

Cost of Johnson County Jail Operations in FY07

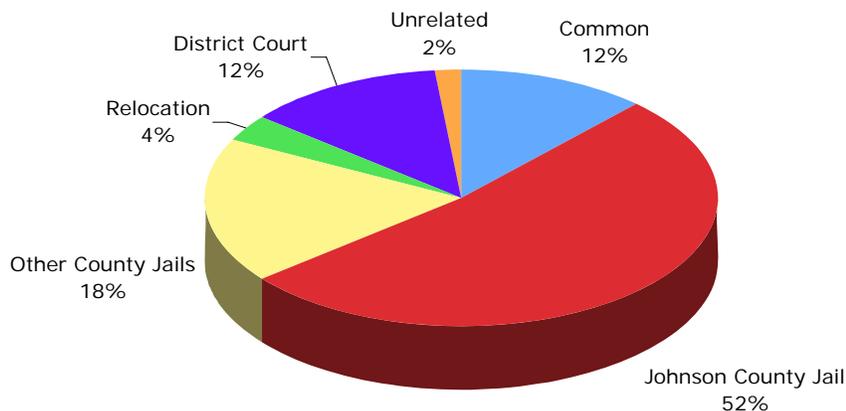
John Neff

October 2, 2008

Summary

1. The total cost of jail operation in FY07 was \$3,467,200.
2. The total cost of incarceration was \$2,998,900 distributed as follows
 - a. \$413,600 for services common to all inmates.
 - b. \$1,810,700 for incarceration of prisoners held in the Johnson County Jail.
 - c. \$632,200 for incarceration services provided by other county jails.
 - d. \$122,400 for relocation services for prisoners held in two jails on the same day.
3. Services provided to Johnson County District Court cost \$430,500.
4. Services unrelated to court or incarceration cost \$57,800.
5. The costs per inmate day were computed using average daily populations from table 1.
 - a. \$9.20 for common services.
 - b. \$55.40 for Johnson County Jail incarceration services.
 - c. \$55.80 to incarcerate prisoners in other county jails.
 - d. \$10.60 for relocation services.
6. The total costs per inmate day were
 - a. \$64.60 for inmates held in Johnson County.
 - b. \$75.60 for inmates held in other county jails.

Johnson County Jail Operating Costs in FY07



Introduction

Sheriff Pulkrabek would like to make an annual report on the cost of operating the Johnson County Jail (JCJ) and because I had helped to prepare the FY06 report he asked me to assist him. The idea of developing a form that could be easily updated each year has not turned out to be practical but it is possible to devise a procedure for preparing an annual report. The FY06 was a cost estimate that involved a large number of simplifying assumptions. The most serious defect in the FY06 study was that it did not properly take into account the financial consequences the practice of other county jails (OCJ) charging the full bed leasing cost for any part of a day and it was not appreciated until this study how many prisoners were in two jails on the same day.

Jail staff members provide a large number of services and it took awhile to decide how to specify the various services. The final specifications of services are

- *Unrelated services*: this includes staffing the rescue truck, providing team members for the bomb squad, special emergency response (SERT) and the hazardous materials teams as well as a deputy that participates in the DARE program.
- *Court services*: includes making an official booking record, assisting with initial appearances, in-court supervision, court liaison and all court ordered transportation.
- *Common expenses and services*: in general these are expenses and services that are used directly and indirectly by all inmates such as medical and dental services, prisoner accounts, records and staff training.
- *JCJ incarceration services*: includes food, supplies a large fraction of the physical plant expenses and in-jail supervision.
- *OCJ incarceration*: only the cost of bed leasing is included in this service.
- *Relocation services*: all services for inmates held in two jails on the same day including transport and transport management, processing prior to or after transport.

Average Daily Population (ADP)

The jail staff prepares a prisoner location report several times a day for inmates in the JCJ and in other jails or facilities. They also prepare a daily 6 a.m. report that is used by Jim Thayer to produce a monthly report that is posted on the jail web page. At 6 a.m. admissions are rare and there are no releases or jail transfers so the 6 a.m. report usually gives the maximum daily population because it is prior to initial appearance. For the purposes of comparing the costs per inmate-day of the Johnson and other county jails the annual average daily population is based on the data from the 6 a.m. report.

Table 1 gives the ADP by type of supervision where IMCC is the Iowa Medical and Classification Center in Oakdale (prisoners are sent there for evaluation or if they have special medical needs) and MECCA is a substance abuse treatment facility in Iowa City. There were no prisoners that had special needs in FY07 but in FY06 one prisoner used tens of thousands of dollars of medication. That experience suggests that special needs costs can show large unpredictable annual variations.

A study several years ago found that about 95% of the prisoners that applied for home detention with EM completed their sentence without incident but very few prisoners apply for home detention.

The JCJ is not authorized to hold juveniles and juveniles charged as adults are held in an authorized jail. In FY07 the costs to hold adults and juveniles charged as adults were combined and with the exception of a female juvenile held in Dubuque County the count of adults and juveniles held in other county jails were also combined. It is possible to use the booking data to determine the number of juveniles booked and their respective lengths of confinement. The other county female and total counts in table 1 were revised to include the female juvenile held in Dubuque County.

Table 1: Average Daily Populations (ADP) by Type of Supervision

Type of Supervision	ADP		
	Males	Females	Total
Johnson County Jail	77.7	11.9	89.6
Other County Jails	26.6	5.0	31.6
Home Detention With Electronic Monitor			1.0
IMCC or MECCA			1.2
Grand Total			123.4
Juveniles Charged as Adults from Booking Data			0.6

Work Schedules

The jail operates every day of the year 24 hours per day and several methods are used to schedule the staff. They are summarized in table 2.

Table 2: Summary of Work Schedules

Title	Hours per Shift	Work Days per Interval	Average Hours per Week
Administration Including the Administrative Sergeant	8.5	5 per week	42.5
Deputies	12	7 per 14 days for each rotation	42
Control Center Operators	9 with an overlap of 1 hour	20 per 28 days	45
Cooks	8	15 per 21 days	40

The secretary is part of the records division staff that work a normal 8 hour shift five days week and it was estimated that 70% of her time was spent on jail related tasks. The drivers work five days a week for a total of 20 hours and their standby time is spent doing filing in the records division.

Jail Staff

The jail staff consists of

- A jail administrator and an assistant jail administrator.
- Five sergeants, (one for administration), one for each of the 4 shift rotations.
- Eighteen deputies
- Nine control center operators (CCO) including the supervisor who has a number of addition duties including liaison with the UI hospital to manage medical services.
- Three cooks.
- A part time secretary (70% jail duties and 30% other duties).
- In FY07 there were two part-time drivers.

Transport is done by drivers, deputies and on occasion by a sergeant. Out-of-jail supervision is done by deputies and on occasion by a sergeant if they are short-staffed the administrator and assistant administrator will fill in. On most weekends it is necessary to add extra staff and they are compensated by comp time or overtime.

Overtime

According to Jail Supervisor Dave Wagner the main reasons for paying comp time and overtime are

- Training
 - 16 hours per year at the firing range for all sworn officers
 - 20 hours per year for jail school (includes control center operators)
 - 20 hours per year of Multi Agency Training for deputies
 - Special training for bomb squad, Hazmat and the Special Emergency Response Team
- Transport driving
- In-court supervision of a prisoner during a long trial
- Off-site supervision of a prisoner (example at the hospital)

The distribution of comp time and overtime by job type is known but the distribution by type of service is not known. Therefore it was necessary to assume that comp time and overtime has the same distribution as regular time. With exception of training hours that is a fair assumption. The training hours are about 4% of the regular hours and the difference between the effective pay rate and the overtime rate is small so this assumption should not introduce a significant error. An effective pay rate that is the sum of all compensation divided by the sum of the regular and overtime hours was used instead of the regular pay rate.

Payroll Summary

The Johnson County Auditor's Office provided the payroll data for persons who were employed by the jail division in FY07. The data was a list of all payments made to jail staff members including the cost code, payment and number of hours paid. This file had to be distributed twice first by employee, cost code and pay and again by employee, cost code and hours. These tables were merged with the job title and the cost codes combined

into regular, leave, overtime and other (FICA & other) categories. Table 3 lists the totals for each job title and table 4 the regular and effective pay rates.

Table 3: JCJ Payroll Summary

Title	Hours			Pay			
	Regular	Leave	Overtime	Regular	Leave*	Other	Overtime
Administration	3592	834	9	\$110,432	\$25,180	\$45,583	\$379
CCO	15542	3636	96	\$272,473	\$63,437	\$130,764	\$2,312
Cooks	5225	1052	268	\$81,756	\$16,365	\$49,752	\$6,336
Deputies	32190	6898	2507	\$666,336	\$147,817	\$284,963	\$76,717
Drivers	2010	488	145	\$28,059	\$6,810	\$6,247	\$3,061
Secretary	914	552	0	\$16,114	\$9,369	\$6,692	
Sergeants	7208	1726	302	\$200,062	\$47,312	\$88,900	\$12,303

*Leave included comp time and vacation

Table 4: Regular and Effective Average Hourly Pay Rates

Title	Regular	Effective
Administration	\$30.74	\$50.42
CCO	\$17.53	\$29.99
Cook	\$15.65	\$28.07
Deputy	\$20.70	\$33.89
Driver	\$13.96	\$20.50
Secretary	\$17.63	\$35.20
Sergeant	\$27.76	\$46.42

Expenses and Services

Major Steve Dolezal provided most of the information about expenses and services. Physical plant director David Kempf provided the physical plant costs and said that the jails portion was 70% of the total with the exception of repairs and some supplies where 50% was a better distribution. The physical plant expenses given in table 4 are for the jail only.

Table 5: Supplies, Physical Plant, Equipment and Training Costs by Service

JCJ Service	Expense Type	Item	Cost	Notes	
Common	Supplies	Uniforms	\$7,499		
		Stationary	\$6,177		
		Postage	\$720		
	Equipment	Rental	\$1,775		
		Purchase	\$2,293		
		Printrak		Fingerprint machine purchased with a grant	
		Printrak maintenance		First year is included but would normally be \$19,000	
	Physical Plant	Repairs	\$28,213	There can be large year-to-year variations	
		Supplies	\$2,298	Maintenance supplies	
	Staff Training	Registration	\$20,111		
		Meals	\$7,306		
		Lodging	\$7,304		
		Ammunition	\$7,966		
	Total			\$91,662	
JCJ Incarceration Services	Supplies	Food	\$114,400		
		Clothing	\$2,041		
		Hygiene	\$2,459		
		Medical	\$5,202	Additional medical expenses	
		Miscellaneous	\$3,922		
	Equipment	Kitchen	\$1,116		
		Surveillance	\$13,665	Replacement	
	Physical Plant	Natural gas	\$5,855	The jail uses large amounts of hot water and no evening & weekend heating setback.	
		Electricity	\$25,521	The jail ventilation system operates at near peak levels with no temperature and fan speed setback.	
		Water & sewer	\$15,719	The jail is responsible for most water & sewer use.	
		Supplies & paper products	\$8,909		
		Garbage collection	\$2,499		
		Pest control	\$284		
	Total			\$201,592	

Table 6: Services by Other Providers

JCJ Service	Vendor Supplied Service	Cost	Notes
Common	Inmate Medical	\$45,068	Clinics, medication and consultation provided by UIHC ER staff.
	Substance Abuse Evaluations	\$25,000	A jail alternative program provided by MECCA staff to reduce recidivism.
	Electronic Monitoring	\$1,218	Home detention and work release monitoring provided by an outside vendor.
	Data Link	\$1,200	Used to send digital photos and fingerprints to the Iowa Dept. of Public Safety
	Library	\$3,100	Services provided by ICPL.
	Total	\$75,586	
Other County Jail Incarceration	Bed Leasing	\$632,195	Total cost of leasing beds from other county jails.
	Total	\$632,195	

Table 7: Transport Services

Trip Type	Trips		Miles		Hours		Cost	
	Deputy	Driver	Deputy	Driver	Deputy	Driver	Vehicle	Labor
Juvenile	63	92	4,349	10,193	102	203	\$7,053	\$7,618
Mental	131	82	5,717	9,480	263	218	\$7,371	\$13,382
Transport Order	165	161	8,041	11,424	206	278	\$9,440	\$12,680
Warrant	98	82	13,485	9,597	284	199	\$11,195	\$13,704
Other	29	11	1,134	332	35	27	\$711	\$1,740
Jail Transfer	289	247	18,213	14,686	476	333	\$15,956	\$22,958
Service								
Common	127	93	14,619	9,929	319	226	\$11,906	\$15,444
Court	359	335	18,107	31,097	571	698	\$23,864	\$33,660
Jail Transfer	289	247	18,213	14,686	476	333	\$15,956	\$22,958
Totals	775	675	50,939	55,712	1,366	1,257	\$51,726	\$72,062
Grand Totals	1,450		106,651		2,623		\$123,788	
Rates	4 trips per day		74 miles per trip		2 hours per trip		\$85 per trip	

Relocated Inmates

Relocated inmates are in two jails on the same day and incur extra costs. The jail staff does not keep a log that can be used to determine the number of relocated inmates and the trip log was used to analyze jail transfers in order to estimate their numbers. The results and the estimated totals are given in table 8. The number to and from the JCJ may not be equal because may be transferred between other county jails or by court order.

Table 8: Estimated Number of Relocated Inmates In FY07

Jail	To J CJ	From J CJ
Cedar CO	159	154
Dubuque CO	1	1
Iowa CO	236	210
Jefferson CO	15	16
Linn CO	100	98
Ambiguous	5	5
Total	516	484
Estimated Number Released	103	

Distribution of Staff Effort

In the FY06 cost study a simplifying assumption was made that staff effort was proportional to the number of prisoners held in the J CJ or in other county jails. That did not work for court services and it was decided to use for the FY07 report more complete methods to determine how staff effort was distributed. Whenever possible logs and schedules were reviewed and staff members were interviewed to develop estimates of the amount of time devoted to various tasks.

Court Services

Booking: is making an official record that describes the offense and gives information about the accused. For safety reasons two deputies do the booking and at times of peak booking two additional deputies operate a second booking station. On a normal weekend an extra deputy is added to the second shift to deal with the weekend peak in bookings but on weekend with a U. of Iowa home football games an extra deputy is added to first shift and two additional extra deputies to second shift (estimated additional costs are \$1,220 for an ordinary weekend and \$4,470 for a home football game weekend). The average number of bookings and their dependence on time-of-day and day-of-week shown in Figure 1 was determined by using a 25-week data sample. On weekend of home football games eight prisoners are moved to other county jails (at a cost of \$1800 per weekend) to free up a cellblock to house weekend arrestees.

The jail staff estimated that the average time needed to make a booking record for a single charge is ten minutes for booking and an additional five minutes if fingerprinting and photograph are required. Multiple charges take longer and the estimated average for all types of booking is fifteen minutes. The additional time need to dress the inmate, store their property, provide them with supplies and bedding and move them to a cellblock was not estimated because they were considered to be an incarceration service not a court service.

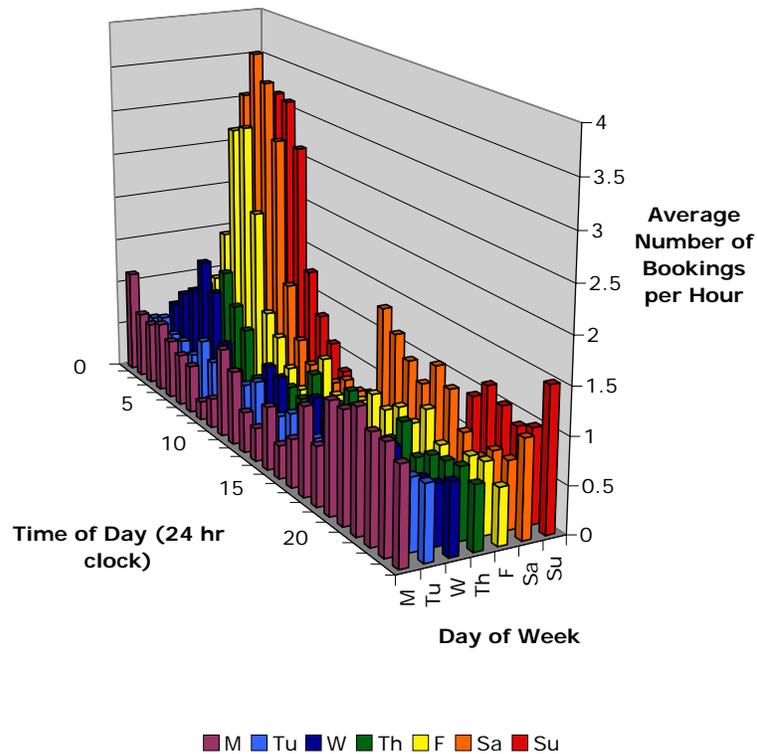


Figure 1: Average number of bookings per hour by day of week and time of day (24 hour clock).

Initial appearance before a magistrate: When court is in session initial appearance is by TV link between the jail and courthouse. The assistant jail administrator provides liaison between jail, Clerk of Court Office and the judge or magistrate (a sergeant is his substitute). On weekend or when court is not in session the magistrate comes to the jail and a sergeant provides the liaison. The average time was determined by interviewing the assistant administrator and a day-shift sergeant.

Management of the waiting list: When the cellblock used to hold sentenced prisoners became saturated on weekends a waiting list was established for persons sentenced to jail (the most frequent length of sentence is two days). A sergeant schedules the sentenced subjects and that is not particularly time consuming. The most time consuming part of this service is because many of the sentencing orders are conditional and the sergeant has to verify that the conditions have been satisfied (in some cases that is not possible and the sentence is effectively suspended). Scheduling, verification and dealing with persons who fail to appear takes 12 hours per week. This service cost about \$29,000 per year and should be revised to reduce the time wasted on verification by elimination or restricting the use of conditional sentencing orders.

In-court supervision: The jail maintains a calendar that lists all scheduled court appearances by prisoners and the estimated number of appearances per week was based on a review of the calendar. Discussions with the staff allowed us to estimate the average time of supervision for a court appearance.

Court liaison: could also be called expediting because one of the objectives is to move prisoners out of jail as rapidly as possible. It is a time consuming process because it often takes many attempts to contact a judge or attorney to discuss a particular problem. The assistant jail administrator, administrative sergeant, jail administrator and shift sergeants do most of the liaison. The estimated time spent on liaison was based on interviews.

Common services

General Administration: includes training, staff scheduling, prisoner disciplinary matters and complaints, secretarial and clerical work by drivers on standby.

Medical services: The jail has a contract with UIHC for bi-weekly medical clinics by physician assistants and 24 x 7 consultation with the emergency room by telephone. The lead CCO expedites these services she also works with prisoner relocation staff to keep prisoners with medical issues in the Johnson County Jail. The time used providing these services was estimated based on interviews.

Medication management: The jail also has a contract with UIHC to provide medication for prisoners. The lead CCO does the majority of the ordering of medication for all prisoners no matter where they are held. The sergeants manage medications when she is not on duty. The estimated time was based on interviews.

Home detention: The sergeant that manages the persons serving a home detention sentence with an electronic monitor also does the setup and takedown of the equipment. He keeps a detailed log and the time estimate is based on this log.

Inmate accounts: the sergeant that manages prisoner funds (all prisoner funds are banked and they cut the person a check when they are released or relocated) also maintains a detailed log and the time estimate is based on the log.

Transportation services

There is a very detailed trip log that was used to create tables 6 and 7. Transport costs for warrants and other trip types are combined under common services. Court services transportation includes juvenile, mental and transport order trip types and relocation services includes all jail transfers. The vehicle costs were computed using the IRS rate of \$0.485 per mile and the hourly rates used for drivers (\$20.50) and deputies (\$33.89) are from table 2. The costs given in the Sheriff's annual report are for the calendar year and they used slightly different pay rates and vehicle cost rates. When the drivers are on standby they do filing in the records division and there were 898 hours of standby time that were assigned to common services.

Relocation services

Inmates are relocated to other jails to reduce overcrowding and are returned to appear in court, to be released or for medical and other reasons. If they are not released they are often returned to the same or another county jail. Because jails that hold Johnson County overflow inmates charge for any-part-of-a-day there are additional housing costs because

most inmates are in two jails on the same day every time they are relocated. In addition there are extra relocation processing costs that include medication management, finding a place to house them in the JCJ, issuing supplies and bedding and moving them to their assigned cellblock. Persons that are returned to the JCJ and released do not require such processing and that was taken into account in estimating the cost.

Unrelated services

- *Rescue truck operations:* The number of rescue trips was determined from the truck log that also lists the names of the two crewmembers. Inspection of the log revealed that on average one crewmember was a jail deputy. The staff estimated that an average trip lasted one hour.
- *DARE Program:* A jail deputy teaches at the schools as part of the DARE program and the jail administrator estimated the number of hours per school year that she spent participating in that program.
- *Search and rescue:* There were no incidents that resulted in a search and rescue operation in FY07.
- *Team membership:* There are special teams made up staff from county law enforcement and fire departments that train together to deal with special emergencies. The staff members from the jail are all sergeants. The allocation of staff effort was determined by interviewing the sergeants or the jail administrator.
 - Bomb squad:
 - Hazmat:
 - SERT (special emergency response team):

All services not discussed above are considered to be incarceration services. The results of the determinations of staff effort are given in table 8. The regular, overtime and total hours (row 3) at the top of the table were taken from table 2. The sum of the estimated hours for each job type was compared to the total hours in row 3. If they did not agree corrections were made if necessary or small adjustments were made until agreement was achieved.

Table 9: Distribution of Jail Staff Effort

Service	Task	Admin.	Cook	CCO	Deputy	Driver	Sec.	Sgt.	Notes
Regular & Overtime Hours	Regular hours	3592	5225	15542	32190	2010	914	7208	Table 2
	Overtime hours	9	268	96	2507	145		302	
	Total hours	3601	5493	15638	34697	2155	914	7510	
Unrelated	Bomb squad							256	Estimate
	HAZMAT							40	
	SERT							675	
	DARE				150				Truck log
	Rescue truck				224				
	Search & rescue					0			None
Common	Secretary						914		Table 2
	Driver standby clerical					898			See text
	Administration	1050							Estimate
	Firing range	18			162			45	See text
	Jail school	40		180	360			100	
	MATS	40			360			100	
	Police academy				540				Log
	EM setup/takedown							68	
	Inmate accounts							182	Log
	Phone & other				900				Estimate
Medication management				234				Estimate	
Court	Booking				4400				See text
	Waiting list							600	
	Court supervision	397			930			150	Estimate
	Court liaison	397						1200	
	Transport orders	638							See text
	Initial appearance	520						78	
Relocation	Relocation processing			450	450				Estimate
	Relocation & transport management							1000	
	Medication management			156				78	
JCJ-Inc.	Cooking		5493						Table 2
	Supervision	501		13718	25755			2938	Estimate

Table 10: Distribution of Staff Effort by Type of Service

Service	Job Title							Total
	Admin.	Cook	CCO	Deputy	Driver	Sec.	Sergeant	
Unrelated				374			971	1345
Common	1148		1314	1422	898	914	495	6191
Court	1952			5330			2028	9310
Relocation			606	450			1078	2134
JCJ-Inc.	501	5493	13718	25755			2938	48405
Total	3601	5493	15638	33331	898	914	7510	67385

Table 11: Distribution of Labor Costs by Type of Service

Service	Job Title						
	Admin.	Cook	CCO	Deputy	Driver	Secretary	Sergeant
Unrelated				\$12,675			\$45,130
Common	\$57,882		\$39,407	\$48,192	\$18,409	\$32,173	\$22,978
Court	\$98,420			\$180,634			\$94,140
Relocation			\$18,174	\$15,250			\$50,041
JCJ-Inc.	\$25,260	\$154,189	\$411,403	\$872,834			\$136,382
Driving				\$46,294	\$25,768		
Totals	\$181,562	\$154,189	\$468,984	\$1,175,879	\$44,177	\$32,173	\$348,671
Totals From Table 2	\$181,574	\$154,209	\$468,986	\$1,175,833	\$44,177	\$32,175	\$348,577
Difference	\$12	\$20	\$2	-\$46		-\$2	\$94

The last three rows of table 10 compare the computed and paid labor expenses to test for the presence of large errors. The test revealed that the costs of driving by deputies and drivers had to be added to the table.

Table 12: Distribution of All Costs by Type of Service

Service	Labor	Vehicle	Drivers	Expenses	Services	Total
Unrelated	\$57,805					\$57,805
Common	\$219,041	\$11,906	\$15,444	\$91,662	\$75,586	\$413,639
Court	\$373,194	\$23,664	\$33,660			\$430,518
Relocation	\$83,465	\$15,956	\$22,958			\$122,379
JCJ-Inc.	\$1,600,068			\$210,592		\$1,810,660
OCJ-Inc					\$632,195	\$632,195

Rates per inmate-day

Common services: $\$413,639 / (123.4 \text{ inmates} * 365 \text{ days}) = \9.18 rounded to $\$9.20$.

JCJ incarceration services $\$1,810,660 / (89.6 * 365) = \55.36 rounded to $\$55.40$

OCJ incarceration services $\$632,195 / (31.6 * 365) = \55.81 rounded to $\$55.80$

Relocation services $\$122,379 / (31.6 * 365) = \10.61 rounded to $\$10.60$