Workforce Availability and Overtime Update

September 25, 2013

CountyStat

CountyStat Principles

- **Require Data-Driven Performance**
- **Promote Strategic Governance**
- **Increase Government Transparency**
- **Foster a Culture of Accountability**

Agenda

- **Welcome and Introductions**
- **Meeting Purpose**
- **Data Methodology**
- **Departmental Availability FY12 vs. FY13**
- **Detailed FY13 Data by Department**
  - FY12 vs. FY13 Overtime
  - Overtime/Leave Correlations
  - Availability vs. Overtime
  - Breakdown of Leave Use vs. Overtime
- **Case Study 1: Sick Leave Usage around County Holidays**
- **Case Study 2: Emergency Call Center Sick Leave Usage**
- **Next Steps/Follow-Up**

Meeting Purpose

- Compare FY12 and FY13 WFA, Leave and OT data to identify leave types that potentially drive OT
- Continue in-depth examination of instances where denial of leave may result in Sick Leave use
- Examine MCFRS employee WFA, Leave, and OT data by expected work hours
- Examine number of OT hours earned in MCFRS by employees who worked fewer than 96 hours on Regular Pay
- Examine instances where Sick Leave is used to create a four-day weekend around County Holidays

Methodology

- **Data Source:** Oracle Labor Distribution Module
- **Data Parameters:** FY12 and FY13 data for all full-time, non-seasonal County employees of Executive Office Departments with at least 10 employees
- **Data Notes**:
  - The FY13 pay periods are based on the following pay period end dates:

FY13 Pay Period Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Pay Period End Date	7/14/12	7/28/12	8/11/12	8/25/12	9/8/12	9/22/12	10/6/12	10/20/12	11/3/12	11/17/12	12/1/12	12/15/12	12/29/12

FY13 Pay Period Number	14	15	16	17	18	19	20	21	22	23	24	25	26
Pay Period End Date	1/12/13	1/26/13	2/9/13	2/23/13	3/9/13	3/23/13	4/6/13	4/20/13	5/4/13	5/18/13	6/1/13	6/15/13	6/29/13

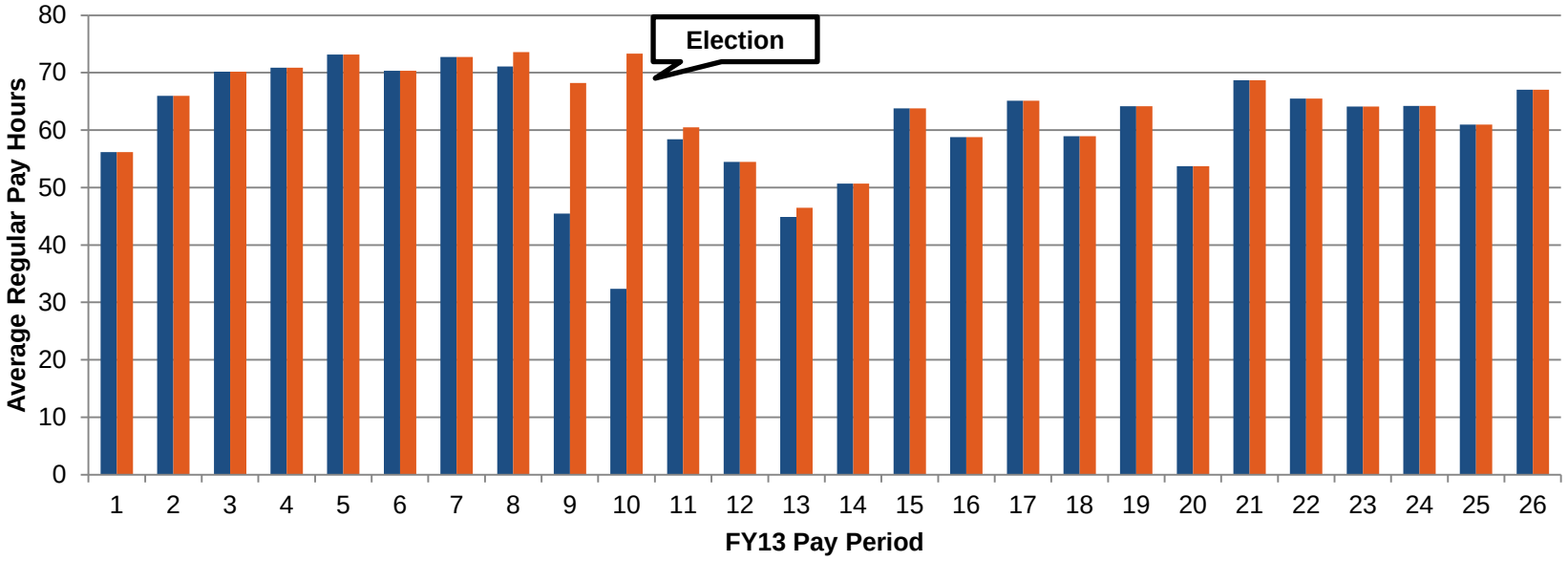
- **Definitions**:
  - Availability: Percent hours in a given pay period that an employee is on regular pay (based on a total of 80 hours per pay period for all departments except MCFRS, where employees can work 80, 84, or 96 hours in a pay period)

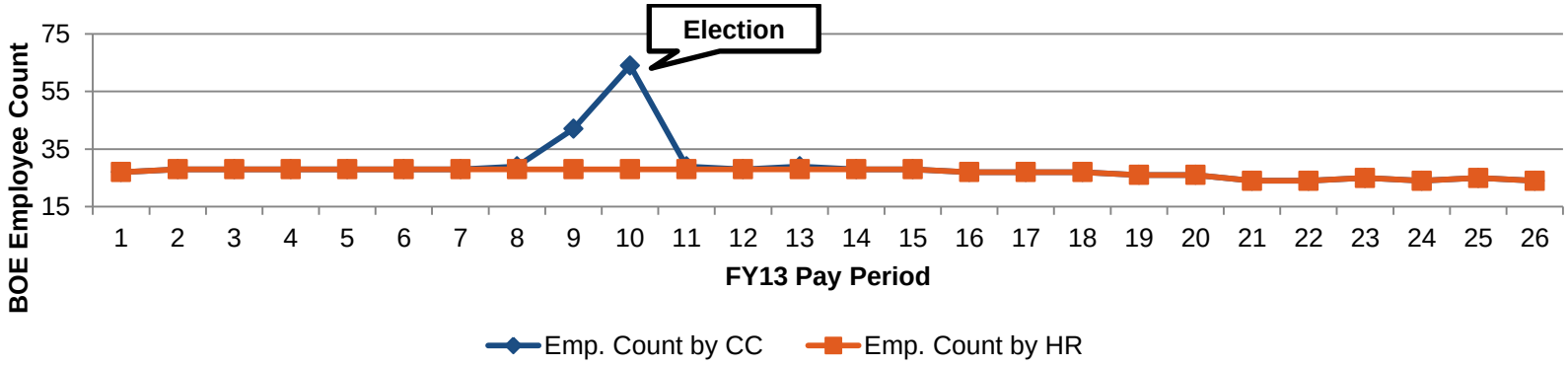
Methodology for Calculating WFA (1/2)

- **CountyStat analyzed two methodologies to determine WFA**
  - Employee Count based on Cost Center
    - Cost Center counts employees based on an employee's funding source(s)
  - Employee Count based on HR Organization
    - HR Org counts employees based on an employee's home department
- **When analyzing employee counts by Cost Center, CountyStat found inflated employee counts**
  - Employees were double-counted when their labor costs were distributed across more than one department
    - Example- County Attorney "A" charges hours towards BOE and CAT in one pay period. "A" is counted as an employee in both BOE and CAT based on cost center, but only once based on HR organization.

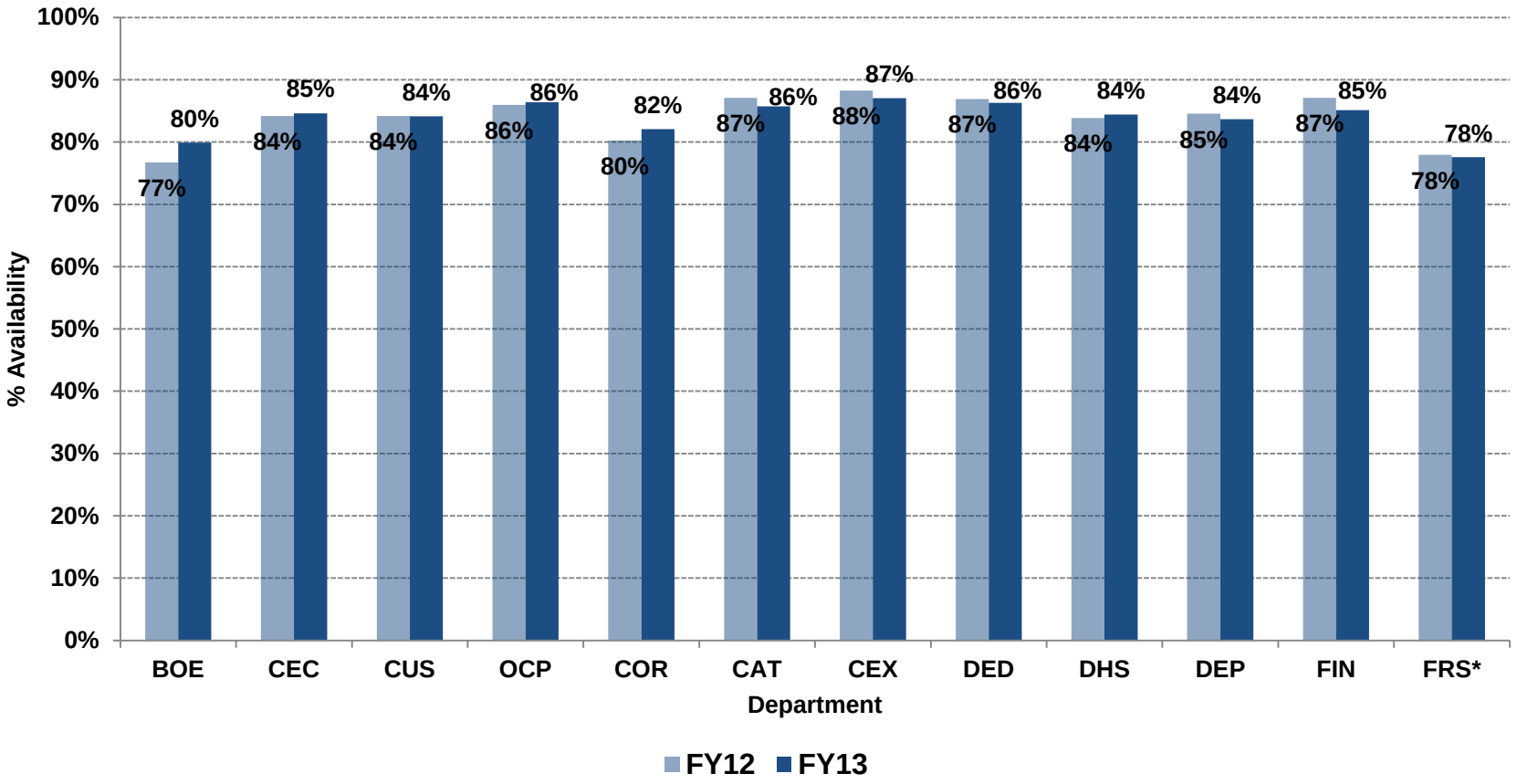
CountyStat has determined that using employee counts based on HR organization is best practice as it eliminates any double-counting of employees.

Methodology for Calculating WFA (2/2)





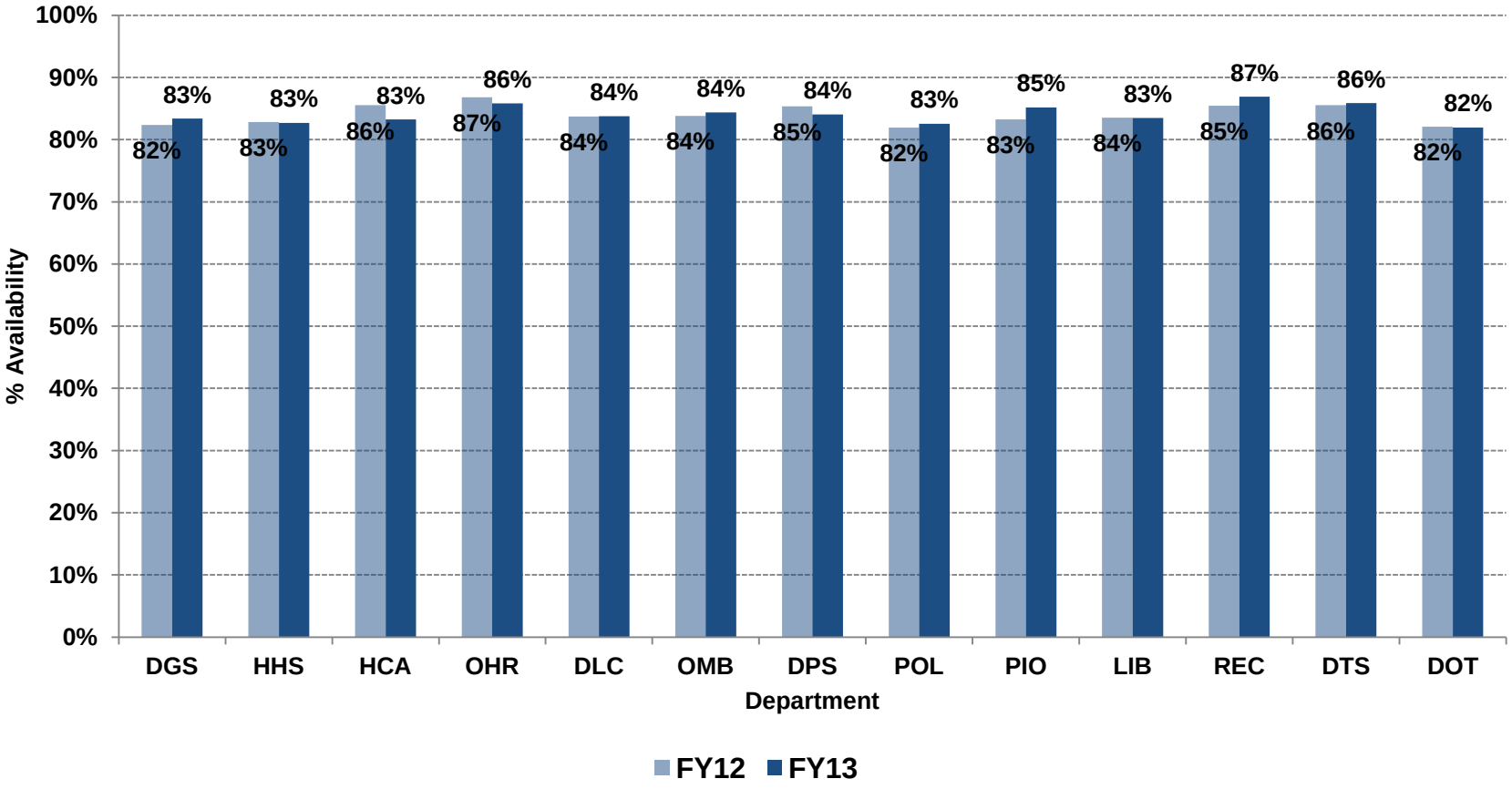
Average Departmental Availability (1/2)



In the 25 executive departments examined, the County-wide availability average was 83.5% in FY12 and FY13. Year over year, 16 departments increased or maintained WFA, while 9 saw a decrease.

*FRS availability shown is a non-weighted average of the three work weeks. 80 hour employees were available 79.3%, 84 hour employees 74.3%, and 96 hour employees 79.0% in FY13.

Average Departmental Availability (2/2)



In the 25 executive departments examined, the County-wide availability average was 83.5% in FY12 and FY13. Year over year, 16 departments increased or maintained WFA, while 9 saw a decrease.

Workforce Availability in Perspective

- **To get to the County average WFA, a 40 hour/week employee with 3-15 years of service who earns comp time could take leave as follows:**

Hours	Hours of Leave Used	Leave Type	Workforce Availability (%)
2,080	--	--	100%
2,008	-72	(-) 9 County Holidays	96.5%
1,984	-24	(-) 3 Personal Days	95.4%
1,848	-136	(-) 17 Days of Annual Leave	88.8%
1,812	-36	(-) 4.5 Days of Admin	87.1%
1,792	-20	(-) 2.5 Days of Comp Leave	86.2%
1,736	-56	(-) 7 Sick Days	83.5%

On average, County employees take 16.5 days of Annual Leave, 11 Sick Days, 2.5 Comp Days, and 4.5 days of Admin Leave.

Change in Availability, Overtime, and Employee Count from FY12 to FY13

Only departments using at least 500 hours of overtime in FY13 were included.

	Change in Availability	Change in Average Number of Employees	Change in Overtime Hours per Employee		Change in Overtime Cost per Employee	
BOE	+3.2%	-7%	+66.75	+50%	+$2,799.63	+54%
CEC	+0.4%	+1%	+3.79	+39%	+$82.29	+28%
COR	+1.8%	+0.1%	+7.26	+3%	+$1,063.69	+12%
DEP	-0.9%	+2%	+11.62	+82%	+$601.52	+103%
DGS	+1.1%	-0.1%	+22.82	+31%	+$1,240.07	+40%
DLC	0.0%	+0.1%	+27.27	+39%	+$1,033.99	+50%
DOT	-0.1%	+0.3%	+7.43	+3%	+$788.19	+11%
DPS	-1.3%	+4%	+8.83	+28%	+$585.77	+37%
DTS	+0.3%	-1%	+1.46	+12%	+$127.74	+19%
FIN	-2.0%	+8%	-2.88	-9%	-$160.30	-11%
FRS	-0.4%	+6%	-38.89	-11%	-$615.37	-4%
HHS	-0.1%	+2%	-1.81	-15%	-$53.33	-10%
PIO	+1.9%	1%	+5.85	+60%	+$216.39	+68%
POL	+0.6%	+1%	-2.14	-2%	+$575.88	+9%

NOTE: All data shown above are based on an employee's primary assigned department (HR Org), ***not*** the charged department (Cost Center).

Correlation Between Leave and Overtime in FY13 (1/3)

- A positive correlation indicates that two variables move together; as one increases, so does the other.
- A negative correlation indicates that two variables move in the opposite direction; as one increases, the other decreases.
- The closer the coefficient is to 1, the stronger the relationship.

	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
FRS 80 Hr.	-0.15	0.34	-0.03	0.06	0.08	0.12	-0.05	N/A
FRS 84 Hr.	0.24	-0.34	-0.35	0.14	-0.06	N/A	N/A	N/A
FRS 96 Hr.	-0.01	-0.19	-0.35	0.10	-0.02	N/A	0.16	N/A
POL	-0.18	0.18	-0.10	-0.11	0.04	-0.26	0.05	0.06
DOCR	0.54	0.38	-0.08	-0.29	-0.15	0.11	-0.20	-0.29
DOT Bus Operators	0.43	0.14	0.08	-0.09	0.36	N/A	-0.15	0.04

Green shaded box = positive correlation >0.30

Correlation Between Leave and Overtime in FY13 (2/3)

- A positive correlation indicates that two variables move together; as one increases, so does the other.
- A negative correlation indicates that two variables move in the opposite direction; as one increases, the other decreases.
- The closer the coefficient is to 1, the stronger the relationship.

	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DGS	-0.08	-0.66	-0.04	0.62	-0.26	-0.28	0.17	0.44*
DLC	-0.31	-0.27	-0.58	0.22	-0.21	-0.25	-0.11	N/A
HHS	-0.07	-0.03	0.09	-0.18	-0.24	-0.18	0.28	N/A
DPS	0.00	0.01	-0.13	0.28	0.01	-0.01	N/A	N/A
BOE	-0.56	-0.73	-0.61	0.16	-0.25	-0.29	N/A	N/A
DEP	0.01	-0.42	0.05	0.48	0.01	-0.07	N/A	N/A

Green shaded box = positive correlation >0.30

* Military leave only recorded in one pay period.

Correlation Between Leave and Overtime in FY13: (3/3) Summary

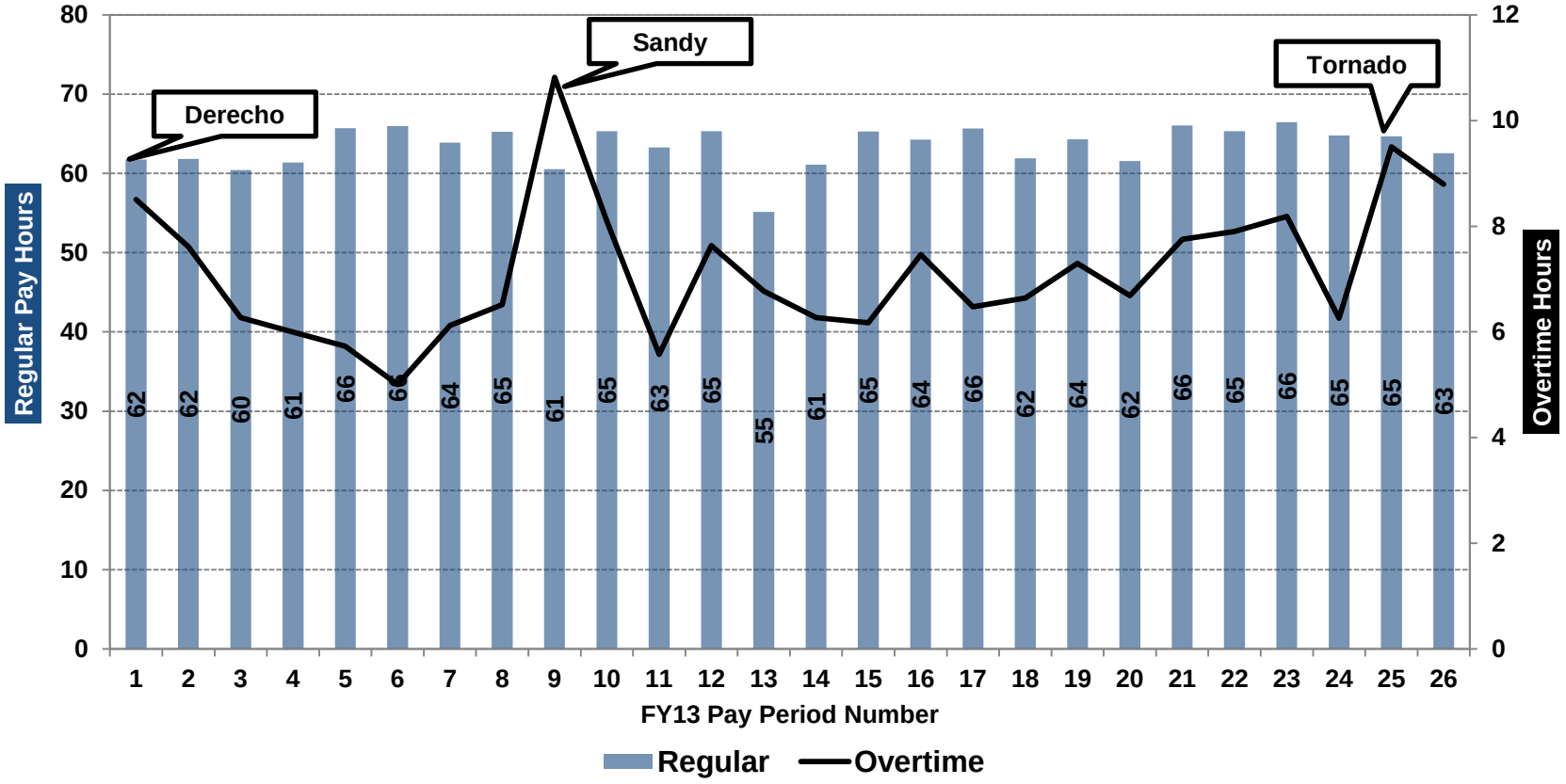
- The lack of correlation between many of the leave types could be for the following reasons:
  - Major storm events in FY13, such as the derecho, Sandy, snowstorms, and summer thunderstorms, correlated stronger to overtime than specific types of leave
  - Departments such as BOE had large events, like the Election Day, that drove overtime
  - Examining correlations at the department level may hide potential correlations for specific divisions

- Only COR and DOT-Bus Operators showed a positive correlation between vacation leave types. Both have minimum staffing requirements and do not respond to storm events like POL and FRS.

- DGS and DEP showed positive correlations between Admin Leave and OT. This is largely due to County office closures during storms followed by storm recovery work.

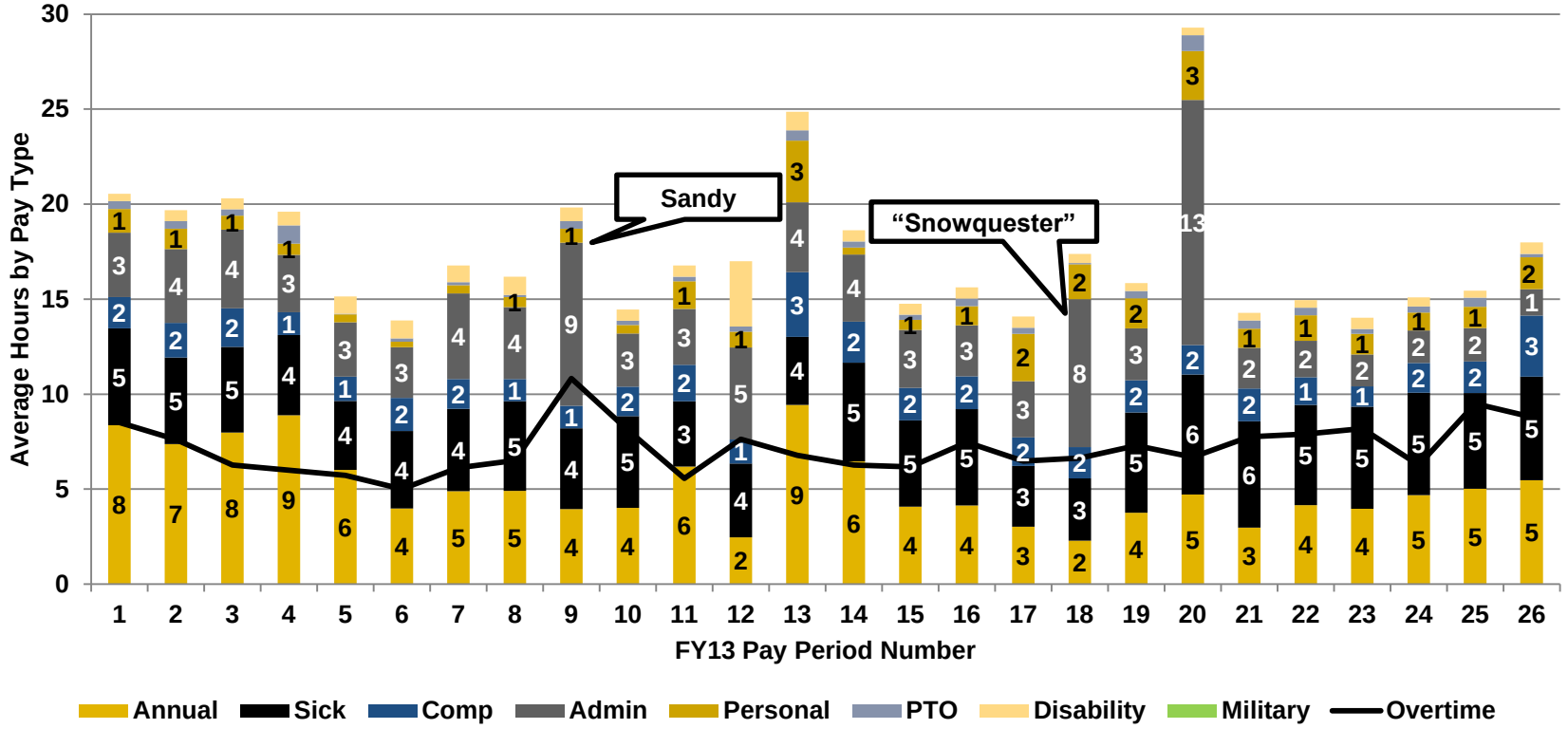
FY13 Fire and Rescue Services: 80 Hour Employees

Overtime Correlation = -0.07



Overtime is largely not correlated with WFA. Sandy caused the most overtime use in one pay period. Other storms also correlated with a peak in overtime use.

FY13 Fire and Rescue Services: 80 Hour Employees

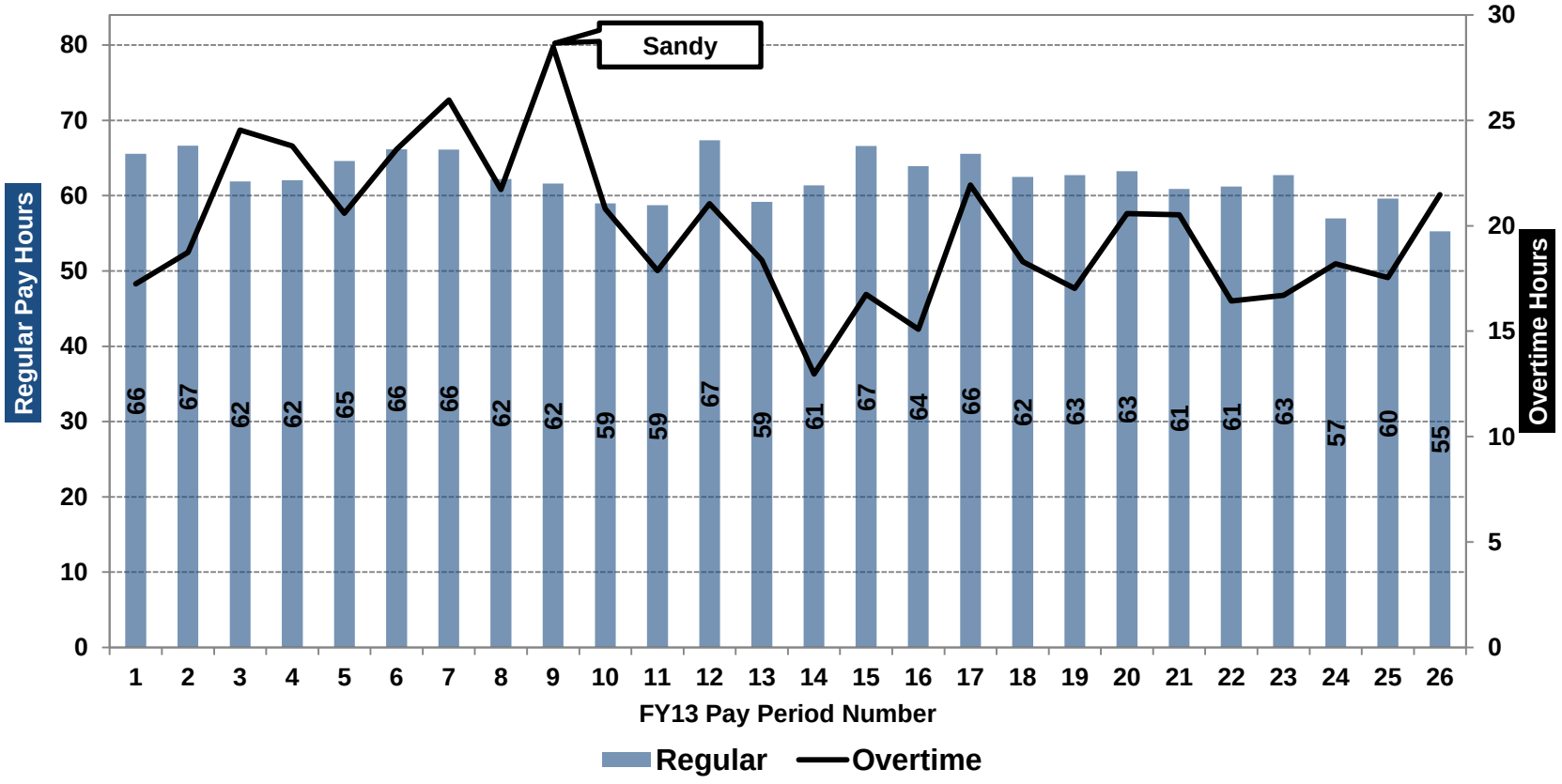


	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
FRS 80 Hr.	-0.15	0.34	-0.03	0.06	0.08	0.12	-0.05	N/A

The increased use of Admin Leave in Period 20 was due to 5 80 hour employees awaiting injury claim adjudication. FRS typically has 1 or 2 on Admin Leave per pay period.

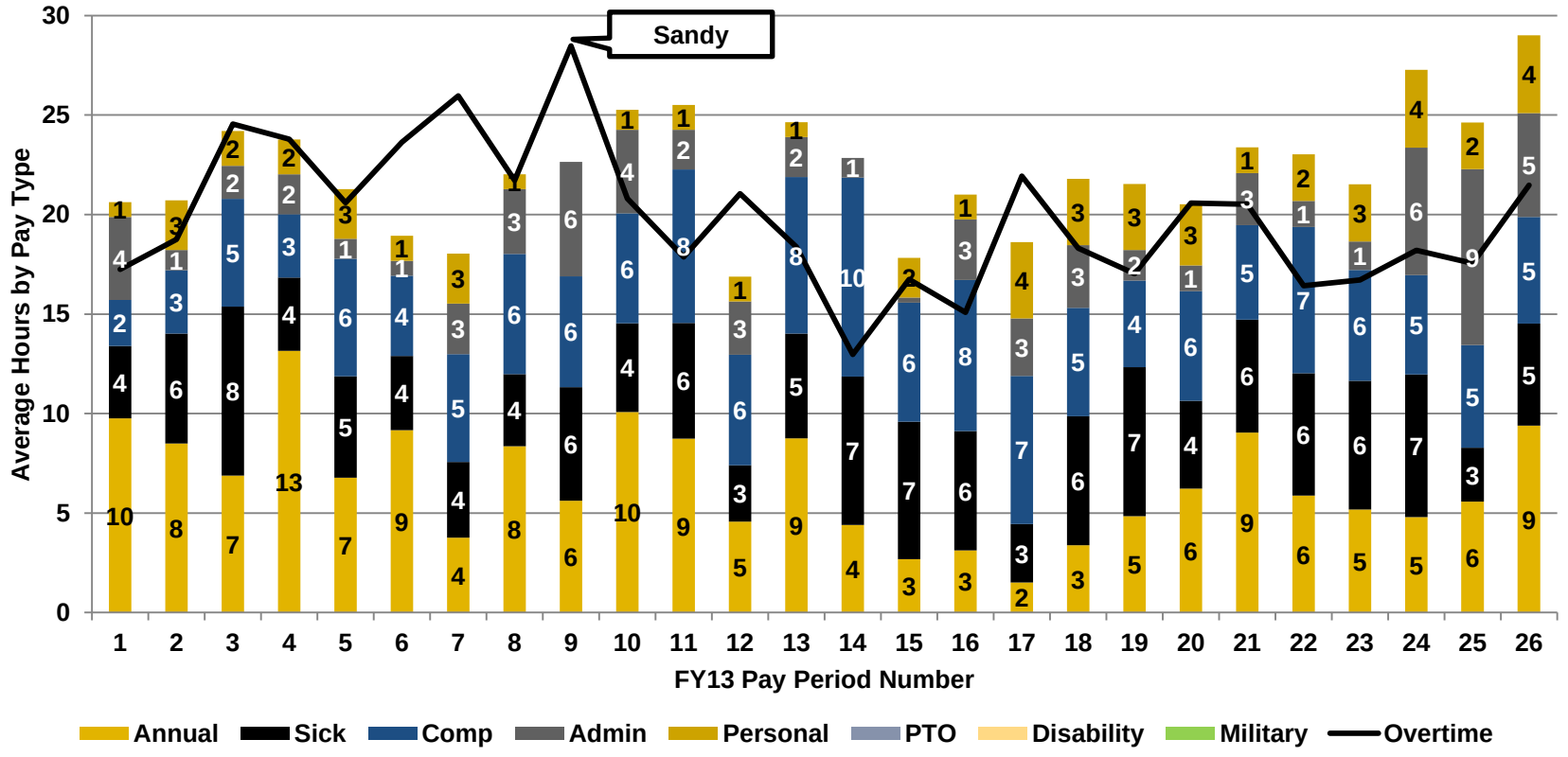
FY13 Fire and Rescue Services: 84 Hour Employees

Overtime Correlation = 0.10



There is not a strong correlation between WFA and OT. Sandy caused the most overtime use in one pay period.

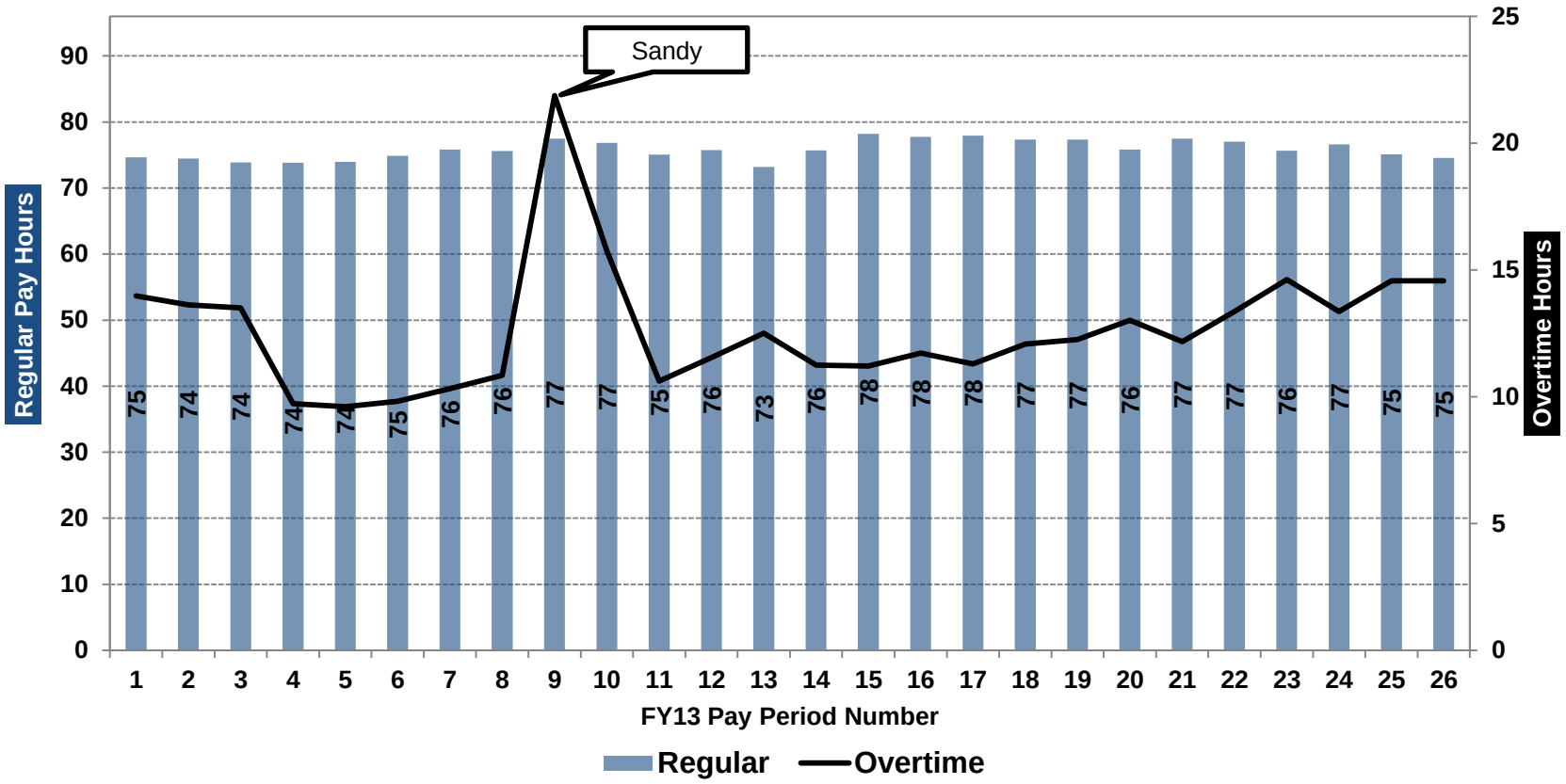
FY13 Fire and Rescue Services: 84 Hour Employees



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
FRS 84 Hr.	0.24	-0.34	-0.35	0.14	-0.06	N/A	N/A	N/A

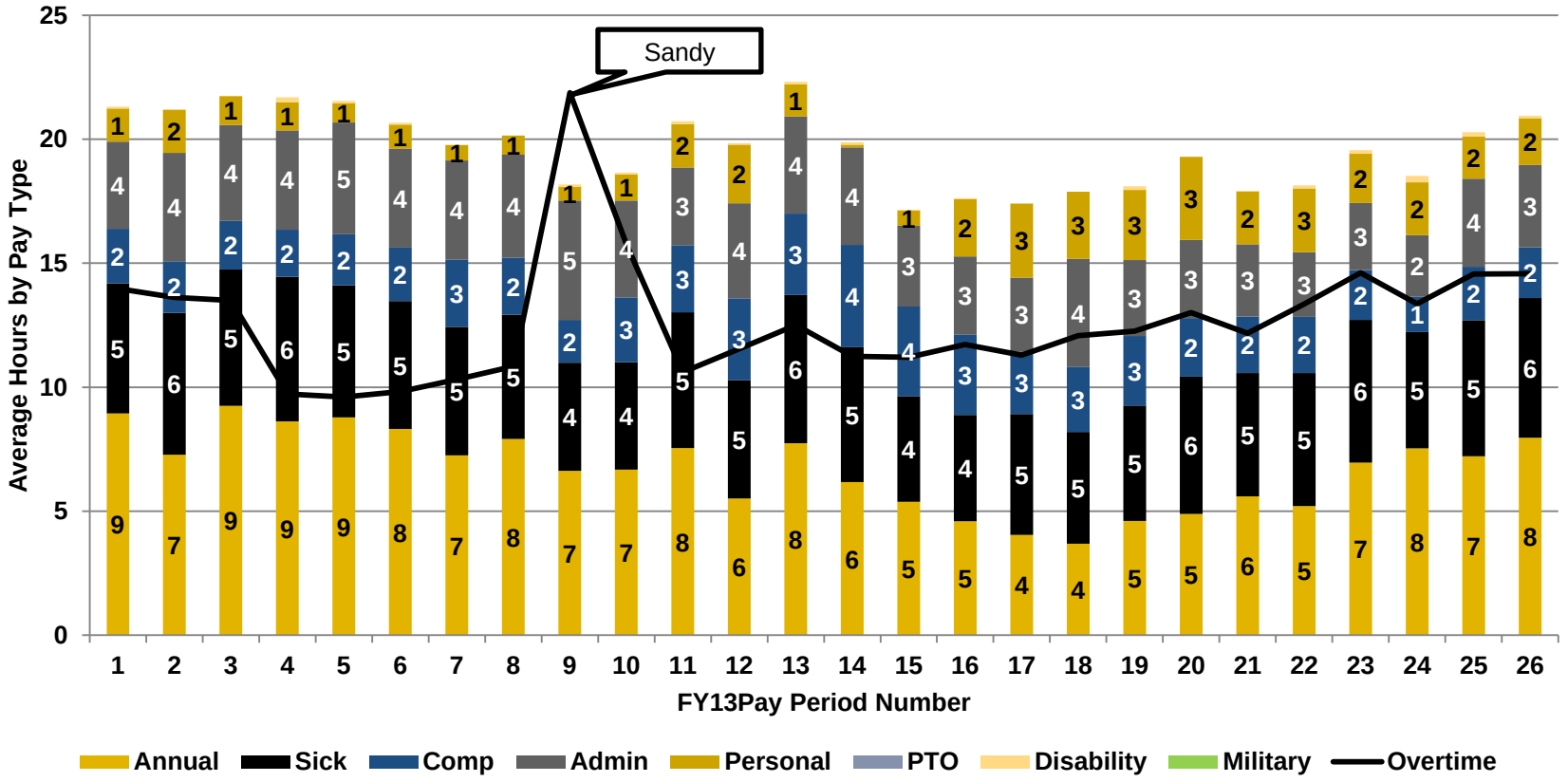
FY13 Fire and Rescue Services: 96 Hour Employees

Overtime Correlation = 0.19



There is not a strong correlation between WFA and OT. Sandy caused the most overtime use in one pay period.

FY13 Fire and Rescue Services: 96 Hour Employees



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
FRS 96 Hr.	-0.01	-0.19	-0.35	0.10	-0.02	N/A	0.16	N/A

Overtime for FRS 96 Hour Employees

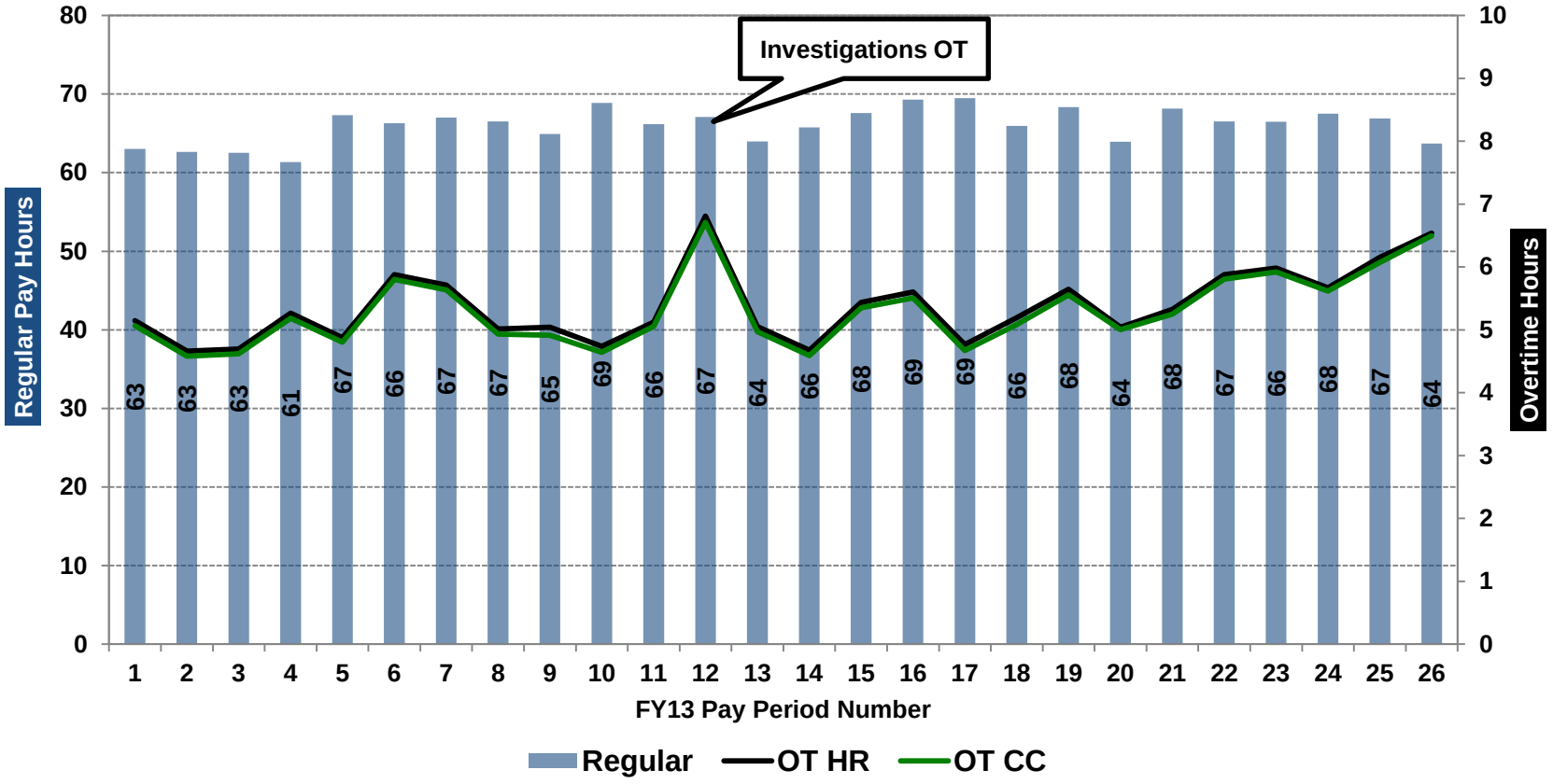
- The current CBA with IAFF states that MCFRS employees shall earn Overtime whenever they work above their scheduled work hours
- Overtime can be earned regardless of the number of hours worked on Regular Pay
- CountyStat examined the number of instances firefighters earned any overtime hours against the number of regular hours worked in the same pay period for FY13:

Number of Regular Hours Worked	Average Number of Overtime Occurrences in a Pay Period
0	1.5
1-24	11.7
25-48	42.1
49-72	141.1
73-95	56.5
96	228.3

While a plurality of OT occurrences correspond with a full 96 hours worked, MCFRS is averaging over one occurrence per pay period where an employee worked zero regular hours and still earned overtime.

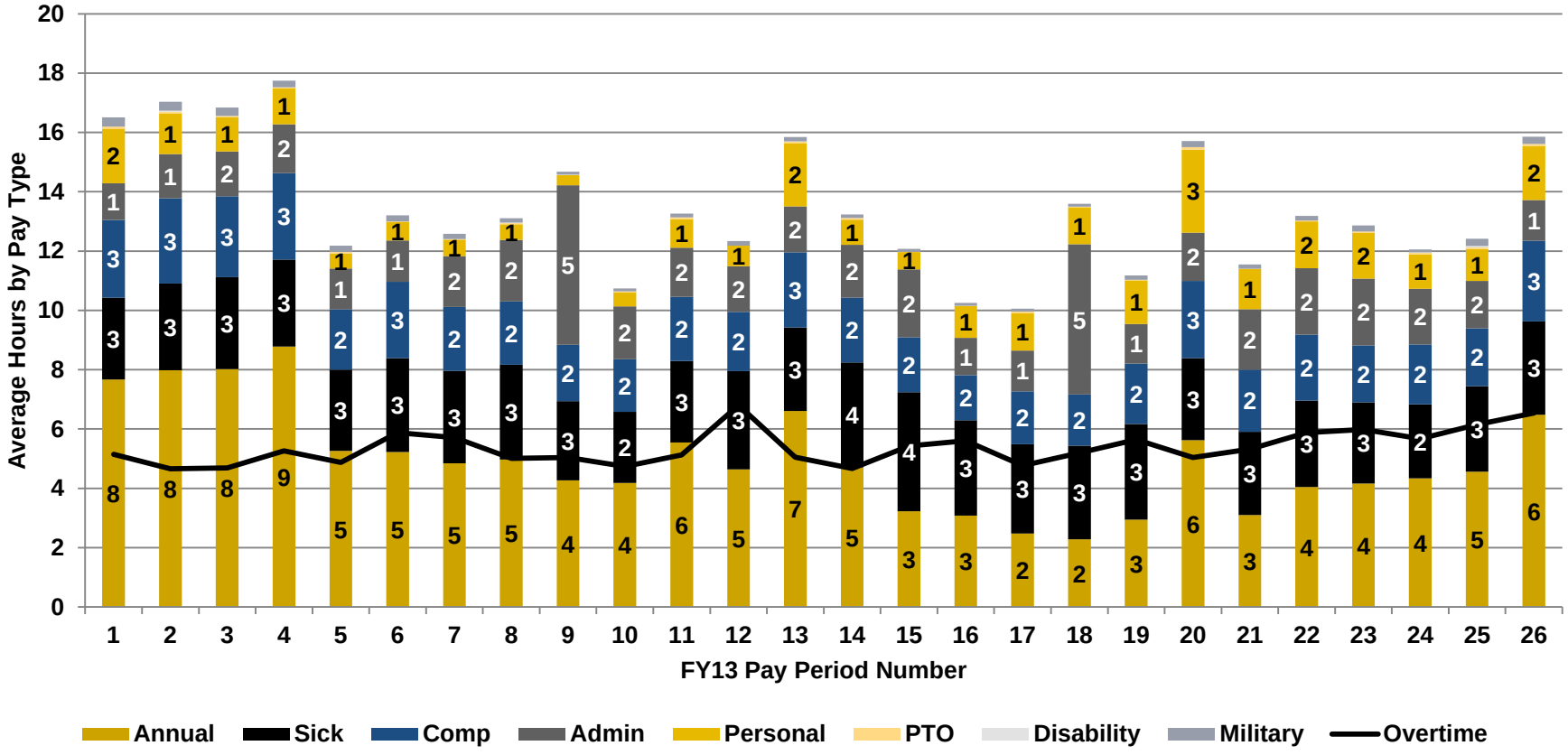
Montgomery County Police Department

Overtime Correlation = 0.17



There is not a correlation between WFA and OT. The largest peak in OT, during pay period 12, was driven by homicide investigations.

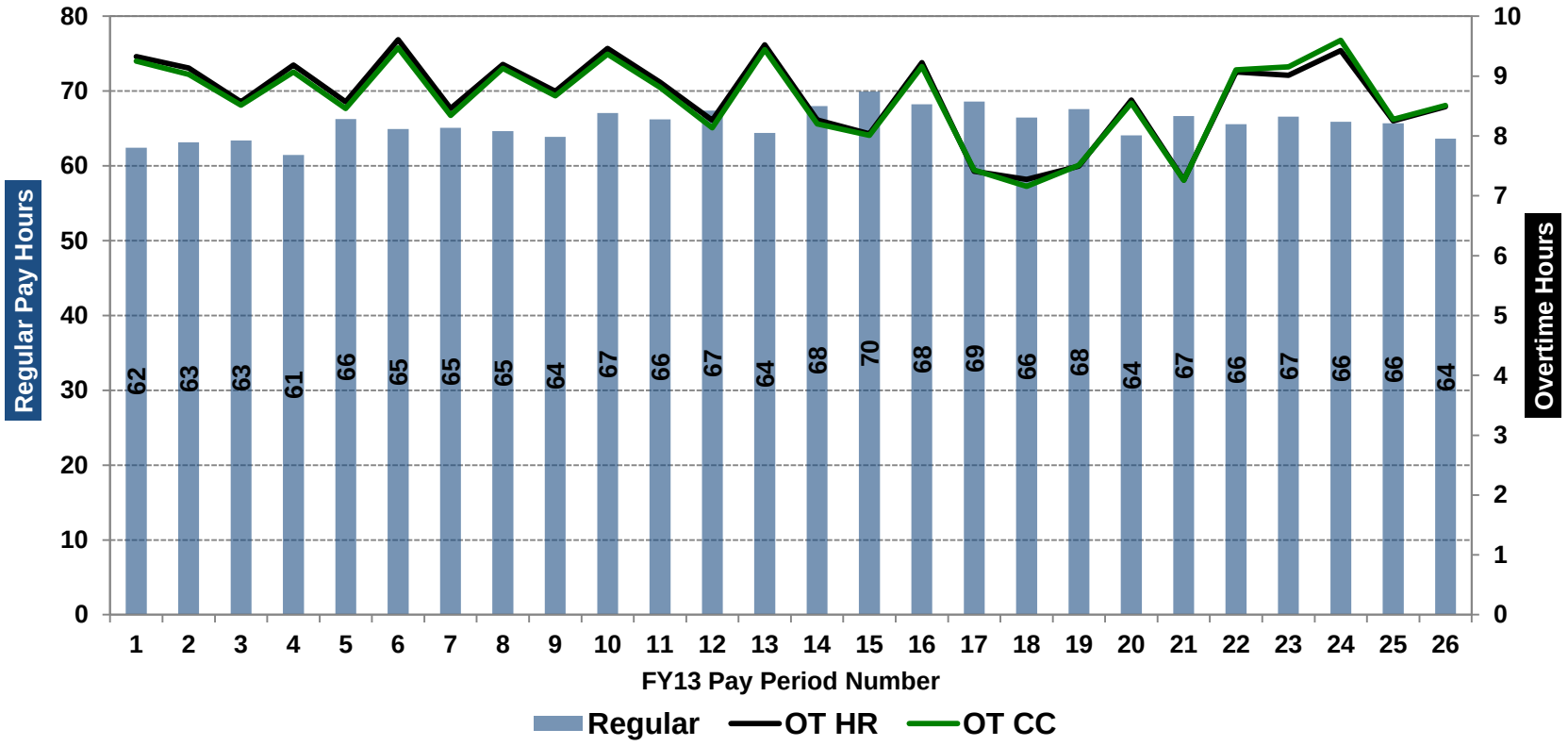
Montgomery County Police Department



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
POL	-0.18	0.18	-0.10	-0.11	0.04	-0.26	0.05	0.06

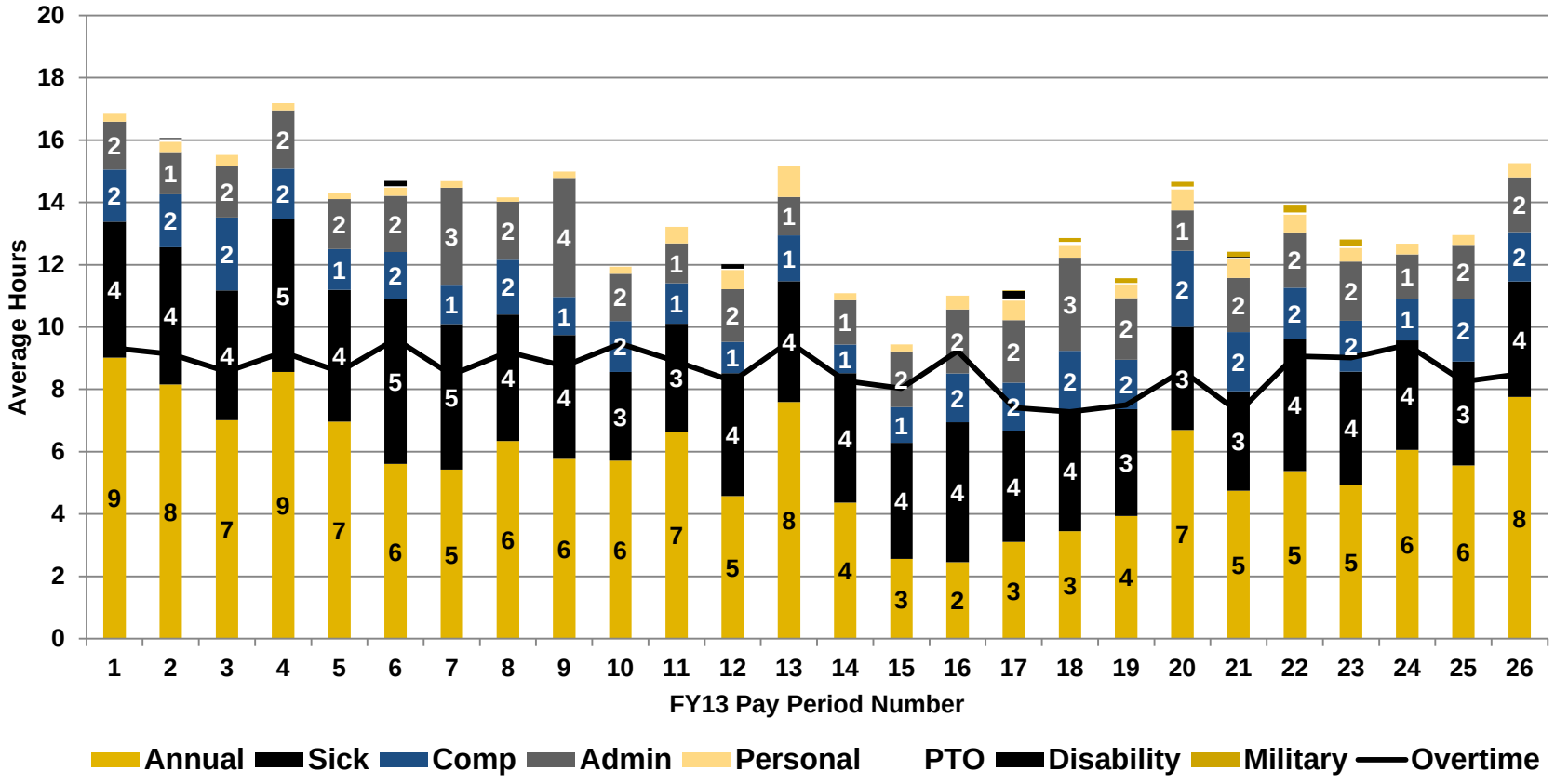
Department of Correction and Rehabilitation

Overtime Correlation = -0.47



The moderate negative correlation between availability and overtime suggests that decreased availability does result in increased overtime.

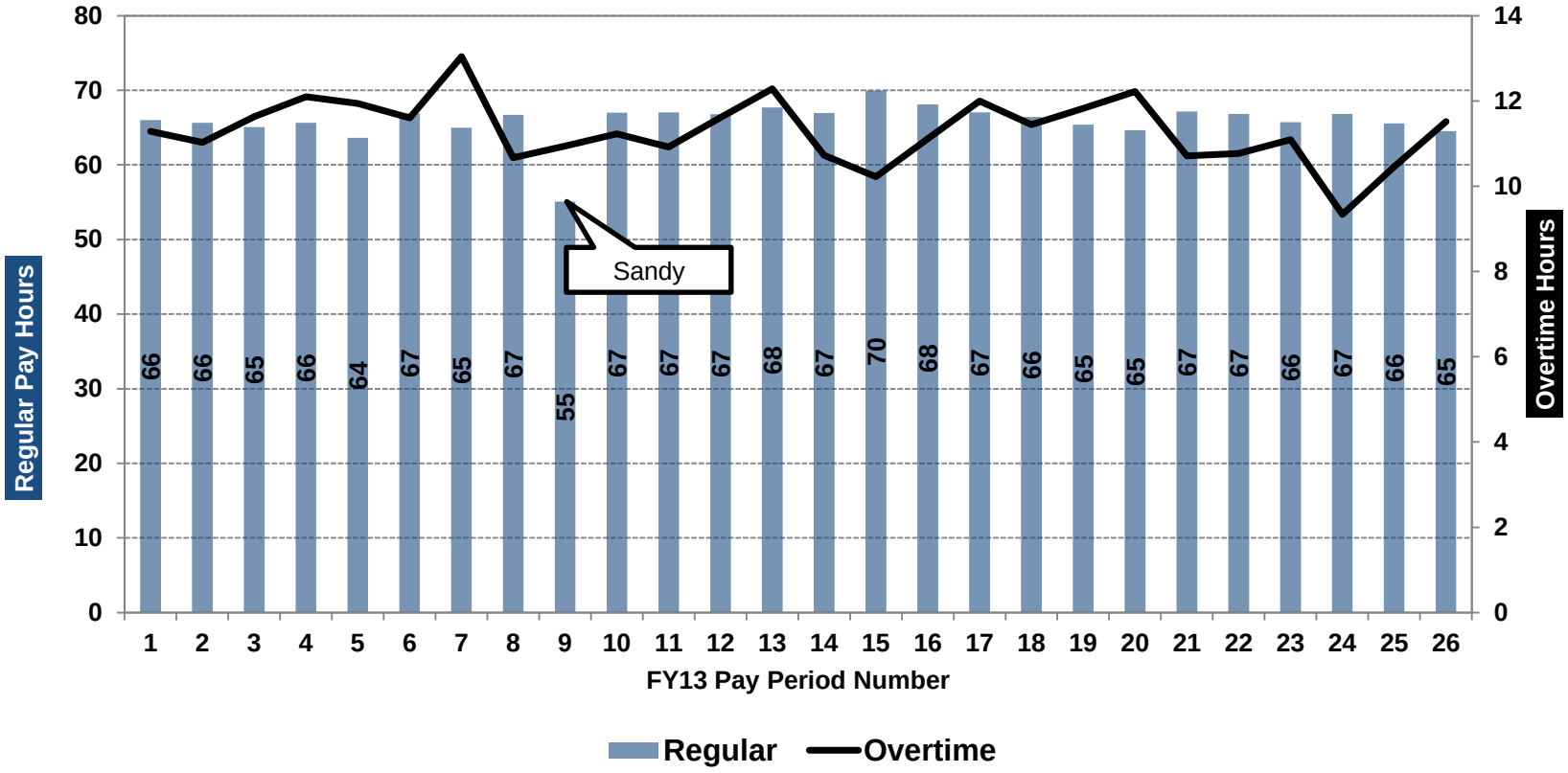
Department of Correction and Rehabilitation



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DOCR	0.54	0.38	-0.08	-0.29	-0.15	0.11	-0.20	-0.29

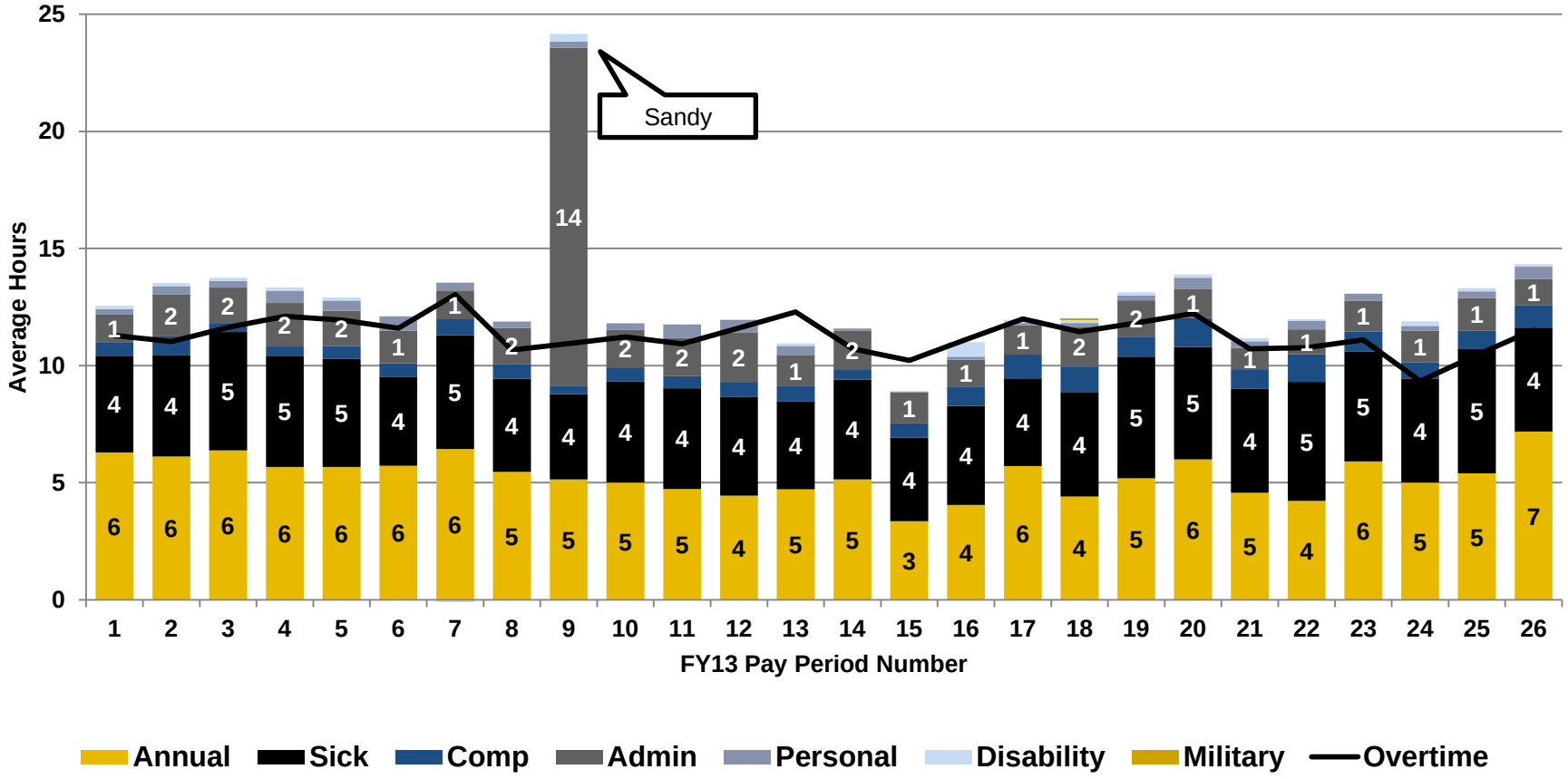
Department of Transportation
Bus Operators

Overtime Correlation = -0.15



There is not a strong correlation between WFA and OT. WFA is consistently around 67 hours each pay period, near the County average.

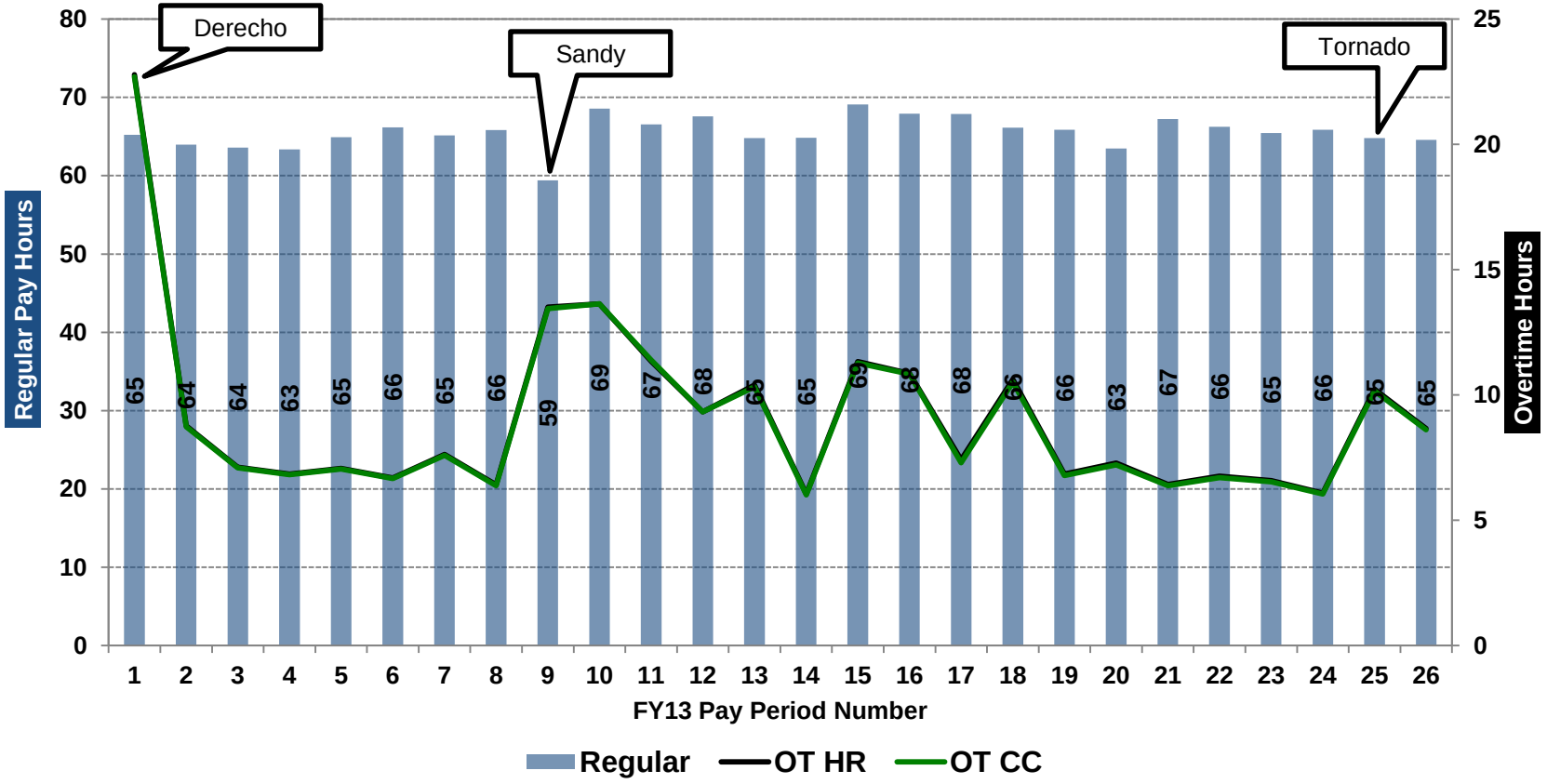
Department of Transportation
Bus Operators



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DOT Bus Operators	0.43	0.14	0.08	-0.09	0.36	N/A	-0.15	0.04

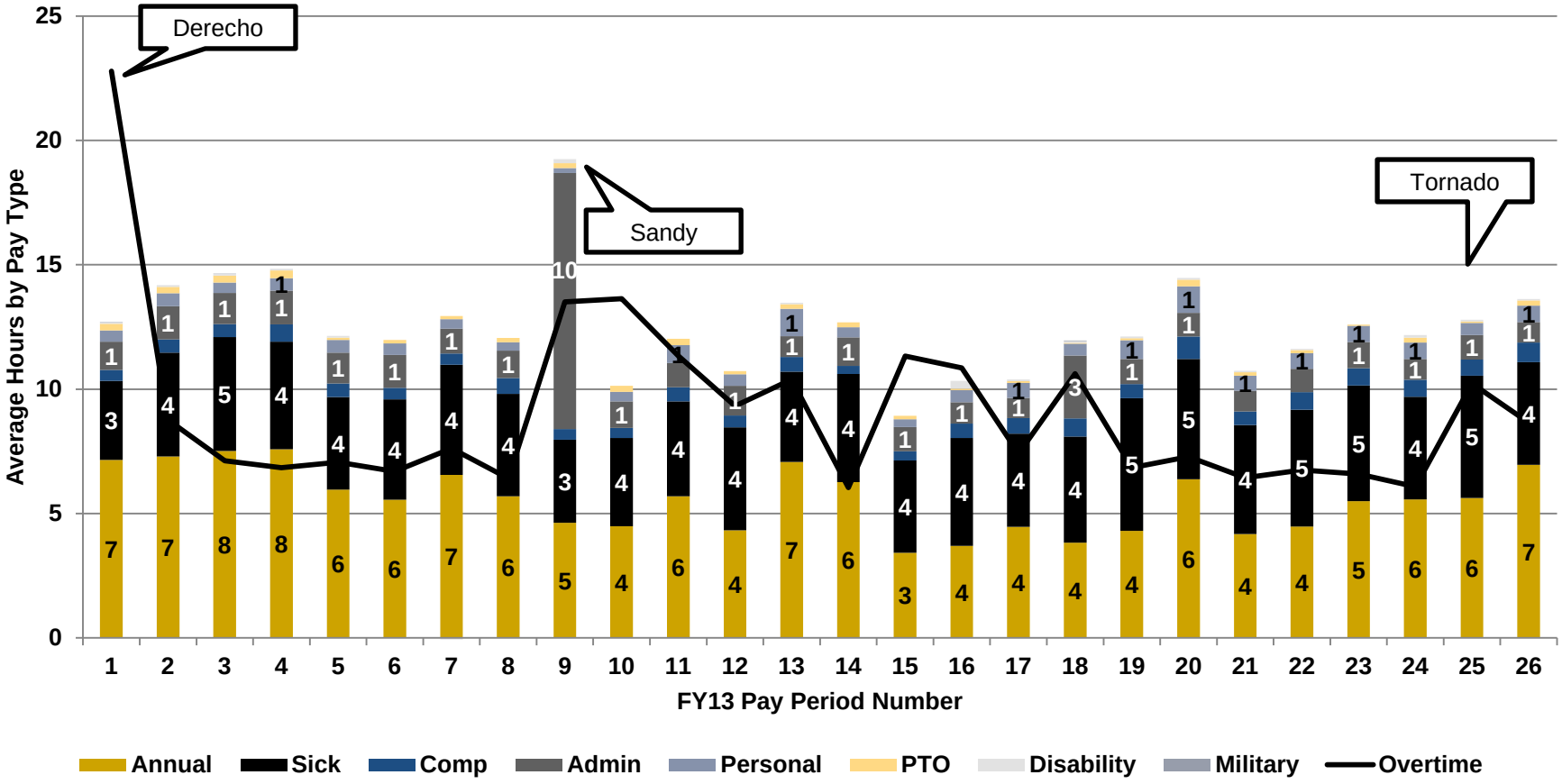
Department of Transportation

Overtime Correlation = 0.0



There is not a strong correlation between WFA and OT. OT peaks during storms as DOT must clear downed trees from County Right-of-Way.

Department of Transportation

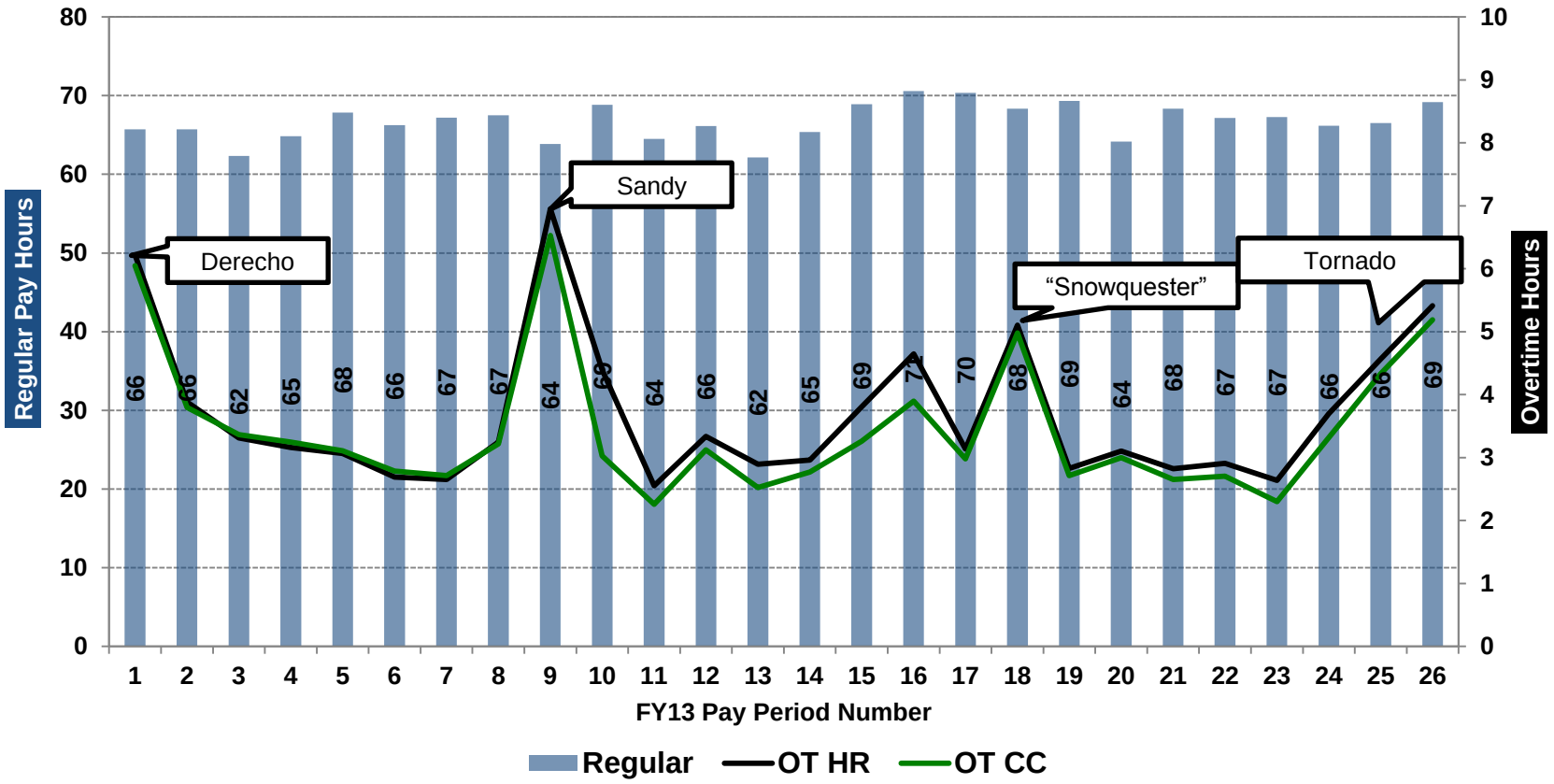


	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DOT	-0.01	-0.62	-0.33	0.26	-0.21	0.22	0.17	0.40*

* Military leave only recorded in three pay periods. One of which coincided with the derecho.

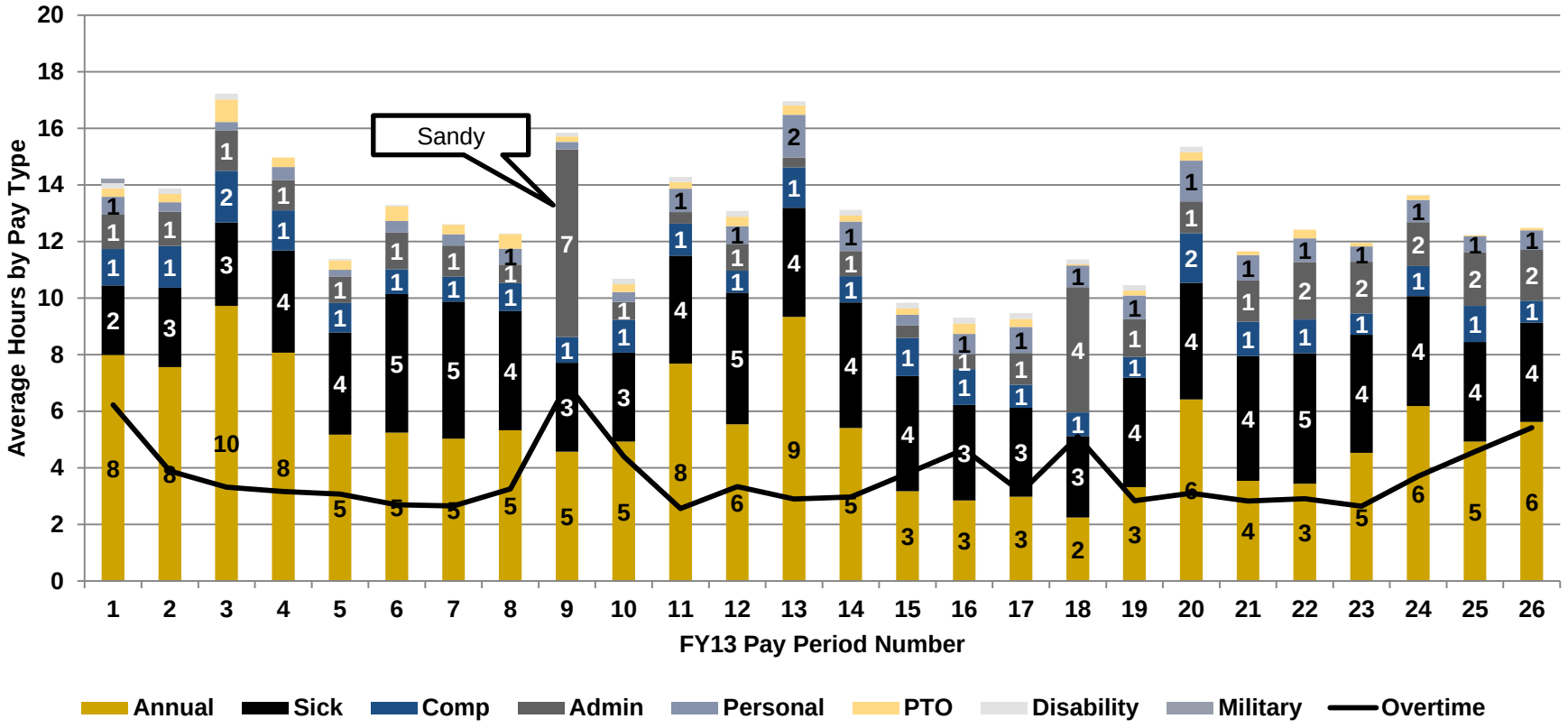
General Services

Overtime Correlation = 0.05



Based on cost center, storms (wind, rain, and snow) accounted for 4,985 of 38,871.18 OT hours (13%) in FY13. Servicing transit equipment was the single largest user of department OT at 31%.

General Services

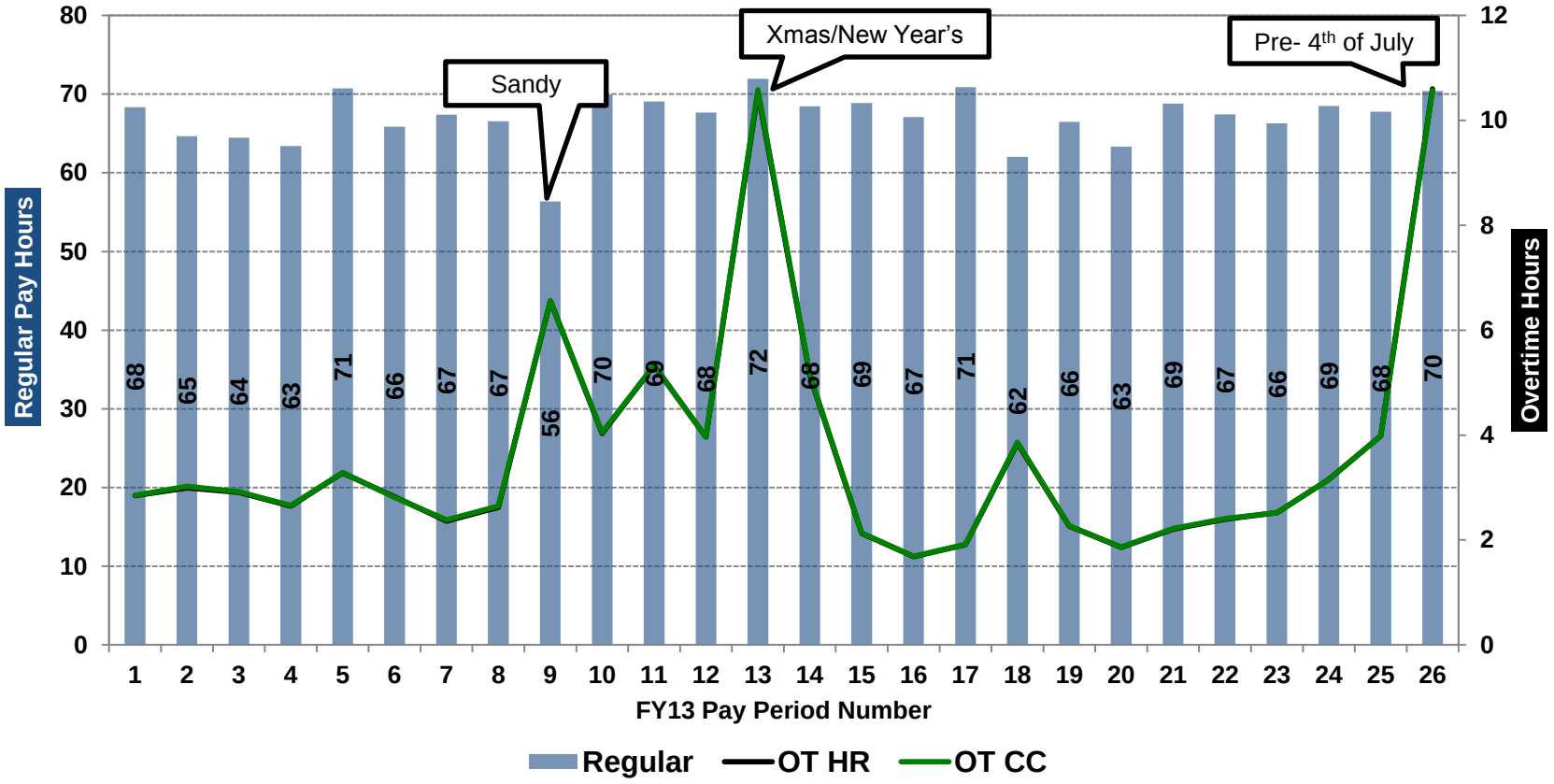


	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DGS	-0.08	-0.66	-0.04	0.62	-0.26	-0.28	0.17	0.44*

* Military leave only recorded in one pay period.

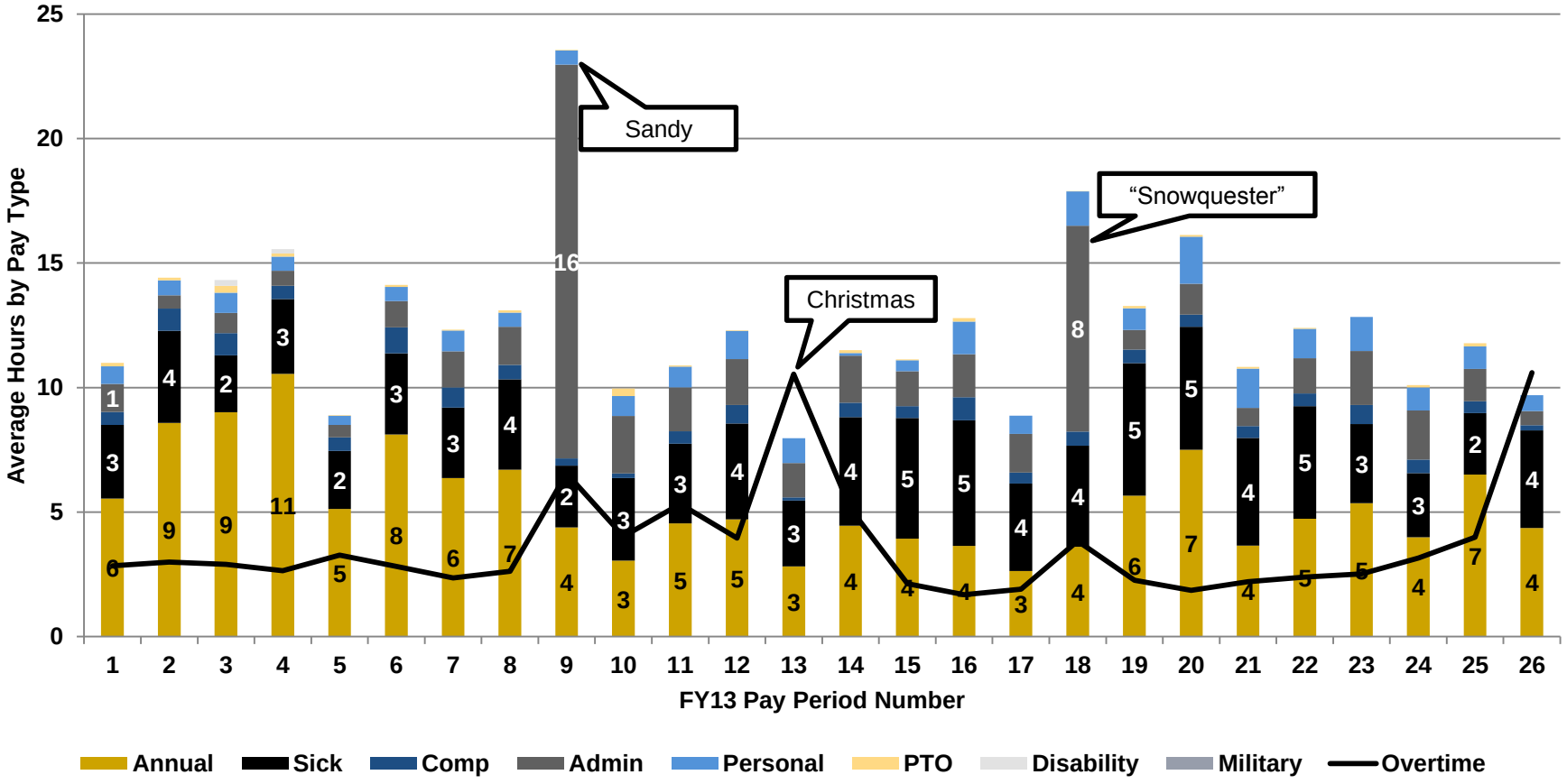
Liquor Control

Overtime Correlation = 0.17



Beer and wine deliveries made up 54% of DLC's overtime in FY13

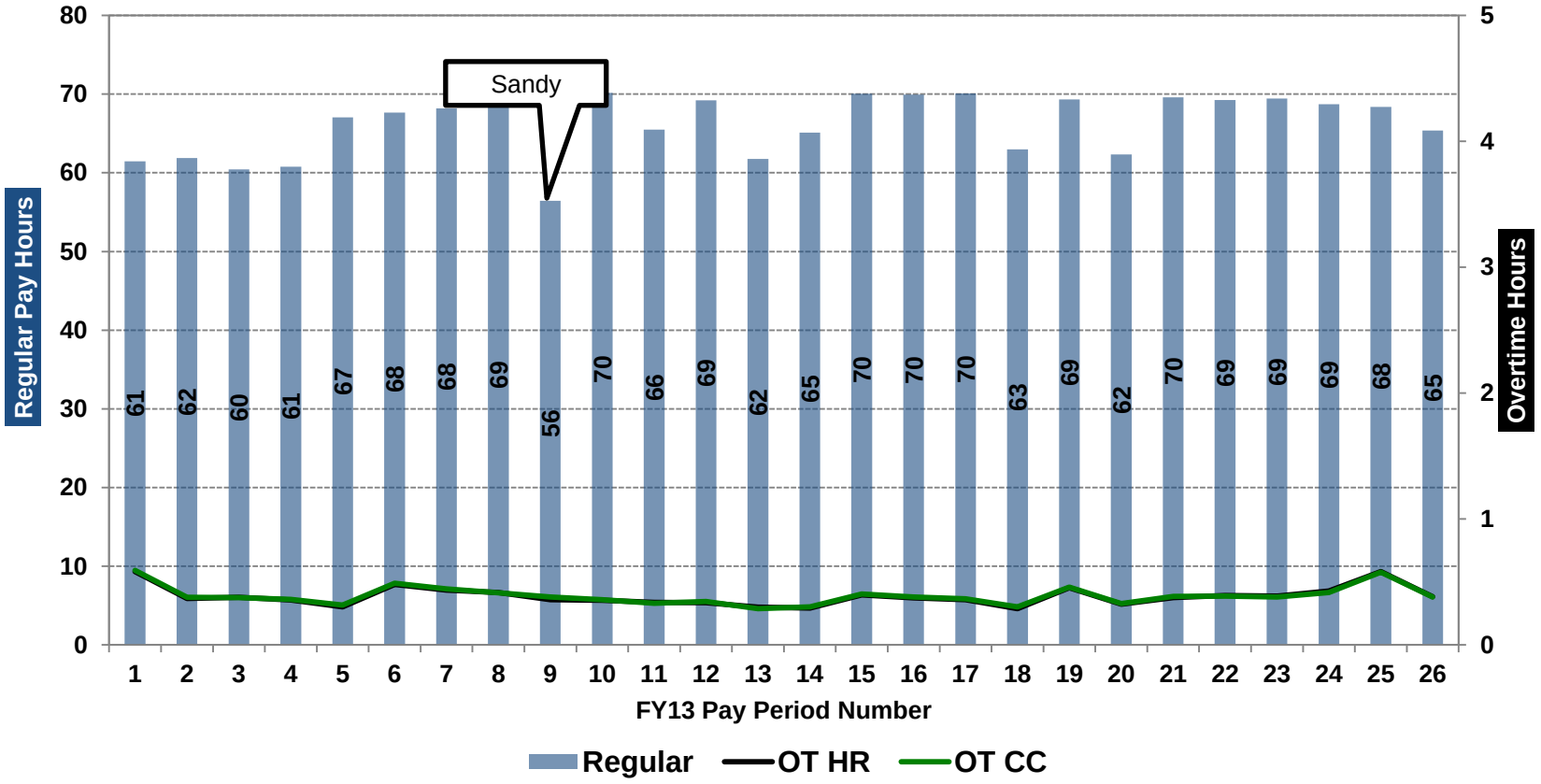
Liquor Control



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DLC	-0.31	-0.27	-0.58	0.22	-0.21	-0.25	-0.11	N/A

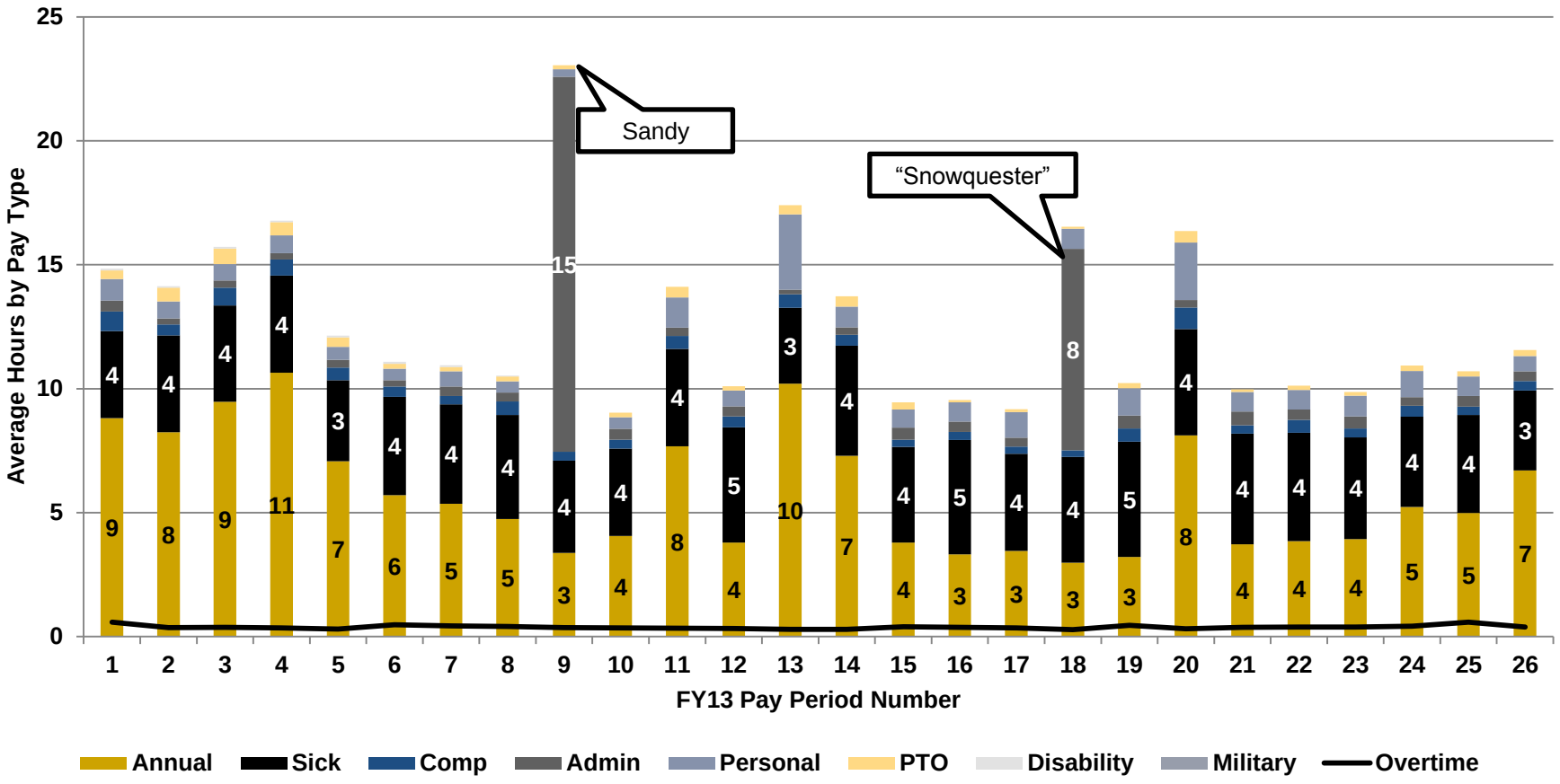
Health and Human Services

Overtime Correlation = 0.17



HHS may use over 500 hours of OT, but over each pay period the average HHS employee uses 0.4 hours. The single largest user of OT is the 24-hour Crisis Center.

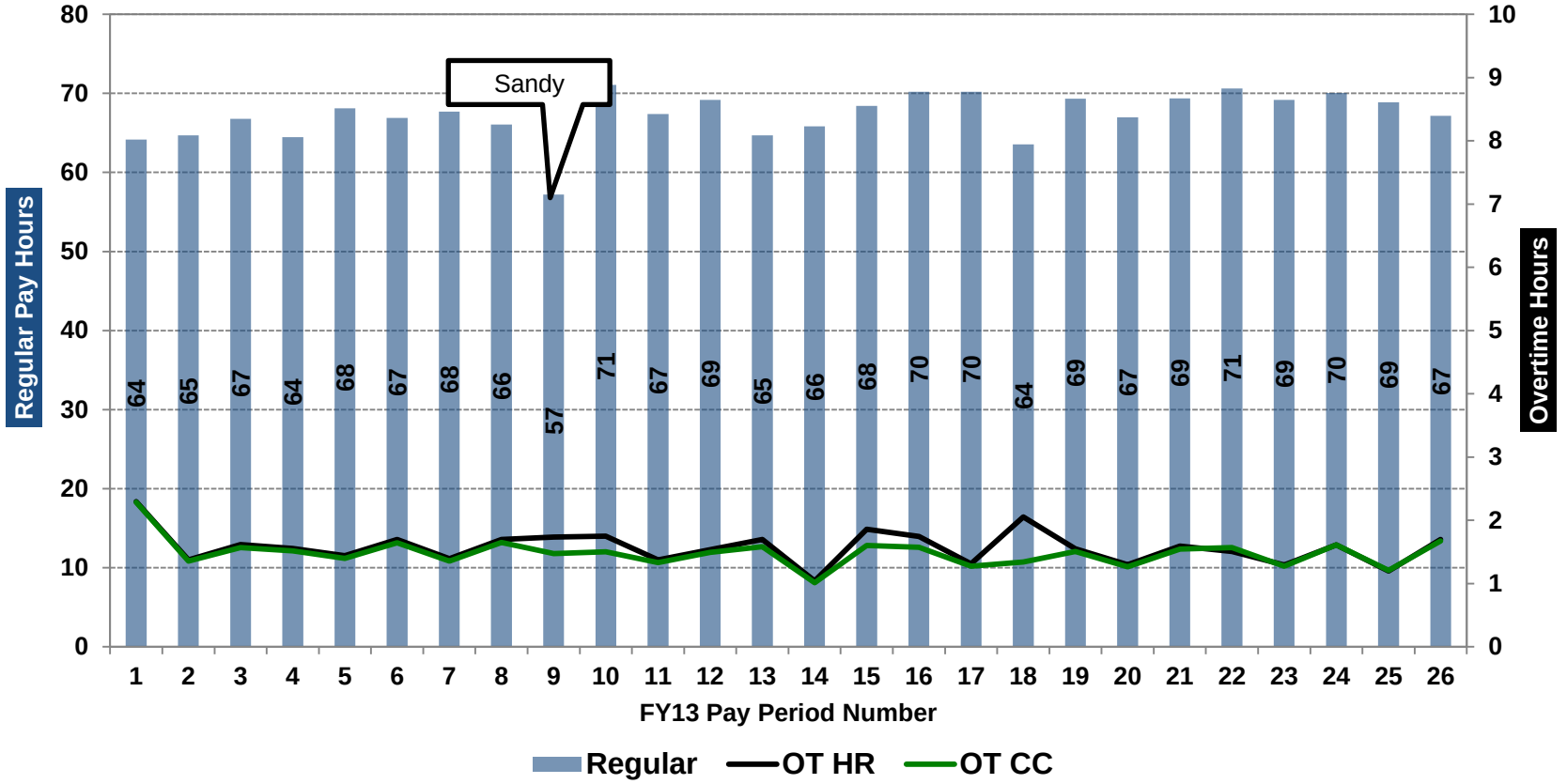
Health and Human Services



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
HHS	-0.07	-0.03	0.09	-0.18	-0.24	-0.18	0.28	N/A

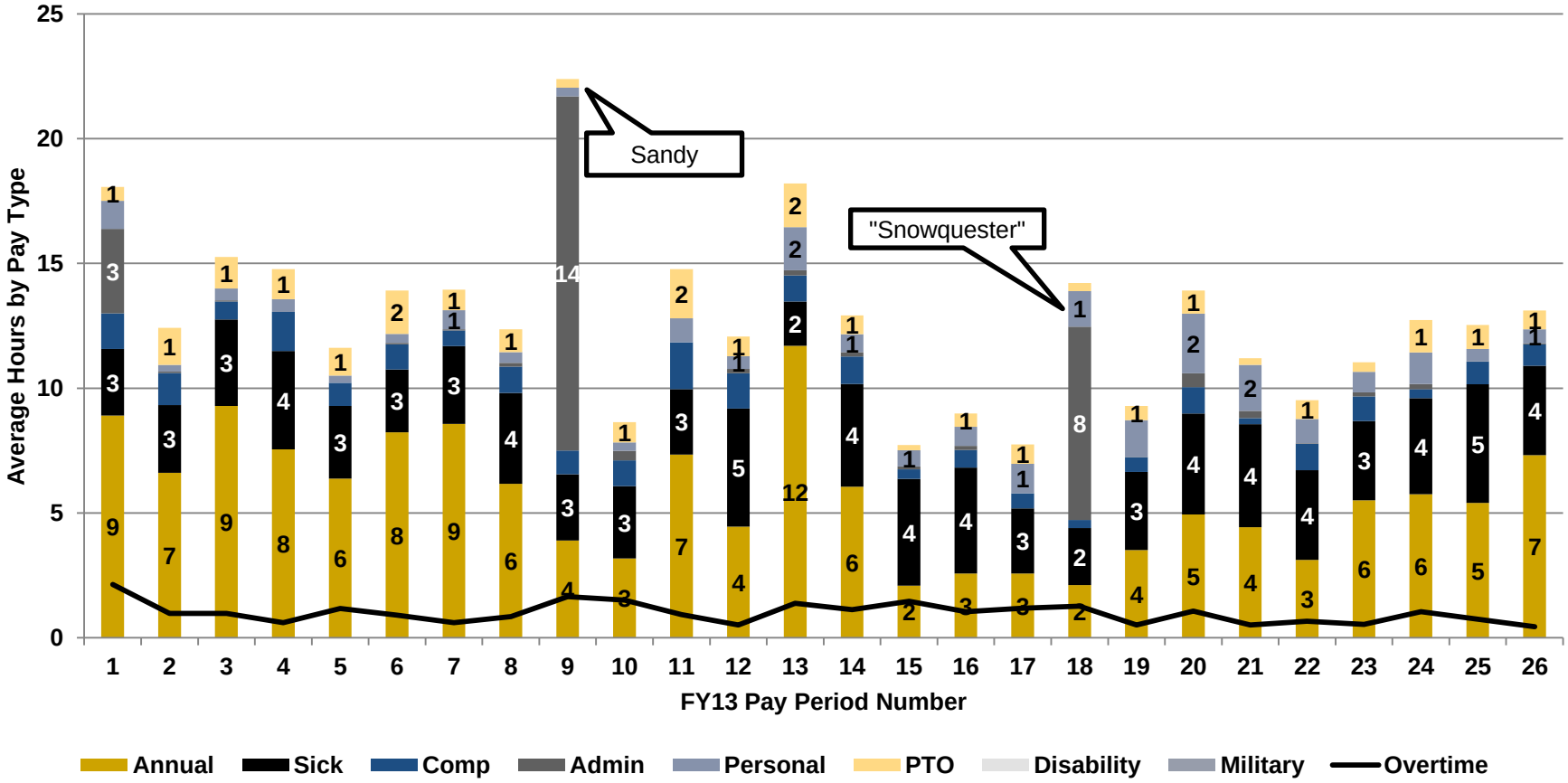
Permitting Services

Overtime Correlation = -0.29



OT is weak-to-moderately correlated with WFA. The single largest user of OT is the team responsible for commercial electrical/mechanical/fire protection systems.

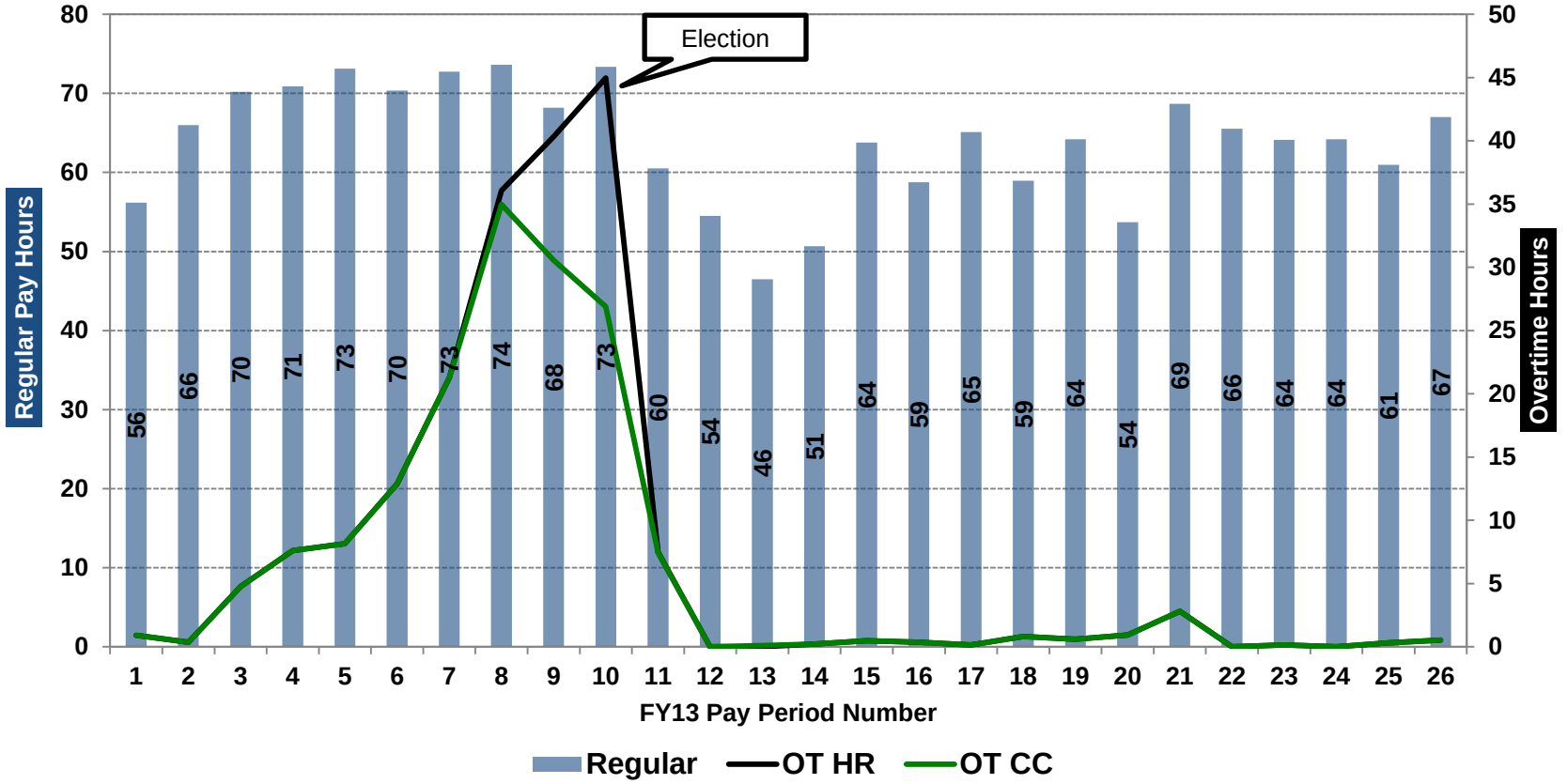
Permitting Services



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DPS	0.00	0.01	-0.13	0.28	0.01	-0.01	N/A	N/A

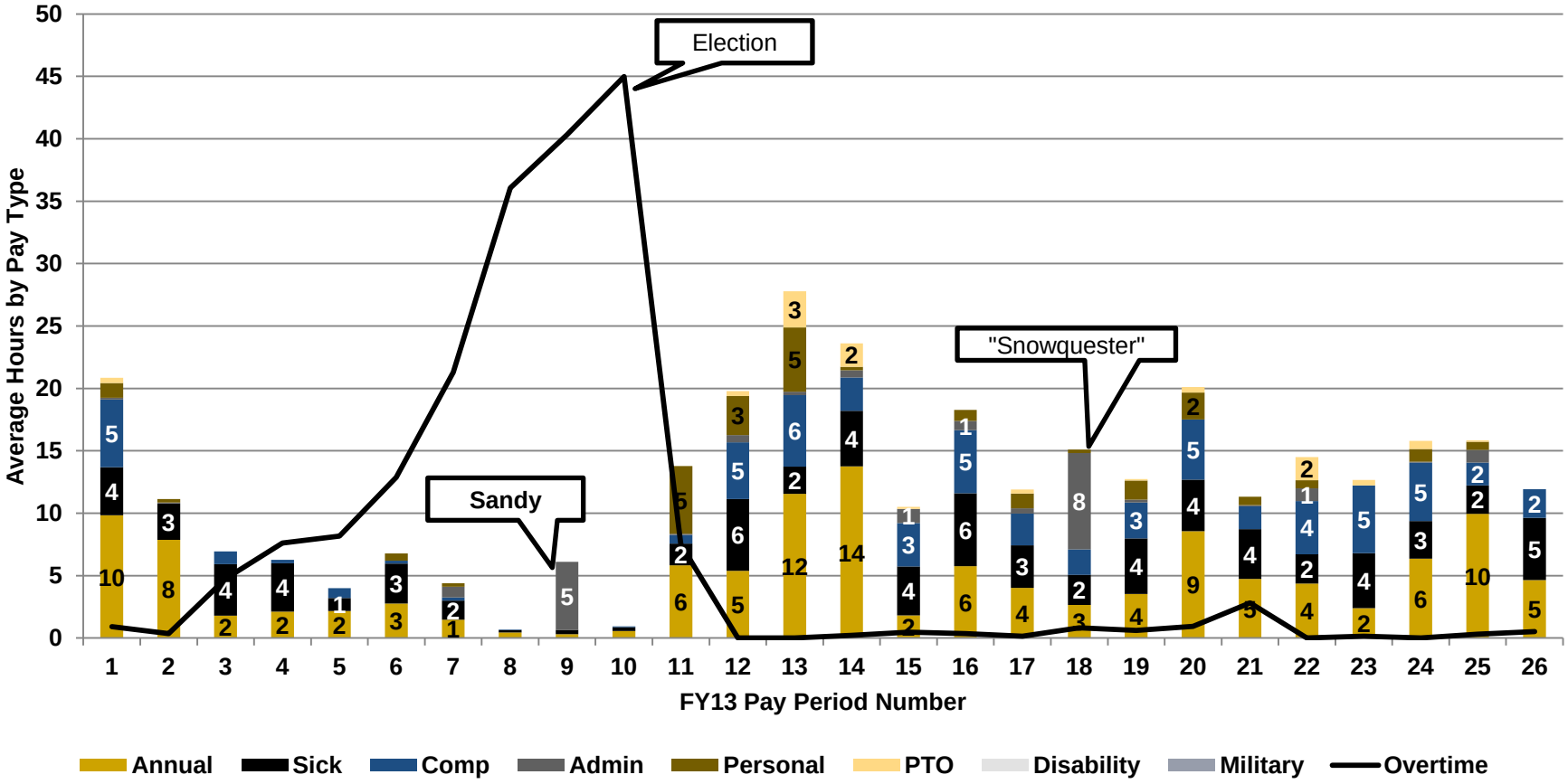
Board of Elections

Overtime Correlation = 0.55



As shown above, OT was largely connected with Election Day 2012

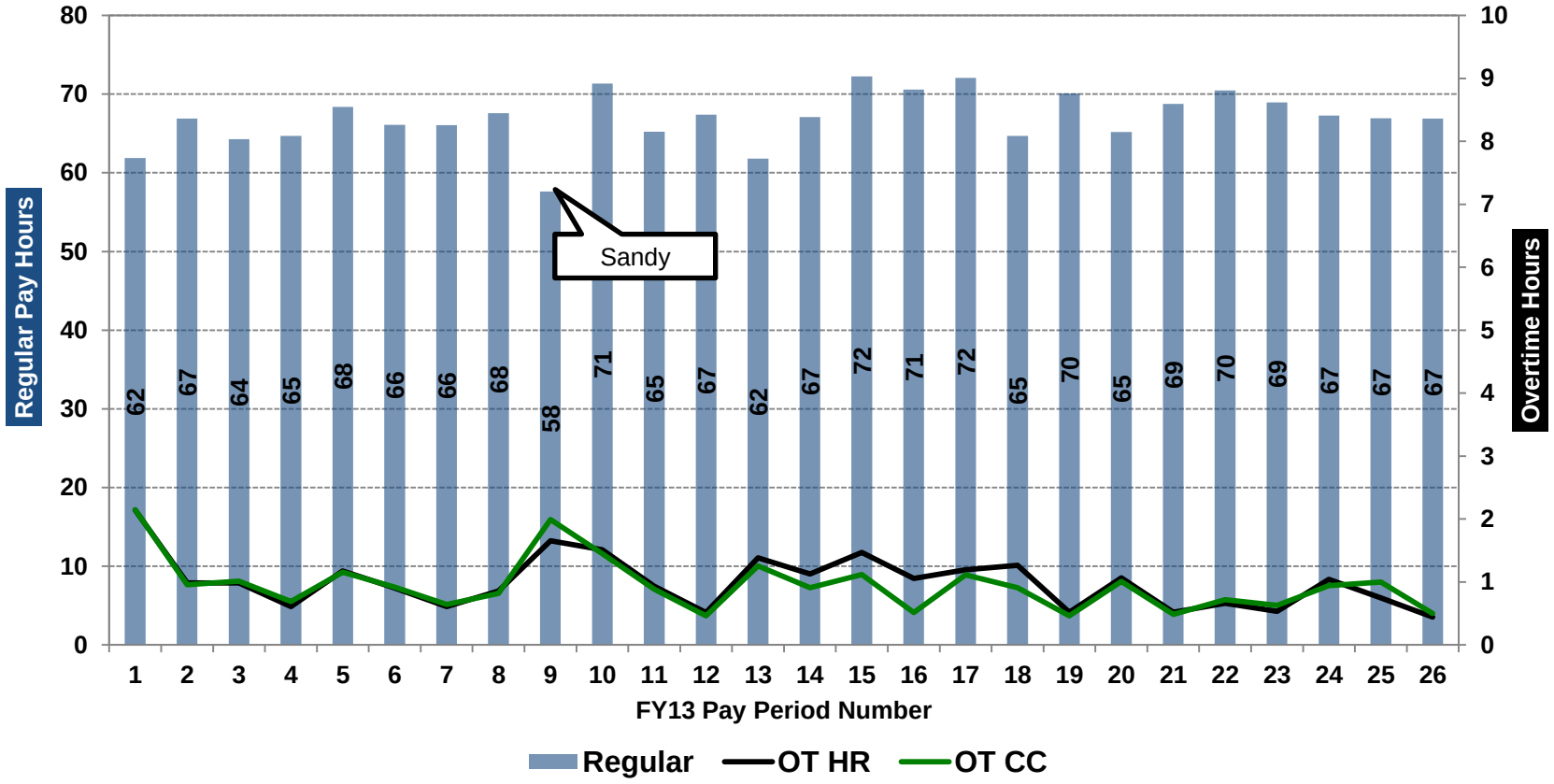
Board of Elections



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
BOE	-0.56	-0.73	-0.61	0.16	-0.25	-0.29	N/A	N/A

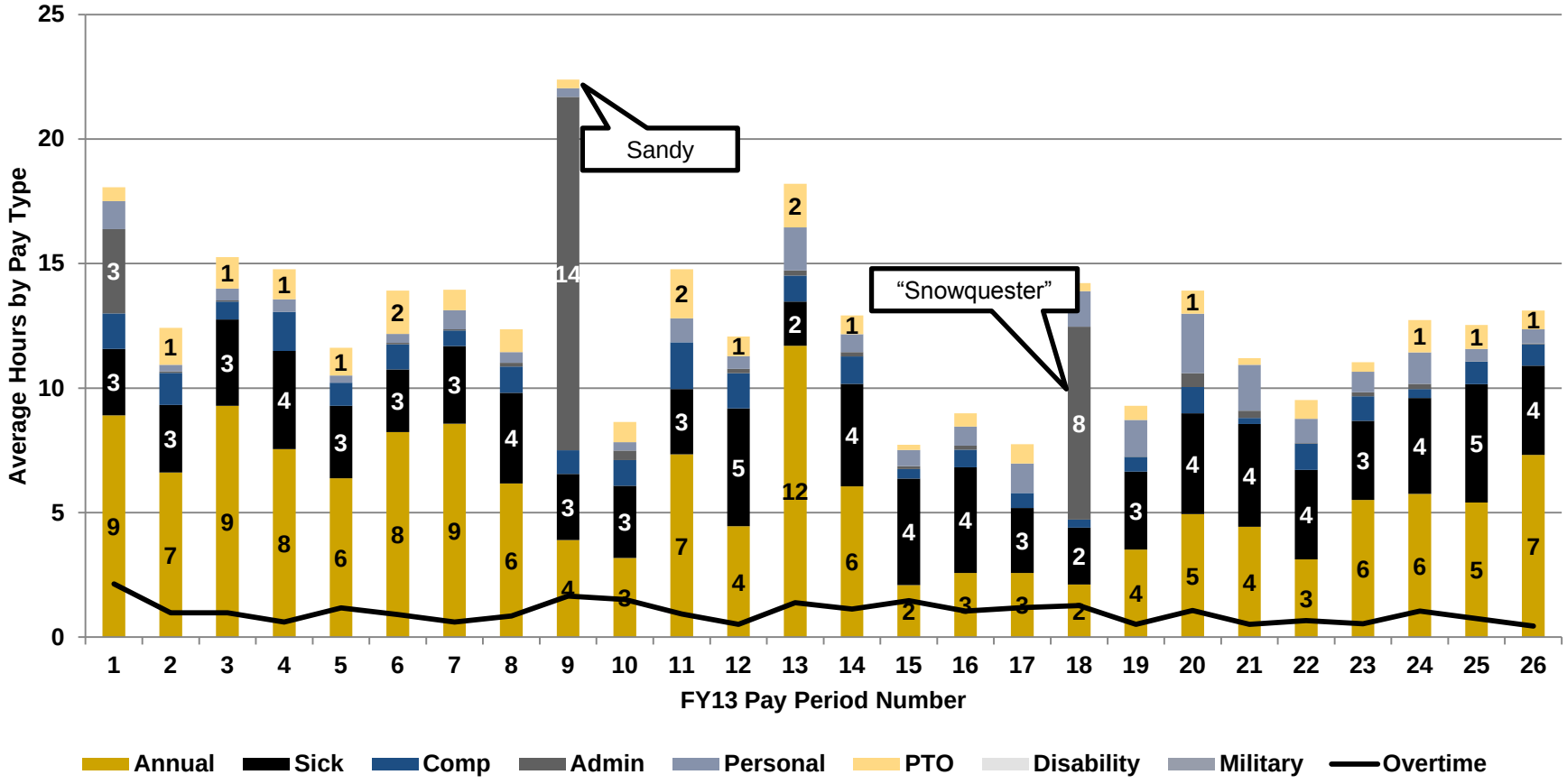
Environmental Protection

Overtime Correlation = -0.34



There is a moderate correlation between increases in OT and decreased WFA. The relationship may be exacerbated by certain divisions closing during major storms and others operating using OT.

Environmental Protection



	Annual	Sick	Comp	Admin	Personal	PTO	Disability	Military
DEP	0.01	-0.42	0.05	0.48	0.01	-0.07	N/A	N/A

Sick Leave Before and After County Holidays (1/3)

- CountyStat compared the use of Sick and FMLA leave before and after the 9 County Holidays to daily use of 9 random work days for all full-time, permanent County employees

- The totals for each holiday date were compared to the randomly selected dates using an unpaired t-test to determine if there were statistically significant differences between them

- The average total hours of Sick/FMLA used around a holiday was 3508 hours, while it was 3694 for the 9 random work days

- There was no statistical difference between the before and after dates as compared to the randomly chosen work days

Data Source: MCTime

Sick Leave Before and After County Holidays (2/3)

Holiday	Total Sick and FMLA on Work Day Before Holiday	Number of Sick and FMLA Occurrences	Total Sick and FMLA on Work Day After Holiday	Number of Sick and FMLA Occurrences
4th of July	3592.56	485	3131.83	438
Labor Day	3519.19	487	3066.08	482
Veteran's Day	3209.78	448	3374.89	521
Thanksgiving	3057.12	454	2856.44	356
Christmas	532*	34*	3340.72	384
New Year's Day	3324.41	426	3845.13	540
MLK	3882.07	535	3930.89	578
President's Day	3751.59	532	3828.76	572
Memorial Day	3691.67	512	4211.85	610

Overall, it appears there is not systematic abuse of Sick and FMLA Leave prior to or after holidays as compared to a random sample of work days.

Data Source: MCTime

*County Offices were closed on Christmas Eve.

Sick Leave Before and After County Holidays (3/3)

Work Day	Total Sick and FMLA Use	Number of Sick and FMLA Occurrences
7/26/12 (Th)	3759.62	538
8/8/12 (W)	3386.4	503
9/20/12 (Th)	3743.62	532
11/26/12 (F)	3724.14	540
1/29/13 (T)	3677.07	546
2/11/13 (M)	3844.95	588
3/1/13 (F)	4013.32	575
4/17/13 (W)	3658.43	519
6/26/13 (W)	3437.19	508

Overall, it appears there is not systematic abuse of Sick and FMLA Leave prior to or after holidays as compared to a random sample of work days.

Data Source: MCTime

ECC- Denied Leave Requests and Sick Leave Use

ECC call takers and dispatchers make up approximately 4.75% of the MCPD full-time workforce and account for approximately 6.4% of total MCPD overtime expenditures in FY13 and 5.4% in FY12.

FY12

Type of Leave Denied	Instances of Same Day Sick Leave Use	Total Denied Leave Requests
ECC Denied Annual	2	512
ECC Denied CLM Comp	1	
ECC Denied CPL Comp	9	
ECC Denied OT Maximums	17	
Total	29	

FY13

Type of Leave Denied	Instances of Same Day Sick Leave Use	Total Denied Leave Requests
ECC Denied Annual	6	1058
ECC Denied CLM Comp	1	
ECC Denied CPL Comp	26	
ECC Denied OT Maximums	14	
Total	49	

The rate of denied leave requests that resulted in sick leave use was 5.6% in FY12 and 4.4% in FY13. These incidents occurred over a distribution of 21 people in FY12 and 25 people in FY13, or approximately 29% and 35% of the call taker/dispatcher workforce, respectively.

Data source: Police internal records (Telestaff)

Next Steps/Follow-Up

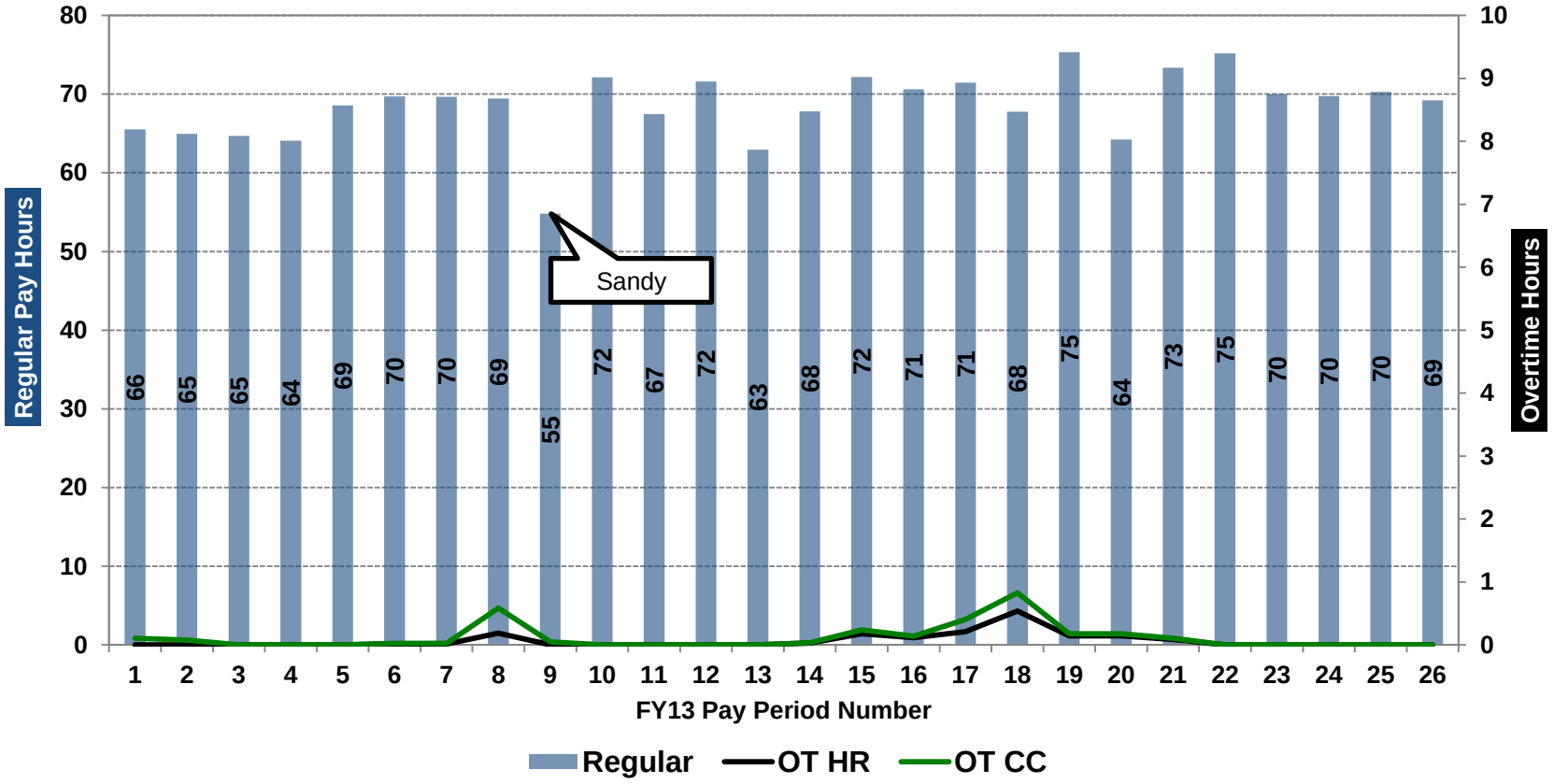
- CountyStat will continue to assess WFA and Overtime for each department. More in-depth analyses will be performed as part of departments' performance reviews.
  - An overtime study that filters out event-driven overtime use
  - Analyze OT and WFA at the division level
  - Investigate the conditions that allowed for OT to be worked in MCFRS when the number of regular hours was below 96 hours
  - Further analyze the correlation between Sick Leave and OT in DOCR
  - Examine the use of sick leave on Monday and Friday as compared to the rest of the week
  - Examine Sick Leave usage trends for Defined Benefit vs. Defined Contribution employees and research incentives to avoid abuse of Sick Leave
  - Analyze the use of OT to backfill an employee using Comp Leave

Appendix: OT Use by Departments not Shown in Presentation

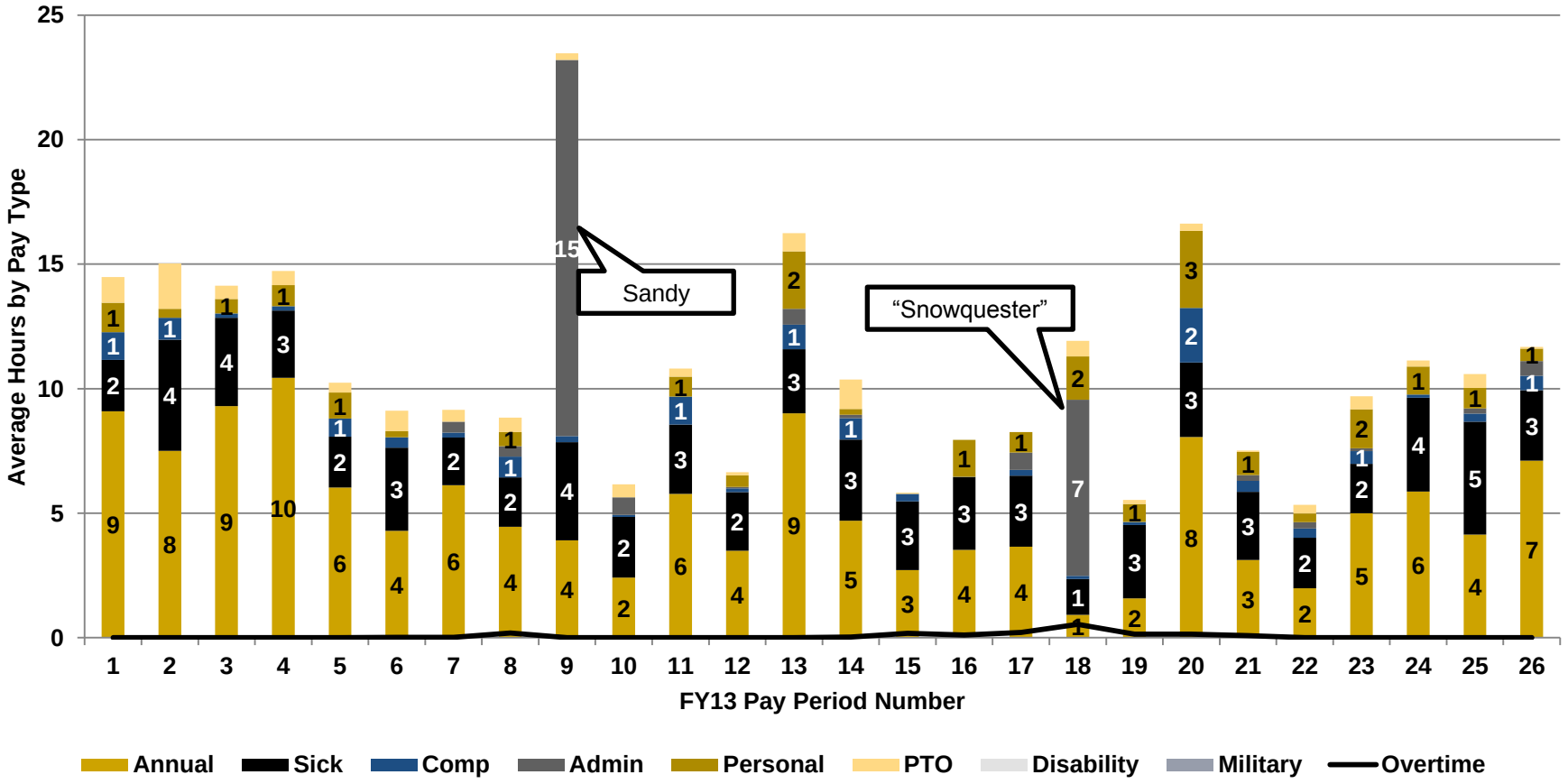
Note: Departments with 0 hours of OT and/or less than 10 full-time employees are not listed.

County Attorney

Overtime Correlation = 0.15

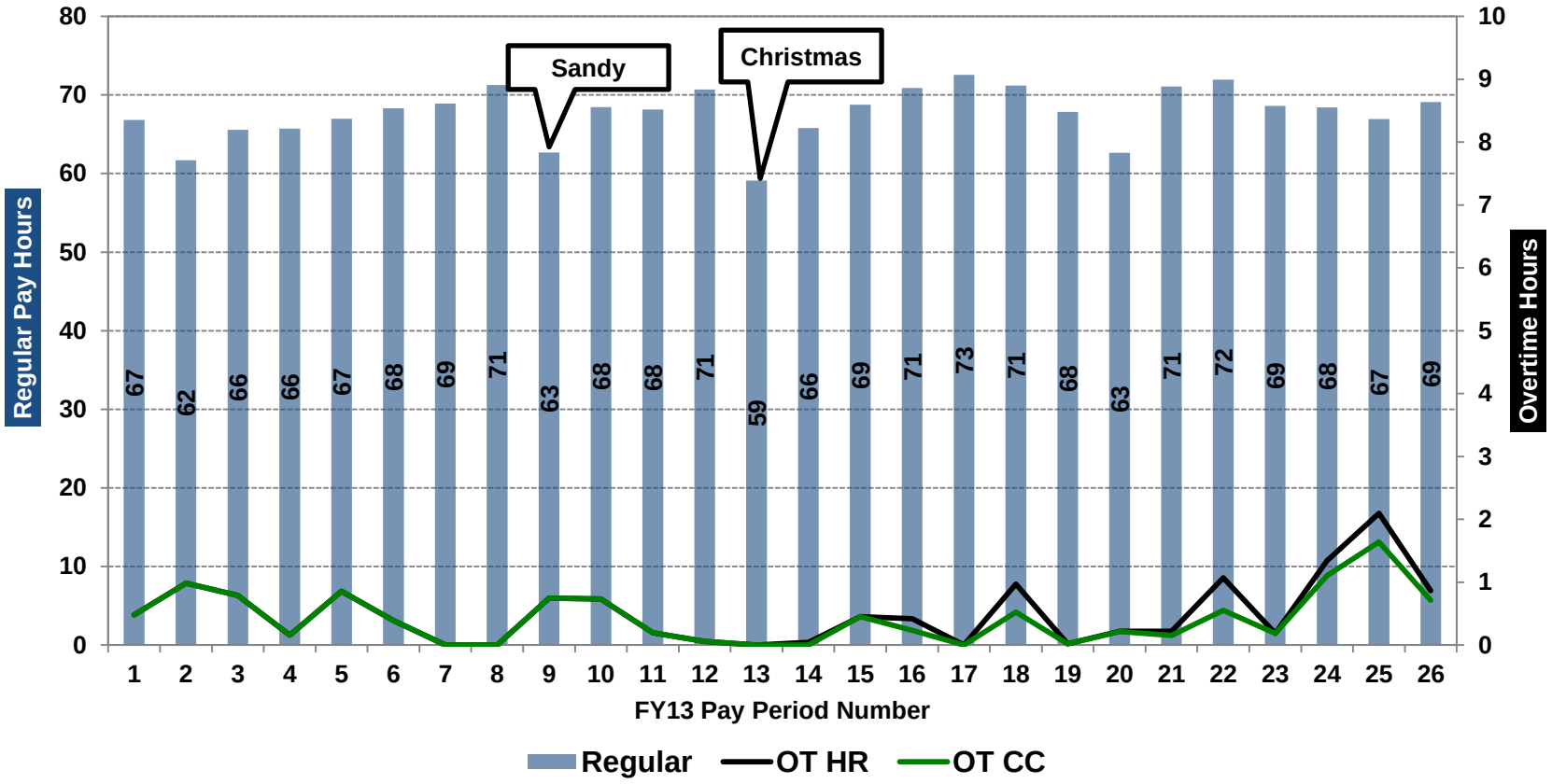


County Attorney

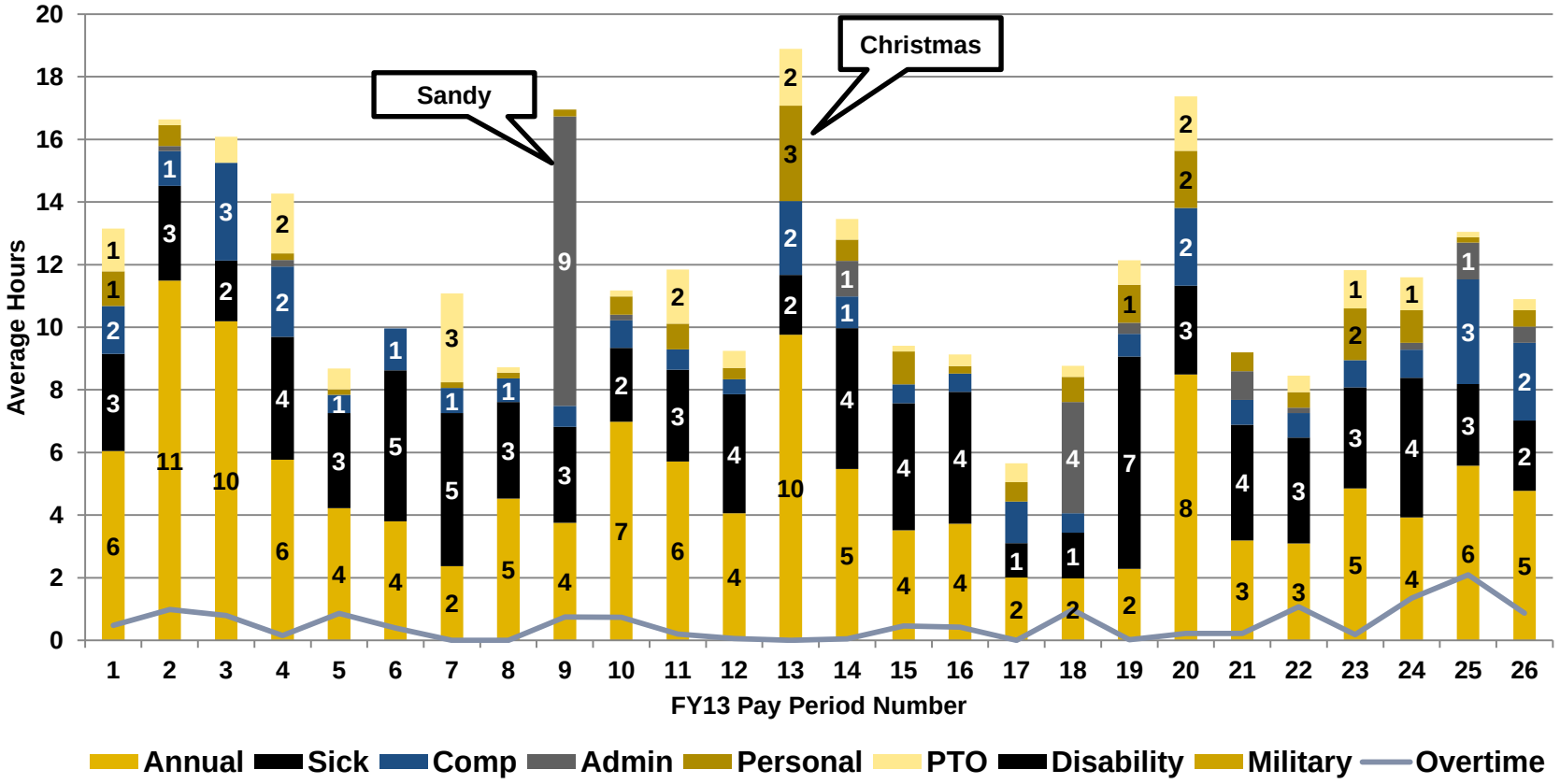


Community Engagement Cluster

Overtime Correlation = -0.04

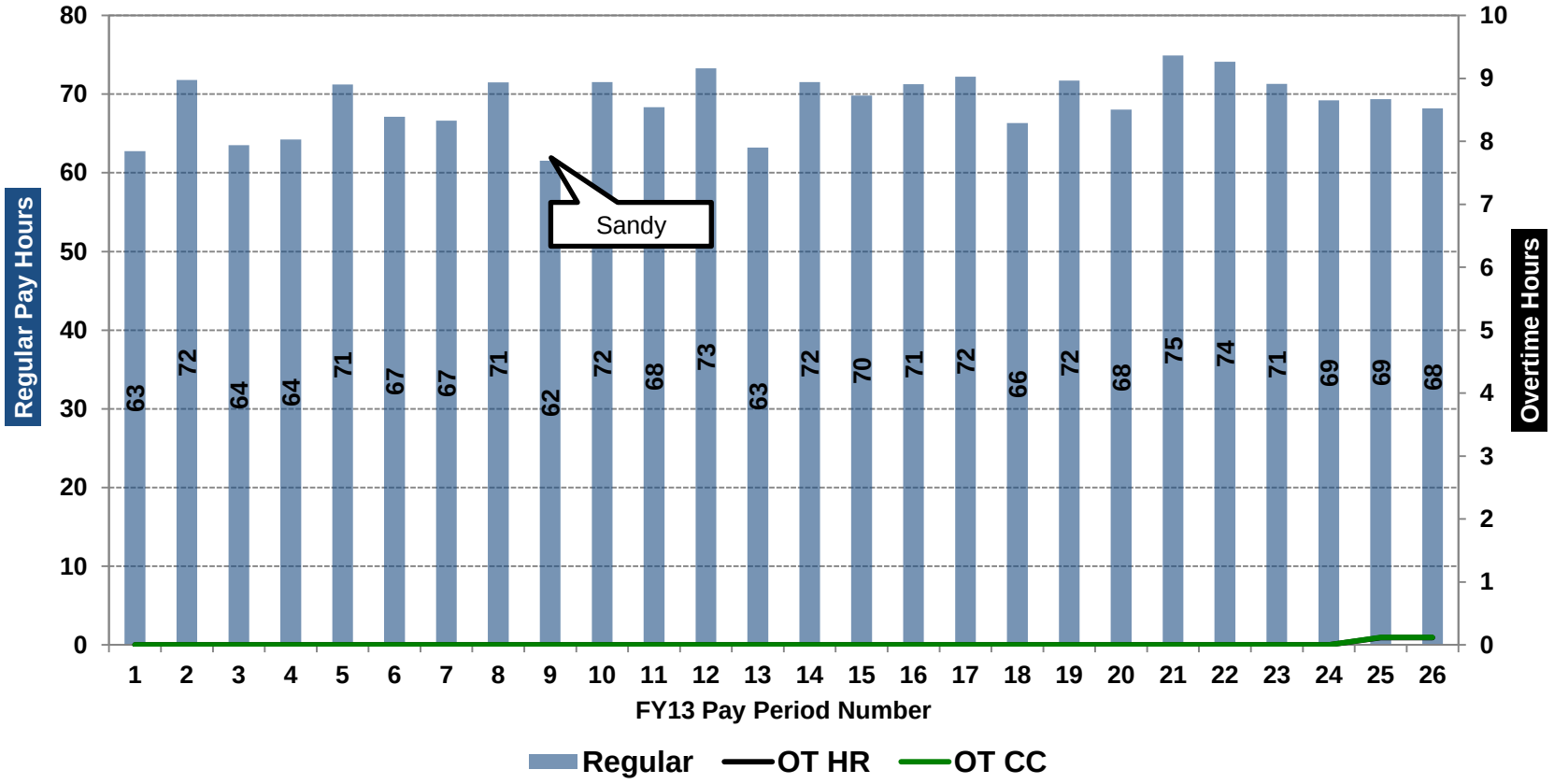


Community Engagement Cluster

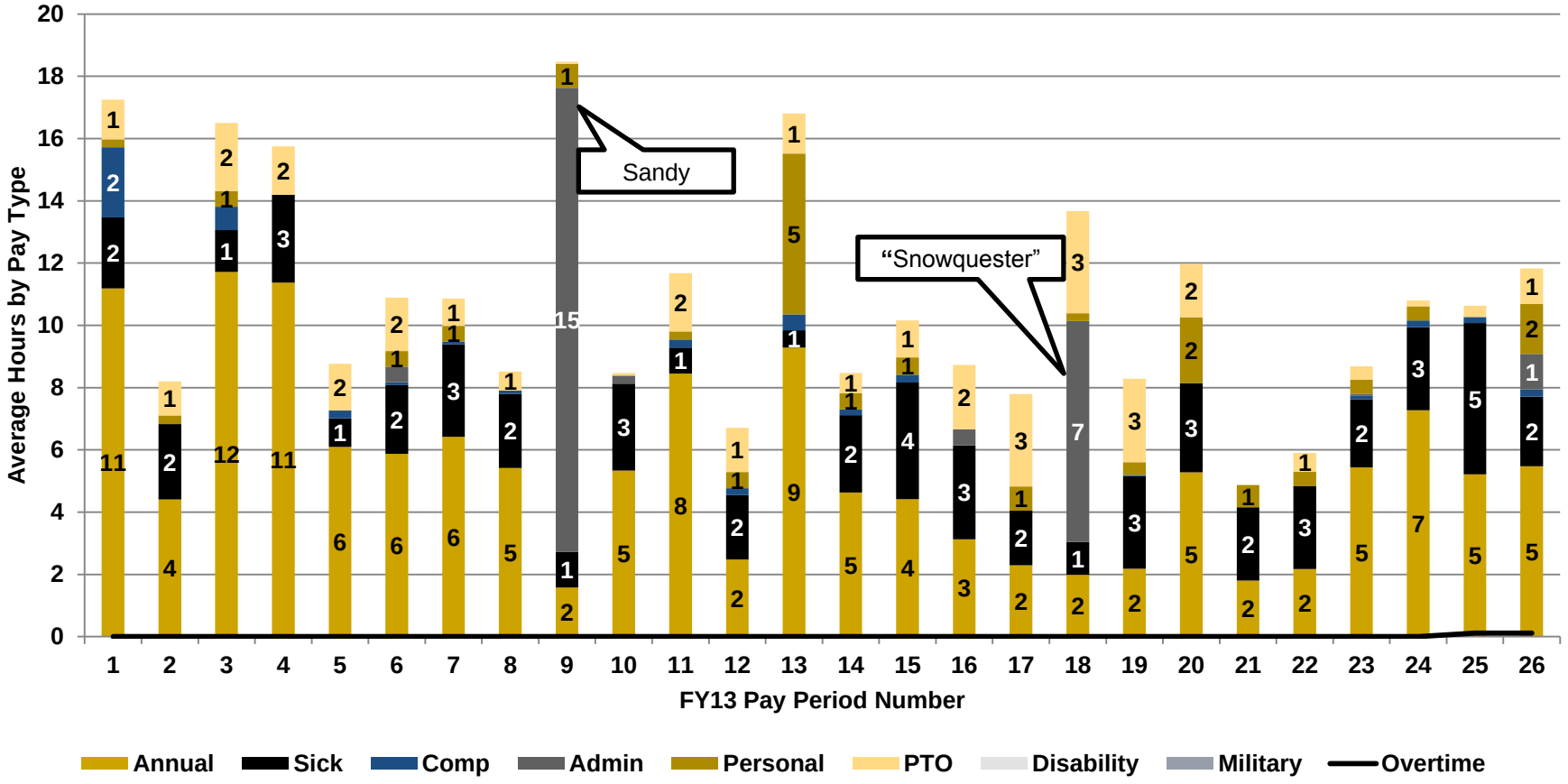


Economic Development

Overtime Correlation = -0.02

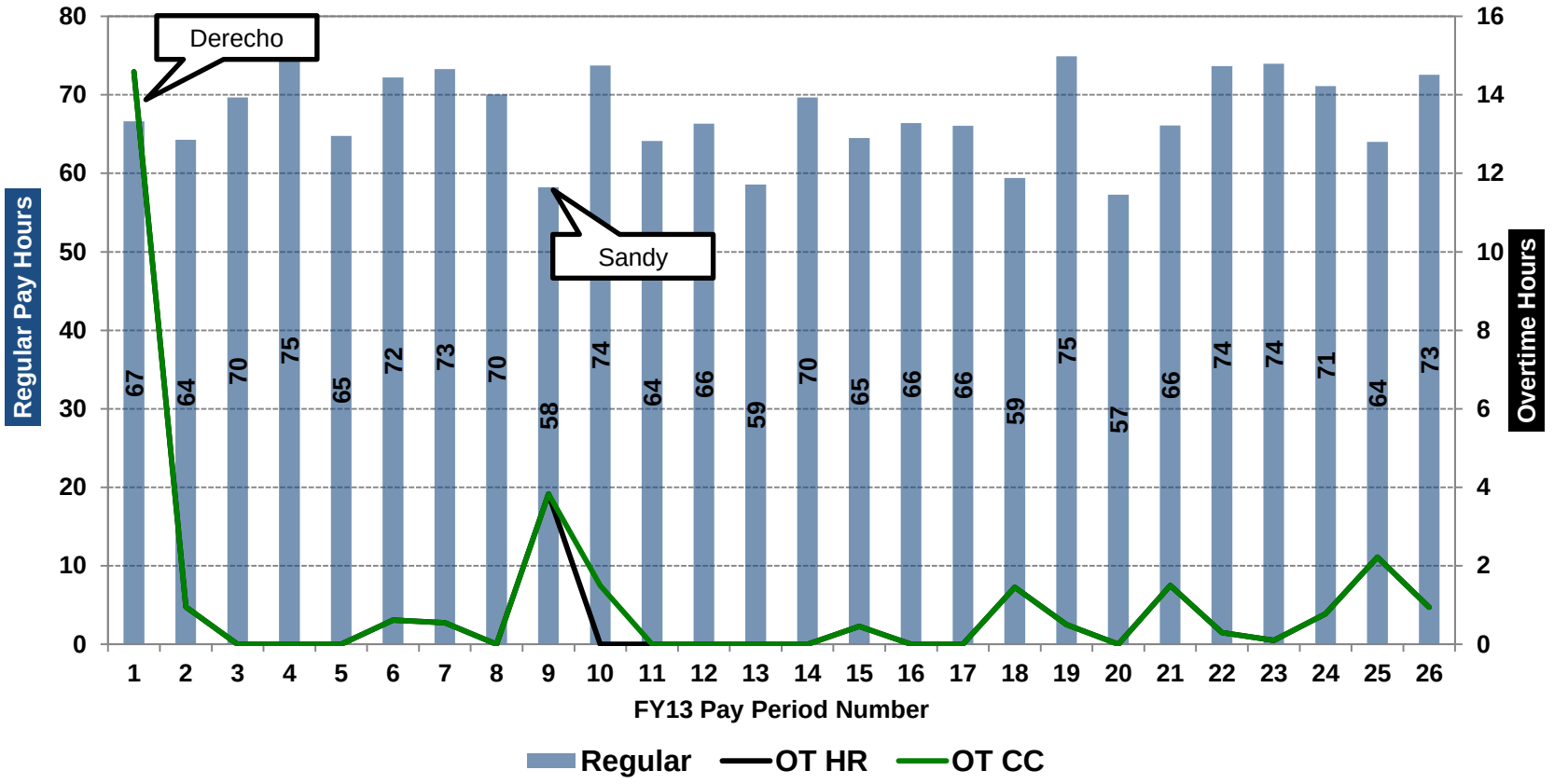


Economic Development

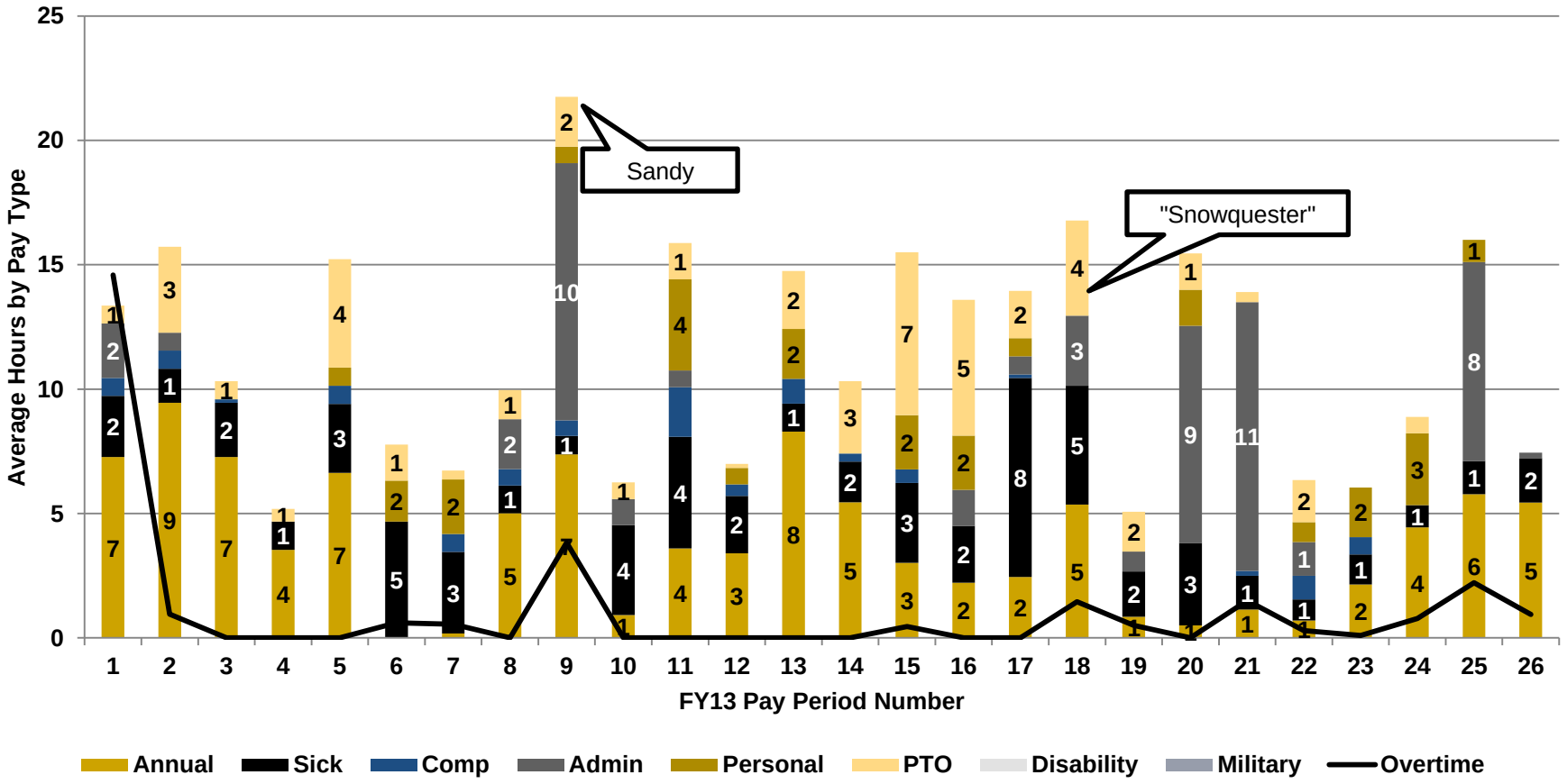


Emergency Management and Homeland Security

Overtime Correlation = -0.14

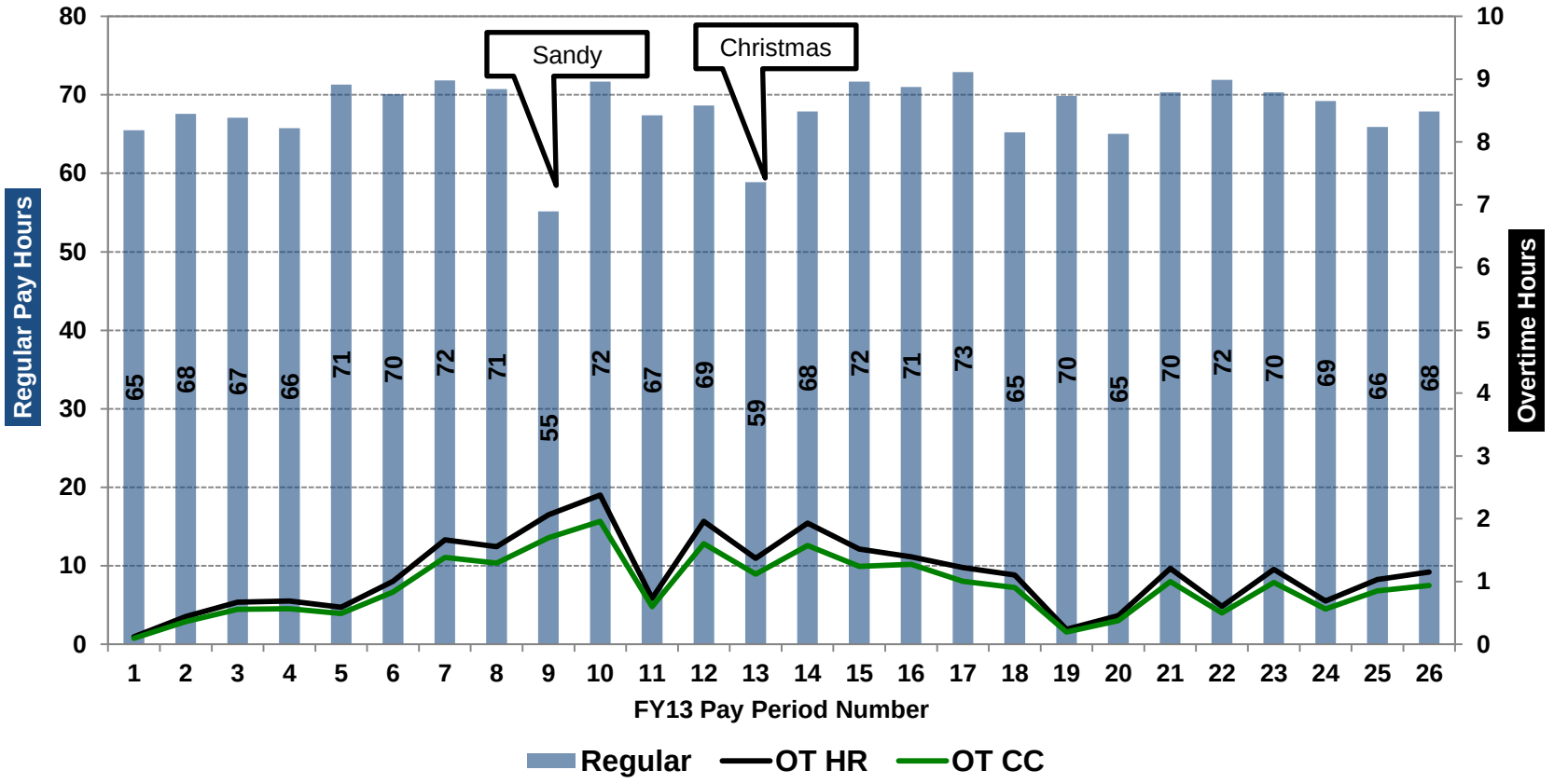


Emergency Management and Homeland Security

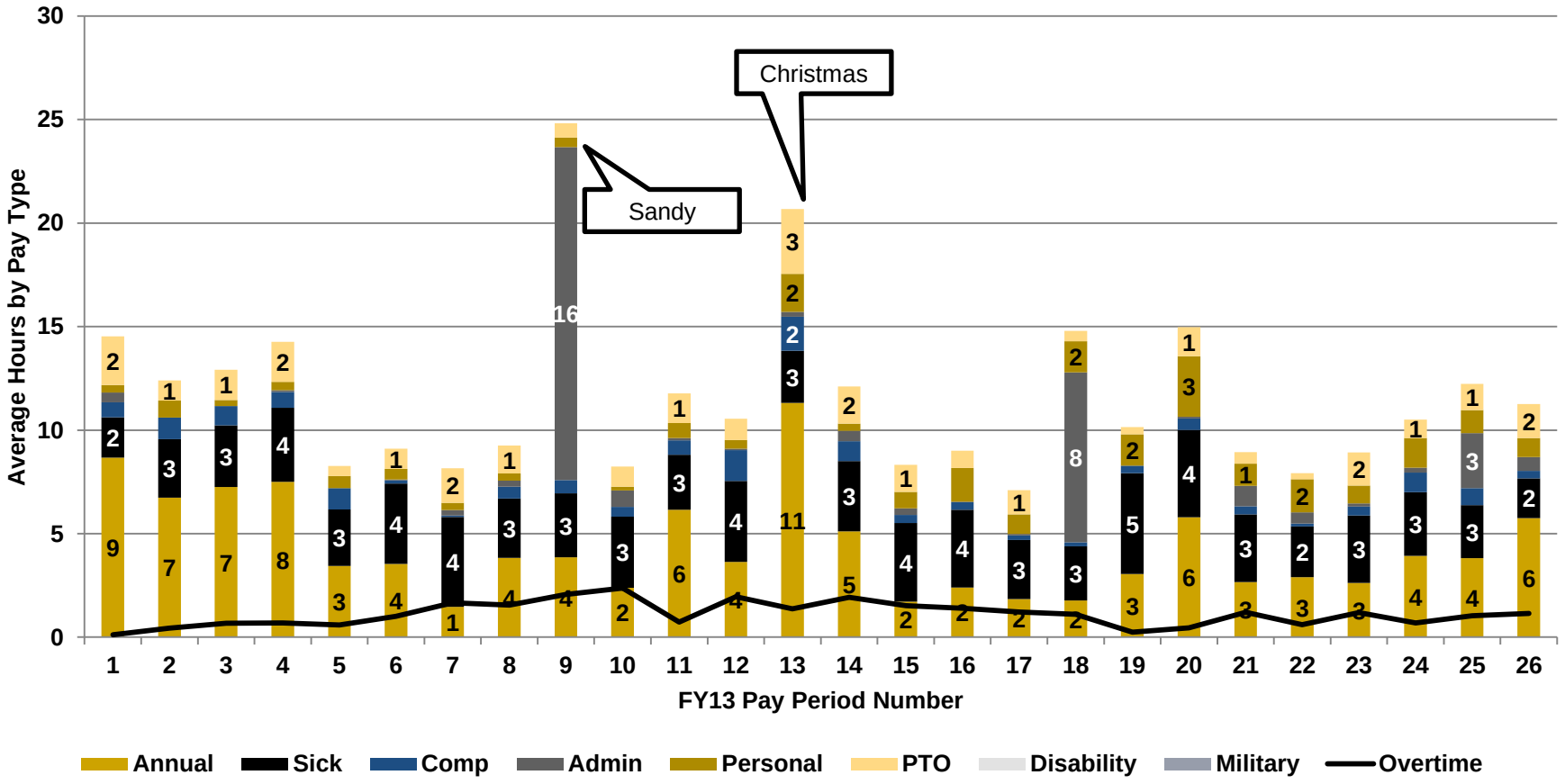


Finance

Overtime Correlation = -0.04

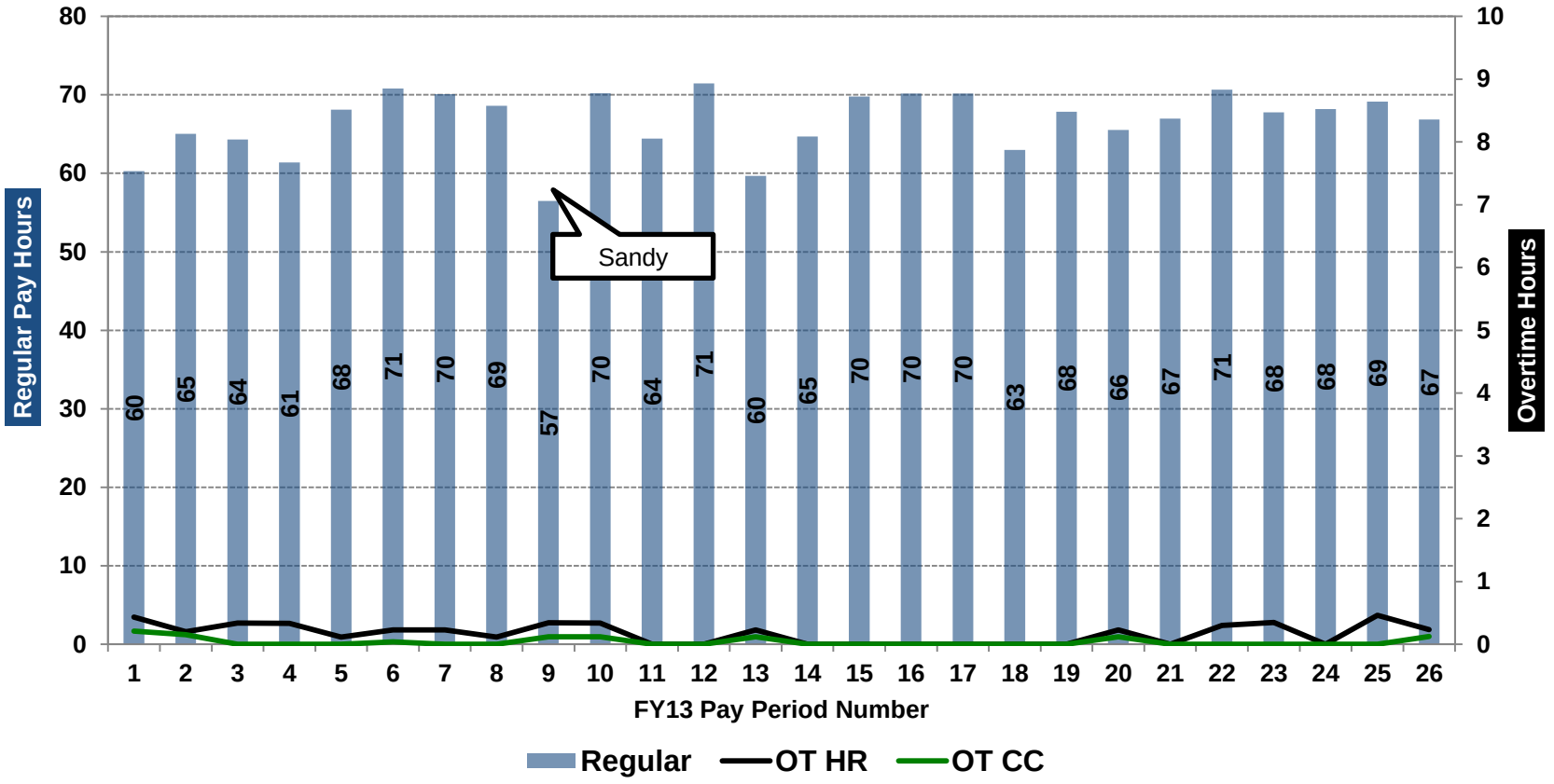


Finance

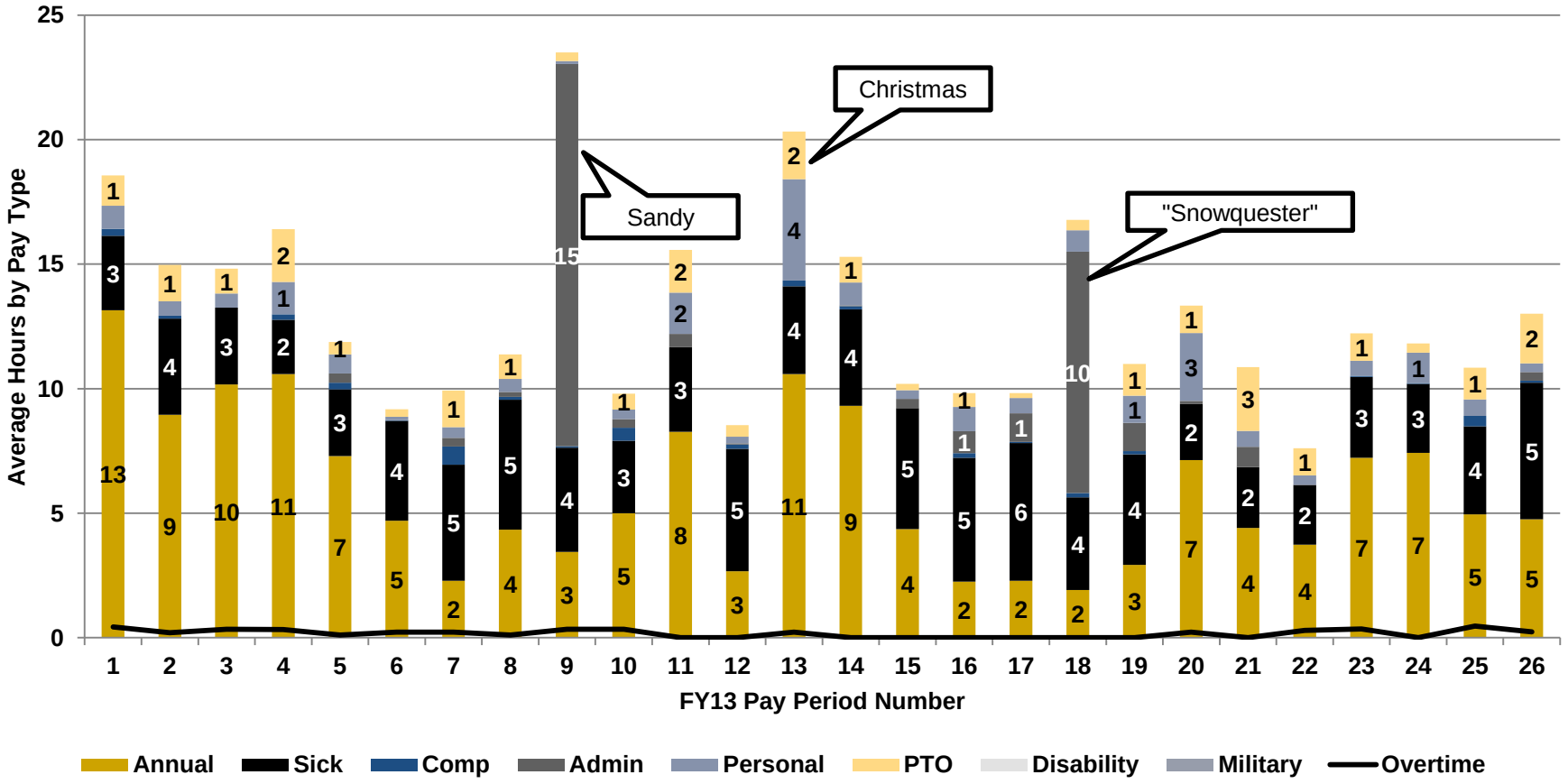

Average Hours by Pay Type
FY13 Pay Period Number
Christmas
Sandy
Annual
Sick
Comp
Admin
Personal
PTO
Disability
Military
Overtime

Housing and Community Affairs

Overtime Correlation = -0.30

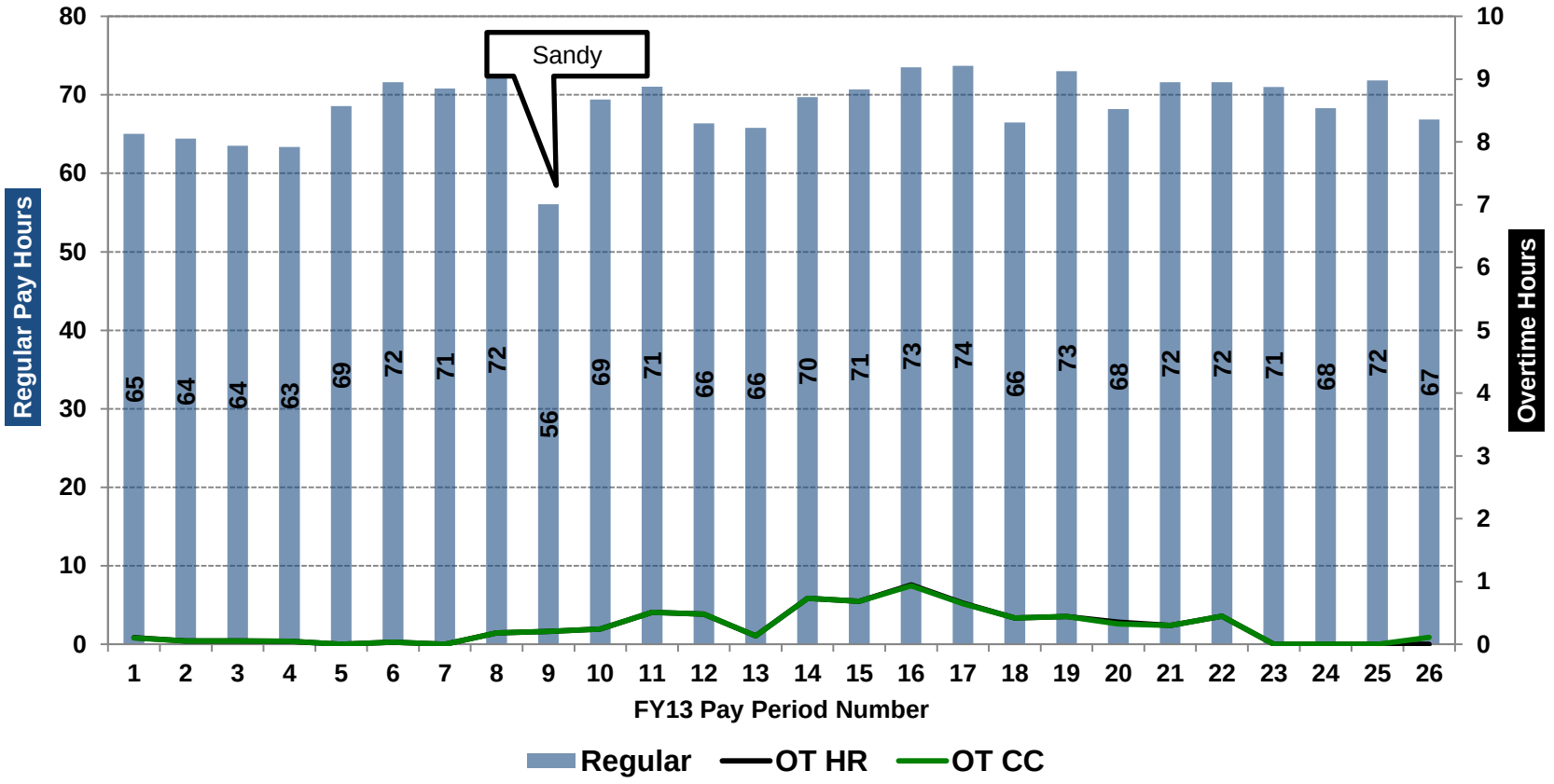


Housing and Community Affairs

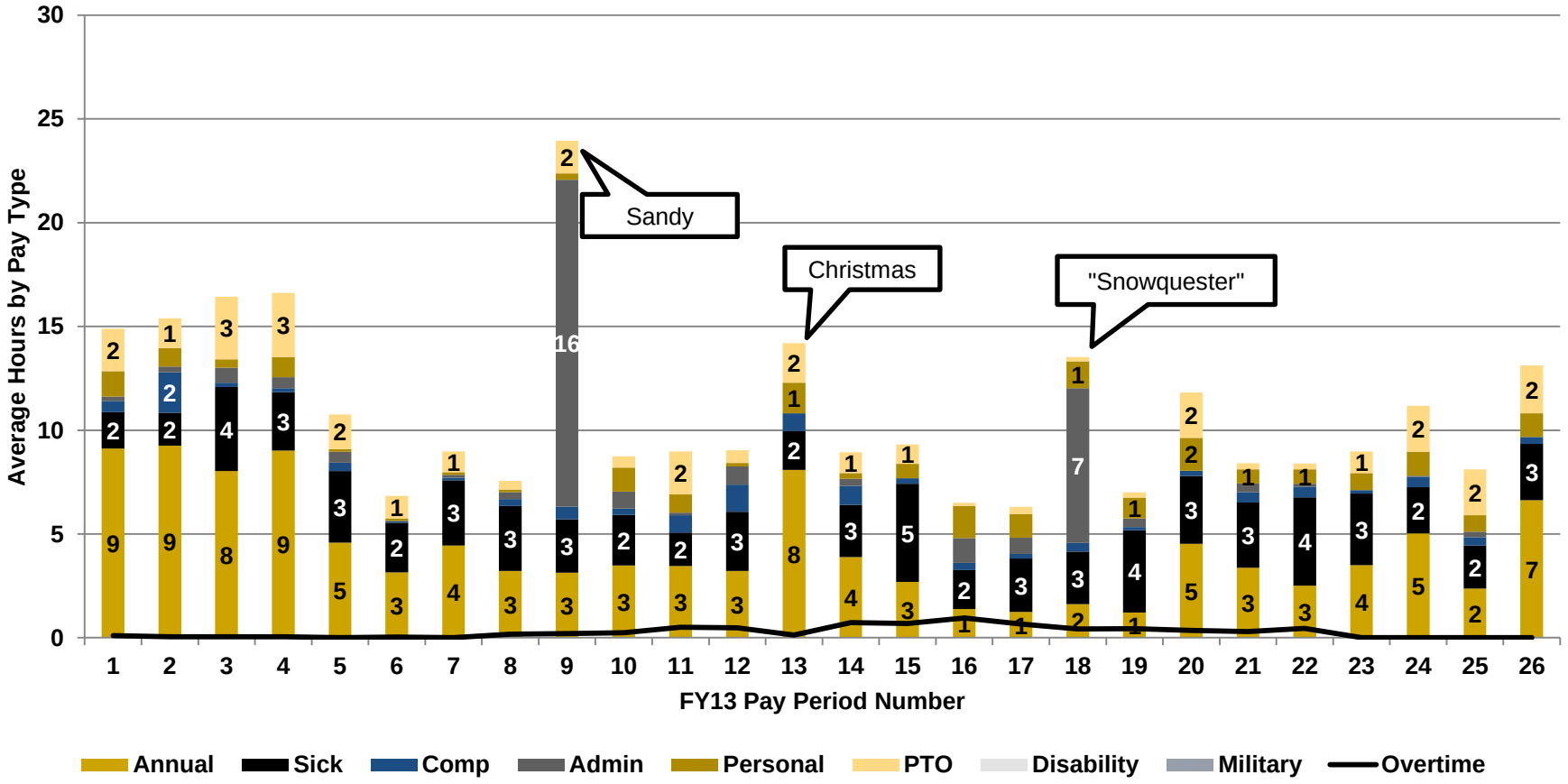


Human Resources

Overtime Correlation = 0.37

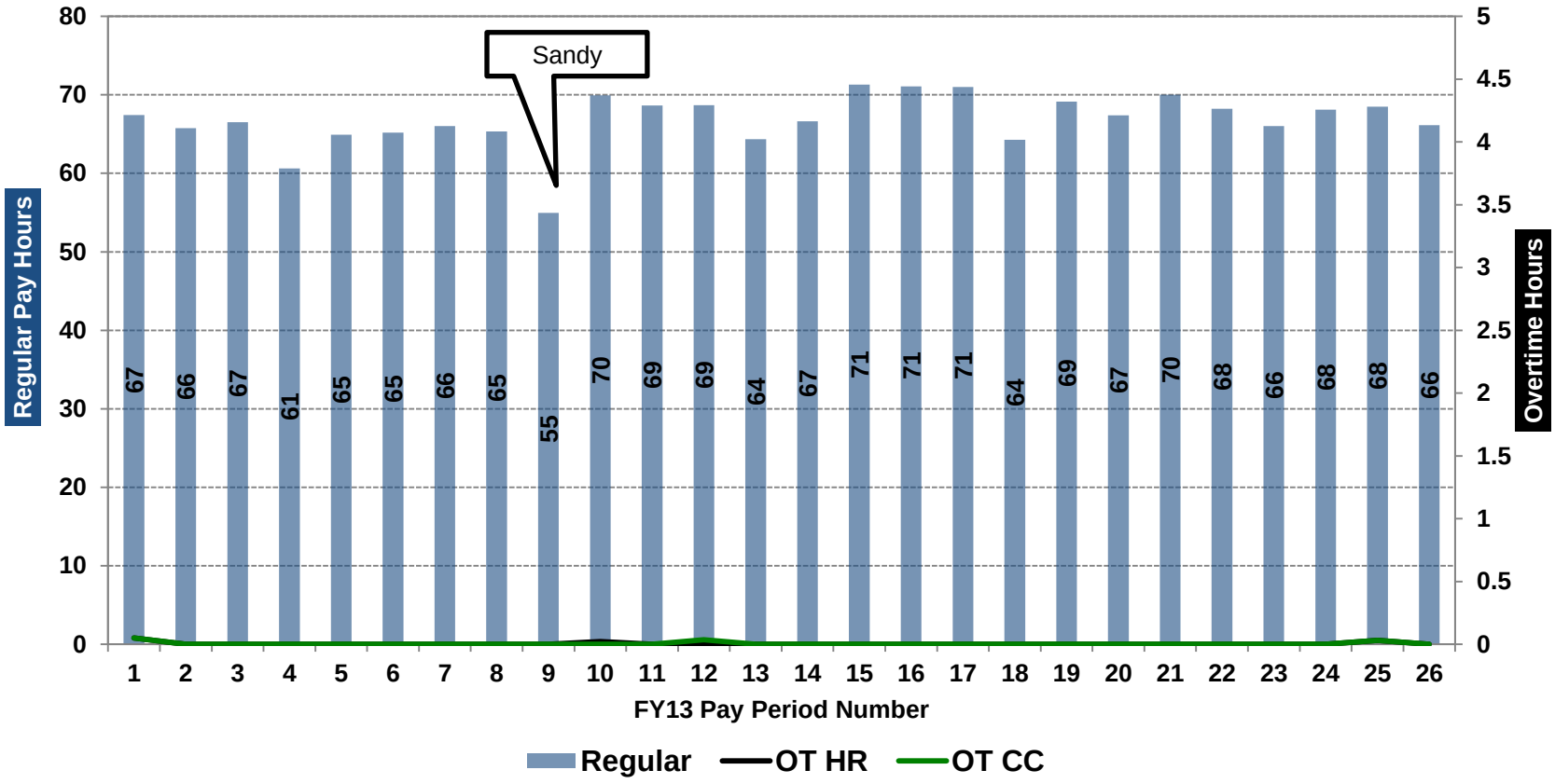


Human Resources

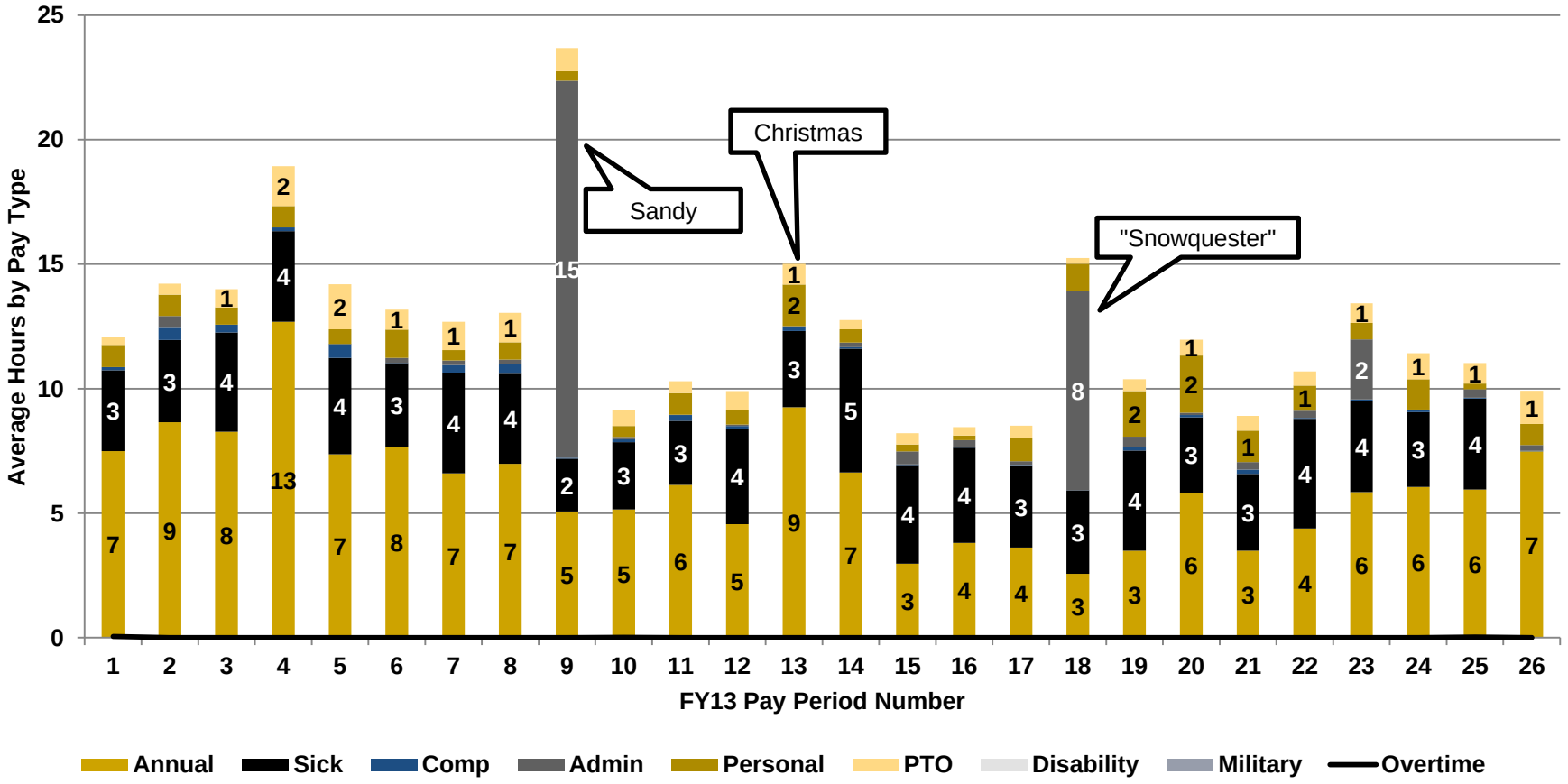


Libraries

Overtime Correlation = 0.15

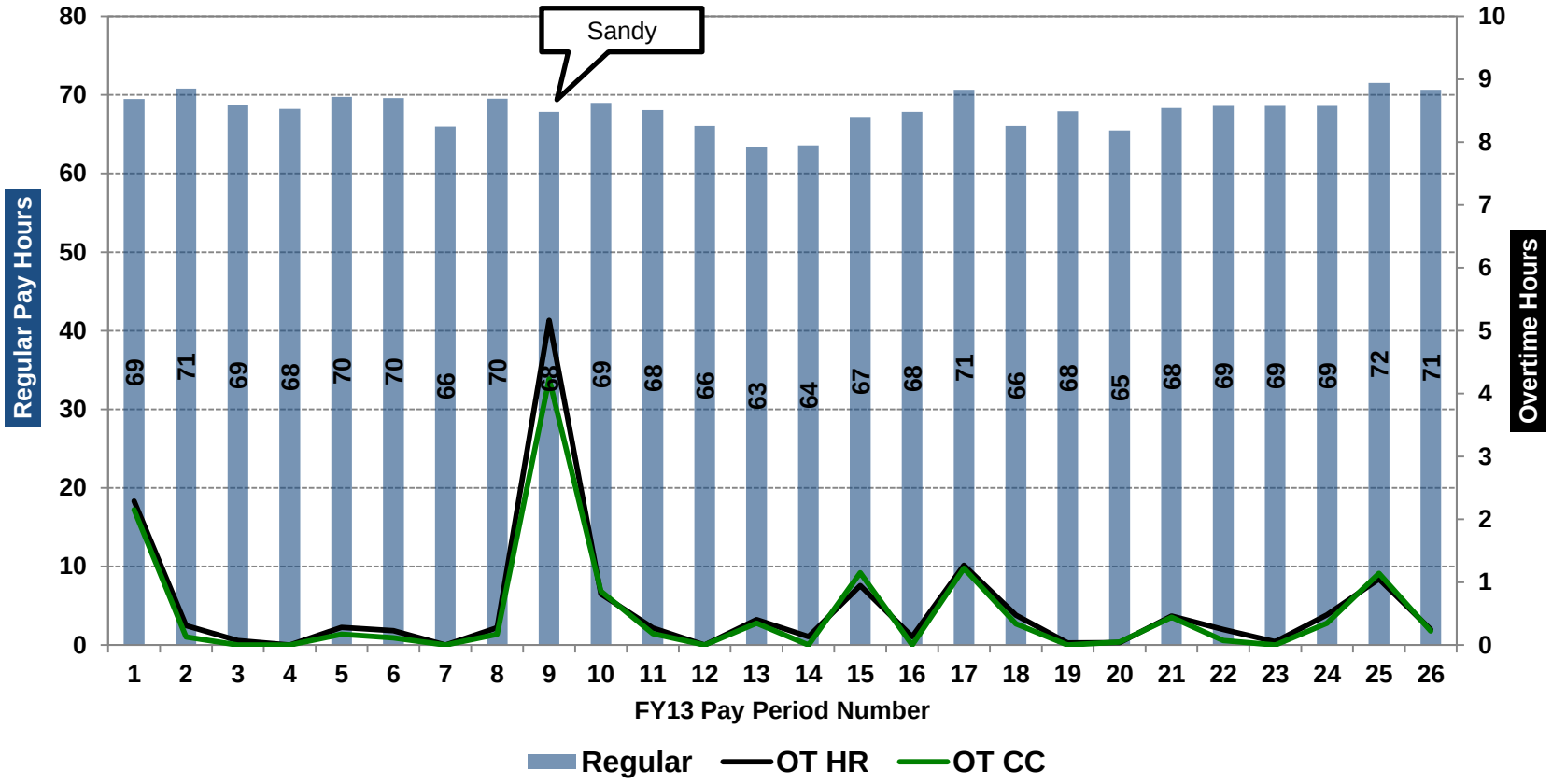


Libraries

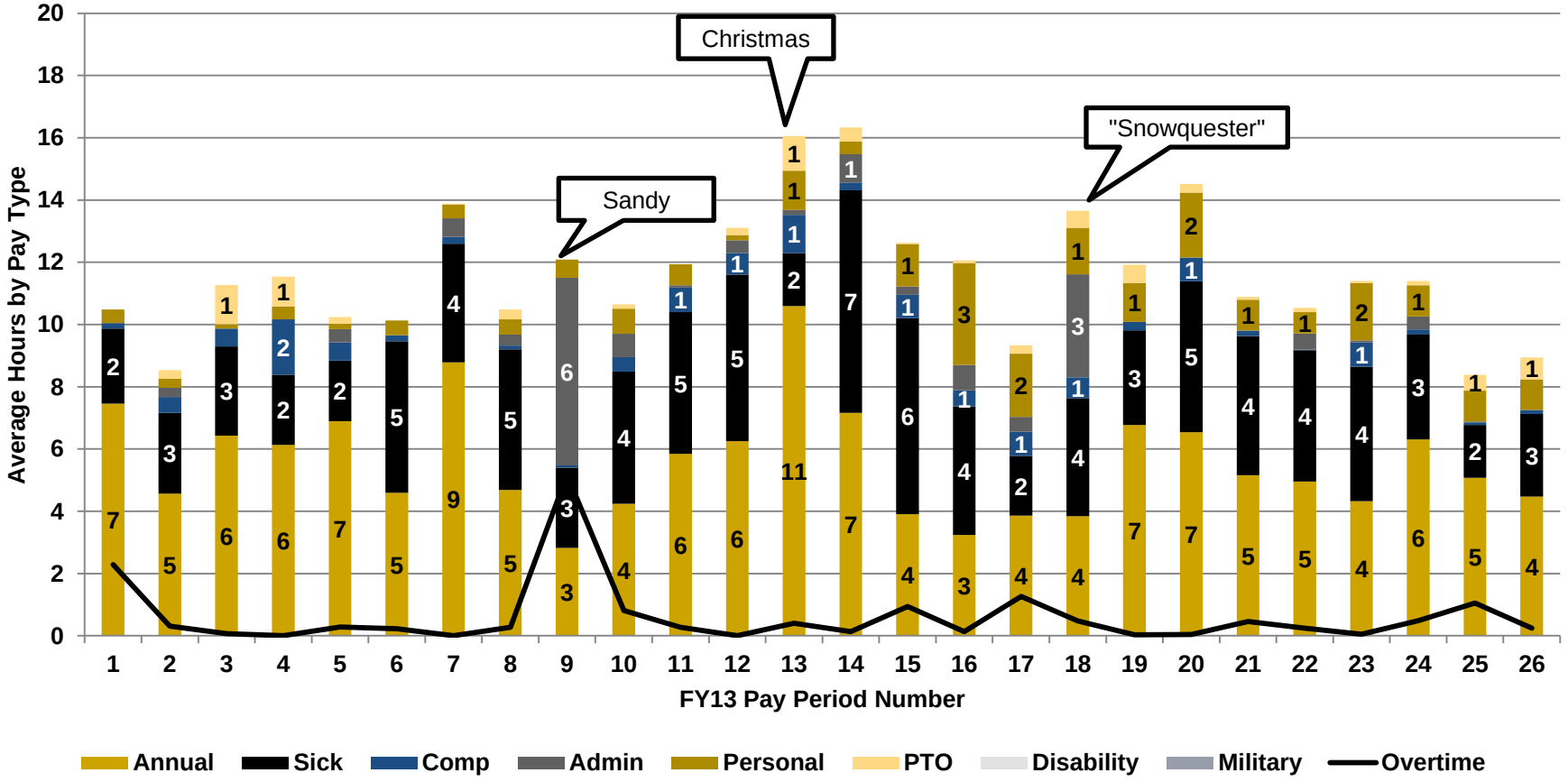

Average Hours by Pay Type
FY13 Pay Period Number
Sandy
Christmas
"Snowquester"
Annual
Sick
Comp
Admin
Personal
PTO
Disability
Military
Overtime

Public Information

Overtime Correlation = 0.14

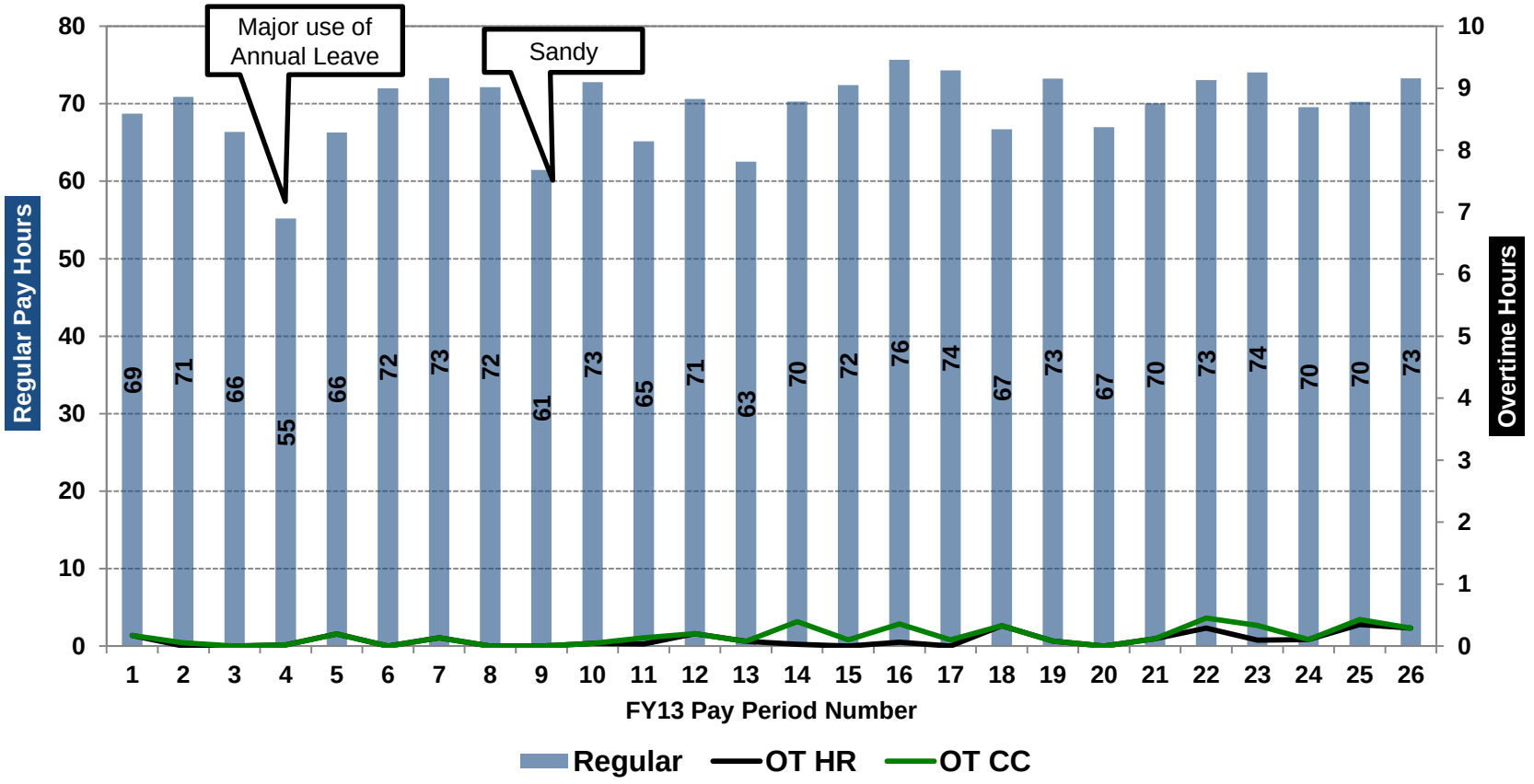


Public Information

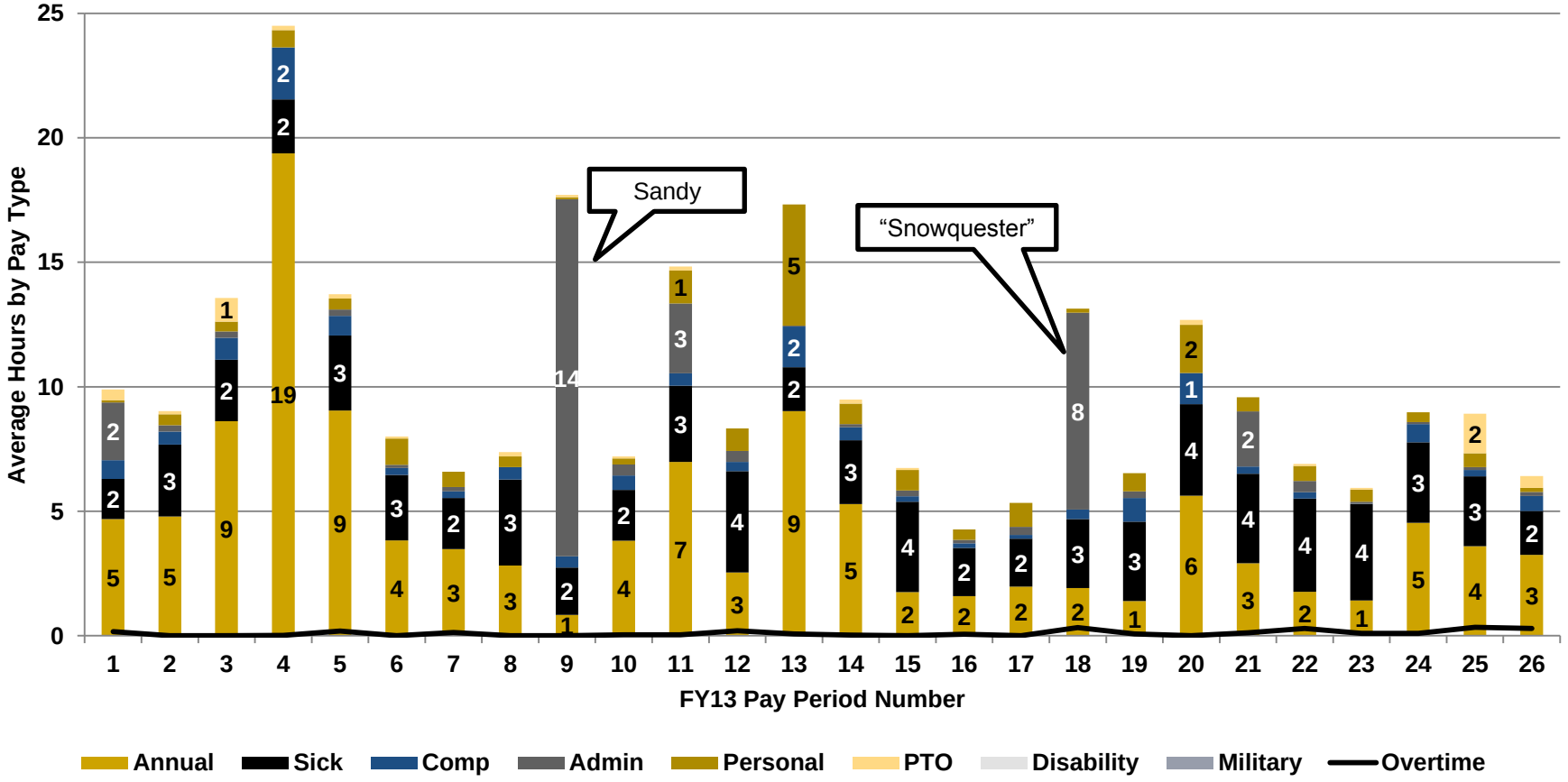


Recreation

Overtime Correlation = 0.13

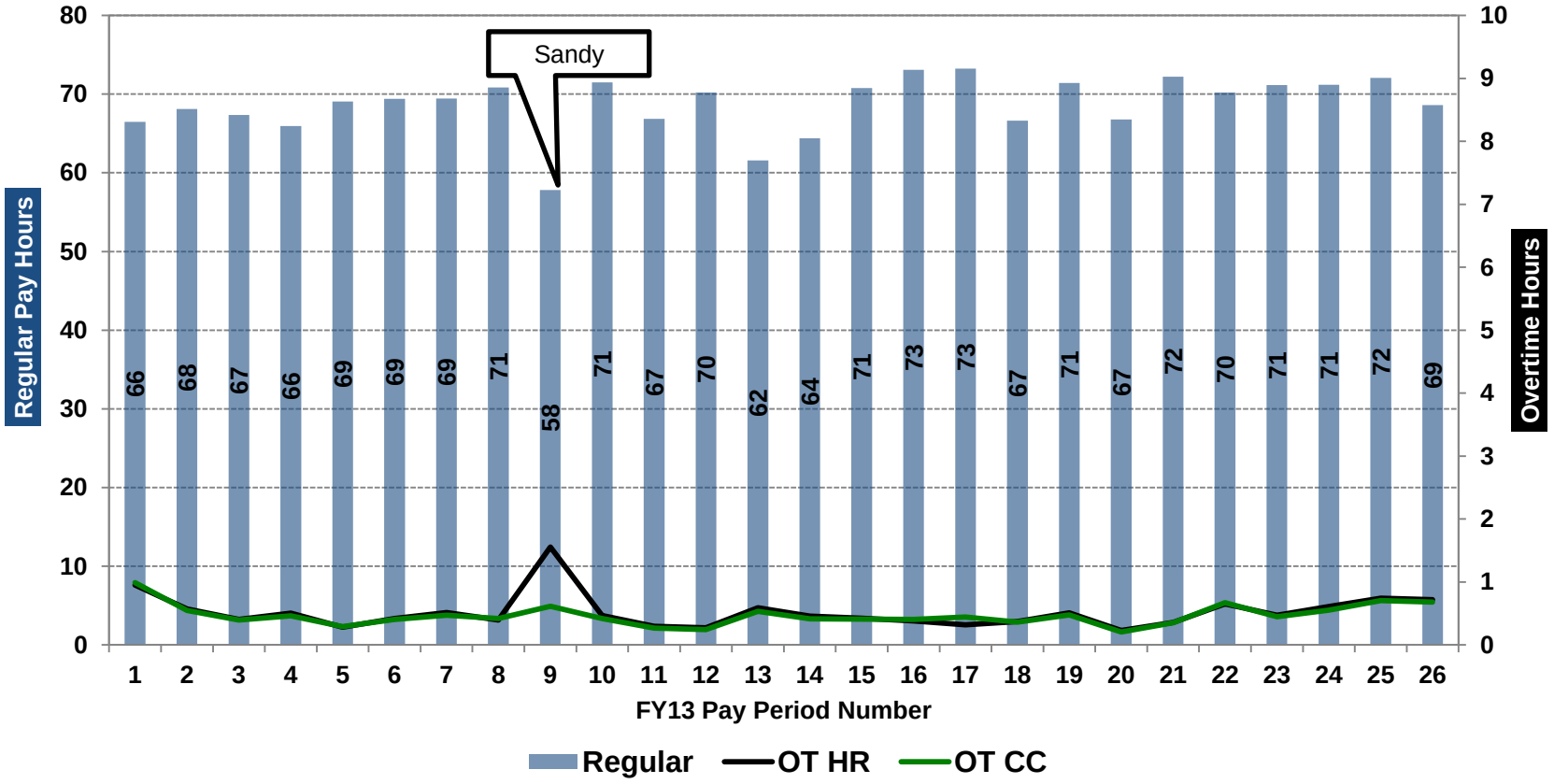


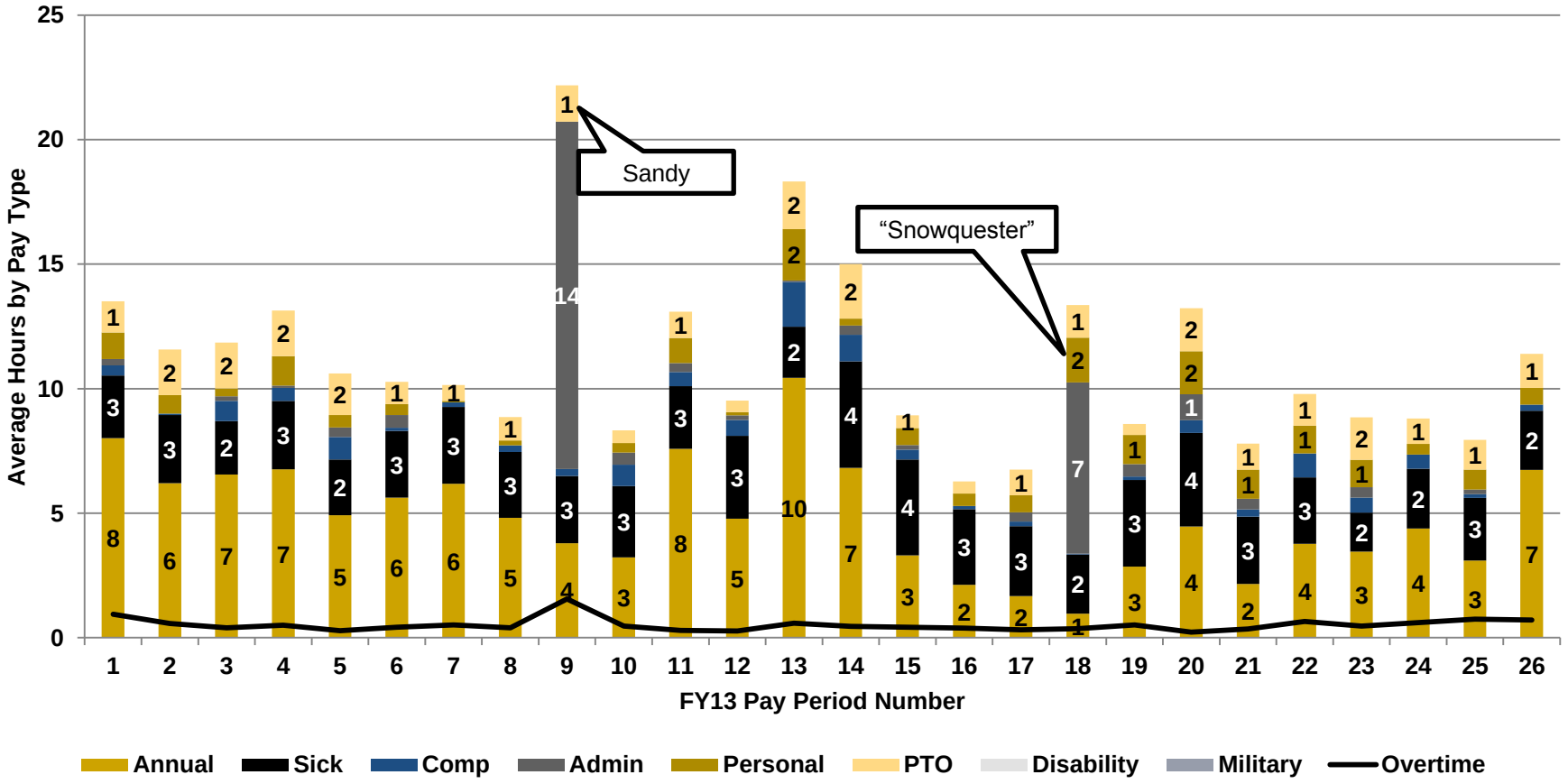
Recreation


Average Hours by Pay Type
FY13 Pay Period Number
Sandy
"Snowquester"
Annual
Sick
Comp
Admin
Personal
PTO
Disability
Military
Overtime

Technology Services

Overtime Correlation = -0.55



The strong correlation is due to the low WFA and high OT use during Sandy.

Technology Services