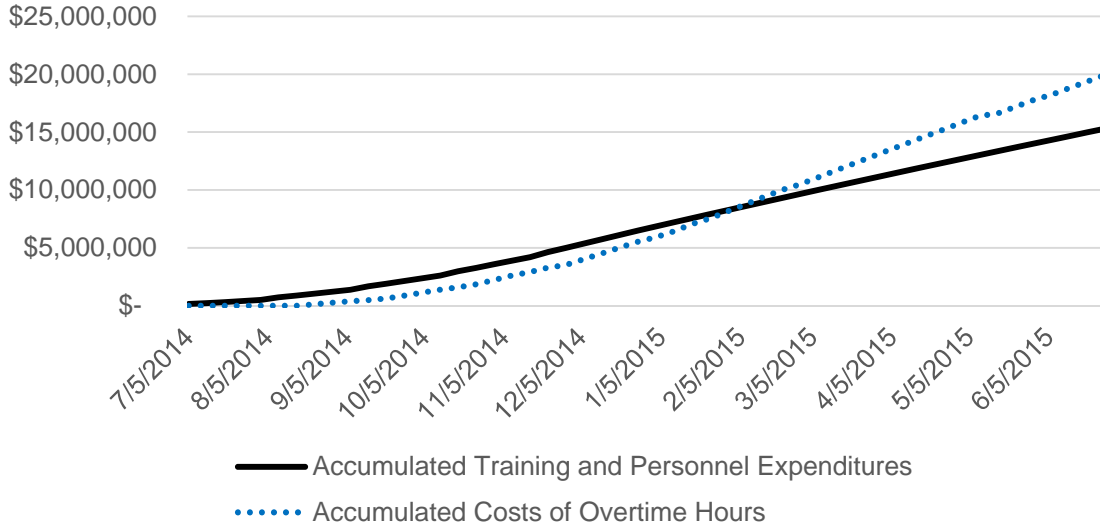
¹⁰ Unlike previous hiring freezes, this one included security staff and had a direct and significant impact on the number of corrections officer trainees hired to fill vacant CO positions.

¹¹ DOC Training Academy held ten 4-week long basic training classes per year until January 18, 2016. Afterwards, the number of classes was reduced to eight in order to expand the basic training classes from 4 to 5 weeks.

¹² Basic training was expanded from 4 to 5 weeks starting on January 18, 2016, therefore, extending training phase 1 from 7 to 8 weeks. Corrections officer trainees in training phases 2, 3, and 4 have restrictions on the type of posts they can fill dependent on the training phase and how many weeks in that training phase.

Exhibit 24

Accumulated Savings Versus Accumulated Overtime Costs*
(FY 2014-15)



* Savings in training costs includes uniforms, medical exams, basic training, and hourly wages, variable benefits, and health and life insurance.

* Costs of overtime hours includes hourly wages and variable benefits, but does not include salaries, health and life insurance, or leave payout.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Furthermore, the costs of the overtime hours due to the loss of new hires during the 2014 hiring freeze continues to accumulate as the DOC remains unable to fill a portion of vacant CO positions. Table 26 demonstrates that there was an average of 459 vacant CO 1-2 and COT positions during FY 2015-16, which is partially due to employee turnover. As shown in Table 27, despite an average of 808 filled

Table 26

Authorized Complement Versus Average Number of Filled CO Positions
(FY 2015-16)

	COT	CO-1	CO-2	Total
Authorized CO Complement	827	6,745	1,195	8,767
Average Number of Filled CO Positions	808	6,387	1,112	8,308
Average Number of Vacant CO Positions	19	358	83	459

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

COT positions during FY 2015-16, the employment of 578 CO 1-2 and COT positions ended during that same time frame. Therefore, despite the increased efforts to fill vacant CO positions, only 230 vacancies were filled during FY 2015-16. Furthermore, 24 percent of the COTs hired during FY 2015-16 are expected to leave within their first three years. See Table 28.

Table 27

Turnover of CO 1-2s and COTs Per Fiscal Year						
(FY 2009-10 – FY 2015-16)						
Fiscal year	Death	Dismissal	Resignation	Retirement	Furlough	Total
FY 2009-10	19	99	145	185	0	448
FY 2010-11	11	41	108	293	0	453
FY 2011-12	11	35	119	222	0	387
FY 2012-13	13	51	131	372	0	567
FY 2013-14	2	51	138	420	2	613
FY 2014-15	11	54	104	296	0	465
FY 2015-16	10	66	161	341	0	578
Average	11	57	129	304	0	502

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Table 28

3-Year Turnover Rate of Three Separate Years of New Hire COs					
(FY 2010-11 – FY 2012-13)					
	FY 2010-11	FY 2011-12	FY 2012-13	Total	Turnover Rate
Number of COTs Hired:	230	417	358	1,005	
Attrition:					
1-3 Months	12	21	18	51	5.1%
4-6 Months	10	18	15	43	4.5
7-9 Months	8	15	13	36	4.0
10-12 Months	8	15	13	37	4.2
1st Year	38	69	59	167	16.6
2nd Year	9	16	14	38	4.5
3rd Year	8	15	13	36	4.5
3-Year Total	55	100	86	241	24.0

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

We calculated that the loss of new hires during the 2014 hiring freeze increased the need for overtime hours by 464,146 hours during FY 2015-16 and another 441,753 overtime hours are projected for FY 2016-17. While this reduction in security staffing levels reduced the Department's regular personnel expenditures by \$18.0 million during FY 2015-16, with \$18.7 million savings projected for FY 2016-17, the costs of the increased overtime hours exceeded those savings by over \$9.1

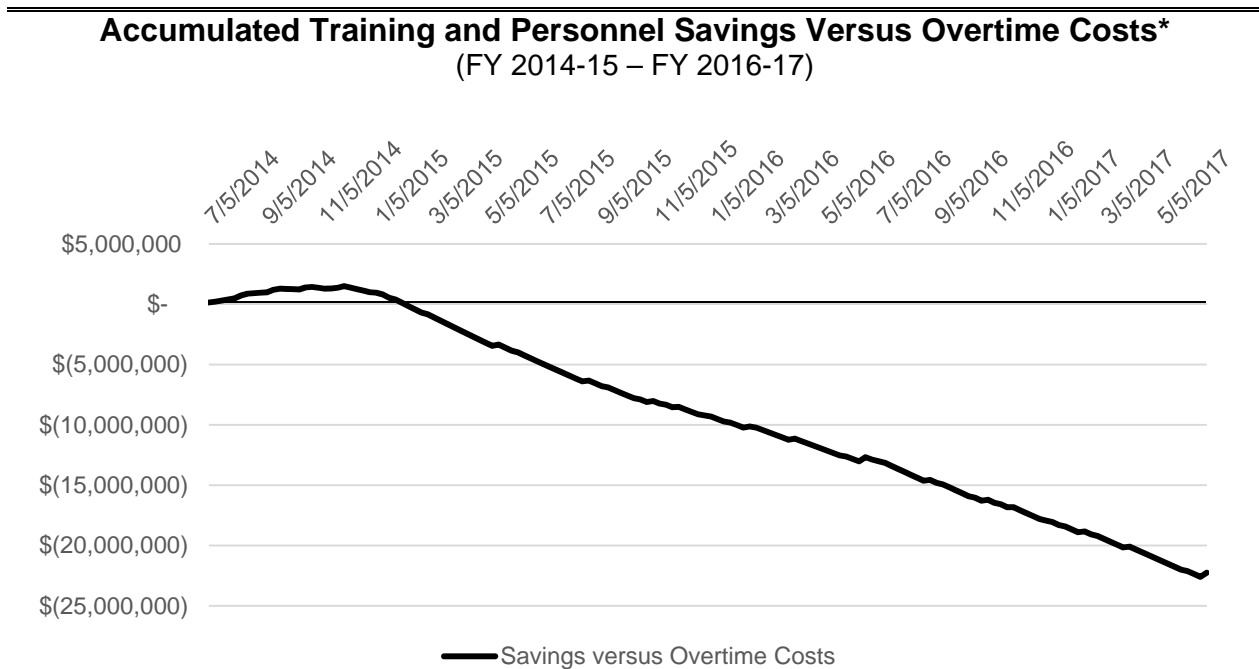
million in FY 2015-16 and is estimated to exceed the savings in FY 2016-17 by more than \$8.7 million. Therefore, over a three-fiscal-year period, the 2014 hiring freeze is projected to cost the DOC an additional \$22.5 million in personnel expenditures. These cost estimates for FY 2016-17, however, may be reduced as the DOC continues to fill CO vacancies. See Table 29 and Exhibit 25. This calculation does not include the increase in the Commonwealth’s future pension costs due to the increased demand for overtime hours.

Table 29

Training and Personnel Costs Avoided Versus Overtime Costs Per Fiscal Year (FY 2014-15 – FY 2016-17)			
Fiscal Year	Overtime Costs	Training & Personnel Costs Avoided	Net Costs
FY 2014-15	\$19,946,542	\$15,303,522	\$4,643,019
FY 2015-16	27,129,862	18,017,382	9,112,481
FY 2016-17	27,464,661	18,695,296	8,769,365
Total:	\$74,541,064	\$52,016,199	\$22,524,866

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Exhibit 25



*Calculated as the estimated savings in training and personnel expenditures minus the costs of the wages and benefits of the resulting number of overtime hours worked.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

VIII. Background Information About the Department of Corrections

Historical Overview

Pennsylvania was the birthplace of the penitentiary concept, also known as the Pennsylvania System. The Eastern State Penitentiary opened in 1829 outside of Philadelphia, and it was considered at the time to be “the world’s greatest penitentiary.” Known to historians as “the first true penitentiary,” Eastern State Penitentiary operated until 1970.

In 1953, the Bureau of Correction was created by law and was headed by a Commissioner of Corrections within the Department of Justice.¹ In 1980, the Bureau of Correction was transferred from the former Pennsylvania Department of Justice, to the newly created Office of General Counsel to the Governor. Act 1984-245, 71 P.S. §301-1, then created the Department of Corrections (DOC) as an administrative department. The Department maintains responsibility for the custody and rehabilitation of convicted adult criminals through the operation of 26 state correctional institutions, including a motivational boot camp, and 57 state-operated or contracted community corrections centers. See Exhibit 26 for a map showing the location of the Department’s facilities. At the end of December 2015, there were 49,914 inmates in the state system.²

Agency Mandate and Mission

The Department’s stated mission is to:

reduce recidivism and promote public safety by providing individualized treatment and education to offenders, utilizing sound decision making practices that include evidence-based approaches, employing effective methods to aid offenders in reentering society, addressing the needs of crime victims and improving county adult probation and parole services.

The Department maintains a state system for the custody and rehabilitation of convicted criminals. Included within this system are residential programs to provide inmates with supervision, counseling, and treatment, enabling them to satisfactorily adjust to society. The Department further supervises persons on probation or parole, helping them to continue to reintegrate within society.

¹ Now the Office of Attorney General.

² Governor’s Executive Budget 2016-17.

Pennsylvania's State Correctional Facilities



● Male Institution ● Female Institution *Locations depicted on map are approximate*
‡ Young Adult Offender Institution
● Co-ed Institution
● Under Construction

DOC Press Office ~September 2015

Source: PA Department of Corrections.

Agency Structure

The Department of Corrections is headed by the Secretary of Corrections. The Secretary directly supervises the executive deputy secretary, the deputy secretary for administration and the directors of several offices and bureaus. Please see the organizational chart in Exhibit 27. See Appendix F for a brief description of the responsibilities of each of the Department's bureaus and the services it receives from other state agencies. As reported in the Governor's Executive Budget for FY 2016-17, the Department had a total authorized complement of 17,259 positions in FY 2014-15, of which 9,481 were corrections officers.

Agency Budget

Table 30 compares DOC budget requests to the Governor's budget office to both the amount in the Governor's budget request and the amount appropriated to the Department by the General Assembly. In six out of the seven years (FY 2015-16 being the exception) the Governor's budget document proposed less than the amount requested by the Department. In four of the seven years the General

Assembly appropriated less than the Governor requested, in one year the General Assembly appropriated the same as the Governor requested and in two years the General Assembly appropriated more than requested.

Table 30

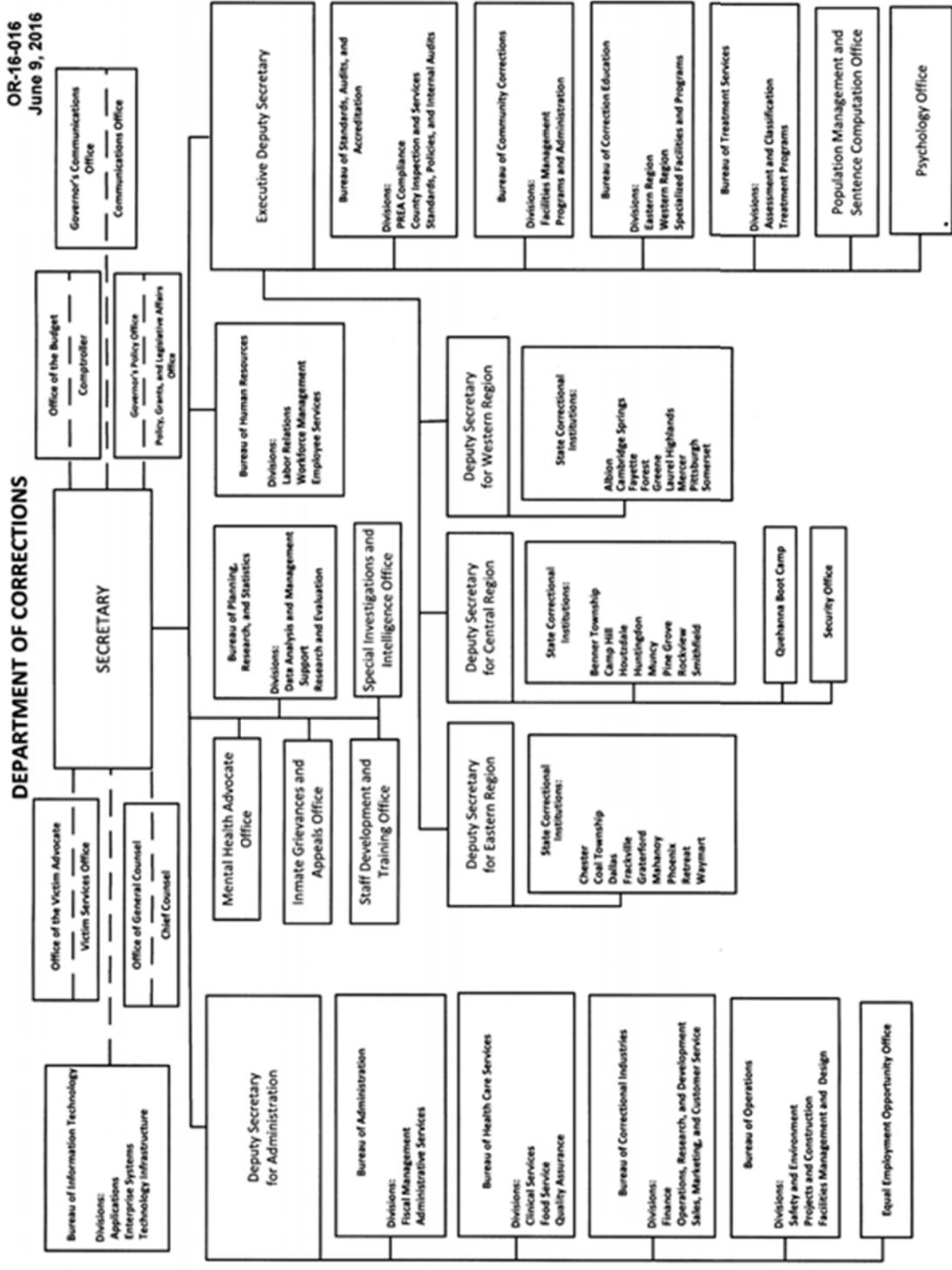
DOC Budget Requests and Appropriations for SCIs
(\$ Thousands)

Fiscal Year	DOC SCI Request	Governor's Request	Enacted Budget	Additional Appropriations	Total Appropriated
2010-11	\$1,513,403	\$1,426,655	\$1,378,518	\$ 272	\$1,378,790
2011-12	1,611,409	1,564,508	1,558,608	----	1,558,608
2012-13	1,627,021	1,579,973	1,579,973	----	1,579,973
2013-14	1,697,378	1,629,099	1,642,971	48,750	1,691,721
2014-15	1,783,691	1,736,246	1,757,192	73,000	1,830,192
2015-16	1,892,500	1,924,552	956,026	952,901	1,908,927
2016-17	2,124,171 ^a	2,065,935	2,039,872	----	2,039,872

^a The original request of \$2,254,227,000 included \$130,019,000 for the Pennsylvania Board of Probation and Parole that was to be transferred to the DOC.

Source: Developed by LB&FC staff from DOC Budget Requests, Governor's Budget Documents, Enacted Budgets, and Status of Appropriations.

Department of Corrections Organization Chart



Source: 4 Pa. Code §9.1.

IX. Appendices

APPENDIX A

PRINTER'S NO. 1529

THE GENERAL ASSEMBLY OF PENNSYLVANIA

SENATE RESOLUTION

No. 263 Session of
2015

INTRODUCED BY ARGALL, FOLMER, YUDICHAK, VULAKOVICH, RAFFERTY,
MENSCH AND HAYWOOD, JANUARY 28, 2016

REFERRED TO JUDICIARY, JANUARY 28, 2016

A RESOLUTION

Directing the Legislative Budget and Finance Committee to
conduct a study regarding overtime costs incurred by the
Department of Corrections relating to staffing shortages.

WHEREAS, The Department of Corrections budget increased by
3.1% from fiscal year 2013-2014 to fiscal year 2014-2015; and

WHEREAS, The department requested an increase of 10% for
fiscal year 2015-2016, which does not include a \$56 million
supplemental appropriation budget request to support unbudgeted
contract costs; and

WHEREAS, The department led all other State departments and
agencies for overtime costs from 2010 through 2014; and

WHEREAS, The department's overtime spending has increased by
more than 57% between 2009-2010 and 2013-2014; and

WHEREAS, The department spent more than \$85 million in
overtime costs in 2014-2015; and

WHEREAS, The Commonwealth has reduced the inmate level by 400
from 2010-2011 to 2011-2012 and more than 700 from 2012-2013 to
2013-2014; and

WHEREAS, It is critical to review staffing levels and
overtime requirements within the department to ensure tax
dollars are being utilized efficiently and effectively;
therefore be it

RESOLVED, That the Legislative Budget and Finance Committee
be directed to conduct a study relating to the staffing levels

Appendix A (Continued)

and mandatory overtime costs within the Department of Corrections; and be it further

RESOLVED, That the study include comparisons to other states' staffing levels compared to inmate levels and historical trends relating to inmate population level increases and decreases; and be it further

RESOLVED, That the study include cost comparisons of hiring new employees within the department compared to paying current employees overtime; and be it further

RESOLVED, That the study incorporate all aspects of staffing, including salary, health care, retirement, training and equipment required for each employee; and be it further

RESOLVED, That in compiling this report the Legislative Budget and Finance Committee seek input from the department, the Office of Administration, the Appropriations Committee of the Senate, the Judiciary Committee of the Senate, the Appropriations Committee of the House of Representatives, the Judiciary Committee of the House of Representatives and the Pennsylvania State Corrections Officers Association; and be it further

RESOLVED, That the Legislative Budget and Finance Committee report its findings and recommendations to the Senate no later than six months after the adoption of this resolution.

APPENDIX B

Overtime Analysis – Data and Methodology

To test the DOC's statements regarding the causal relationship between the historical changes in inmate population and security staffing, the number of security staff on disability and leave without pay, and the increased demand in mental health services with the number of overtime hours worked by security staff since September 2009, a multivariate linear regression analysis with a significance level of .05 was used to determine whether the data being analyzed was statistically significant. A direct method was used with the two independent variables, Total Institution Inmate Population to Active Status Security Staffing Ratio (Pop/CO) and Mental Health Demand (MH), to predict the value of the dependent variable, Overtime Hours.

Total Institution Inmate Population to Active Status Security Staffing Ratio (Pop/CO)

For the first independent variable, Total Institution Inmate Population to Active Status Security Staffing Ratio (Pop/CO), the average monthly total institution inmate population was divided by the average number of security staff on active status per month from September 2009 to June 2016.¹ If there is an increase in the institution inmate population without a reciprocating increase in the number of active status security staff, we would expect to see an increase in the number of overtime hours.

Average Total Institution Inmate Population Per Month.² To calculate the average monthly inmate population, end-of-the-month inmate population data was collected from the DOC's Monthly Population Reports. The total institution inmate population was then averaged between each two connecting months. For example, the end-of-the-month population report for June 30, 2015, was averaged with the July 31, 2015, report to determine the average inmate population level for the entire month of July 2015.

Average Number of Security Staff on Active Status Per Month.³ To calculate the average number of security staff on active status per month, bi-weekly end-of-the-pay-period data was provided by the DOC. Only security staff on active status at the end of each pay period were counted, because those on disability leave

¹ Data from July and August 2009 was excluded due to an error in the data provided by the DOC.

² Total institution inmate population only includes inmates held in the state-run prisons and Quehanna boot camp, but does not include inmates held in out-of-state prisons, federal prisons, county jails, contract facilities, and community corrections centers, or parolees and the halfway back population, which includes PennCapp participants (Pennsylvania Community Alternatives to Prison Program).

³ Security staff includes corrections officers 1 and 2 (CO 1-2s) and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s).

Appendix B (Continued)

and leave without pay do not contribute productive working hours. As the number of security staff on disability and/or leave without pay increases the number of security staff on active status will decrease.

Percent of Corrections Officer Trainees in Training Phases 2, 3, and 4. Corrections officer trainees in training phase 1 (COT-1) were not included because the position does not contribute any productive security hours and does not fill a full-time position on the security staffing roster. However, data on the number of corrections officer trainees (COT) in each training phase is not maintained by the DOC. Therefore, we took two separate measurements into consideration to determine the number of COT 2-4s at the end of each bi-weekly pay period.

First, a snap shot on July 25, 2016, was provided by the DOC for four separate SCI facilities – SCI-Benner Township, SCI-Coal Township, SCI-Graterford, and SCI-Rockview – indicating that an estimated 87.0 percent of COTs are likely to be in training phases 2, 3, and 4 at any given time. However, as indicated in the table below, an exact number or percentage could not be determined because each training phase starts and ends in groups and can, therefore, skew the percentage in either direction at any given time.

Trainee Phase	Benner Township ^a		Coal Township ^b		Graterford		Rockview ^c		Total	Percent
1	0	0%	8	20%	10	17%	7	11%	25	13%
2	14	47	11	28	31	53	17	27	73	38
3	7	23	9	23	1	2	4	6	21	11
4	9	30	12	30	16	28	34	55	71	37

^a SCI-Benner Township - A new group of COTs in phase 1 began on August 8, 2016.
^b SCI-Coal Township - 6 COTs in phase 4 turned over to CO-1 the following week.
^c SCI-Rockview - 9 COTs in phase 4 turned over to CO-1 the following day.

Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

Second, we measured the number of weeks required in each of the training phases, with 8 weeks in Phase 1, 13 weeks in phase 2, 16 weeks in phase 3, and 15 weeks in phase 4. As such, we determined that out of the total 52-week training program, 84.6 percent of CO training takes place in training phases 2, 3, and 4. Therefore, we determined that roughly 85 percent of all COTs were in training phases 2, 3, and 4 at any given time. Consequently, all CO 1-2s and 85 percent of all COTs that were on active status at the end of each bi-weekly pay period were totaled and then averaged with any other pay period that ended within the same month.

Appendix B (Continued)

The 2014 Hiring Freeze Temporarily Changed the Percentage of COT 2-4s.

The DOC announced a hiring freeze as the result of budgetary constraints in May 2014; although, the freeze didn't take full effect until July 2014.⁴ Additionally, while the hiring freeze was officially over by the end of August 2014, training didn't resume until the beginning of calendar year 2015. There is no data available on the exact number of COTs that were not hired. However, during this time period, the number of filled COT positions was reduced by over 300 positions, from an average of 722 in May 2014 to 417 by January 2015. Furthermore, DOC staff agreed that 300 COTs would be a fair estimate on the number of COTs not hired during the first half of FY 2014-15.

Therefore, to adjust for the reduction in the number of COT-1s hired during the last major hiring freeze that took place in the first half of FY 2014-15, 88 percent of COTs were counted in June 2014, 91 percent in July, 94 percent in August, 97 percent in September, 100 percent from October to December, 97 percent in January 2015, 94 percent in February, 91 percent in March, and then 88 percent in April. Thereafter, 85 percent of COTs were once again counted as COT 2-4s. These percentages were estimated by the changes in the overall number of filled COT positions per month during that time period, and was determined to be a reasonable estimate because the number of filled COT-1 positions began to decline in June 2014 and no new COT-1 positions were filled from July to December 2014. However, training phase 1 takes place over an eight-week period and, therefore, would have taken a few months until there were no COT-1 positions filled. Furthermore, while training picked back up at the beginning of calendar year 2015, it would have taken a few months for the number of filled COT-1 positions to return to a full 15 percent of all COTs.

Mental Health Demand (MH)

Disability Rights Network Settlement (DRN). For the second independent variable, Mental Health Demand (MH), a monthly dichotomous/dummy variable (0 and 1) was created to indicate the mental health reforms that were enacted as a result of the Disability Rights Network Settlement (DRN) and the U.S. Department of Justice investigation. According to DOC staff and quarterly data provided to us on the number of inmates classified under Roster D, the increased demand was determined to have begun around June 2014. If the mental health policy reforms made in response to the settlement and the investigation increased the demands in mental health services we would expect to see a rapid increase in the number of overtime hours worked by security staff after June 1, 2014.

⁴ Unlike previous hiring freezes, this one included security staff and had a direct and significant impact on the number of corrections officer trainees hired to fill vacant CO positions.

Appendix B (Continued)

Medical Transports and Hospital Posts

Aging Inmate Population. There is currently no monthly data to measure the increased demand in medical services due to an aging population. At the moment, only imprecise annual data on medical transports and hospital posts has been collected through annual surveys and medical invoices. Therefore, we were unable to measure this effect in our regression analysis.

Overtime Hours

Overtime Hours. For the dependent variable, Overtime Hours, bi-weekly end-of-the-pay-period data on the number of overtime hours worked by CO 1-2s and COTs was provided by the DOC. As confirmed by DOC staff, it can be assumed that all overtime hours performed by COTs were in training phases 2, 3, and 4, because COT-1s do not work any overtime hours. In order to calculate the total number of overtime hours per month, bi-weekly pay periods that crossed over into the next month had to be divided by the percentage of days that took place in each separate month. For example, if seven days were in May and seven days were in June, the number of overtime hours were divided in half between the two months.

Multivariate Linear Regressions Analysis Results

As the table below depicts, a multivariate linear regression analysis was used with a significance level of .05 to determine whether the data being analyzed for the institutional total was statistically significant. As a result, we found a significant relationship between the inmate to security staffing ratio and the increased demand for mental health services with the number of overtime hours worked within the DOC since September 2009. Furthermore, the effect was found to be very large, with 76 percent of the variation in the number of overtime hours worked explained.

Overtime Hours Regression Analysis (N=82)									
Facility	Effect	Pop/CO	P-value	MH	P-value	Mult. R	R ²	F	Sig. F
Total Institution	Very Large	76,482.28	0.00	52,255.75	0.00	0.89	0.79	154.19	0.00

Source: Developed by LB&FC from data provided by the Pennsylvania Department of Corrections.

These results substantiate the claims made by the DOC that despite a declining inmate population, unfilled security staff positions, the number of security staff on disability leave and leave without pay at any given time, and the increased demand for mental health services provides a significant explanation for the increased number of overtime hours worked since FY 2009-10.

APPENDIX C

FTE Security Staffing Analysis – Data and Methodology

Summary

We performed a full-time equivalent (FTE) security staffing analysis as a comparative analysis of the most recent security manpower surveys performed at each of the 26 DOC facilities. This analysis calculates the total number of full-time equivalent security staff that are needed to cover the number of security hours actually worked in the most recent fiscal year.¹ By calculating the average number of security hours worked per fiscal year by security staff for comparison to the total number of security hours that would be expected to be worked at the regular hourly rate, we sought to determine the number of security staff needed to minimize the costs of overtime hours.²

Data from FY 2009-10 to FY 2015-16 that was provided by the DOC was used to perform an FTE security staffing analysis. To perform the analysis, we subtracted our estimate of the percentage of expected (i.e., unavoidable) overtime hours from the total number of security hours worked at each institution during FY 2015-16. The remaining hours were then divided by the three-year average number of productive hours worked by CO 1-2s and COT 2-4s. That number was then divided by the three-year average percentage of all CO 1-2s and COT 2-4s on active status at any given time to determine the appropriate staffing levels needed to meet the needs of each institution while minimizing the number of overtime hours worked.

Security Hours

The number of security hours worked at each institution per fiscal year was calculated by adding the total number of regular and overtime hours worked by CO 1-2s and COT 2-4s. Corrections officer trainees in training phase 1 (COT-1) were not included because the position does not contribute any productive security hours and does not fill a full-time equivalent slot in the security staffing roster. Approximately 85 percent of all COTs are in training phases 2, 3, and 4 at any given time, and, therefore, only 85 percent of the regular hours worked by COTs were counted as security hours.³ According to DOC staff, it can be assumed that all overtime hours performed by COTs were in training phases 2, 3, and 4 because COT-1s do not work any overtime hours.

¹ Security staff includes corrections officers 1 and 2 (CO 1-2s) and corrections officer trainees in training phases 2, 3, and 4 (COT 2-4s). Security hours include the total number of regular and overtime hours (1.0, 1.5, and 2.0 overtime rate) worked by security staff. Overtime hours worked as half time, holiday time, or walk time were not included in our analysis because even if all vacancies were filled these types of overtime hours generally would not be avoided.

² Miller, R., & Liebert, D. (2003). "Staffing Analysis Workbook for Jails, 2nd edition." National Institute of Corrections, U.S. Department of Justice. Washington D.C.

³ See Appendix B for detailed data and methodology on determining the percentage of COTs in training phases 2, 3, and 4.

Appendix C (Continued)

Percentage of Expected Overtime Hours

According to a 2016 jail staffing analysis report prepared under a cooperative agreement with the National Institute of Corrections, U.S. Department of Justice, a certain amount of staff overtime is inevitable in jails, and is actually an efficient response to certain needs.⁴ For example, sometimes employees are asked to work beyond their usual hours to respond to unexpected staffing shortages due to unscheduled absences, emergencies, or intermittent “details” that require additional staffing for a short period of time (supervising hospitalized inmates is one of the most common details). Furthermore, some jurisdictions prefer incurring higher rates of overtime to hiring more full-time staff or operating below minimum staffing levels. Overtime use also provides them with a better trained and more experienced workforce than does the alternative of using part-time staff.

Therefore, recognizing that a certain amount of overtime hours would be necessary to provide the required DOC security function, we calculated what percentage of the total security hours worked would be expected to be worked as overtime to meet the needs of each individual DOC facility. Since each jail or prison is unique in its staffing and security hour requirements, we looked at the percentage of the total security hours worked as overtime at each SCI facility over the last seven fiscal years.⁵ See Table A. We determined that it can be reasonably argued that if an SCI facility was able to operate their facility at a certain percentage of overtime hours within the last seven fiscal years, that percentage of overtime can be used as a realistic estimate to meet the current needs of the facility. Therefore, by using the lowest percentage of overtime hours worked at each separate SCI facility over the last seven fiscal years, we calculated the percentage of overtime hours that could be realistically expected to be necessary to meet the needs of each facility if efficiently staffed.

Expected Number of Regular Hours

FY 2015-16 data was used to calculate the current security staffing needs of the DOC. We deducted the lowest percentage of overtime hours expected to be worked at each facility from the total security hours actually worked to determine the number of security hours that should be worked at the regular hourly rate. Out of a total of 15,271,088 security hours worked at all 26 SCI facilities combined during FY 2015-16, 14,543,410 security hours, 95.2 percent, would be expected to be worked at the regular hourly rate and was, therefore, used to perform the FTE security staffing analysis. See Table B.

⁴ Miller, R., Wetzels, J., & Hart, J. “Jail Staffing Analysis, 3rd Edition.” National Institute of Corrections, U.S. Department of Justice. Washington D.C. Revised 2016.

⁵ Seven fiscal years of data was provided to us by the DOC for our analysis.

Appendix C (Continued)

Table A

Percent of Total Security Hours Worked at Overtime Rate by Facility*
(FY 2009-10 – FY 2015-16)

Facility	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Albion	4.81%	5.25%	8.72%	14.03%	13.87%	15.53%	12.46%
Benner					9.08	15.17	12.52
Cambridge Springs	8.50	8.16	9.63	11.64	11.39	17.58	13.59
Camp Hill	6.02	4.12	6.18	7.62	10.95	11.70	9.23
Chester	8.76	9.42	11.74	13.75	19.82	20.02	15.68
Coal Township	5.60	8.16	10.21	13.06	13.36	22.00	15.56
Dallas	3.40	4.71	5.20	5.42	7.87	12.96	13.65
Fayette	7.72	7.69	9.78	10.02	6.08	9.91	11.21
Forest	7.01	8.41	6.64	5.59	14.00	13.41	12.96
Frackville	7.61	7.04	9.15	8.48	12.13	13.54	9.70
Graterford	7.43	3.20	4.27	5.70	6.09	6.71	7.66
Greene	5.60	3.75	2.02	6.54	8.86	13.78	13.43
Houtzdale	3.57	3.11	7.18	6.30	8.15	11.18	13.99
Huntingdon	3.94	2.73	2.52	4.55	7.17	7.81	8.70
Laurel Highland	10.15	5.87	8.97	10.01	5.60	7.87	10.95
Mahanoy	5.03	6.84	11.25	10.35	8.86	13.13	10.41
Mercer	8.72	4.45	3.91	7.61	8.63	8.62	9.89
Muncy	4.21	5.73	8.29	8.55	12.05	15.23	15.27
Pine Grove	3.85	3.27	4.61	5.43	4.35	7.82	5.13
Pittsburgh	16.89	14.09	17.18	20.49	21.77	25.65	27.12
Quehanna	4.44	5.05	6.21	5.52	4.47	6.17	3.29
Retreat	2.44	2.66	3.46	4.57	6.15	9.31	11.09
Rockview	1.64	0.78	4.17	9.29	10.83	10.56	9.17
Smithfield	6.05	5.54	6.12	5.90	4.26	10.81	9.14
Somerset	8.15	5.38	8.06	8.97	8.75	13.13	14.46
Waymart	5.52	2.33	4.47	5.42	10.45	11.98	8.09

* The lowest percentage is highlighted for each SCI facility.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Appendix C (Continued)

Table B

**Expected Security Hours Worked at the Overtime Rate by Facility
(FY 2015-16)**

Facility	Total Security Hours Worked	Expected Percent of Overtime Hours	Expected Overtime Hours	Expected Regular Hours
Albion	558,198	4.81%	26,865	531,332
Benner	601,365	9.08	54,624	546,741
Cambridge Springs	313,322	8.16	25,576	287,745
Camp Hill	945,384	4.12	38,926	906,458
Chester	408,071	8.76	35,758	372,314
Coal Township	501,835	5.60	28,103	473,731
Dallas	673,666	3.40	22,888	650,777
Fayette	692,649	6.08	42,119	650,530
Forest	718,817	5.59	40,182	678,635
Frackville	443,072	7.04	31,189	411,883
Graterford	1,209,578	3.20	38,757	1,170,821
Greene	751,869	2.02	15,172	736,696
Houtzdale	559,337	3.11	17,404	541,933
Huntingdon	682,597	2.52	17,217	665,379
Laurel Highland	495,354	5.60	27,760	467,595
Mahanoy	569,686	5.03	28,636	541,050
Mercer	409,695	3.91	16,026	393,669
Muncy	560,151	4.21	23,582	536,569
Pine Grove	470,146	3.27	15,377	454,770
Pittsburgh	656,744	14.09	92,510	564,234
Quehanna	191,936	3.29	6,315	185,622
Retreat	356,775	2.44	8,696	348,079
Rockview	740,737	0.78	5,752	734,986
Smithfield	552,474	4.26	23,514	528,959
Somerset	543,928	5.38	29,247	514,681
Waymart	663,624	2.33	15,438	648,186
Total	15,271,008	4.76	727,598	14,543,410

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Appendix C (Continued)

Three-Year Average Number of Productive Hours Worked

The three-year average number of productive hours worked was calculated by dividing the total number of security hours worked at the regular rate at each institution per fiscal year by the average number of security staff on active status per fiscal year at each institution.⁶ The resulting average number of productive hours worked at each institution per fiscal year was then averaged over a three-year period, from FY 2013-14 to FY 2015-16. As shown on Table C, with all SCI facilities combined, this resulted in 1,694 productive hours worked annually, on average, by each security staff member.

Relief Factor

To account for the percentage of security staff on disability or leave without pay, we calculated a relief factor. The relief factor was calculated by dividing the average number of security staff on active status by the average number of filled security staff at each institution over the last three fiscal years.⁷ The resulting percentage of security staff on active status at each institution per fiscal year was then averaged over a three-year period, from FY 2013-14 to FY 2015-16. As shown in Table D, from FY 2013-14 to FY 2015-16, 96.7 percent of all security staff were on active status at any given time.

As such, after subtracting the number of expected overtime hours from the total security hours worked, the remaining regular hours at each institution can be divided by the three-year average number of productive hours worked by security staff. That number can then be divided by the 3 year average percentage of all security staff on active status at any given time to determine the appropriate staffing levels needed to meet the needs of each institution. See Chapter VI for our results.

⁶ Active status only includes corrections officers actively working security hours and filling a full-time slot on the staffing roster, but does not include corrections officers on disability or leave without pay.

⁷ Filled corrections officer positions includes CO 1-2s and COT 2-4s on active status, disability, and leave without pay.

Appendix C (Continued)

Table C

3-Year Average of CO 1-2 and COT 2-4 Productive Hours Worked by Facility
(FY 2013-14 – FY 2015-16)

Facility	FY 2013-14	FY 2014-15	FY 2015-16	3 Year Average
Albion	1,714	1,697	1,732	1,714
Benner	1,775	1,757	1,751	1,761
Cambridge Springs	1,752	1,739	1,765	1,752
Camp Hill	1,744	1,723	1,726	1,731
Chester	1,651	1,655	1,681	1,662
Coal Township	1,667	1,600	1,657	1,641
Dallas	1,606	1,609	1,627	1,614
Fayette	1,689	1,658	1,683	1,677
Forest	1,741	1,742	1,728	1,737
Frackville	1,640	1,661	1,718	1,673
Graterford	1,742	1,742	1,749	1,744
Greene	1,692	1,670	1,679	1,680
Houtzdale	1,720	1,696	1,703	1,706
Huntingdon	1,718	1,722	1,737	1,726
Laurel Highland	1,581	1,617	1,534	1,577
Mahanoy	1,696	1,659	1,683	1,680
Mercer	1,716	1,697	1,695	1,703
Muncy	1,670	1,676	1,662	1,669
Pine Grove	1,693	1,679	1,691	1,688
Pittsburgh	1,666	1,673	1,650	1,663
Quehanna	1,741	1,725	1,751	1,739
Retreat	1,662	1,611	1,580	1,618
Rockview	1,734	1,732	1,724	1,730
Smithfield	1,715	1,722	1,748	1,728
Somerset	1,696	1,698	1,690	1,695
Waymart	1,646	1,671	1,665	1,661
Total	1,697	1,689	1,695	1,694

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Appendix C (Continued)

Table D

3-Year Average Percentage of Active CO 1-2s and COT 2-4s by Facility
(FY 2013-14 - FY 2015-16)

Facility	FY 2013-14	FY 2014-15	FY 2015-16	3-Year Average
Albion	95.3%	97.3%	96.9%	96.5%
Benner	96.3	97.9	98.5	97.6
Cambridge Springs	99.0	99.1	99.8	99.3
Camp Hill	95.6	94.3	96.1	95.3
Chester	93.4	94.5	96.2	94.7
Coal Township	95.4	94.9	95.1	95.1
Dallas	95.0	95.1	96.2	95.4
Fayette	97.2	97.3	96.5	97.0
Forest	95.4	96.5	96.4	96.1
Frackville	94.9	96.4	97.4	96.3
Graterford	93.5	94.3	94.8	94.2
Greene	95.2	95.6	95.1	95.3
Houtzdale	96.7	96.7	94.7	96.0
Huntingdon	97.1	97.5	98.4	97.7
Laurel Highland	98.7	98.5	98.9	98.7
Mahanoy	97.9	98.7	98.5	98.3
Mercer	97.2	98.0	97.4	97.6
Muncy	99.0	99.0	98.0	98.7
Pine Grove	96.0	97.5	97.8	97.1
Pittsburgh	93.8	95.1	95.7	94.9
Quehanna	97.5	97.5	98.7	97.9
Retreat	97.4	97.4	96.8	97.2
Rockview	96.9	96.9	97.7	97.2
Smithfield	96.9	97.0	97.7	97.2
Somerset	95.9	96.6	97.9	96.8
Waymart	96.6	96.7	96.5	96.6
Institutional Total	96.3	96.8	97.1	96.7

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

APPENDIX D

A Cost-Benefit Analysis for Hiring a New CO – Data and Methodology

We compared the weekly training and personnel costs of hiring a new COT on July 1, 2016, to the average weekly costs of the overtime hours that would be avoided by hiring a COT over the ten-year period, July 2016 through June 2026.

Variable Benefit Costs¹

The “Retirement Age 55” benefit rates were used to calculate the variable benefit costs for a COT hired on July 1, 2016, and to calculate the variable benefit costs of the overtime hours worked by the average COT over ten years. The “Retirement Age 50” benefit rates were used to calculate the variable benefit costs of the overtime hours worked by the average CO 1-2 over ten years.² See the table below. Future benefit rates have not been projected for the DOC beyond FY 2017-18, so the projected benefit rates for FY 2017-18 were used, without adjustment, for each subsequent fiscal year.

Variable Benefit Rates by Retirement Age*
(FY 2010-11 – FY 2017-18)

Fiscal Year	Age 50		Age 55	
	Regular Variable Rate	Overtime Variable Rate ^a	Regular Variable Rate	Overtime Variable Rate ^a
FY 2010-11	0.1831	0.1651	0.1831	0.1651
FY 2011-12	0.2188	0.2048	0.1933	0.1793
FY 2012-13	0.2629	0.2469	0.2195	0.2035
FY 2013-14	0.3110	0.2940	0.2523	0.2353
FY 2014-15	0.3720	0.3535	0.2985	0.2800
FY 2015-16	0.4263	0.4078	0.3377	0.3192
FY 2016-17	0.4641	0.4541	0.3599	0.3499
FY 2017-18	0.4919	0.4819	0.3792	0.3692

* The “Age 50” retirement rate applies to COs hired before January 1, 2011, and the “Age 55” rate applies to COs hired afterwards.

^a The overtime variable rate is the regular variable rate minus the leave payout rate, since the leave payout rate is not applicable to the costs of overtime hours. Variable benefits, meaning benefits whose cost varies by the gross amount in an employee’s paycheck, include Social Security, Medicare, Worker’s Compensation, leave payout, and pension.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

¹ Variable benefits, meaning benefits whose cost varies by the gross amount in an employee’s paycheck, include Social Security, Medicare, Worker’s Compensation, leave payout, and pension. Leave payout is not included in the costs of overtime hours.

² The “Age 50” retirement rate applies to COs hired before January 1, 2011, and the “Age 55” rate applies to COs hired afterwards.

Appendix D (Continued)

Fixed Benefits - Health and Life Insurance Costs

The DOC provided us with data on the bi-weekly costs of health and life insurance per CO from FY 2010-11 to a projected FY 2017-18. Future health and life insurance costs have not been projected for the DOC beyond FY 2017-18, so we estimated future costs for the following eight fiscal years. With the bi-weekly costs of health and life insurance increasing from \$644.31 per CO in FY 2010-11 to a projected \$867.54 during FY 2017-18, we calculated a 4.34 percent annual increase and, therefore, used that same percentage to project annual increases over the following eight fiscal years. See the table below. The costs of health and life insurance were not included in the overtime cost calculations.³

Fiscal Year	Health Insurance	Life Insurance	Total
FY 2010-11	\$640.00	\$4.31	\$644.31
FY 2017-18	863.00	4.54	867.54
7-Year Percentage of Annual Increase			4.34%
FY 2018-19 ^a	900.45	4.74	905.19
FY 2019-20	939.53	4.94	944.48
FY 2020-21	980.31	5.16	985.47
FY 2021-22	1,022.86	5.38	1,028.24
FY 2022-23	1,067.25	5.61	1,072.86
FY 2023-24	1,113.57	5.86	1,119.42
FY 2024-25	1,161.89	6.11	1,168.01
FY 2025-26	1,212.32	6.38	1,218.70

^a A 4.34 percent annual increase was applied for each fiscal year starting in FY 2018-19.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Projected Hourly Rates for the Average COT

To project the future hourly rates for a COT, we used pay scale group CO 34 – Step-A specified in the pay schedules for a COT in the DOC collective bargaining agreements (CBA), effective on July 1, 2009, and January 1, 2017, to calculate a 2.09 percent of annual increase for the entry level salary over a seven-year period. As indicated in the table below, the 2.09 percent of annual increase was applied for each subsequent fiscal year.

³ The cost of health and life insurance does not increase with overtime hours.

Appendix D (Continued)

COT Average Hourly Rate and 7-Year Percentage of Annual Increase (FY 2009-10 – FY 2025-26)

Fiscal Year	COT
FY 2009-10 – Pay Schedule Effective July 2009	\$15.16
FY 2016-17 – Pay Schedule Effective January 2017	17.76
7-Year Percentage of Annual Change	2.09%
FY 2017-18	\$18.13
FY 2018-19	18.51
FY 2019-20	18.90
FY 2020-21	19.29
FY 2021-22	19.70
FY 2022-23	20.11
FY 2023-24	20.53
FY 2024-25	20.96
FY 2025-26	21.39

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Projected Hourly Rates for the Average CO-1 and CO-2

To project the future hourly rates for the average CO-1 and CO-2, we calculated the average hourly rate for each position, during FY 2009-10 and FY 2015-16, by dividing the total costs of the security hours worked at the regular rate by the total number of security hours worked at the regular rate during each fiscal year. Additionally, the 2014-2017 CBA outlines two separate 3.0 percent pay increases during FY 2016-17, effective July 1, 2016, and January 1, 2017. Using these calculations, we were able to determine a 3.67 percent of annual increase in the hourly rate for the average CO-1, and a 3.13 percent of annual increase for the average CO-2 over a seven-year period. As indicated in the table below, the percentages of annual increase were applied for each position for each subsequent fiscal year.

Appendix D (Continued)

CO-1 and CO-2 Average Hourly Rate and 7-Year Percentage of Annual Increase (FY 2009-10 – FY 2025-26)

Fiscal Year	CO-1	CO-2
FY 2009-10	\$22.04	\$27.85
FY 2016-17	28.37	34.56
7-Year Percentage of Annual Change	3.67%	3.13%
FY 2017-18	29.41	35.65
FY 2018-19	30.49	36.76
FY 2019-20	31.61	37.91
FY 2020-21	32.77	39.10
FY 2021-22	33.97	40.32
FY 2022-23	35.21	41.58
FY 2023-24	36.51	42.89
FY 2024-25	37.85	44.23
FY 2025-26	39.24	45.61

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Weekly COT Training and Personnel Expenditures (FY 2016-17)

To determine the FY 2016-17 weekly training and personnel expenditures for the four-phase 52-week training period, we used training costs data provided by the DOC and the pay scale group CO 34 – Step-A specified in the pay schedules, effective July 1, 2016, and January 1, 2017, of the 2014-2017 CBA. See the table below.

Weekly COT Training and Personnel Expenditures (FY 2016-17)*

Training Week	Hourly Rate	Salary	Variable Benefits	Health & Life Insurance	Training Costs	Total
1 (Orientation)	\$17.24	\$689.60	\$248.17	\$425.77	\$1,122.00	\$2,485.54
2 (Observation)	17.24	689.60	248.17	425.77	0.00	1,363.54
3 (Basic Training)	17.24	689.60	248.17	425.77	294.56	1,658.10
4 (Basic Training)	17.24	689.60	248.17	425.77	294.56	1,658.10
5 (Basic Training)	17.24	689.60	248.17	425.77	294.56	1,658.10
6 (Basic Training)	17.24	689.60	248.17	425.77	294.56	1,658.10
7 (Basic Training)	17.24	689.60	248.17	425.77	294.56	1,658.10
8 to 26	17.24	689.60	248.17	425.77	0.00	1,363.54
27 to 52	17.76	710.40	255.66	425.77	0.00	1,391.83

* Amounts include salary and benefits. Corrections officer trainee (COT) pay rates were determined by the 2014-2017 collective bargaining agreement (CBA) pay schedules, effective July 2016 and January 2017. Benefit costs were determined by using the "Retirement Age 55" benefit rates for FY 2016-17.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Appendix D (Continued)

Projected Hourly Rate for a New Hire CO-1

To determine the FY 2017-18 hourly rate of the new hire CO-1 after completing the four phase 52-week training program, pay scale group CO 35 – Step-B specified in the pay schedule, effective January 1, 2017, of the 2014-2017 CBA was used. For each subsequent fiscal year, using the same pay schedule and pay scale group, we calculated the percentage increase in the hourly rate specified for each step and longevity range, if applicable, that the new hire CO-1 would move through each fiscal year. As shown below, that percentage was then added to the percentage of annual increase (3.67 percent) that was previously calculated for the average CO-1 to determine the projected hourly rate for each fiscal year as the new hire CO-1 moves up in step and longevity range, from FY 2018-19 to FY 2025-26.

Average Hourly Rate and Percentage of Annual Increase
(FY 2017-18 – FY 2025-26)

Pay Schedule	Longevity Range: Step	Specified Hourly Rate	Scheduled Percentage Change	Plus Percentage of Annual Increase (3.67%)	New Hire CO-1 Hourly Rate
FY 2017-18	A: B	\$19.53			\$19.53
FY 2018-19	A: C	20.44	4.66%	8.33%	21.16
FY 2019-20	A: D	21.17	3.57%	7.24%	22.69
FY 2020-21	A: E	22.09	4.35%	8.02%	24.51
FY 2021-22	A: F	22.91	3.71%	7.38%	26.32
FY 2022-23	B: G	25.04	9.30%	12.97%	29.73
FY 2023-24	C: H	26.34	5.19%	8.86%	32.36
FY 2024-25	D: I	27.55	4.59%	8.26%	35.04
FY 2025-26	E: J	29.08	5.55%	9.22%	38.27

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Estimated Training and Personnel Expenditures of a New Hire CO

To calculate the training and personnel expenditures of a new hire CO per fiscal year over a ten-year period, the weekly COT training and personnel expenditures that were previously calculated were used for FY 2016-17. For each subsequent fiscal year, the weekly personnel expenditures were calculated by multiplying the specified combined hourly wage rate and variable benefits by 40 hours per week, plus the weekly cost of health and life insurance for that corresponding fiscal year. See the table below.

Appendix D (Continued)

Estimated Training and Personnel Expenditures for a New Hire CO (FY 2016-17 – FY 2025-26)

Fiscal Year	Training and Personnel Expenditures
FY 2016-17	\$74,234
FY 2017-18	79,032
FY 2018-19	84,678
FY 2019-20	91,818
FY 2020-21	96,380
FY 2021-22	102,680
FY 2022-23	113,633
FY 2023-24	122,400
FY 2024-25	131,332
FY 2025-26	141,917
Total: 5-Years	\$426,143
Total: 10-Years	\$1,038,105

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Overtime Hours Avoided by Hiring a New COT

As of January 18, 2016, a new COT begins working 40 productive security hours per week on the ninth week of training and fills a full-time slot in the security staffing roster. Therefore, with the exception of when the new hire would use holiday leave, combined leave, or sick leave throughout each year, 40 hours of overtime would be avoided every week after the first eight weeks of training is completed. According to DOC staff, during FY 2015-16, the average COT used 25 hours of combined leave and sick days while the average CO-1 used 84.8 hours. Furthermore, in addition to the 11 days of holiday leave (88 hours) per year, the average CO-1 attends five additional days (40 hours) of continued training per fiscal year. Therefore, a total 113 hours were deducted from the security hours worked by the new hire COT in FY 2016-17 and another 212.8 hours were deducted from each subsequent fiscal year.

Hourly Overtime Rate Distribution

It would not be accurate to apply the time-and-a-half hourly overtime rate to the average hourly rate of a CO-1 position, because a portion of the security hours worked as overtime is performed by CO 1-2s and COT 2-4s and at both the time-and-a-half and double-time hourly overtime rate. Therefore, to determine the percentage of overtime hours worked by each position per fiscal year, we divided the total number of overtime hours worked by each position—CO 1-2 and COT 2-4—by the total number of security hours worked as overtime during FY 2015-16. To

Appendix D (Continued)

calculate the percentage of the overtime hours worked by each position at the time-and-a-half and double-time hourly rate, we divided the number of double-time overtime hours worked by each position by the overall number of overtime hours worked by each position. See the table below.

Hourly Overtime Rate Distribution (FY 2015-16)			
Position	Total Overtime	1.5 Overtime Hours	2.0 Overtime Hours
COT	3.54%	97.19%	2.81%
CO-1	83.33	93.60	6.40
CO-2	13.13	93.54	6.46

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Overtime Costs Avoided by Hiring a New CO

To calculate the total costs of the estimated number of overtime hours avoided per week, we multiplied the number of overtime hours distributed to each position at each hourly overtime rate by its corresponding hourly amount. We used the “Age 55” benefit rates for the benefit costs of a COT working overtime hours and the “Age 50” benefits rates for the average CO 1-2 working overtime hours. The table below demonstrates the total estimated costs of the overtime hours accrued per fiscal year.

Estimated Costs of the Overtime Hours Avoided Per Fiscal Year (FY 2016-17 – FY 2025-26)		
Fiscal Year	Overtime Hours Avoided by a New Hire CO	Costs of Overtime Hours Avoided by a New Hire CO^a
FY 2016-17	1,655	\$104,753
FY 2017-18	1,867	126,206
FY 2018-19	1,867	130,692
FY 2019-20	1,899	137,657
FY 2020-21	1,875	140,750
FY 2021-22	1,867	145,134
FY 2022-23	1,867	150,296
FY 2023-24	1,867	155,643
FY 2024-25	1,867	161,182
FY 2025-26	1,867	166,919
Total: 5-Years	9,164	\$640,058
Total: 10-Years	18,500	\$1,419,232

^a Based on a blended rate of overtime as described above. Amounts include salary and overtime variable benefits.
Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Appendix D (Continued)

Finally, as shown in the table below, we compared the estimated training and personnel expenditures of hiring a new CO to the estimated cost of the overtime hours avoided by hiring the new CO.

Training and Personnel Expenditures Versus Overtime Costs Per Fiscal Year
(FY 2016-17 – FY 2025-26)

Fiscal Year	Training and Personnel Expenditures	Costs of Overtime Hours Avoided by A New Hire CO^a	Net Costs
FY 2016-17	\$ 74,234	\$104,753	\$ 30,519
FY 2017-18	79,032	126,206	47,174
FY 2018-19	84,678	130,692	46,013
FY 2019-20	91,818	137,657	45,839
FY 2020-21	96,380	140,750	44,370
FY 2021-22	102,680	145,134	42,453
FY 2022-23	113,633	150,296	36,663
FY 2023-24	122,400	155,643	33,244
FY 2024-25	131,332	161,182	29,850
FY 2025-26	141,917	166,919	25,002
Total: 5-Years	\$426,143	\$640,058	\$213,915
Total: 10-Years	\$1,038,105	\$1,419,232	\$381,127

^a Based on a blended rate of overtime as described above. Amounts include salary and overtime variable benefits.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

APPENDIX E

2014 Hiring Freeze – Data and Methodology

Impact of the 2014 Hiring Freeze on Overtime

The Pennsylvania Department of Corrections (DOC) implemented a hiring freeze during the first half of FY 2014-15 due to budgetary constraints. Therefore, we compared the weekly savings in training and personnel expenditures with the costs of the overtime hours accrued due to the reduction in security staffing from FY 2014-15 to a projected FY 2016-17.

The Number of Corrections Officer Trainees Not Hired Per Month as a Result of the Hiring Freeze

The Pennsylvania DOC announced a hiring freeze as the result of budgetary constraints in May 2014, although the freeze didn't take full effect until July 2014.¹ Additionally, while the hiring freeze was officially over by the end of August 2014, training didn't resume until the beginning of calendar year 2015. During this time period, the number of filled COT positions was reduced by over 300 positions, from an average of 722 in May 2014 to 417 by January 2015. DOC staff agreed that 300 COTs would be a fair estimate on the number of COTs that would have been hired during the first half of FY 2014-15 had it not been for the freeze. Because the DOC held ten 4-week basic training classes per fiscal year prior to January 18, 2016, we estimate that an average of 60 COT positions every five weeks were not filled from July to December 2014.

The Three-Year Attrition Rate of COTs

According to the DOC, 24.0 percent of new hire COTs will leave within their first three years of employment. Therefore, to determine the number of COT positions that would have been lost to attrition, we used data provided to us by the DOC on the three-year turnover rate for all COTs hired during three separate fiscal years, FY 2010-11, FY 2011-12, and FY 2012-13. See the table below. Using these same calculations, we applied the turnover rates to each of the five groups of 60 COT positions that are estimated to have not been hired as a result of the 2014 hiring freeze. The following table demonstrates that each group of 60 COTs would have lost ten positions in the first year of training, two in the second year, and then two more in the third year. Therefore, 14 out of every group of 60 COTs would have been lost to attrition over a three-year period. After accounting for this attrition, we tracked the number of COTs remaining in each group each week from their start

¹ Unlike previous hiring freezes, this one included security staff and had a direct and significant impact on the number of corrections officer trainees hired to fill vacant CO positions.

Appendix E (Continued)

date until the end of FY 2016-17, adjusting for increases in their hourly rates and benefit costs according to the fiscal year and each group's individual longevity range and pay step.

Three-Year Turnover Rate for New Hire COs (FY 2010-11 – FY 2012-13)

	Turnover Rate	FY 2010-11	FY 2011-12	FY 2012-13	Total
Number of COTs Hired		230	417	358	1,005
Attrition:					
1-3 Months	5.07%	12	21	18	51
4-6 Months	4.51	10	18	15	43
7-9 Months	3.95	8	15	13	36
10-12 Months	4.23	8	15	13	37
1st Year	16.62	38	69	59	167
2nd Year	4.53	9	16	14	38
3rd Year	4.50	8	15	13	36
3-Year Total	23.98	55	100	86	241

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Estimated Turnover of Each Group of CO Trainees Not Hired* (FY 2014-15 – FY 2016-17)

	Turnover Rate	COTs Not Hired Each Month
Number of COTs Hired		60
Attrition:		
1-3 Months	5.07%	3
4-6 Months	4.51	3
7-9 Months	3.95	2
10-12 Months	4.23	2
1st Year	16.62	10
2nd Year	4.53	2
3rd Year	4.50	2
3-Year Total	23.98	14

* The number of corrections officer trainees (COT) not hired were rounded off after calculating the turnover rate.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Variable and Fixed Benefit Costs

The "Retirement Age 55" benefit rates were used to calculate the weekly costs of the variable benefits for the COTs estimated to not have been hired as a result of

Appendix E (Continued)

the 2014 hiring freeze.²⁻³ The “Retirement Age 55” benefits rates were also used to calculate the weekly benefit costs of the resulting overtime hours being worked by the average COT over the following three fiscal years, FY 2014-15, FY 2015-16, and FY 2016-17. The “Retirement Age 50” benefit rates were used to calculate the costs of the benefits for the overtime hours worked by the average CO 1-2.⁴ See the table below.

Fiscal Year	Age 50		Age 55	
	Regular Variable Rate	Overtime Variable Rate ^a	Regular Variable Rate	Overtime Variable Rate ^a
FY 2014-15	0.3720	0.3535	0.2985	0.2800
FY 2015-16	0.4263	0.4078	0.3377	0.3192
FY 2016-17	0.4641	0.4541	0.3599	0.3499

* The “Age 50” retirement rate applies to COs hired before January 1, 2011, and the “Age 55” rate applies to COs hired afterwards.
^a The overtime variable rate is the regular variable rate minus the leave payout rate, since the Leave Payout rate is not applicable to the costs of overtime hours.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

As shown in the table below, the DOC provided data on the fixed benefits costs of health and life insurance per CO, though, the costs of health and life insurance were not included in the overtime cost calculations.⁵

Fiscal Year	Health Insurance	Life Insurance	Total Fixed Benefits Cost
FY 2014-15	\$394.50	\$2.27	\$396.77
FY 2015-16	436.50	2.27	438.77
FY 2016-17	423.50	2.27	425.77

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

² The “Age 50” retirement rate applies to COs hired before January 1, 2011, and the “Age 55” rate applies to COs hired afterwards.

³ Variable benefits, meaning benefits whose cost varies by the gross amount in an employee’s paycheck, include Social Security, Medicare, Worker’s Compensation, Leave Payout, and Pension.

⁴ Leave payout is not included in the costs of overtime hours.

⁵ The cost of health and life insurance does not increase with overtime hours.

Appendix E (Continued)

Weekly COT Training and Personnel Expenditures

As shown in the table below, using the training costs data provided to us by the DOC and the 2014-2017 collective bargaining agreement (CBA) pay schedules, effective July 2014 and January 2015, we calculated the training and personnel expenditures for each week of the 52-week training program during FY 2014-15 and the first half of FY 2015-16. The weekly costs include the FY 2014-15 and FY 2015-16 “Retirement Age 55” variable and fixed benefit rates, and any additional training costs.⁶ The estimated number of COTs remaining in each individual group each week was multiplied by the corresponding training week’s training and personnel expenditures.

Training Week	7/14 to 12/14	1/15 to 6/15	7/15 to 12/15
1 (Orientation)	\$2,371	\$2,388	\$2,456
2 (Observation)	1,249	1,266	1,334
3 (Basic Training)	1,544	1,561	1,629
4 (Basic Training)	1,544	1,561	1,629
5 (Basic Training)	1,544	1,561	1,629
6 (Basic Training)	1,544	1,561	1,629
7	1,249	1,266	1,334
8 to 52	1,249	1,266	1,334

* Corrections officer trainee (COT) pay rates were determined by the 2014-2017 collective bargaining agreement (CBA) pay schedules, effective July 2014 and January 2015, and benefit costs were determined by using the “Retirement Age 55” benefit rates for FY 2014-15 and FY 2015-16. Week 1 includes medical exam and uniforms and weeks 2-6 include the additional training costs of the basic training academy.

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Weekly Personnel Expenditures Per New Hire CO 1

We used pay scale group CO 35 Longevity Range-A: Steps B and C from the three pay schedules outlined in the 2014-2017 CBA, effective January 1, 2015, July 1, 2016, and January 1, 2017, to determine the hourly rate of the estimated number of COTs that would have been remaining in each individual group each week during FY 2015-16 and FY 2016-17 after completing the 52-week training program and being promoted to the CO-1 position. To calculate the weekly personnel expenditures for the estimated number of new hire CO-1s in each group each week, we multiplied the number of CO-1s in each individual group by 40 hours and the corresponding

⁶ Variable benefit rates include Social Security, Medicare, Worker’s Compensation, leave payout, and pension, wherein, fixed benefits include medical and life insurance.

Appendix E (Continued)

hourly rate. The weekly costs also include the FY 2015-16 and FY 2016-17 “Retirement Age 55” variable and fixed benefit rates and the \$450 per year provided to each CO-1 for uniform costs.

Reduction in Training and Personnel Expenditures Due to the Hiring Freeze

To calculate the direct savings in training and personnel expenditures over the following three fiscal years as a result of the hiring freeze and, therefore, the reduction in filled security staff positions, we added the weekly training and personnel expenditures of the COTs and new hire CO-1s remaining in each individual group each week for each fiscal year. The table below shows the estimated training and personnel savings per fiscal year as a result of the 2014 hiring freeze.

Estimated Reduction in Training and Personnel Expenditures Per Fiscal Year (FY 2014-15 – FY 2016-17)	
Fiscal Year	Estimated Training and Personnel Costs Avoided
FY 2014-15	\$15,303,522
FY 2015-16	18,017,382
FY 2016-17	18,695,296
Grand Total:	\$52,016,199

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Overtime Hours Accrued as a Result of the Hiring Freeze

With the exception of when each COT would have used holiday leave, combined leave, or sick leave throughout each year, each COT that is estimated to have not been hired during the hiring freeze would have allowed the DOC to avoid 40 hours of overtime every week after the first seven weeks of training was completed.⁷ According to DOC staff, in addition to the 11 days (88 hours) of holiday leave per year, the average COT used 25 hours of combined leave and sick leave while the average CO-1 used 84.8 hours during FY 2015-16. The average CO-1 also attends five additional days (40 hours) of continued training per fiscal year. Therefore, after accounting for attrition, we multiplied the estimated number of COs remaining from each training group each week by the corresponding number of security hours each CO would have worked (40 security hours minus any leave used that week).

⁷ During FY 2015-15, COTs began to contribute 40 security hours per week and filled a full-time slot in the security staffing roster after completing the seven-week training phase 1 of the 52-week CO training program. COTs in training phase 1 do not contribute security hours. Training phase 1 was extended to eight weeks on January 18, 2016.

Appendix E (Continued)

Hourly Overtime Rate Distribution

It would not be accurate to apply the time-and-a-half hourly overtime rate to the average hourly rate of a CO-1 position, because a portion of the security hours worked as overtime is performed by CO 1-2s and COT 2-4s and at both the time-and-a-half and double-time hourly overtime rate. Therefore, to determine the percentage of overtime hours worked by each position per fiscal year, we divided the total number of overtime hours worked by each position—CO 1-2 and COT 2-4—by the total number of security hours worked as overtime during FY 2014-15 and FY 2015-16. For our prediction model for FY 2016-17, we used data from FY 2015-16. To calculate the percentage of the overtime hours worked by each position at the time-and-a-half and double-time hourly rate, we divided the number of double-time overtime hours worked by each position by the overall number of overtime hours worked by each position during FY 2014-15 and FY 2015-16. See the table below.

Position and Hourly Overtime Rate	FY 2014-15	FY 2015-16
CO Trainee - Total Overtime Hours	1.80%	3.54%
1.5 Overtime Hours	97.13	97.19
2.0 Overtime Hours	2.87	2.81
CO-1 - Total Overtime Hours	85.69	83.33
1.5 Overtime Hours	93.16	93.60
2.0 Overtime Hours	6.84	6.40
CO-2 - Total Overtime Hours	12.51	13.13
1.5 Overtime Hours	93.19	93.54
2.0 Overtime Hours	6.81	6.46

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Hourly Rates for the Average COT, CO-1, and CO-2

As shown in the table below, to determine the hourly rate for the average COT working overtime hours, we used pay scale group CO 34 Step-A specified in the pay schedules for a COT in the 2014-2017 CBA, effective July 1, 2014, January 1, 2015, July 1, 2016, and January 1, 2017.

Appendix E (Continued)

COT Regular and Overtime Hourly Rates (FY 2014-15 – FY 2016-17)				
Hourly Rate	July 1, 2014 Pay Schedule	Jan. 1, 2015 Pay Schedule	July 1, 2016 Pay Schedule	Jan. 1, 2017 Pay Schedule
1.0 Regular Hour	\$16.41	\$16.74	\$17.24	\$17.76
1.5 Overtime Hour	24.62	25.11	25.86	26.64
2.0 Overtime Hour	32.82	33.48	34.48	35.52

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

To determine the hourly overtime rates for the average CO-1 and CO-2 working overtime during FY 2014-15 and FY 2015-16, we divided the total costs of the security hours worked at the regular rate by each position by the total number of security hours worked at the regular rate by each position per fiscal year. To project the hourly rates for the average CO-1 and CO-2 during FY 2016-2017, the 2014-2017 CBA outlines two separate 3.0 percent pay increases for the average CO-1 and CO-2, effective July 1, 2016, and January 1, 2017.⁸ See the table below.

CO-1 and CO-2 Regular and Overtime Hourly Rates (FY 2014-15 – FY 2016-17)				
Hourly Rate	FY 2014-15	FY 2015-16	July 1, 2016 Pay Schedule	Jan. 1, 2017 Pay Schedule
Average CO 1				
1.0 Regular Hour	\$26.25	\$26.73	\$27.53	\$28.36
1.5 Overtime Hour	39.38	40.10	41.30	42.54
2.0 Overtime Hour	52.50	53.46	55.06	56.72
Average CO 2				
1.0 Regular Hour	\$32.22	\$32.58	\$33.56	\$34.56
1.5 Overtime Hour	48.33	48.87	50.34	51.84
2.0 Overtime Hour	64.44	65.16	67.12	69.12

Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Overtime Costs Accrued as a Result of the Hiring Freeze

To calculate the total costs of the estimated overtime hours accrued as a result of the hiring freeze, we multiplied the number of overtime hours previously calculated to have accrued distributed to each position at each hourly overtime rate by its corresponding hourly amount. We used the “Retirement Age 55” benefit rates,

⁸ According to DOC staff, the average CO-1 has 10.12 years of service and the average CO-2 has 14.88 years of service. Therefore, increases in pay scale group CO 35, Longevity Range G: Step-K was used for the average CO-1 and pay scale group CO 37, Longevity Range K: Step-K was used for the average CO-2.

Appendix E (Continued)

minus leave payout, for the benefit costs of a COT working overtime hours and the “Retirement Age 50” benefits rates, minus leave payout, for the average CO-1 and CO-2 working overtime hours. The table below demonstrates the total estimated costs of the overtime hours accrued per fiscal year.

Total Estimated Costs of the Overtime Hours Accrued Per Fiscal Year (FY 2014-15 – FY 2016-17)		
Fiscal Year	Resulting Overtime Hours	Overtime Costs^a
FY 2014-15	358,371	\$19,946,542
FY 2015-16	464,146	27,129,862
FY 2016-17	441,753	27,464,661
Grand Total:	1,264,270	\$74,541,064

^a Based on a blended rate of overtime as described above. Amounts include salary and overtime variable benefits.
Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

Finally, we subtracted the estimated reduction in training and personnel expenditures from the estimated cost of the overtime hours accrued each week and per fiscal year as a result of the 2014 hiring freeze. See the table below.

Training and Personnel Costs Avoided Versus Overtime Costs Per Fiscal Year (FY 2014-15 – FY 2016-17)				
Fiscal Year	Resulting Overtime Hours	Training & Personnel Costs Avoided	Overtime Costs^a	Net Costs
FY 2014-15	358,371	\$15,303,522	\$19,946,542	\$4,643,019
FY 2015-16	464,146	18,017,382	27,129,862	\$9,112,481
FY 2016-17	441,753	18,695,296	27,464,661	\$8,769,365
Grand Total:	1,264,270	\$52,016,199	\$74,541,064	\$22,524,866

^a Based on a blended rate of overtime as described above. Amounts include salary and overtime variable benefits.
Source: Developed by LB&FC staff from data provided by the Pennsylvania Department of Corrections.

APPENDIX F

Description of Responsibilities of Department of Corrections Bureaus and Offices

Office or Bureau	Responsibilities
Secretary of Corrections	
Bureau of Human Resources	establishes overall policy and procedures for implementing DOC's comprehensive personnel program while ensuring compliance in the areas of staffing, classification and pay, promotion, employee benefits, personnel transactions and payroll, placement/recruitment, and labor relations.
Office of Inmate Grievance and Appeals	issues final disposition of all grievance appeals from inmates under DOC policy.
Office of Mental Health Advocate	created in 2015, ensures that offenders get the treatment they should while in prison.
Office of Planning, Research and Statistics	directs all planning and research activities within DOC and provides detailed data analysis to assist decision-making and short- and long-term planning efforts.
Office of Special Investigations and Intelligence	investigates staff corruption and inmate abuse; serves as the point of contact for outside law enforcement and intelligence agencies; and conducts background investigations of candidates for employment.
Training Academy/Office of Staff Development and Training	oversees the DOC's staff training; operates and manages the DOC Training Academy. ¹
Executive Deputy Secretary for Corrections	
Bureau of Community Corrections	oversees residential facilities located in various Pennsylvania communities. ²
Bureau of Correction Education	directs, monitors, and assists state prisons in the delivery of educational, vocational, recreational/therapeutic activities, and library services; ensures that inmates are provided with an opportunity to receive instruction in basic skills and special education that can lead to a GED or a Commonwealth secondary diploma.

¹ The academy develops, implements and provides pre-service, in-service, and out-service training of all DOC employees. Training is provided to state and county employees ranging from basic training (required for all new state corrections employees) to management-level courses, instructor courses, and specialized courses. This office also hosts conferences, seminars, and courses sponsored by other Commonwealth and public agencies. Each fiscal year more than 6,000 state and county employees are trained in more than 250 courses consisting of over 100 separate subjects.

² These facilities, also known as half-way houses, provide a transitional process by allowing residents monitored contact with jobs and educational opportunities. The facilities house offenders who have been granted parole by the Pennsylvania Board of Probation and Parole, parole violators returned to the system for technical violations, and offenders in State Intermediate Punishment.

Appendix F (Continued)

Office or Bureau	Responsibilities
Office of Population Management and Sentence Computation	monitors all aspects of the inmate population, enabling DOC officials to successfully manage institution populations; provides for the quick and efficient movement of inmates based on sound security practices, programming needs, medical, mental health, and behavioral needs; assesses, analyzes, and prepares for the future trends of corrections so that the DOC is ready when the needs develop to meet them; oversees the DOC's transportation system; oversees sentence computation for all inmate receptions, sentence status changes for certified sentences of incarcerated inmates, and administration of the Interstate Corrections Compact, International Prisoner Treaty, and witness protection programs.
Psychology Office	created in early 2014 to separate psychology and psychiatry services from the DOC's Bureau of Health Care Services; oversees mental health and psychiatric services delivered to inmates.
Office of Standards, Audits and Accreditation	established July 20, 2015, oversees compliance with the Prison Rape Elimination Act (PREA); County Inspections and Services; and Standards, Policies, and Internal Audits Division. ³
Standards, Policies & Internal Audits Division	develops, implements, and maintains DOC policies; coordinates the accreditation process for all facilities; conducts internal audits of specific areas of operation; compiles audits for all central office bureaus for submission to the deputy secretaries; and oversees the DOC's Records Retention Program.
Bureau of Treatment Services	directs, monitors, and assists state correctional facilities in the assessment of inmate needs and in the delivery of inmate treatment programs, including: religion and family services; volunteers; casework and counseling programs and services; alcohol and other drug treatment services; mental health care services; inmate classification and risk/needs assessment; diagnostic and classification process; and pardons services.
Deputy Secretary for the Eastern Region	oversees the operation of the following state prisons: SCIs Chester, Coal Township, Dallas, Frackville, Graterford, Mahanoy, Retreat, and Waymart.
Deputy Secretary for the Central Region	oversees the operation of the following state prisons: SCIs Benner Township, Camp Hill, Houtzdale, Huntingdon, Muncy, Pine Grove, Rockview, and Smithfield and the Quehanna Motivational Boot Camp.
Security Division	develops and implements security policies/procedures for emergency preparedness; conducts staffing surveys for all facilities, the Drug Interdiction Unit; Special Response Teams (Hostage Rescue Teams, Hostage Negotiations Teams, Corrections Emergency Response Teams, and Corrections Rifle Specialist Teams); and coordinates and monitors external and internal inspections.

³ The mission of this newly-established bureau is to direct, manage, and implement statewide policies and procedures designed to maintain appropriate accreditation, monitor compliance of county facilities with 37 Pa. Code requirements, and ensure DOC compliance with PREA.

Appendix F (Continued)

Office or Bureau	Responsibilities
Deputy Secretary for the Western Region	oversees the operation of the following state prisons: SCIs Albion, Cambridge Springs, Fayette, Forest, Greene, Laurel Highlands, Mercer, Pittsburgh, and Somerset.
Deputy Secretary for Administration	responsible for all of the Department of Corrections' budget and fiscal matters.
Bureau of Administration Bureau of Correctional Industries	operates factories within DOC institutions to provide inmates with vocational training and work experience in order to: reduce inmate idleness while incarcerated, to assist with an inmate's successful reentry following release from prison, and to reduce inmate recidivism by providing them the work skills to find and keep meaningful employment.
Office of Equal Employment Opportunity/Contract Compliance	develops and monitors the DOC's Equal Employment Opportunity (EEO) programs; monitors contract compliance program; investigates allegations of discrimination; promotes diverse recruitment activities and develops the DOC's Equal Employment Opportunity and Contract Compliance plans; develops the bi-annual federal Department of Justice Equal Employment Opportunity plan, the annual Equal Employment Opportunity plan for the Governor's Office of Administration, and the annual Contract Compliance plan for the Department of General Services; provides training to employees and, upon request, the employees of contractors in areas such as sexual harassment, discrimination, and cultural sensitivity; reviews contractors' workforce data, procurement practices, and subcontracting practices to ensure that they are complying with the non-discrimination clause in their state contract; promotes diversity by encouraging contractors as well as purchase agents to utilize certified Minority and Women Owned Business Enterprises (MWBE) whenever possible; monitors the hiring process and conducts adverse impact studies; and provides technical assistance to the institutions' field human resource officers, business managers, and other personnel to further enhance each institution's equal opportunity programs.
Bureau of Health Care Services	supervises and monitors the delivery of all medical/dental care services and food service operations throughout the state correctional system.
Bureau of Operations	works cooperatively with the Department of General Services and the Department of Labor & Industry for the planning and administering of all facility maintenance, construction/renovation, and capital projects, facility buildings as well as land use, surplus property and the DOC's safety and environmental program; oversees ongoing projects completed by each facility for PennDOT under the Agility Program; provides annual facility inspections to ensure compliance with appropriate policies and state and local codes while monitoring the safety practices of staff and inmates.
State Agencies Providing Services to DOC Office of Chief Counsel	gives legal advice and provides legal services from attorneys assigned to Office of Chief Counsel.

Appendix F (Continued)

Office or Bureau	Responsibilities
Bureau of Information Technology	provides project management, applications systems development and support services, desktop services, and infrastructure services and support, to the DOC, the Pennsylvania Board of Probation and Parole, the Sexual Offender Assessment Board, the Office of Victim Advocate, and the Firearm Education and Training Commission.
Office of Policy, Grants and Legislative Affairs	assists the Governor's Policy and Legislative Affairs Office with corrections-related issues to identify and analyze public policy issues that have an impact on the Department of Corrections and the Governor's criminal justice policy agenda; works internally with the Office of Chief Counsel and other DOC directors, as well as other state agencies where overlapping interests occur; works closely with legislators and tracks legislation; develops and promotes agency initiatives and policy agenda; and oversees all grant activity.
Press Office	responds to news media requests for information about DOC policies, procedures, programs, employees, and its inmates; provides guidance and instruction to institutional staff charged with the responsibilities of serving as public information officers; employees also report to the Governor's Communications/Press Office.

APPENDIX G

Response to This Report

February 16, 2017

Mr. Philip R. Durgin
Executive Director
Legislative Budget and Finance Committee
Room 400 Finance Building
613 North St Harrisburg, PA 17105

Dear Director Durgin:

This correspondence will serve as the written response from the Department of Corrections to the Legislative Budget and Finance Committee draft findings and recommendations report regarding the study of overtime within the Department. The Department has made various improvements in regard to the analysis and monitoring of overtime. Our data does indicate that we are making more efficient use of our personnel resources and we expect this to continue in future budget years. I tremendously appreciate the time and work that you and your staff expended in this review. Thank you for efforts in this regard.

The following are the Department's responses to the finding and recommendations outlined in the Report:

Recommendation #1- *The DOC should avoid implementing hiring freezes for security staff.*

The DOC has conducted several analysis in regard to overtime and complement management in FY 15-16 to include: overtime optimization, relief factor and full time equivalency analysis. We agree that hiring freezes create an increase in the use of overtime for security staff due to the large complement and the attrition rates which quickly increase the number of vacancies. A determination was made by the committee to avoid employing hiring freezes as a way to decrease costs within a fiscal year in the future.

Recommendation #2- *The DOC should revise its security manpower surveys to include medical transports and hospital posts to calculate staffing needs.*

The DOC has compiled data on hospital posts from security staff at each SCI and has supplied this information to our staffing consultant in regard to addressing the need for hospital posts and transportation needs to include outpatient medical appointments, court appearances, and inter system transfers requiring individual transport. Increased demands for out of cell time for the mental health population will also be considered. This information will be used to accompany the on-site staffing analysis in order to maximize efficient use of officer posts within the institution as well as address hospital staffing and transport needs.

Recommendation #3- *The DOC should use their consultant's operational analysis of SCI activities and an updated relief factor to develop staffing requirements for new facilities as well as existing facilities.*

The DOC is currently conducting the operational analysis with the consultant and has conducted relief factor analysis previously. The DOC has also conducted a Net Annual Work Hours analysis. The DOC has every intention of implementing the recommended staffing levels with updated relief factors. The DOC has communicated this intention to the Governor's Budget Office as they would need to approve recommended complement levels in order to fully implement the initiative.

Recommendation #4- *The DOC should develop policies and procedures for the consistent and uniform use of a time tracking system at all SCI facilities to ensure more accurate timekeeping and improved monitoring of hours worked.*

The DOC is currently working on the implementation of the Kronos and Telestaff systems. However, these systems will take an extended period of time to implement as the DOC is not the only agency that is part of this initiative. The DOC is working on a more standardized procedure for time tracking which will include policy revisions in order to ensure appropriate documentation, verification and final approval is achieved in the interim until the automated systems are fully functional.

Recommendation # 5- *The DOC should require SCIs to consistently develop overtime justification reports on a monthly basis as a method to inform future staffing decisions and address developing overtime problems.*

The DOC is currently developing a standardized electronic spreadsheet that will provide information related to overtime. Specific categories will include: vacancies, positions filled, hospital posts, medical transports, court transports, inter system transfers, out of cell time, training, and other factors. This report will be mandatory from the security, human resource and administrative staff of each SCI on a monthly basis and incorporated into DOC policy. Central office administration along with GBO staff will monitor the report and take the proper action in regard to complement control measures, recruiting, and other analysis in order to optimize staffing requirements.

Please feel free to contact me with any questions or concerns.

Sincerely,



Christopher H. Oppman
Deputy Secretary of Administration
Pennsylvania Department of Corrections