

East Baton Rouge Juvenile Detention Population Analysis and Projections

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Introduction

The Baton Rouge Area Foundation contracted the JFA Institute to produce a ten-year projection of the East Baton Rouge Parish juvenile facility population. This report summarizes the analysis that has been completed to date, issues a ten-year juvenile detention population projection, shows the impact of reforms that would lower the projection, and makes additional recommendations that would facilitate the planning of a new detention facility.

Projection Methods

The simulation model the JFA Institute (JFA) used to forecast the East Baton Rouge Parish juvenile facility population was built using the Wizard projection software. This computerized simulation model mimics the flow of detainees through the system over a ten-year forecast horizon and produces monthly projections.

Because Wizard attempts to mirror the Parish system, it must include a wide array of data that have both a direct and indirect impact on juvenile population growth. A variety of factors underpin a correctional system's long-term projection. These factors can be separated into two major categories – external and internal.

External factors reflect the interplay of demographic, socio-economic and crime trends that produce arrests and offenders' initial entry into the juvenile justice process.

Internal factors reflect the various decision points within the juvenile justice system that cumulatively determine admissions and length of stay (LOS). These decisions begin with police and end with Parish officials who, within the context of the court-imposed sentences, have the authority to release, recommit, and offer programs that may reduce re-arrest and re-conviction.

The data JFA collected from the Parish was geared towards these two factors. The purpose of collecting aggregate data was to examine Parish demographic, crime, arrest, bookings, and juvenile facility population trends over time. The JFA Institute also received three extract data files. Two files consisted of a snapshot of the juvenile detention center population on December 31, 2019, and December 31, 2020. The other file consisted of all juvenile facility releases from January 2014 to December 2020. All files were provided by the East Baton Rouge Juvenile Services and Detention Center data system.

The snapshot population data allowed JFA to quantitatively understand the attributes of the juvenile population that must be housed and managed on a daily basis. The snapshot files were also used to profile the juvenile population in terms of their socio-demographic attributes, number and type of charges, and arresting agency. Further, the two snapshots were compared

to determine the effects of the COVID-19 pandemic on population attributes. The release data were used to track detainees from booking to release to determine the number of juveniles that entered the detention center, the length of time that they remained, and the timing and mode by which they were released. Releases are presented in two cohorts: pre-COVID-19 (January 2019 to February 2020) and post-COVID-19 (April 2020 to December 2020). March of 2020 is considered a hybrid month and is excluded in post-COVID-19 analysis because pandemic mitigation efforts were not fully implemented.

To augment these data, JFA conducted on site interviews with East Baton Rouge juvenile services and detention center officials as well as community members. These interviews were geared towards expanding JFA's understanding of the most influential factors on the juvenile population not observable from the various data sources. Factors JFA sought information on included the impact of law enforcement practices and policies, court processing policies, and recently enacted sentencing laws. Such information is usually very complex in nature and warrants examination in order to accurately construct a simulation model of a juvenile justice system.

The simplest explanation of how the simulation model works is as follows. The size of a juvenile detention population is the product of the admissions and the person's length of stay (LOS). This can be simply stated in the following equation:

$$(\text{Admissions} \times \text{LOS in days}) / 365.25 = \text{ADP (Average Daily Population)}.$$

Minor changes in either or both of these factors can have an enormous impact on the ADP. For example, there were approximately 705 bookings into the juvenile detention facility in 2019. The average length of stay of releases from the detention center in 2019 was 14.5 days. Using the simple calculation of Admissions x LOS, the daily population is estimated to be 28. If the number of admissions remained constant, but the LOS was reduced by an average of 5 days, the average daily population (ADP) would drop by nearly 10 persons. Conversely, if the LOS were increased by 5 days, the detention center population would increase by the same amount.

These two examples illustrate just how sensitive the juvenile detention center population is to law enforcement, court processing and sentencing practices. Of course, if the number of admissions increased or decreased with no change in LOS, the population would also increase or decrease, respectively. From this baseline methodology, the Wizard simulation model adds complexity and increases the accuracy of forecasting a juvenile population by disaggregating the population into key groups with similar paths through the juvenile justice system. The Wizard Simulation model is an example of a stochastic entity in the sense that the model is designed around the movement of individual cases into, through, and out of a detention center.

The model also makes use of Monte Carlo simulation techniques by adding an element of randomness to the simulation model. Random numbers are generated and used by the

simulation process to determine the offender group composition and lengths of stay associated with a system. Individual cases are processed by the model through a series of probability distribution arrays that provide computations for specific cases. When loaded with accurate data, the model mimics the flow of detainees through a system and produces a monthly forecast accurate to within 2 percent.

In addition to the data and projection model itself, there are a number of policy assumptions that are made which directly impact the number of admissions and the LOS, which in turn drive the projection. It should be made clear that the estimates provided in this report are projection-based policy assumptions. Since juvenile criminal justice policy is dynamic and constantly in flux, populations cannot be accurately predicted since future criminal justice policies are unknown. But populations can be accurately projected if criminal justice policies are known. This perspective suggests that a jurisdiction can collectively choose the size and attribute of its detention center population by choosing those criminal justice policies that produce the number of admissions and LOS. Population projections become unstable when there is no consensus among the key criminal justice stakeholders on arrest, booking, and release policies.

Summary of Historical Juvenile Trends:

1. The number residents of East Baton Rouge Parish ages 14 to 17 has declined from 23,145 in 2010 to 21,300 in 2020 (Table 1). The average annual decrease over this timeframe was 0.8%. It is expected that the size of the juvenile population will continue to decline which should have a dampening impact on juvenile delinquency rates.

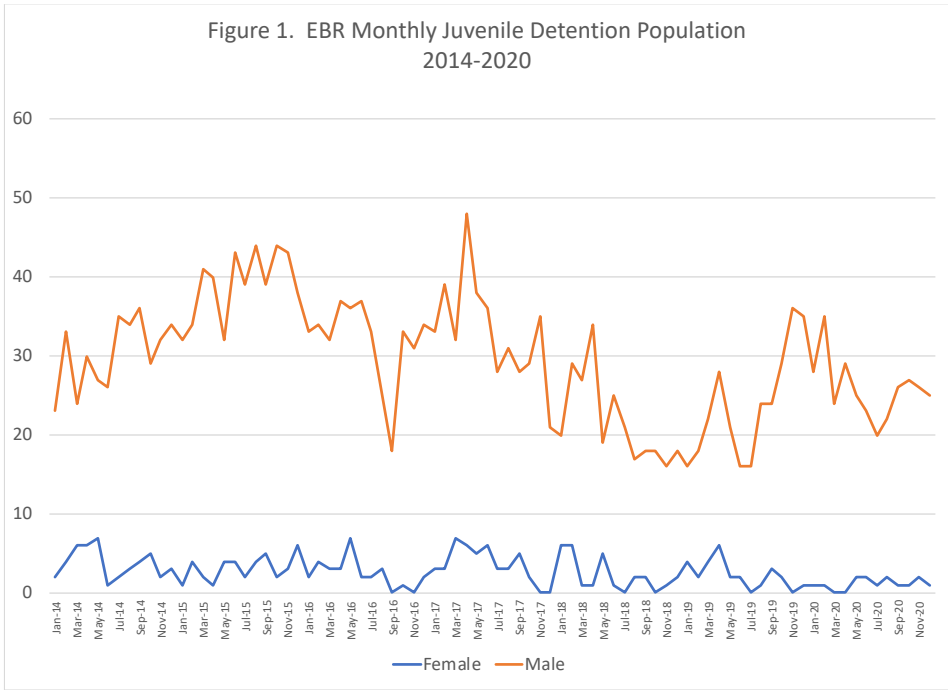
Table 1. East Baton Rouge Parish Juvenile Population 2010-2020

Year	Persons Ages 14-17
2010	23,145
2011	22,591
2012	22,269
2013	22,210
2014	22,376
2015	22,453
2016	22,394
2017	22,222
2018	21,829
2019	21,574
2020	21,300
Average Percent Change 2010-2020	-0.8%

2. The average of monthly ADPs between 2014 and 2020 has decreased an annual average of 2.4% for male juveniles and by 10.5% for females (Table 2 and Figure 1). Female ADP monthly averages have never exceeded 5 for any year since 2014. However, there is a great deal of volatility in these rates. It should be noted that ADP estimates generated by The JFA Institute differ slightly from yearly counts reported by the EBRP Juvenile Services & Detention Center. While data sources were the same, ADP estimates differed by, at most, one male and one female per year which is statistically insignificant.

Table 2. East Baton Rouge Historical Juvenile ADP

Year	Female Monthly Average ADP	Male Monthly Average ADP	Total Monthly Average ADP
2014	4.5	33.7	38.2
2015	2.8	41.8	44.6
2016	3.2	33.9	37.1
2017	4.3	34.9	39.2
2018	2.0	25.2	27.2
2019	2.3	18.1	20.4
2020	1.5	24.1	25.6
2021			
Average Percent Change 2014-2020	-10.5%	-2.4%	-4.7%



3. Total bookings have declined by an annual average of 13.0% since 2014 (Table 3 and Figure 2). Bookings decreased by 33.6% between 2019 and 2020 primarily due to mitigation efforts enacted in response to the COVID-19 pandemic. Excluding 2019 as an outlier, total juvenile bookings declined an annual average of 8.9% between 2014 and 2019. The yearly booking estimates generated by The JFA Institute differ from yearly counts reported by the EBRP Juvenile Services & Detention Center. JFA used case level release data as an estimate to determine yearly bookings. Further, this same case level data was used to determine average length of stay. On average for 2014-2020, JFA booking estimates are 13% higher than EBRP Juvenile Services & Detention Center numbers.

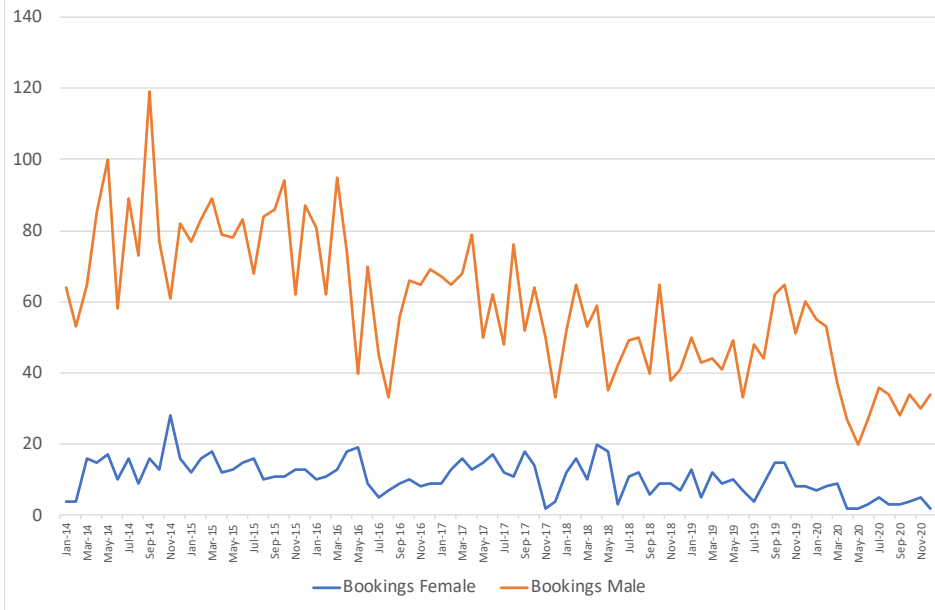
Commented [LCJ1]: Did we determine that this percent difference is the RAI release population? Or did EBR include them in their bookings numbers too?

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Table 3. East Baton Rouge Historical Juvenile Bookings

Year	Female	Male	Total
2014	182	966	1,148
2015	150	970	1,120
2016	128	756	884
2017	144	714	858
2018	132	589	721
2019	115	590	705
2020	53	415	468
Average Percent Change 2014-2020	-15.8%	-12.4%	-13.0%

Figure 2. EBR Juvenile Detention Monthly Admissions 2014-2020



- The LOS in days for juveniles held has steadily increased between 2014 and 2020 by an annual average of 4.9% (Table 4). In 2020, the average juvenile length of stay was 14.8 days. The yearly average length of stay (ALOS) estimates generated by The JFA Institute differ from yearly numbers reported by the EBRP Juvenile Services & Detention Center to varying degrees for each year. JFA used case level data to produce its estimates.

Table 4. East Baton Rouge Historical Juvenile Average Length of Stay (days)

Year	Female ALOS	Male ALOS	Total ALOS
2014	7.7	12.6	11.8
2015	6.7	14.9	13.8
2016	7.5	15.8	14.6
2017	9.7	16.5	15.3
2018	4.5	13.4	11.8
2019	6.3	16.1	14.5
2020	8.0	15.7	14.8
Average Percent Change 2014-2020	6.9%	4.6%	4.9%

Pre- And Post-COVID-19 Juvenile Population Comparisons

The COVID-19 pandemic has had a significant impact on the entire criminal justice system. After restrictions were imposed by federal, state and local governments beginning in March 2020, there was a sharp decline in both crime and arrests. These declines produced sharp reductions in the jail and detention bookings which then reduced correctional populations. As COVID-19 restrictions have eased there has been a rebound effect on correctional populations.

When trying to assess the impact of COVID-19 on the EBR juvenile detention system, care must be exercised, as the juvenile detention population is significantly smaller than the adult jail population. This makes outlier data more impactful on statistics generated for juveniles.

In this section of the report, we make comparisons between the average daily population as of December 2019 and June 2020 (Tables 5 and 6). The major findings are as follows:

- For both Pre- and post-COVID-19 populations are entirely Black.
- For both Pre- and post-COVID-19 the populations are predominantly males, ages 15 and 16.

3. The post-COVID-19 ALOS to date was significantly longer at 128.7 days versus the pre-COVID-19 ALOS of 74.6 days.
4. For both pre- and post-COVID populations, males have a longer ALOS than females and that difference has increased for the post-COVID-19 population; and
5. Somewhat surprisingly, the number of youths detained for a felony crime decreased for the post-COVID-19 population from 89% to 59% (Table 6).

Table 5. East Baton Rouge Juvenile Snapshot Attributes

Attribute	Pre-COVID-19 (Dec '19)			Post-COVID-19 (Jun '20)		
	Number	Percent	Average Length of Stay (days)	Number	Percent	Average Length of Stay (days)
Total	36	100.0%	74.6	29	100.0%	128.7
Gender						
Female	1	2.8%	1.0	3	10.3%	18.5
Male	35	97.2%	74.6	26	89.7%	141.4
Race						
African American	36	100.0%	74.6	29	100.0%	128.7
Responsible Agency						
Baker PD	2	5.6%	1.0	2	6.9%	7.9
Baton Rouge City PD	24	66.7%	69.5	14	48.3%	196.7
Sheriff's Office	8	22.2%	59.7	3	10.3%	78.0
Judge	2	5.6%	188.0	9	31.0%	67.2
Other	0	0.0%	-	1	3.4%	124.3
Verified complaint	1	2.8%	28.0	3	10.3%	5.4
Remand	0	0.0%	-	5	17.2%	11.8
Age at Admission						
13	2	5.6%	47.9	1	3.4%	5.3
14	2	5.6%	10.4	4	13.8%	73.0
15	10	27.8%	100.3	6	20.7%	295.9
16	12	33.3%	69.8	12	41.4%	125.8
17	7	19.4%	71.9	5	17.2%	27.5
18	0	0.0%	-	1	3.4%	13.3
Unknown	3	8.3%	n/a	0	0.0%	-
Average Age	16.2			16.2		

Table 6. East Baton Rouge Juvenile Snapshot by Most Serious Charge

Offense	Pre-COVID-19 (Dec '19)			Post-COVID-19 (Jun '20)		
	Number	Percent	Average Length of Stay to Date (days)	Number	Percent	Average Length of Stay to Date (days)
Total	36	100.0%	74.6	29	100.0%	128.7
Felony	32	88.9%	68.5	17	58.6%	174.2
Person	19	52.8%	81.3	15	51.7%	163.2
Property	13	36.1%	49.8	2	6.9%	256.9
Misdemeanor	0	0.0%	-	1	3.4%	1.0
Person	0	0.0%	-	1	3.4%	1.0
Probation violation	1	2.8%	28.0	3	10.3%	5.4
Remand	1	2.8%	347.9	6	20.7%	98.2
Weapon	2	5.6%	20.9	2	6.9%	83.2

In terms of releases, the analysis is again separated into two cohorts reflecting the pre- and post- COVID-19 time frames. The pre-COVID-19 cohort represented youth who were released from the detention center between January 2019 and February 2020, while the post COVID-19 cohort was youth released between April 2020 and December 2020. As shown in Tables 7, 8 and 9, the major findings are as follows:

Pre-COVID 19 - Juvenile Releases January 2019 to February 2020:

1. Male juvenile ALOS was 10.5 days while females averaged 6.1 days.
2. Juveniles charged with a felony averaged an ALOS of 12.6 days prior to release. Juveniles charged with a misdemeanor averaged an ALOS of 2.5 days. Remand arrests averaged the longest stay of 14.7 days.
3. The majority of juvenile releases had a stay of 3 days or less.
4. The percentage of juveniles with length of stay longer than 30 days was 10.4%.

Post-COVID 19 - Juvenile Releases April 2020 to December 2020:

1. Male juvenile ALOS increased to 21.9 days while females also increased to 9.7 days.
2. Juveniles charged with a felony ALOS increased to 24.8 days prior to release. Juveniles charged with a misdemeanor ALOS increased to 3.9 days. Bench warrant arrests averaged the longest stay of 29.6 days.
3. The majority of juvenile releases had a stay of 3 days or less.
4. A small percentage of juvenile releases had a LOS of over 90 days (6.1%).

Table 7. East Baton Rouge Juvenile Releases by Attributes

Attribute	Pre-COVID-19 (Jan '19-Feb '20)			Post-COVID-19 (Apr '20-Dec '20)		
	Number	Percent	Average Length of Stay (days)	Number	Percent	Average Length of Stay (days)
Total	719	100.0%	9.8	294	100.0%	20.7
Gender						
Female	119	16.6%	6.1	28	9.5%	9.7
Male	600	83.4%	10.5	266	90.5%	21.9
Race						
African American	658	91.5%	10.4	278	94.6%	21.7
White	43	6.0%	4.3	11	3.7%	5.8
Other	18	2.5%	1.0	5	1.7%	0.6
Responsible Agency						
Baker PD	66	9.2%	8.3	12	4.1%	14.5
Baton Rouge City PD	317	44.1%	10.6	156	53.1%	23.7
Sheriff's Office	205	28.5%	9.3	68	23.1%	16.5
Judge	94	13.1%	10.6	42	14.3%	16.4
Other	29	4.0%	4.5	14	4.8%	27.6
Zachary PD	8	1.1%	10.2	2	0.7%	0.8
Verified complaint	50	7.0%	7.2	25	8.5%	16.0
Bench warrant	25	3.5%	4.5	8	2.7%	26.3
Remand	44	6.1%	14.7	18	6.1%	17.1
Age at Admission						
13	109	15.2%	6.4	40	13.6%	6.6
14	113	15.7%	7.1	45	15.3%	26.8
15	148	20.6%	8.6	50	17.0%	27.9
16	183	25.5%	13.2	77	26.2%	27.2
17	133	18.5%	11.8	70	23.8%	14.6
18	19	2.6%	6.7	10	3.4%	7.8
Unknown	14	1.9%	-	2	0.7%	-
Average Age	15.7			15.9		

Table 8. East Baton Rouge Juvenile Releases by Most Serious Charge

Offense	Pre-COVID-19 (Jan '19-Feb '20)			Post-COVID-19 (Apr '20-Dec '20)		
	Number	Percent	Average Length of Stay to Date (days)	Number	Percent	Average Length of Stay to Date (days)
Total	719	100.0%	9.8	294	100.0%	20.7
Felony	394	54.8%	12.6	187	63.6%	24.8
Person	146	1.1%	20.2	88	29.9%	40.9
Property	243	1.8%	8.3	97	33.0%	10.7
Other	5	0.0%	0.8	2	0.7%	1.5
Misdemeanor	115	16.0%	2.5	22	7.5%	3.9
Person	72	0.5%	2.4	20	6.8%	4.3
Property	32	0.2%	3.4	2	0.7%	0.1
Other	11	0.1%	0.3	0	0.0%	-
Drug	22	3.1%	0.6	4	1.4%	10.6
Bench Warrant	26	3.6%	5.2	7	2.4%	29.6
Other	3	0.4%	0.5	15	5.1%	12.3
Probation violation	49	6.8%	7.9	11	3.7%	20.2
Remand	44	6.1%	14.7	19	6.5%	14.2
Weapon	66	9.2%	9.0	29	9.9%	14.3

Table 9. East Baton Rouge Juvenile Releases by Length of Stay

Length of Stay	Pre-COVID-19 (Jan '19-Feb '20)	Post-COVID-19 (Apr '20-Dec '20)
Average (Mean)	9.8	20.7
Median	1.4	2.5
Number releases within 24 hours	318	94
Number released between 1 and 3 days	146	64
Number released between 3 and 10 days	111	41
Number released between 10 and 30 days	69	37
Number released between 30 and 90 days	61	38
Number released over 90 days	14	18
Unknown	0	2

Juvenile Detention Center Projections

When determining the type and size of a new facility and how it should be constructed to replace the current detention facility, one must first estimate the number of beds. It should be stated at the outset that developing “accurate” detention populations for a system with such low numbers is not possible. As shown above the past seven years have shown considerable variation and fluctuation in the monthly counts that have ranged from 21 to 45 juveniles. It is safe to say that the future populations will be within that range but highly uncertain what the precise numbers will be.

Some external shocks to the juvenile justice system have served to lower the populations. In 2003, the Annie E. Casey Foundation conducted an assessment of youth incarcerated in Louisiana's secure care facilities, finding that almost three quarters of youth incarcerated did not pose a risk to public safety. In 2006, five (5) parishes in Louisiana became Juvenile Detention Alternatives Initiative (JDAI) pilot sites: Caddo, Calcasieu, East Baton Rouge, Orleans, and Jefferson parishes. This initiative had and continues to have a major impact on reducing detention admissions.

More recently, statewide legislation in 2018 centered around a “raise the age” policy which forced juveniles to be moved to adult facilities at age 18. As shown earlier there was significant decline in the detention population for that year but it has rebounded, so the long-term impact has been less than expected.

Then in 2020, the widespread effect of COVID-19 and the subsequent reduction in property crimes and overall arrests served to lower detention admissions and the overall population. Recently, however, the effects of COVID-19 have diminished resulting in a gradual increase in arrests, detention admissions and the detention population. The central question that remains unknown is whether the recent increases will stabilize and when?

With that said, a baseline projection was developed which takes into account a combination of the demographic, crime, arrest, admission, and LOS trends as well conversations with local decisions makers about space needs within the juvenile justice system.

The baseline projection and bedspace needs assume no additional future major policy changes that would impact admissions and/or the ALOS. As indicated in Table 10, the baseline projection consists of slightly increasing detention population for both the males and females. This trend reflects a slight rebound from 2020 when the population was at its lowest point. The current baseline shows a total juvenile detention population reaching 38 by the year 2028 and stabilizing at that point. A peaking factor that is based on the historic standard deviation of the monthly population generates bedspace need of 47 beds.

Table 10. East Baton Rouge Juvenile Detention Center Projected Population W/Peaking Factor

Year	Male	Female	Total	Total With Peaking Factor
2020 (actual ADP)	24	2	26	35
2021 (actual ADP)	30	5	35	44
2022	30	5	35	44
2023	30	5	35	44
2024	30	5	35	44
2025	31	5	36	45
2026	31	5	36	45
2027	31	6	37	46
2028	32	6	38	47
2029	32	6	38	47
2030	32	7	38	47
2031	33	7	38	47

Other New Facility Bed Need Considerations

There are mechanisms for ensuring that the detention population will remain below 40 and the bed need at approximately 50. In particular, developing a capacity to constantly monitor the detention population to ensure that detained juveniles are not 1) inappropriately admitted to the detention and 2) are having their petitions adjudicated in a timely manner. Many adult jail systems have established what are referred to as jail population review panels that are charged with ensuring there are no people inappropriately detained.

In terms of construction costs, there will be little difference in the cost of a 35 or 50 bed facility. Most of the construction costs will be associated with building out the facility's core infrastructure. Increasing or decreasing the bed capacity by an increment of 5- 15 beds will not have dramatic impact on the overall cost of the facility or its operational costs.

The facility should also ensure that at least one court room and administrative space for both court and detention personnel staff are provided. Sufficient program space for the required education, mental health, and recreation services will also be needed.

Finally, there may be an opportunity to partner with nearby parishes that could also utilize the facility. Regional detention facilities are a common solution for sparsely populated jurisdictions that do not have the resources to construct and operate their own detention facility. In this situation, the partner parishes would contribute to the construction and operational costs of the detention facilities.