ARKANSAS
DIVISION OF CORRECTION,
ARKANSAS SENTENCING COMMISSION,
& ARKANSAS COMMUNITY CORRECTION

TEN-YEAR ADULT SECURE POPULATION PROJECTION
2019-2029

Prepared by

JFA Associates, LLC

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EXECUTIVE SUMMARY

Special note concerning the data extract files used to produce the Arkansas Division of Correction forecast.

1. To produce the Arkansas Division of Correction (ADC) ten-year forecast, three data extract files are generated for analysis by JFA Associates. These include: a file which contains all admissions to the ADC for the most recent calendar year, a one-day snapshot of all persons in prison, and a file containing all releases from the ADC for the most recent calendar year. Historically, the data extract files have contained subtle differences in comparison to aggregate ADC counts. While the data in these extracts has never *completely* matched up with ADC count sheets, efforts between JFA Associates and ADC staff to verify that the data files are a representative picture of all people who entered or exited prison in any given year have allowed for accurate projections to be produced. In early 2018, ADC determined that the discrepancies between the extracts and aggregate counts was due to the extract files not being updated over time with new movement codes. Beginning with this iteration of the projections, updated extract files for calendar year 2018 have been produced to reflect current business rules. Further, ADC has provided updated data extracts for 2016 and 2017 for retroactive analysis. All these new data have been incorporated into the simulation model JFA Associates uses to produce the ten-year projections.
2. A new benefit of the revised data extract files now being produced by the ADC is the ability to differentiate parole violators with a new charge from purely technical parole violators. Beginning with this forecast cycle, technical parole violators will be tracked separately in the simulation model.

***External Trends Impacting the Arkansas Prison Population***

3. The Arkansas resident population and its "at-risk" population (males ages 18-35) have seen little to no growth in the past 10 years. The total resident population is projected to have minimal growth through 2025.
4. While reported crime in Arkansas has fallen 1.8 percent overall between 2007 and 2017 (the most recent years data is available), violent crimes per 100,000 residents have risen four years in a row (2014-2017).

Historical Arkansas Prison Population Growth

5. In 2013, the Arkansas prison population saw an unprecedented one-year increase of 17.7 percent. This one-year increase erased all reductions in the prison population achieved in 2011 and 2012. The ADC population continued to increase through late 2015, peaking at 18,847 (July 2015).

6. The primary driver of the 2013 prison population explosion was a sudden increase in parole violator admissions. Secondarily, new commitment admissions also increased, but modestly compared to parole violators.
7. In the last quarter of 2015, the prison population slowly stabilized and has remained static through August of 2019. See Figure 1 and Figure 2 below.

FIGURE 1
ARKANSAS PRISON POPULATION GROWTH 2000 - 2018
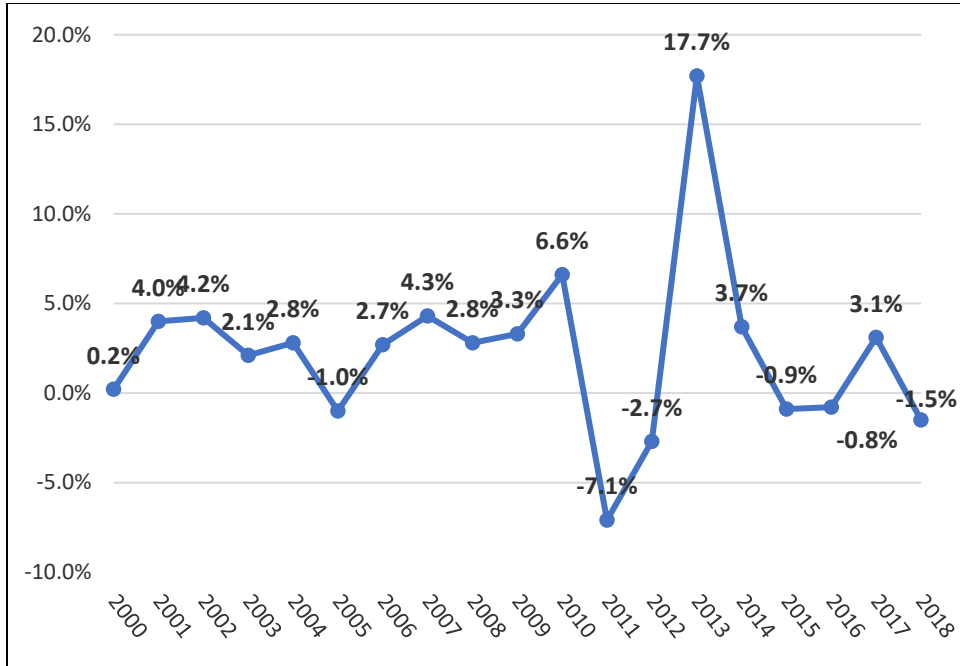
Source: ADC Research & Planning.

FIGURE 2
END OF MONTH ADC POPULATION BY GENDER (MOST RECENT 24 MONTHS)
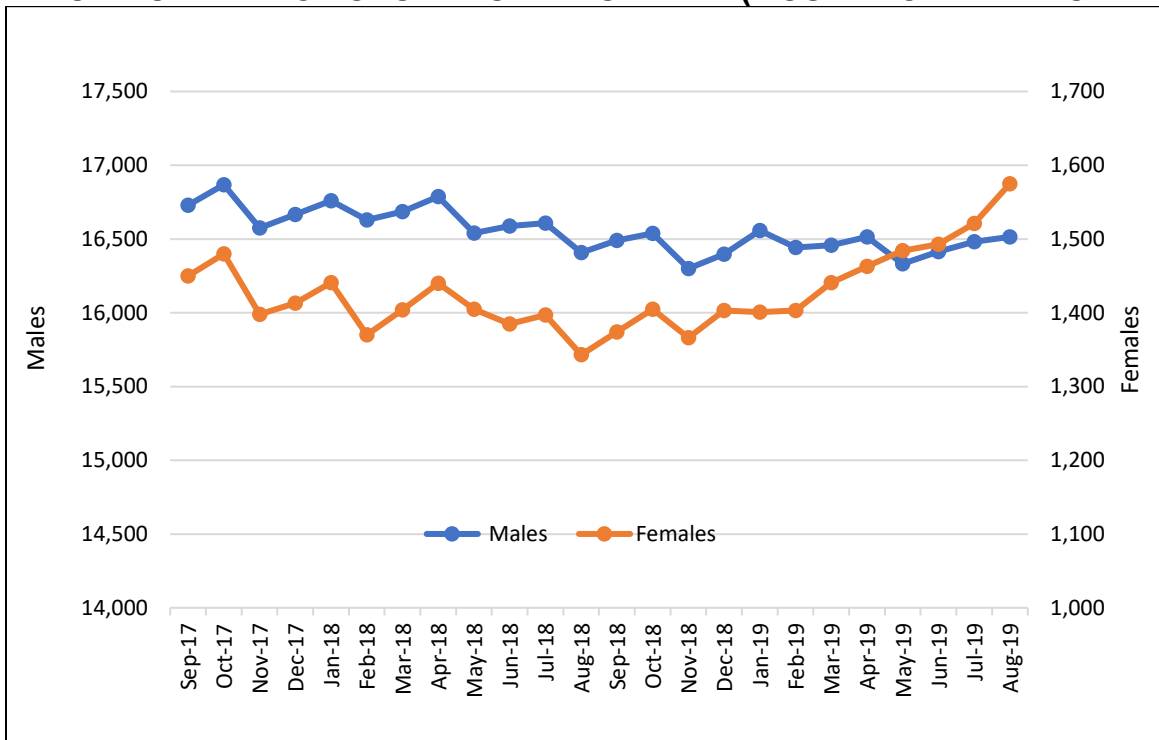
Source: ADC Research & Planning.

8. The reasons for the stabilization in the ADC population growth are three-fold:
    a. Since 2016, new court commitments to the ADC have remained static (see Table 1).
    b. Since 2016, the number of pure technical parole violator admissions have been decreasing. (see Table 2).
    c. The major contributor to the population stabilization was an end to high levels in parole revocations overall which began in the last quarter of 2015 and was a direct result of specific policy efforts made by the Arkansas Parole Board. The Parole Board sought to limit returns to the ADC leading to a drop in the average number of revocations per month. The Parole Board endeavored to sustain the lower levels of revocations and waivers through 2018 (see Figure 3).

TABLE 1
NEW COMMITMENTS ADMITTED TO ADC 2016 – 2018

| Seriousness Level	Number of New Commits		
	2016	**2017**	**2018**
1	0	3	0
2	217	216	236
3	1,161	1,225	1,389
4	691	685	609
5	593	621	598
6	1,118	1,157	1,028
7	461	460	484
8	374	330	373
9	130	137	140
10	61	73	58
Other	55	42	60
Total	4,861	4,949	4,975

Source: ADC data extract admissions files; cases with an unknown seriousness level are included in 'Other'.

TABLE 2
PAROLE VIOLATORS ADMITTED TO ADC 2016 – 2018

Security Group	2016 Parole Violator New Charge	2016 Parole Violator Technical	2016 Parole Violator Total	2017 Parole Violator New Charge	2017 Parole Violator Technical	2017 Parole Violator Total	2018 Parole Violator New Charge	2018 Parole Violator Technical	2018 Parole Violator Total
Males	1,710	3,471	5,181	2,025	2,939	4,964	1,982	2,795	4,777
SC group 1-6	1,132	2,462	3,594	1,393	2,102	3,495	1,385	1,985	3,370
SC group 7-10	508	855	1,363	566	716	1,282	537	677	1,214
Other	70	154	224	66	121	187	60	133	193
Females	191	412	603	235	297	532	214	338	552
SC group 1-6	148	321	469	177	234	411	155	280	435
SC group 7-10	42	79	121	54	55	109	55	53	108
Other	1	12	13	4	8	12	4	5	9
Total	1,901	3,883	5,784	2,260	3,236	5,496	2,196	3,133	5,329

Source: ADC data extract admissions files (using new coding for 2016-2018); cases with an unknown seriousness level, lifers and minimum sentence restriction cases are included in 'Other'.

FIGURE 3:
Average Monthly Parole Hearings and Revocations to ADC by Quarter
January 2016 – December 2018
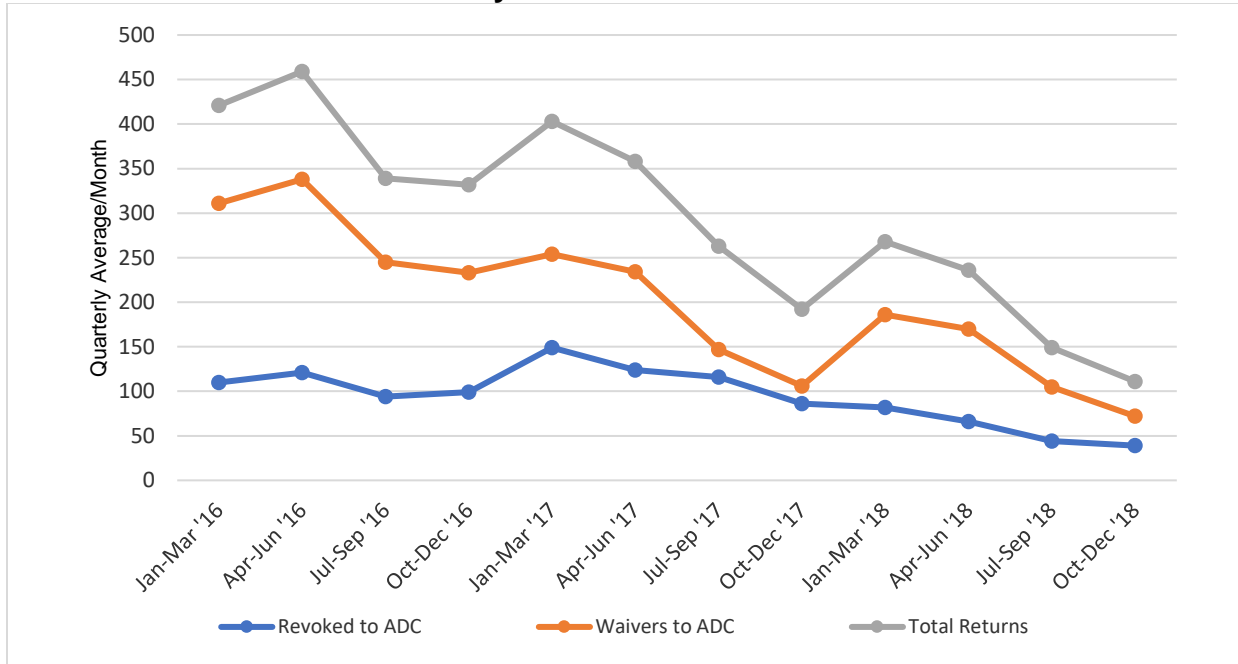
Source: Arkansas Parole Board.

Major Internal Trends Impacting the Arkansas Prison Population

9. Total admissions to the ADC decreased by 1.3 percent between 2017 and 2018. The primary driver in this decrease was a drop in male parole violator admissions.
10. Overall, parole violator admissions have decreased each of the past two years. This being said, parole violations remain at levels higher than those prior to 2013.
11. 2018 saw an increase in average sentences for new commitments for all seriousness levels 6 and above.
12. The average length of stay in prison across all seriousness levels has also remained stable in recent years.
13. EPA releases numbered 2,251 in 2018, nearing a ten-year low.
14. The number of persons held by the ADC beyond their transfer eligibility date increased slightly between 2017 and 2018. The average time they are held beyond eligibility increased from 8.7 months in 2017 to 9.2 months in 2018.
15. The number of admissions to the ADC in 2018 was outpaced by releases from the ADC resulting in the 1.5 percent drop in the prison population.

2019-2029 Prison Population Projections

16. At the end of December 2029, 20,456 offenders are projected to be housed by the Arkansas Department of Correction.
17. At the end of 2018, the inmate prison population was 17,799. Under the baseline projection, the population is projected to increase to 18,123 inmates at the end of 2019 and to 19,257 in 2024. The projected growth represents average annual increases of 1.2 percent per year through the year 2029.
18. Under the baseline projections, the male inmate population is projected to grow an average of 1.2 percent between 2019 and 2029 while the female inmate population is projected to grow by an average of 1.4 percent per year through 2029.

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**ARKANSAS DIVISION OF CORRECTION,
SENTENCING COMMISSION,
& DIVISION OF COMMUNITY CORRECTION
TEN-YEAR ADULT SECURE POPULATION PROJECTION**

I.   INTRODUCTION

The Arkansas Division of Correction (ADC), the Arkansas Sentencing Commission (ASC), and Division of Community Correction (ACC) requested continuing assistance to produce an independent and unbiased forecast of the state's inmate population. The JFA Associates has produced forecasts for Arkansas over the past several years. This report presents an updated forecast for the 2019 – 2029 horizon as well as an update to the comprehensive analysis of all trends in the State's criminal justice system to include calendar year 2018 data. It should be noted that statistics in this report reflect trends based on the categories used in the simulation model to produce a ten-year forecast. An explanation of these categories is presented in the next section. Use of analysis reported here beyond the scope of their application to the simulation model and the prison population forecast is not appropriate.

The current forecast was completed by analysis of current inmate population trends and analyzing computer extract files provided by the Division of Correction and Division of Community Correction. This briefing document contains monthly projections of male and female inmates, a summary of recent offender trends based on the simulation model categories, and an explanation of the primary assumptions on which the projections are based. Additional figures are contained in the Appendix of this document.

II.   THE SIMULATION MODEL AND SENTENCING POLICIES

The forecast of the correctional population in Arkansas was completed using the Wizard projection software. This computerized simulation model mimics the flow of offenders through the state's prison system over a ten-year forecast horizon and produces monthly projections. Wizard is an enhanced version of Prophet Simulation software. The forecasts produced for this report were completed by using a simulation model originally constructed in 2001. New sentencing policies and any legislative acts that were passed since 2001 having an impact on future prison population levels have been incorporated into the model each year since the original model was built. Of note is the continued inclusion in the simulation model of Arkansas' use of the Emergency Powers Act. This aspect of the Arkansas criminal justice system has been tracked by the model for over a decade. Please refer to earlier full productions of this report for a complete description of the simulation model structure.

Factors the Wizard Model uses to Project the ADC Population

Because Wizard attempts to mimic the state's sentencing structure and the flow of prisoners to and from the ADC, it must look at a wide array of data that have both a direct and indirect impact on prison 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 criminal justice process. Criminologists have long noted that certain segments of the population have higher rates or chances of becoming involved in crime, being arrested and being incarcerated. This is known as the "at-risk" population, which generally consists of younger males. The high crime rate ages are between 15 and 25, while the high adult incarceration rate is between the ages of 18 and 35. When the at-risk population is expected to increase in a jurisdiction, one can also expect some additional pressure on criminal justice resources, all things being equal.

Internal factors reflect the various decision points within the criminal justice system that cumulatively determine prison admissions and length of stay (LOS). These decisions begin with police and end with correctional officials who, within the context of the court-imposed sentences, have the authority to release, recommit, give and restore a wide array of good time credits, and offer programs that may reduce recidivism.[1]

For example, one of the most difficult numbers to estimate is the number of prison admissions for the next five years. People come to prison for three basic reasons: 1) they have been directly sentenced by the courts to a prison term (new court commitments); 2) they have failed to complete their term of probation and are now being sentenced to prison for a violation or new crime; or, 3) they have failed their term of parole (or post-release supervision) and are being returned to prison for a new crime or a technical violation. Almost two-thirds of the people who are admitted to prison, nationally, are those who have failed to complete probation or parole. A projection model thus should have a "feedback loop" that captures the relative rate of probation and parole failures.

Since each state has a unique sentencing structure, the model developed for a particular state must take into account that state's sentencing laws. The following

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[1] The amount of discretion correctional authorities have to release prisoners varies according to each state's sentencing structure. The majority of states have indeterminate sentencing, which offers the greatest amount of discretion by virtue of authority of parole boards which are authorized to release inmates once they have served their minimum sentence. But even most states with determinate sentencing also provide some level of discretion to release prisoners based on good time and special program credits. Arkansas has determinate sentencing.

discussion details how JFA Associates has tuned the simulation model to reflect specific changes in Arkansas.

In the simulation model, particular care was taken to characterize accurately the elements of the Arkansas Sentencing Standards, enacted on January 1, 1994, and of Acts 1326 (of 1995), 1135 (of 1997) and 1268 (of 1999). Other legislation taken into account include comprehensive corrections reforms enacted in 2011 under Act 570, emergency jail release mechanisms enacted in Acts 418 (of 1987) and 1721 (of 2003). More detail follows.

On January 1, 1994, Arkansas put into effect a sentencing grid that uses a combination of the seriousness of the current offense and the offender's criminal history to arrive at a presumptive sentence. Guidelines in Arkansas are advisory and court use is voluntary. Courts may sentence within the entire statutory range of an offense.

Felony crimes in Arkansas are categorized into ten levels of seriousness with 10 as the most serious. The offender's criminal history score is determined through allocation of points for any prior convictions/adjudications and criminal justice status.

Offenders convicted of a crime in lower seriousness levels 1 through 6 are eligible for supervised release after serving one-third of their sentence minus good time. Offenders convicted of a crime in seriousness levels 7 through 10 are eligible after serving one-half of their sentences minus good time. The exceptions to these rules are directed at offenders convicted of the particular crimes enumerated in Acts 1326, 1135 and 1268 who must serve 70 percent of their sentences and are not eligible to earn good time. Act 1326 took effect in September of 1995 and includes the following crimes: Murder I, Rape, Kidnapping, Aggravated Robbery, Trafficking of Persons and Causing a Catastrophe. Act 1135 took effect on August 1, 1997 and includes the crime of manufacturing methamphetamine. Act 1268 took effect on July 30, 1999 and added the use of paraphernalia to manufacture methamphetamine. In 2007, Act 1034 allowed persons convicted of methamphetamine related crimes to accrue good time and reduce their sentence up to 50 percent of maximum. Act 570 of 2011 went into effect on July 27, 2011 and amended the 70 percent parole eligibility statute to add trafficking methamphetamine to the list of 70 percent crimes. The act also removed possession of drug paraphernalia to manufacture methamphetamine, now codified at §5-64-443(b) from 70 percent parole eligibility. Offenders sentenced under the former §5-64-403(c)(5) are still subject to 70 percent parole eligibility.

Act 363 of 2009 made good time retroactive to all 70 percent meth sentences. These cases are still 70 percent - offenses but are now eligible for good time. Because of the restriction on the amount of reduction (no more than 50 percent of the original sentence) it is awarded on 12 days for 30 served on Class I; 8 for 30 on Class II; 4 for 30 on Class III and zero for Class IV.

In the simulation model, offenders convicted under Acts 1326, 1135 and 1268 are placed in their own Identification Group (ID Group), allowing the particular limitations on their release eligibility to be accurately modeled. Offenders sentenced to serve life in prison also have their own ID Group. The remaining offenders are placed in ID Groups based on three factors: 1) gender, 2) admission type: new commitment or parole violator, and 3) seriousness level. Some seriousness levels are combined together, however seriousness levels 1 through 6 have been kept separate from those in seriousness levels 7 through 10 due to the difference in the proportion of time to be served before transfer eligibility.

In 1987, Act 418, known as the Emergency Powers Act (EPA), was enacted. This act gave the Arkansas Board of Corrections the ability to effect policy whereby measures could be taken if the prison population exceeded 98 percent of capacity. Any offender is eligible for early release under the act if they are within 90 days of parole eligibility (with parole approval), transfer eligibility or discharge date(s). Act 1721, put into law in 2003, extended the Board of Correction's emergency powers to enact the same early release mechanisms if the county jail backlog exceeds 500 inmates. The provision allows offenders who have been convicted of certain non-violent offenses and who have served at least six months in the ADC to be eligible for release up to one year prior to their transfer eligibility (TE) date.

EPA releases are capacity driven and linked to an offender's transfer eligibility date or discharge date, arbitrarily decreasing their length of stay anywhere from 1 to 90 days. The simulation model's goal is to forecast the need for capacity and can only track the flow of offenders based on predicted trends. There are no means by which Arkansas can track EPA releases from admission to release as the emergency nature of the act predicts it will not be used should capacity not be exceeded. Therefore, EPA releases cannot be predicted within the simulation model. Rather, EPA releases are built into the model and assumed to remain at the previous year's level every year throughout the forecast horizon. For this reason, it is important to update the simulation model and reforecast the Arkansas prison population on an annual basis. EPA releases are watched very closely and tracked in this report in the 'Forecast Accuracy' section to more adequately gauge their impact.

In 2013 numerous policy changes were enacted by the Arkansas Board of Corrections. They are listed here to augment the discussion in the 'special reporting section' concerning the increase in parole violator revocations in 2013.

Arkansas Board of Corrections Policy Changes 2013:

1. ACC will not release parole holds on individuals awaiting a revocation hearing pursuant to requests from jail personnel.

2. All requests for release of holds made by sheriffs or jail personnel must be in writing.
3. Parolees charged with a violent felony as defined by Act 1029 of 2013 or a violent or sex related misdemeanor will be jailed and a revocation hearing requested.
4. Parolees charged with any other felony will either be jailed or placed on GPS Monitoring and a revocation hearing requested.
5. Parolees who have absconded will be jailed and a revocation hearing requested. Absconding is defined as evading supervision for more than 180 days.
6. Parolees who have two prior violations for evading supervision for less than 180 days will be jailed and a revocation hearing requested upon a third (3) violation. A warrant for evading supervision is issued when a parolee fails to report and cannot be located for 30 days.
7. Parolees who have evaded supervision for more than 90 days that have a history of a violent felony as defined by Act 1029 of 2013 or a sex related misdemeanor will be jailed and a revocation hearing requested. All requests for revocations and denials thereof will be fully documented in the offender's case file. A parole hold will remain in effect on an ACT 3 Mental Evaluation until the hearing is completed.

Also in 2013, Act 132 and Act 133 added felony Y trafficking of persons to the list of 70 percent sentencing crimes.

Act 895 of 2015 added residential burglary to the list of "felonies involving violence" that are outlined in the habitual offender statute established in Act 1805 of 2001. Act 1805 of 2001 stipulated a list of offenses for which any person who has previously pled guilty or nolo contendere to and are subsequently convicted of again, shall not be eligible for release on parole by the Arkansas Parole Board. As a result, habitual offenders are now tracked separately for this report and in the simulation model to identify any emerging trends.

In early 2017, Act 423, known as the Criminal Justice Efficiency and Safety Act of 2017, was passed. Parts of Act 423 seek to increase the effectiveness of monitoring probationers and parolees by the Division of Community Correction, to promote efficient staffing by the Division of Community Correction and to establish more efficient and effective punishment for parolees and probationers who violate the terms and conditions of their supervision. The impact of this legislation on the number of parole and probation revocations to the ADC has been incorporated into the simulation model and the projections presented in this document.

The next section of this report will examine the external trends (crime and resident population) that can impact the Arkansas criminal justice system.

III. EXTERNAL TRENDS IMPACTING THE ARKANSAS PRISON POPULATION

Significant Finding: *Growth in the Arkansas resident population is projected to remain static over the next several years. Growth is projected to average less than 1.0 percent annually from 2018 estimated counts through the year 2025.*

Significant Finding: *UCR Part I reported crimes in Arkansas decreased by 4.5 percent between 2016 and 2017 (the most recent years of data that are available). This decrease is fueled by a 5.8 percent decrease in property crimes. Reported violent crimes increased for the fourth year in a row.*

Arkansas Resident Population

Growth in a state's resident population can indirectly impact its criminal justice system, particularly growth in a state's "at-risk" population. As discussed previously, the at-risk population is defined as the portion of the resident population most likely to be incarcerated. Here, this demographic group is defined as all males between the ages of 18 and 35.

Since 2000, Arkansas's resident population has grown at a moderate pace. Between 2000 and 2004 the population grew by an average annual rate of 0.6 percent. Between 2005 and 2010 it grew an average annual rate of 1.0 percent. Using the 2010 census as a base, the University of Arkansas Institute for Economic Advancement has projected the resident population of Arkansas will grow from the 2018 estimate of 3,013,825 to 3,148,708 in 2025 (an increase of 0.4 percent overall). These data are listed in Table 3. It should be noted that the historical and projected resident population for Arkansas is dramatically outpaced by the growth in both prison admissions and prison population indicating Arkansas is increasing its already historically high incarceration rate.

Previous versions of this brief have included the projected growth of the state's at-risk population. Unfortunately, the US Census Bureau has not updated these projections for the states using the 2010 census base data. As an alternative, this brief presents available historical estimates for 2010 through 2017 (the most recent data since the last decennial census) in Table 4. During this time period, the at-risk population has increased by only 0.4 percent per year and by only 2.6 percent overall. Near future growth in this population will most likely mimic these trends.

TABLE 3
ARKANSAS PROJECTED RESIDENT POPULATION 2018 – 2025

Year	Total Resident Population	Annual Percent Change
Actual 2018	*3,013,825*	-
2019	3,062,041	1.6%
2020	3,078,021	0.5%
2021	3,092,955	0.5%
2022	3,107,234	0.5%
2023	3,121,147	0.4%
2024	3,134,930	0.4%
2025	3,148,708	0.4%
Average Projected Change 2018-2025		0.6%

Source: US Census Bureau; University of Arkansas Institute for Economic Development.

TABLE 4
HISTORICAL ARKANSAS AT-RISK POPULATION 2010 – 2017

Year	Estimated Male Resident Population Ages 18-35
2010	351,823
2011	354,701
2012	356,872
2013	357,845
2014	354,200
2015	356,162
2016	356,276
2017	361,032
Percent Average Change 2010-2017	0.4%

Source: US Census Bureau; University of Arkansas Institute for Economic Development.

Crime in Arkansas

Note: Crime rates mentioned in this report are a reference to reported crime tracked by the FBI's UCR initiative. Although no statistical significance is attributed to the impact of crime rates on prison admissions, observing these rates can provide some anecdotal insight into state prison admission trends and, in some cases, a lower level of guidance in projecting future admissions to prison.

During the 1990s, the levels of most serious reported violent and property crimes (defined by the FBI's Uniform Crime Reports Part I Crime category) in Arkansas remained static during the first part of the decade. Subsequently in the latter half of the 1990s, crime rates decreased significantly. From 1990 to 1995, the absolute number of UCR Part I crimes in Arkansas decreased at an average annual rate of 0.2 percent. From 1995 to 1999, the number of UCR Part I crimes fell at an average annual rate of 3.3 percent.

The crime index for CY 2004 showed that reported crime had increased by over 9.0 percent from the 2003 number. This is largely due to a change in Arkansas's reporting methods to the FBI. Arkansas assumed responsibility for reporting incidents of crime to the FBI in 1974. Until January 1, 2003, this information was collected from state agencies via summary reporting. After that date, Arkansas required all crime data to be reported based on incident. This change-over required a state-wide software update at all reporting locations.

With the release of new crime information for 2005, JFA began to track recent crime trends for Arkansas once again. As shown in Table 5, crime rates under the old reporting system continued to decline between 2000 and 2003. Under the new reporting system, the incidents of crimes reported increased by 1.1 percent between 2004 and 2005. Since 2005, the crime rates in Arkansas have consistently decreased.

However, violent crime has increased every year since 2014. The 554.9 violent crimes reported per 100,000 residents in 2017 is 15.6 percent higher than the 2014 data. Table 6 provides detailed historical reported crime data for Arkansas.

Comparison of Arkansas and the United States

In the discussion above, the population and crime data are observed in terms of changes over time within Arkansas. In Table 6, Arkansas's population and crime data are presented in comparison to the national levels and trends. Arkansas has had growth in residential population on par with the nation over the past decade, growing by 6.0 percent compared to 8.0 percent for the United States. Crime in the nation, as a whole, has decreased by a far larger percentage when compared to Arkansas. From

2007 to 2016, reported crime in the U.S. decreased by 26.0 percent while Arkansas saw a 18.8 percent decrease in reported crime.

In terms of state prison populations (using the most recent national data available: year-end 2017), Arkansas has seen significantly larger overall growth as compared to the nation as a whole over the last ten years. Arkansas grew by 21.2 percent overall compared to a 6.6 percent decrease nationally. It is important to note that the Arkansas prison population appears to have stabilized in recent years. The ADC population decreased by 1.5 percent between year-end 2017 and year-end 2018.

According to the Bureau of Justice Statistics, Arkansas' adult incarceration rate in 2017 was 781 prisoners per 100,000 state residents. The Arkansas rate vastly exceeded the national rate of 503. Note: the national incarceration rate used for this report is based on offenders held in state prisons only and does not include federal prisoners or persons held in jails. Also reported by the Bureau of Justice Statistics, Arkansas had a lower probationer rate than the nation as a whole in 2016 (the most recent year available for national data). This indicates that the Arkansas criminal justice system relies more heavily on incarceration versus prison diversion than the U.S. as a whole.

TABLE 5
CHANGES IN REPORTED UCR CRIMES IN ARKANSAS 1990 – 2017

Year	Total Reported Crime	Reported Violent Crime	Reported Property Crime
1990	4,866.9	532.2	4,334.7
1991	5,165.0	583.3	4,581.7
1992	4,761.7	576.5	4,185.2
1993	4,810.3	593.3	4,217.0
1994	4,798.7	595.1	4,203.6
1995	4,690.9	553.2	4,137.7
1996	4,699.2	524.3	4,174.9
1997	4,718.7	526.9	4,191.8
1998	4,283.4	490.2	3,793.2
1999	4,042.2	425.2	3,617.0
2000	4,115.3	445.3	3,670.0
2001	4,130.2	452.4	3,677.8
2002	4,163.0	425.0	3,738.0
2003	4,088.8	456.4	3,632.4
2004*	4,535.4	502.3	4,033.1
2005	4,596.4	528.5	4,067.9
2006	4,581.1	551.6	3,967.5
2007	4,472.5	529.4	3,953.1
2008	4,331.7	504.6	3,827.1
2009	4,290.8	515.8	3,775.0
2010	4,058.8	505.3	3,553.5
2011	4,235.0	480.9	3,754.1
2012	4,129.2	469.1	3,660.1
2013	4,048.3	445.7	3,602.6
2014	3,818.1	480.1	3,338.0
2015	3,772.8	521.3	3,251.5
2016	3,819.5	550.9	3,268.6
2017	3,633.5	554.9	3,078.6
Average Percent Change 1990-1999	-1.9%	-2.3%	-1.9%
Average Percent 1990-2010	-0.8%	-0.1%	-0.9%
Average Percent 2005-2017	-1.7%	0.9%	-2.0%

Source: www.FBI.gov; Note: In 2004 AR UCR reporting methodology changed.

TABLE 6
COMPARISON BETWEEN UNITED STATES AND ARKANSAS
ON KEY POPULATION AND CRIME DEMOGRAPHICS

	United States	Arkansas
POPULATION[2]		
Total Population (7/1/18)	327,167,434	3,013,825
Change in Population		
1-year change (7/1/17 – 7/1/18)	0.4%	0.3%
10-year change (7/1/08 – 7/1/18)	7.5%	5.5%
CRIME RATE[3] (Rate per 100,000 inhabitants)		
UCR Part I Reported Crime Rates (2017)		
Total	2,761.2	3,633.5
Violent	394.0	554.9
Property	2,367.2	3,078.6
Change in Total Reported Crime Rate		
1-year change (2016-2017)	-3.0%	-4.9%
10-year change (2007-2017)	-26.0%	-18.8%
PRISON POPULATION[4]		
Total Inmates (State Prisons Only) 2018**	1,306,305	17,799
1-year change (2017-2018)	-1.0%	-1.5%
10-year change (2008-2018)	-6.6%	21.2%
Average annual change (2008-2018)	-0.7%	2.1%
State Incarceration Rate (per 100,000 residents)[5]	503	781
PAROLE POPULATION (2018)[6]*	760,392	25,040
Rate per 100,000 residents [7]	303	1,038
PROBATION POPULATION (2018)[8]*	3,655,836	34,611
Rate per 100,000 residents [9]	1,459	1,347

**Year end 2017 is the latest data available for the U.S.; ***Year end 2016 is the latest data available for the U.S.; U.S data is for States only, federal cases excluded.

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[2] U.S. Census Bureau, Population estimates for July 1, 2018.
[3] Uniform Crime Reports, Crime in the United States – 2017, Federal Bureau of Investigation.
[4] Prisoners in 2017, Bureau of Justice Statistics, April 2019; Arkansas Department of Correction Statewide Population Report.
[5] Prisoners in 2017, Bureau of Justice Statistics, April 2019; US (excludes federal prisons); Rate is for adults only.
[6] U.S. data source: Probation and Parole in the United States, 2016 Bureau of Justice Statistics, April 2018; Arkansas data source: Arkansas Dept. of Community Correction, Research & Evaluation.
[7] U.S. and Arkansas data source: Probation and Parole in the United States, 2016 Bureau of Justice Statistics, April 2018.
[8] U.S. data source: Probation and Parole in the United States, 2016 Bureau of Justice Statistics, April 2018; Arkansas data source: Arkansas Dept. of Community Correction, Research & Evaluation.
[9] U.S. and Arkansas data source: Probation and Parole in the United States, 2016 Bureau of Justice Statistics, April 2018.

ACCURACY OF THE JUNE 2018 PROJECTIONS

The previous inmate population forecast for the Arkansas Division of Correction was released in June 2018. Tracking the accuracy of the previous projections helps JFA Associates determine how well the Wizard model is simulating the Arkansas prison system.

Significant Finding: *For the last 14 months, the projections estimated that the male ADC population would increase by an average of 0.07 percent per month. This population actually decreased by an average of 0.03 percent per month. As a result, the male population was over-forecasted by an average monthly difference of 2.1 percent.*

Significant Finding: *The Arkansas Division of Correction continued to exercise the Emergency Powers Act in 2018, allowing early release for prisoners throughout the year when over-crowding conditions were at their peak. Although the overall average accuracy of the forecast is good by national standards, EPA releases may hamper the model's ability to estimate the inmate population on a monthly basis by offsetting length of stay trends. In 2018, 2,251 offenders were released via the Emergency Powers Act.*

Tables 8 through 10 and Figure 7 present the accuracy of projections generated in June of 2018. Accuracy of the projections were tracked from June 2018 to August 2019 by comparing projected totals with the actual counts of male and female inmates.

- Through the most recent 14 months, the projected female population averaged a +2.0 percent difference from actual totals. On average, the 2018 simulation model averaged 27 more female inmates per month than actual counts.

- For the 2018 model, the forecasted counts of male inmates over-estimated the actual population every month from June 2018 to August 2019 with a maximum overestimation of 525 (November 2018).

- The total prison population forecast had an average percent difference of +2.0 percent per month during the entire tracking period. National standards set acceptable error at ± 2.0 percent.

As mentioned previously, EPA releases are tracked by JFA Associates to monitor and mitigate their impact on the simulation model. The EPA was utilized every month in 2018. Table 7 details EPA releases since 2008. Over the past decade, an annual average of 2,490 persons per year were released via this method. EPA releases serve as mechanism to control prison population growth and in 2018 the Arkansas

prison population saw a slight decline in its total. As such, 2018 saw the lowest level of EPA releases in the past seven years.

TABLE 7
EPA RELEASES 2008-2018

Year	Act 1721	Act 418	Total
2008	369	1,708	2,077
2009	512	1,756	2,268
2010	319	1,853	2,172
2011	319	2,023	2,297
2012	169	2,478	2,647
2013	201	2,672	2,873
2014	437	2,470	2,907
2015	368	2,380	2,748
2016	311	2,458	2,769
2017	203	2,178	2,381
Total 2018	**177**	**2,074**	**2,251**
Jan-18	32	66	98
Feb-18	15	385	400
Mar-18	10	92	102
Apr-18	42	67	109
May-18	30	348	378
Jun-18	5	101	106
Jul-18	3	74	77
Aug-18	12	372	384
Sep-18	10	100	110
Oct-18	15	56	71
Nov-18	2	332	334
Dec-18	1	81	82

Source: ADC Planning & Research.

TABLE 8
ACCURACY OF THE 2018 TOTAL PRISON POPULATION FORECAST

Month-Year	Total			
	Projected	Actual	Numeric Difference	Percent Difference
Jun-18	18,137	17,972	165	0.9%
Jul-18	18,194	18,005	189	1.0%
Aug-18	18,253	17,751	502	2.8%
Sep-18	18,251	17,865	386	2.2%
Oct-18	18,262	17,943	319	1.8%
Nov-18	18,276	17,666	610	3.5%
Dec-18	18,288	17,799	489	2.7%
Jan-19	18,280	17,958	322	1.8%
Feb-19	18,294	17,846	448	2.5%
Mar-19	18,333	17,898	435	2.4%
Apr-19	18,284	17,977	307	1.7%
May-19	18,285	17,817	468	2.6%
Jun-19	18,302	17,907	395	2.2%
Jul-19	18,320	18,002	318	1.8%
Aug-19	18,316	18,090	226	1.2%
Average Difference			372	2.1%

Source: ADC Planning & Research/JFA Associates' prison projections.

TABLE 9
ACCURACY OF THE 2018 FEMALE PRISON POPULATION FORECAST

Month-Year	Female			
	Projected	Actual	Numeric Difference	Percent Difference
Jun-18	1,444	1,385	59	4.3%
Jul-18	1,448	1,397	51	3.7%
Aug-18	1,452	1,343	109	8.1%
Sep-18	1,458	1,374	84	6.1%
Oct-18	1,459	1,405	54	3.8%
Nov-18	1,451	1,366	85	6.2%
Dec-18	1,453	1,403	50	3.6%
Jan-19	1,452	1,401	51	3.6%
Feb-19	1,454	1,403	51	3.6%
Mar-19	1,458	1,441	17	1.2%
Apr-19	1,461	1,463	-2	-0.1%
May-19	1,467	1,484	-17	-1.1%
Jun-19	1,467	1,493	-26	-1.7%
Jul-19	1,462	1,521	-59	-3.9%
Aug-19	1,466	1,575	-109	-6.9%
Average Difference			27	2.0%

Source: ADC Planning & Research/JFA Associates' prison projections.

TABLE 10
ACCURACY OF THE 2018 MALE PRISON POPULATION FORECAST

Month-Year	Male			
	Projected	Actual	Numeric Difference	Percent Difference
Jun-18	16,693	16,587	106	0.6%
Jul-18	16,746	16,608	138	0.8%
Aug-18	16,801	16,408	393	2.4%
Sep-18	16,793	16,491	302	1.8%
Oct-18	16,803	16,538	265	1.6%
Nov-18	16,825	16,300	525	3.2%
Dec-18	16,835	16,396	439	2.7%
Jan-19	16,828	16,557	271	1.6%
Feb-19	16,840	16,443	397	2.4%
Mar-19	16,875	16,457	418	2.5%
Apr-19	16,823	16,514	309	1.9%
May-19	16,818	16,333	485	3.0%
Jun-19	16,835	16,414	421	2.6%
Jul-19	16,858	16,481	377	2.3%
Aug-19	16,850	16,515	335	2.0%
Average Difference			345	2.1%

Source: ADC Planning & Research/JFA Associates' prison projections.

IV.   HISTORICAL ARKANSAS INMATE POPULATION TRENDS

Significant Finding: After significant increases in the numbers of persons admitted to the ADC each year from 2013 to 2016, total admissions have decreased each of the most recent two years.

Significant Finding: Total male admissions to prison decreased by 1.5 percent and total female admissions decreased by 0.4 percent between 2017 and 2018.

Significant Finding: Female admission counts to the ADC have nearly doubled in the last ten years.

Table 11 and Figure 8 present the admissions to prison in Arkansas from 2008 to 2018 for males and females. These data reflect official counts verified by ADC staff. Table 12 presents admissions by intake reason (new commitment versus parole violator). Table 13 and Figure 9 present the year-end inmate populations for inmates from 2008 to 2018. Table 14 lists releases for the past 10 years.

- The number of total admissions to prison in 2018 decreased by 1.3 percent when compared to 2017. As seen in Table 12, the primary driver of the admissions decline was a 3.8 percent decrease in male parole violator admissions.

- Releases from the ADC in 2018 increased by 4.8 percent compared to 2017 counts. The outpacing of admission counts by releases fueled the drop in the ADC population in 2018.

- The female prison population continues to remain static with an average annual increase of a scant 0.1 percent over the last four years.

- At year-end 2018, the total Arkansas prison population was 17,799, which was 21.2 percent larger than the total prison population at year end 2008.

- As of the end of August 2019, the total prison population was 18,090, an increase of 1.6 percent from the December 2018 count. This increase is primarily driven by a 12.3 percent increase in female prisoners.

TABLE 11
HISTORICAL ADMISSIONS TO THE ADC BY GENDER 2008-2018

Year	Males	Females	Total
2008	6,267	750	7,017
2009	6,683	792	7,475
2010	6,854	813	7,667
2011	6,293	717	7,010
2012	5,547	616	6,163
2013	8,152	1,067	9,219
2014	8,486	1,173	9,659
2015	9,206	1,400	10,606
2016	9,226	1,419	10,645
2017	8,988	1,457	10,445
2018	8,853	1,451	10,304
Numeric Change 2008 – 2018	2,586	701	3,287
Percent Change 2008 – 2018	41.3%	93.5%	46.8%
Average Annual Percent Change 2008 – 2018	4.5%	8.8%	5.0%
Percent Change 2017 – 2018	-1.5%	-0.4%	-1.3%

Source: ADC Research & Planning; Note: 2016, 2017 and 2018 data were generated using new extract file coding.

TABLE 12
HISTORICAL ADMISSIONS TO THE ADC BY ADMISSION TYPE 2009-2018

Year	New Commits		Parole Violator	
	Male	Female	Male	Female
2009	4,523	620	2,160	172
2010	4,370	606	2,484	207
2011	4,540	577	1,753	140
2012	3,914	523	1,633	93
2013	4,481	733	3,671	334
2014	4,347	822	4,139	351
2015	4,593	931	4,613	469
2016	4,045	816	5,181	603
2017	4,024	925	4,964	532
2018	4,076	899	4,777	552
Average Percent Change 2009-2018	-0.8%	5.3%	14.7%	30.3%
Percent change 2017-2018	1.3%	-2.8%	-3.8%	3.8%

Source: ADC data extract admission file; Counts differ slightly from Table 16 as they include lifers, 50 & 70%ers and 'unknowns' (unknowns are cases in the extract files for which seriousness level cannot be identified, this is less than 2.0% of admissions in any given year). ; Note: 2016, 2017 and 2018 data were generated using new extract file coding.

TABLE 13
HISTORICAL END OF YEAR ADC POPULATION
2008 - 2018

Year	Male	Female	Total
2008	13,627	1,059	14,686
2009	14,109	1,062	15,171
2010	15,013	1,163	16,176
2011	13,948	1,087	15,035
2012	13,568	1,059	14,627
2013	15,881	1,330	17,211
2014	16,453	1,397	17,850
2015	16,282	1,402	17,684
2016	16,161	1,376	17,537
2017	16,665	1,413	18,078
2018	16,396	1,403	17,799
Numeric Change 2008 – 2018	2,769	344	3,113
Percent Change 2008 – 2018	20.3%	32.5%	21.2%
Average Annual Percent Change 2008 – 2018	2.0%	3.2%	2.1%
Percent Change 2017 – 2018	-1.6%	-0.7%	-1.5%

Source: ADC Research & Planning; Note: population as of August 2019 was 18,090.

TABLE 14
HISTORICAL RELEASES FROM THE ADC 2008-2018

Year	Males	Females	Total
2008	6,273	801	7,074
2009	6,372	810	7,182
2010	5,952	712	6,664
2011	6,612	692	7,304
2012	5,647	652	6,299
2013	5,755	789	6,544
2014	7,762	1,053	8,815
2015	9,360	1,400	10,760
2016	9,162	1,402	10,564
2017	8,632	1,420	10,052
2018	9,069	1,469	10,538
Numeric Change 2008 – 2018	2,796	668	3,464
Percent Change 2008 – 2018	44.6%	83.4%	49.0%
Average Annual Percent Change 2008 – 2018	4.6%	7.3%	4.9%
Percent Change 2017 – 2018	5.1%	3.5%	4.8%

Note: 2007-2009, 2011 counts were calculated by JFA Associates. Source for 2010, 2012-2016: ADC Research & Planning. Note: 2016, 2017 and 2018 data were generated using new extract file coding.

V. 2018 ADC POPULATION CHARACTERISTICS

A. 2018 Admissions to Prison

Significant Finding: *The average sentence applied to the entire admissions population (excluding lifers) in 2018 was 100.8 months (8.4 years), versus 102.4 months (8.5 years) in 2017.*

Table 16 provides information about the population admitted to prison in 2018 based on the ADC admissions extract data file. The admissions population in Table 18 is divided into Identification (ID) groups based on a combination of factors that include offense seriousness level, admission type, gender, and special sentencing conditions. The ID groups are generated for modeling purposes and do not necessarily coincide with ADC groupings. Unique categories for persons sentenced to life in prison, for those sentenced under 70% Acts and for habitual offenders are also included in the model to track these populations. The rest of admissions are divided into new commitments and parole violators with a new charge each by gender and the seriousness level of their most serious admitting offense.

A benefit of the revised data extract files is that, beginning with this forecast, technical parole violators can be identified apart from parole violators with a new charge and are now placed in their own simulation model group. It should be noted that the proportion of new charge versus technical parole violators presented in Table 18 differs from Table 2. This is due to a difference in reporting agencies. Table 2 presents the parole violator information from the Arkansas Division of Community Correction (ACC) which tracks the revocation process beyond just initial violation. Because of this the proportion of new charge violators is larger in the ACC data. The ADC extract files contain the initial revocation reason and thus a higher proportion of technical violators.

Data from the ADC admissions extract file is used to generate Figure 10 which depicts the number of persons admitted in each of the ID groups. In addition, data from the ADC admissions extract file was used to generate Figure 11 which details the average sentences for each group in 2018. These figures are contained in the Appendix of this report. Note: unless specifically stated, all ID groups discussed below are assumed to exclude lifers, habitual offenders, seriousness level unknown cases and 50 & 70 percent inmates.

Admissions Counts

- In 2018, male parole violators accounted for 44.9 percent of all ADC admissions.

- In 2018, 4.2 percent of admissions had minimum serving time restrictions. This 4.2 percent is comprised of 76 admissions for 50% methamphetamine crimes, 28 admissions for life sentences, 52 admissions for habitual offenders and 272 admissions for all 70 percent crimes.

- The majority of the 70 percent offenders were admitted to the ADC due to a conviction related to an aggravated robbery (49.6 percent) or rape (28.7 percent).

- 28 new lifers were admitted to the ADC in 2018. On December 31, 2018, the number of lifers held in the ADC was 1,356, about 7.6 percent of the population. 50 and 70 percenters accounted for 17.3 percent (3,084) of the year-end population in 2018.

- Habitual offenders accounted for 3.1 percent (558) of the prison population at the end of 2018. In 2015 JFA Associates began tracking habitual offenders sentenced under Act 1805 due to the addition of residential burglary as an eligible offense for sentencing under this law. In 2018, this group numbered five (5) admissions.

- Table 15 shows the historical growth in the inmate population in reference to the impact that 50 & 70 percenters have had on the year end population. In the past ten years the number of 70 percenters has grown by 6.4 percent while the number of 50 percenters in the ADC year-end population has dropped significantly.

Sentence Lengths

- New commitment males had an average sentence of 85.0 months (7.1 years) in 2018.

- New commitment females averaged a sentence of 64.6 months (5.4 years) in 2018.

- In 2018 new commitment males in seriousness levels 3 and 7 saw notable increases in their average sentence compared with 2017.

- In 2018 male parole violators with a new charge had an average sentence of 115.0 (9.6 years) months while male technical parole violator sentences averaged 111.4 months (9.3 years).

- In 2018 female parole violators with a new charge had an average sentence of 86.9 (7.2 years) months while female technical parole violator sentences averaged 73.3 months (6.1 years).

- Among those admitted under 50 & 70 percent sentencing restrictions:

    o 50 percenters convicted of manufacturing methamphetamine in 2018 had an average sentence of 119.1 months (9.9 years) , down from the average of 134.2 months (11.2 years) in 2017.
    o Those convicted of aggravated robbery and rape in 2018 had average sentences of 187.3 months (15.6 years) and 328.1 months (27.3 years), respectively.
    o The average sentence for the 57 inmates admitted for first degree murder in 2018 was 358.7 months (29.9 years) , the most severely sanctioned group excluding lifers.

TABLE 15
HISTORICAL 50 & 70 PERCENT ACTS ADMISSIONS & YEAR END COUNT
2008-2018

Year	Total 70%ers Admitted	Total 50%ers Admitted	Average Sentence 50 & 70%ers (mos.)	Total End of Year 70%er	Total End of Year 50%er
2008	274	-	257	2,788	-
2009	232	109	263	2,561	406
2010	313	156	250	2,694	437
2011	185	91	236	n/a	n/a
2012	200	54	260	n/a	369
2013	211	61	236	2,675	349
2014	241	73	229	2,662	333
2015	211	61	228	2,777	278
2016	270	91	228	2,839	211
2017	257	63	252	2,877	165
2018	272	76	230	2,966	118
Numeric Change 2008-2018	-2	-	-26.9	178	-
Percent Change 2008-2018	-0.7%	-	-10.5%	6.4%	-
Percent Change 2017-2018	5.8%	20.6%	-8.5%	3.1%	-28.5%

Source: ADC data extract admission and stock files. Note: 2016, 2017 and 2018 data were generated using new extract file coding.

TABLE 16
ADC ADMISSIONS COUNTS AND AVERAGE SENTENCE BY ID GROUP IN 2018

ID Group	Number Admitted	Percent of Total	Average Sentence (mos.) 2018	Average Sentence (mos.) 2017
Lifers	**28**	**0.3%**	**Life**	**Life**
Habitual Offenders (Act 1805)	**52**	**0.5%**	**194.4**	**228.2**
50 & 70 Percent Acts Inmates	**348**	**3.4%**	**230.1**	**251.5**
1st Degree Murder	51	0.5%	358.7	417.8
Rape	78	0.8%	328.1	310.8
Aggravated Robbery	135	1.3%	187.3	184.5
Kidnapping	8	0.1%	229.5	198.0
Drug – Methamphetamine 50%	76	0.7%	119.1	137.2
New Commitments – Males	**3,775**	**36.6%**	**85.0**	**87.4**
Seriousness levels 1-2	204	2.0%	42.9	42.1
Seriousness level 3	1,088	10.6%	46.1	46.0
Seriousness level 4	506	4.9%	69.4	69.5
Seriousness level 5	500	4.9%	72.3	73.6
Seriousness level 6	814	7.9%	101.7	100.1
Seriousness level 7	375	3.6%	133.8	128.4
Seriousness levels 8-10	288	2.8%	200.0	226.0
New Commitments – Females	**873**	**8.5%**	**64.6**	**62.4**
Seriousness levels 1-6	729	7.1%	55.4	53.6
Seriousness levels 7-10	144	1.4%	111.3	116.6
Parole Violators New Charge – Males	**1,921**	**18.6%**	**115.0**	**117.6**
Seriousness levels 1-6:	1,384	13.4%	99.2	99.6
Seriousness levels 7-10:	537	5.2%	155.6	157.1
Parole Violators Technical – Males	**2,712**	**26.3%**	**111.4**	**109.8**
Parole Violators New Charge – Females	**210**	**2.0%**	**86.9**	**92.1**
Seriousness levels 1-6:	155	1.5%	71.8	84.1
Seriousness levels 7-10:	55	0.5%	129.5	118.1
Parole Violators Technical – Females	**335**	**3.3%**	**73.3**	**77.7**
Unknown seriousness level	**50**	**0.5%**	**n/a**	**n/a**
TOTAL	**10,304**	**100.0%**	**100.8**	**102.4**

Note: Average sentence for all admissions excluding lifers; 2017 statistics have been revised; Source: ADC data extract admissions file.

B. New Commitment Sentence Length Comparison 2013-2018

Significant Finding:

Table 17 and Figure 12 depict average sentences for new commitments by seriousness level for 2013 through 2018.

- Compared to 2013, seriousness level 5 average sentences in 2018 have declined 15 months (or 17.6 percent).

- Compared to 2013, seriousness level 7 average sentences in 2018 have declined 15 months (or 10.4 percent).

- Seriousness levels 4 and below average sentences have remained static since 2012.

- Compared to 2013, seriousness levels 8 and 9 average sentences in 2018 have increased by 8.1 percent and 6.0 percent respectively.

TABLE 17
AVERAGE SENTENCES OF NEW COMMITMENTS TO ADC BY SERIOUSNESS LEVEL 2013 - 2018

Seriousness Level	Average Sentence (mos.)					
	2013	2014	2015	2016	2017	2018
Seriousness levels 1-2	41	39	43	42	42	43
Seriousness level 3	46	42	37	46	46	45
Seriousness level 4	67	60	60	79	66	66
Seriousness level 5	85	75	68	76	69	70
Seriousness level 6	105	90	87	97	94	99
Seriousness level 7	144	128	117	122	122	129
Seriousness level 8	160	141	149	169	158	173
Seriousness level 9	302	308	301	298	294	320
Seriousness level 10	458	419	492	418	473	373

Source: ADC data extract admissions files. Note: 2016, 2017 and 2018 data were generated using new extract file coding.

C. 2018 Release Population

Significant Finding: *The average length of stay in prison for persons released from the ADC in 2018 was 18.7 months.*

Significant Finding: *The majority of release events in 2018 (90 percent) exited incarceration via parole or supervised release, followed by 9 percent released via discharge, and the remaining 1 percent released via various other mechanisms.*

Table 18 provides information about the population released from prisons in Arkansas in 2018. For each ID group, Table 20 presents the number of people released, the average time served in months, and the percent of releases by release type. The data were generated using the ADC release data extract file.

Average Time Served

- The average time served for male new commitments showed a direct correlation with seriousness level in 2018. Average length of stay ranged from between 8.5 months for seriousness levels 1-2, to 77.7 months for seriousness levels 8-10 (combined).

- The average length of stay of female new commitments across all seriousness levels in 2018 was 10.3 months.

- Regardless of release type or id group, total releases in 2018 had an average length of stay of 18.7 months (1.56 years) which represents a decrease over the 2017 ADC release LOS of 19.4 months (1.62 years).

- The average LOS of male parole violators with a new charge released in 2018 was 17.8 months (1.5 years). Male technical parole violators averaged a LOS of 9.3 months.

- In 2018, the average LOS of female parole violators with a new charge was 11.4 months. Female technical parole violators averaged a LOS of 6.2 months.

- In 2018, 29 habitual offenders sentenced under Act 1805 stipulations were released from prison after serving an average length of stay of 71.5 months (6.0 years).

Releases by Release Mechanism 2018

- As with previous years, the primary release mechanism for the ADC in 2018 was by Parole Board action.

- In 2018, male and female technical parole violators had a higher rate of release via discharge (10 percent and 11 percent respectively) than the population as a whole.

- Excepting Lifers, 1st degree murder offenders averaged the longest LOS upon release in 2018 (162.7 months).

TABLE 18
AVERAGE LENGTH OF STAY AND RELEASE TYPE FOR ADC RELEASES IN 2018

ID Group	Number of Releases	Percent	Length of Stay (mos.)	Percent by Release Mechanism		
				Parole	Discharge	Other
Lifers	**38**	**0.4%**	**372.0**	**32%**	**8%**	**61%**
Habitual Offenders (Act 1805)	**29**	**0.3%**	**71.5**	**21%**	**72%**	**7%**
50 & 70 Percent Acts Inmates	**365**	**3.5%**	**83.9**	**83%**	**12%**	**5%**
1st Degree Murder	32	0.3%	162.7	88%	0%	12%
Rape	65	0.6%	149.5	52%	35%	13%
Aggravated Robbery	149	1.4%	75.2	90%	9%	1%
Kidnapping	3	0.0%	60.7	34%	33%	33%
Drug – Methamphetamine 50%	116	1.1%	37.2	91%	7%	2%
New Commitments – Males	**3,612**	**34.3%**	**20.4**	**93%**	**5%**	**2%**
Seriousness levels 1-2	179	1.7%	8.5	95%	4%	1%
Seriousness level 3	951	9.0%	10.1	91%	8%	1%
Seriousness level 4	531	5.0%	13.4	91%	8%	1%
Seriousness level 5	479	4.5%	12.6	95%	2%	3%
Seriousness level 6	840	8.0%	21.7	93%	5%	2%
Seriousness level 7	361	3.4%	28.4	95%	1%	4%
Seriousness level 8-10	271	2.6%	77.7	92%	6%	2%
New Commitments – Females	**840**	**8.0%**	**10.3**	**97%**	**2%**	**1%**
Seriousness levels 1-6	724	6.9%	8.4	97%	2%	1%
Seriousness levels 7-10	116	1.1%	21.9	97%	1%	2%
Parole Violators New Charge – Males	**1,800**	**17.1%**	**17.8**	**93%**	**6%**	**1%**
Seriousness levels 1-6	1,196	11.3%	14.6	92%	7%	1%
Seriousness levels 7-10	604	5.7%	24.1	95%	4%	1%
Parole Violators Technical – Males	**3,204**	**30.4%**	**9.3**	**89%**	**10%**	**1%**
Parole Violators New Charge – Females	**215**	**2.0%**	**11.4**	**93%**	**6%**	**1%**
Seriousness levels 1-6	170	1.6%	9.7	93%	6%	1%
Seriousness levels 7-10	45	0.4%	17.9	93%	7%	0%
Parole Violators Technical – Females	**379**	**3.6%**	**6.2**	**88%**	**11%**	**1%**
Unknown	**56**	**0.5%**	**14.2**	**n/a**	**n/a**	**n/a**
TOTAL	**10,538**	**100.0%**	**18.7**	**90%**	**9%**	**1%**

Source: ADC data extract release file; Note: "Other" release category is a "catch-all" of minor prison release routes such as death and administrative closure. Note: Total average LOS excludes lifers.

VI.   KEY POPULATION PROJECTION ASSUMPTIONS

The inmate population projections contained in this report were completed using the Wizard simulation model. This model simulates the movements of inmates through the prison system based on known and assumed policies affecting both the volume of admissions into the system and the lengths of stay for inmates who are housed in prison. Wizard simulates the movements of individual cases, by offense group, and projects each separately. Inmates sentenced under different sentencing policies, move through the system differently. Preceding sections of this reports displayed the individual case level data used to build the model. JFA has made the following key assumptions that have a significant impact on the projection results.

A. Future transfer eligibility rates for new offenders will mimic those observed during 2018.

New law transfer rates will remain constant at the rates observed during 2018 throughout the forecast horizon. Table 19 displays the number and rates at which new law offenders were not released at the transfer eligibility dates for 2017 and 2018. As can be seen in Table 19, approximately 48.0 percent of all new commitment inmates released via discharge or parole are held beyond their transfer eligibility date and serve an average of 9.2 months beyond that date before being released. The statistics shown in Table 21 are included in the simulation model, broken out by gender, and are assumed to continue over the forecast horizon.

B. The sentence group composition of future annual new court commitments is assumed to be the same as the composition of new commitments during 2018.

Table 17 presented the sentencing profiles for newly committed inmates by seriousness level. Future new commitments are assumed to "look like" these new commitment admissions in terms of the proportion of admitting charges, sentences received, good time credit awards, and serving times to parole eligibility.

C. Parole revocation admissions to ADC will be at the level observed during 2018.

As stated earlier in the report, a new method for generating the ADC prison extract files used to produce this report and corresponding forecast. We are confident that with these new files there has been an increased level of accuracy in identifying parole violators readmitted to prison, both technical and with a new charge. As a result, there has been a two-year revision and establishment of a new baseline historical level and categorization of parole

violators. The level observed in 2018 is projected to continue throughout the forecast horizon.

D. Projections New Commitment Assumption.

Under the projections assumptions, new commitments are projected to increase at the same rate as the projected state demographic population, an annual average of 0.6 percent per year throughout the forecast horizon. Projected overall new commitment growth was determined by average annual projected growth in the state demographic population.

TABLE 19
ADC INMATES (RELEASED VIA DISCHARGE OR PAROLE) HELD BEYOND TRANSFER ELIGIBILITY DATE IN 2017 & 2018

ID Group*	Total Released via Discharge/Parole	Total Held Beyond Transfer Eligibility Date	Percent Held Beyond Transfer Eligibility Date	Average Months Held Beyond Transfer Eligibility Date
2017				
New Commitments – Males	3,097	1,686	54.4%	9.5
New Commitments – Females	754	324	43.0%	4.0
TOTAL	**3,851**	**2,010**	**52.2%**	**8.7**
2018				
New Commitments – Males	3,582	1,822	50.9%	10.0
New Commitments – Females	839	300	35.8%	5.0
TOTAL	**4,421**	**2,122**	**48.0%**	**9.2**

Analysis does not include prisoners with an offense date before 1/1/1994, lifers, parole violator returns, 50%ers and 70%ers. Source: ADC data extract file.

VII.   PRISON POPULATION PROJECTIONS FOR 2019-2029

This section contains the inmate population projections based on the assumptions set forth in the previous section.

A. Projected Inmate Population

Tables 20 and 21 and Figure 4 display the historical and projected inmate populations for the period 2008 to 2029. The tables include the projections using the base model assumptions. A more detailed breakdown of the forecast by gender and by month is presented in the Appendix of this document.

Baseline projections included in this report were produced using the Wizard simulation model which projects bed space needs regardless of housing location or type. The Wizard model, at its most basic level, uses the calculation of:

Admissions x Length of Stay = Population

Forecasts produced under this method will account for shorter sentenced offenders cycling faster through the system and the stacking effect of lifers, mandatory serving offenders with long length of stays. All of these complex interplays are present in the Arkansas prison system and influence the resulting projections.

- At the end of December 2029, 20,483 offenders are projected to be housed in the Arkansas Department of Correction.

- At the end of 2018, the inmate prison population was 17,799. Under the baseline projection, the population is projected to increase to 18,123 inmates at the end of 2019 and to 19,257 in 2024. The projected growth represents average annual increases of 1.2 percent per year through the year 2029.

- Under the baseline projections, the male inmate population is projected to grow an average of 1.2 percent between 2019 and 2029 while the female inmate population is projected to grow by an average of 1.4 percent per year through 2029.

Historical 10-year average growth (2.1 percent) in the prison population exceeds the projected future annual 10-year growth (1.2 percent). The forecast presented in this iteration is higher than previous year's forecast. The increased forecast presented in this report is a direct result of continued high levels of parole violations returned to prison, increased sentences for sentencing levels 6 and above and increased number and sentences for 70% aggravated robbery.

TABLE 20
HISTORICAL AND PROJECTED ADC POPULATION 2009-2030

Year	Historical	Projected
2008	14,686	
2009	15,171	
2010	16,176	
2011	15,035	
2012	14,627	
2013	17,211	
2014	17,850	
2015	17,684	
2016	17,537	
2007	18,078	
2018	*17,799*	*17,799*
2019		18,123
2020		18,280
2021		18,417
2022		18,648
2023		18,929
2024		19,257
2025		19,557
2026		19,792
2027		20,046
2028		20,262
2029		20,483
Numeric Difference 2008-2018	3,113	
Percent Difference 2008-2018	21.2%	
Average Percent Difference 2008-2018	2.1%	
Numeric Difference 2019-2029		2,361
Percent Difference 2019-2029		13.0%
Average Percent Difference 2019-2029		1.2%

Source: JFA Simulation Model.

TABLE 21
HISTORICAL AND PROJECTED ADC POPULATION BY GENDER 2008-2029

Year	Historical Males	Historical Females	Projected Males	Projected Females
2008	13,627	1,059		
2009	14,109	1,062		
2010	15,013	1,163		
2011	13,948	1,087		
2012	13,568	1,059		
2013	15,881	1,330		
2014	16,453	1,397		
2015	16,282	1,402		
2016	16,161	1,376		
2017	16,665	1,413		
2018	*16,396*	*1,401*	*16,396*	*1,401*
2019			16,530	1,593
2020			16,669	1,611
2021			16,782	1,635
2022			16,992	1,656
2023			17,252	1,677
2024			17,551	1,706
2025			17,824	1,733
2026			18,033	1,759
2027			18,264	1,782
2028			18,458	1,804
2029			18,657	1,826
Numeric Difference 2008-2018	2,769	344		
Percent Difference 2008-2018	20.3%	32.5%		
Average Percent Difference 2008-2018	1.9%	3.5%		
Numeric Difference 2019-2029			2,127	233
Percent Difference 2019-2029			12.9%	14.6%
Average Percent Difference 2019-2029			1.2%	1.4%

Source: JFA Simulation Model.

APPENDIX
ADDITIONAL TABLES AND FIGURES

TABLE 22
PROJECTED TOTAL ADC POPULATION BY MONTH 2019-2029

Year	January	February	March	April	May	June	July	August	September	October	November	December
Actual 2019	*17,958*	*17,846*	*17,898*	*17,977*	*17,817*	*17,907*	*18,002*	*18,090*				
2019	17,795	17,821	17,876	17,931	17,960	17,964	17,987	18,054	18,078	18,109	18,079	18,123
2020	18,135	18,160	18,182	18,161	18,142	18,178	18,180	18,208	18,216	18,240	18,241	18,280
2021	18,266	18,298	18,307	18,323	18,326	18,337	18,341	18,360	18,361	18,373	18,367	18,417
2022	18,468	18,472	18,485	18,507	18,497	18,529	18,555	18,567	18,594	18,622	18,629	18,648
2023	18,668	18,698	18,706	18,718	18,748	18,766	18,779	18,786	18,844	18,888	18,922	18,929
2024	18,985	18,982	19,004	19,025	19,054	19,105	19,140	19,163	19,221	19,237	19,243	19,257
2025	19,303	19,322	19,362	19,395	19,393	19,424	19,402	19,426	19,469	19,510	19,491	19,557
2026	19,547	19,555	19,546	19,599	19,599	19,632	19,693	19,721	19,781	19,805	19,851	19,792
2027	19,867	19,923	19,921	19,960	19,974	19,959	20,002	20,002	20,071	20,052	20,076	20,046
2028	20,100	20,142	20,143	20,122	20,115	20,165	20,146	20,166	20,221	20,232	20,256	20,262
2029	20,272	20,292	20,305	20,328	20,346	20,350	20,370	20,400	20,456	20,464	20,476	20,483

TABLE 23
PROJECTED TOTAL FEMALE ADC POPULATION BY MONTH 2019-2029

| Year	January	February	March	April	May	June	July	August	September	October	November	December
Actual 2019	*1,401*	*1,403*	*1,441*	*1,463*	*1,484*	*1,493*	*1,521*	*1,575*				
2019	1,377	1,392	1,443	1,461	1,478	1,511	1,520	1,562	1,577	1,580	1,558	1,593
2020	1,593	1,606	1,601	1,607	1,608	1,607	1,607	1,608	1,610	1,610	1,609	1,611
2021	1,612	1,624	1,626	1,624	1,622	1,625	1,626	1,628	1,629	1,631	1,631	1,635
2022	1,635	1,645	1,646	1,648	1,648	1,649	1,649	1,651	1,651	1,652	1,651	1,656
2023	1,653	1,661	1,662	1,664	1,663	1,666	1,668	1,669	1,672	1,674	1,675	1,677
2024	1,671	1,681	1,682	1,683	1,686	1,687	1,689	1,689	1,694	1,698	1,701	1,706
2025	1,699	1,707	1,709	1,711	1,713	1,718	1,721	1,723	1,728	1,732	1,733	1,733
2026	1,728	1,737	1,741	1,744	1,744	1,747	1,745	1,747	1,751	1,754	1,753	1,759
2027	1,751	1,760	1,759	1,764	1,764	1,767	1,773	1,775	1,781	1,783	1,787	1,782
2028	1,780	1,793	1,793	1,797	1,798	1,797	1,801	1,801	1,807	1,805	1,807	1,804
2029	1,807	1,819	1,819	1,817	1,817	1,821	1,820	1,821	1,826	1,827	1,829	1,826

TABLE 24
PROJECTED TOTAL MALE ADC POPULATION BY MONTH 2019-2029

Year	January	February	March	April	May	June	July	August	September	October	November	December
Actual 2019	*16,557*	*16,443*	*16,457*	*16,514*	*16,333*	*16,414*	*16,481*	*16,515*				
2019	16,418	16,429	16,433	16,470	16,482	16,453	16,467	16,492	16,501	16,529	16,521	16,530
2020	16,542	16,554	16,581	16,554	16,534	16,571	16,573	16,600	16,606	16,630	16,632	16,669
2021	16,654	16,674	16,681	16,699	16,704	16,712	16,715	16,732	16,732	16,742	16,736	16,782
2022	16,833	16,827	16,839	16,859	16,849	16,880	16,906	16,916	16,943	16,970	16,978	16,992
2023	17,015	17,037	17,044	17,054	17,085	17,100	17,111	17,117	17,172	17,214	17,247	17,252
2024	17,314	17,301	17,322	17,342	17,368	17,418	17,451	17,474	17,527	17,539	17,542	17,551
2025	17,604	17,615	17,653	17,684	17,680	17,706	17,681	17,703	17,741	17,778	17,758	17,824
2026	17,819	17,818	17,805	17,855	17,855	17,885	17,948	17,974	18,030	18,051	18,098	18,033
2027	18,116	18,163	18,162	18,196	18,210	18,192	18,229	18,227	18,290	18,269	18,289	18,264
2028	18,320	18,349	18,350	18,325	18,317	18,368	18,345	18,365	18,414	18,427	18,449	18,458
2029	18,465	18,473	18,486	18,511	18,529	18,529	18,550	18,579	18,630	18,637	18,647	18,657

Figure 5: Comparison of Arkansas Resident Population with Crime Index 2008 - 2018
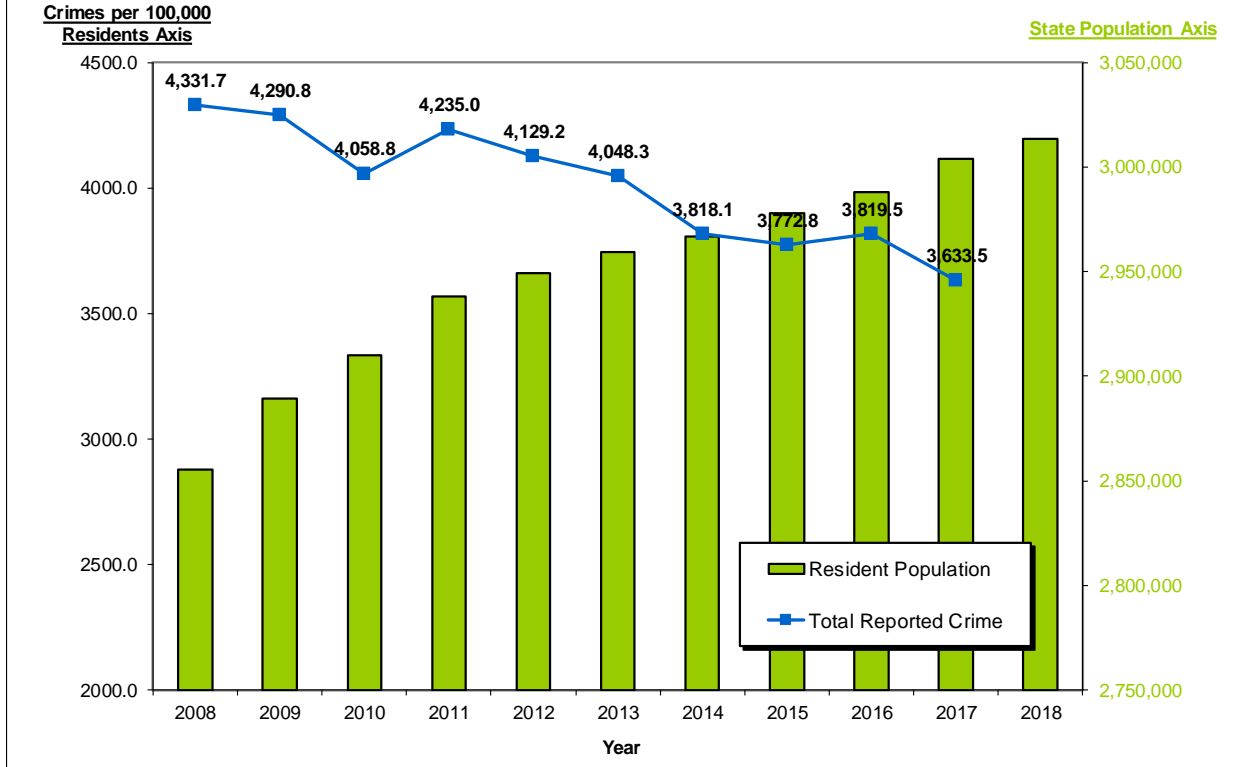
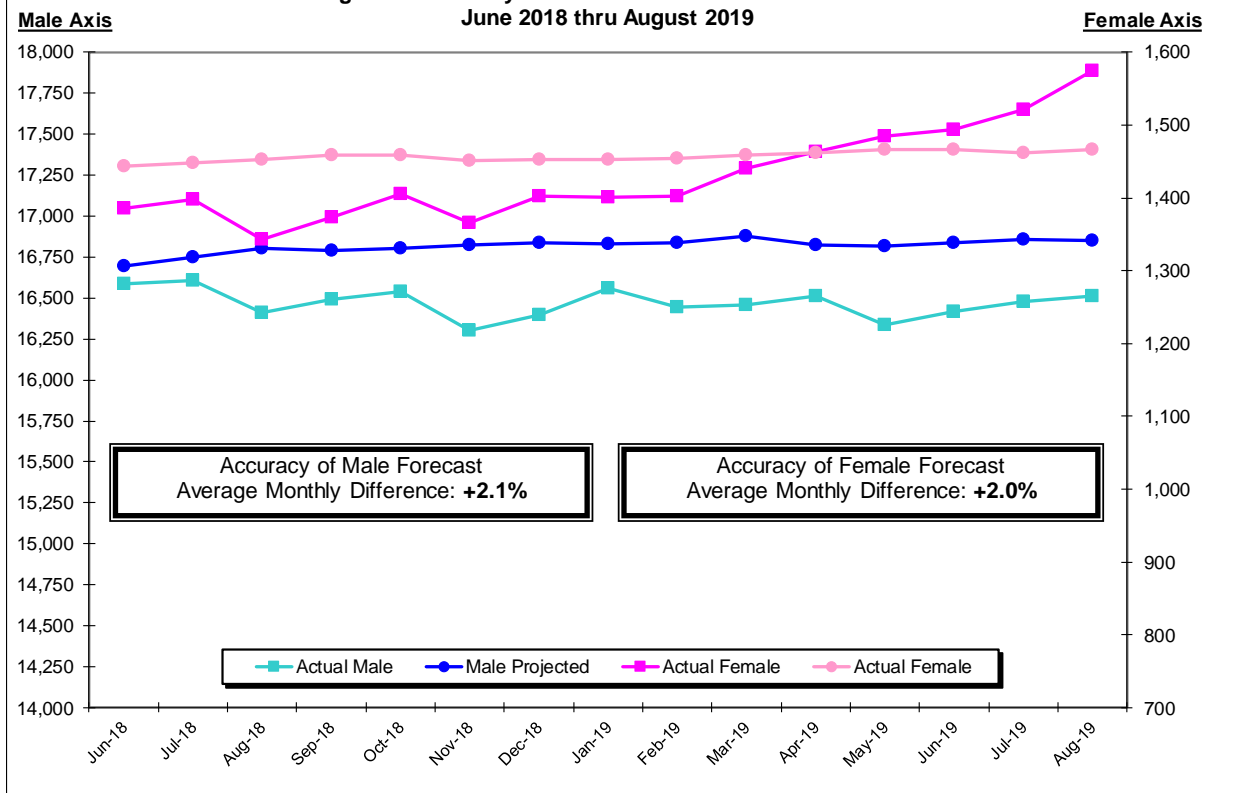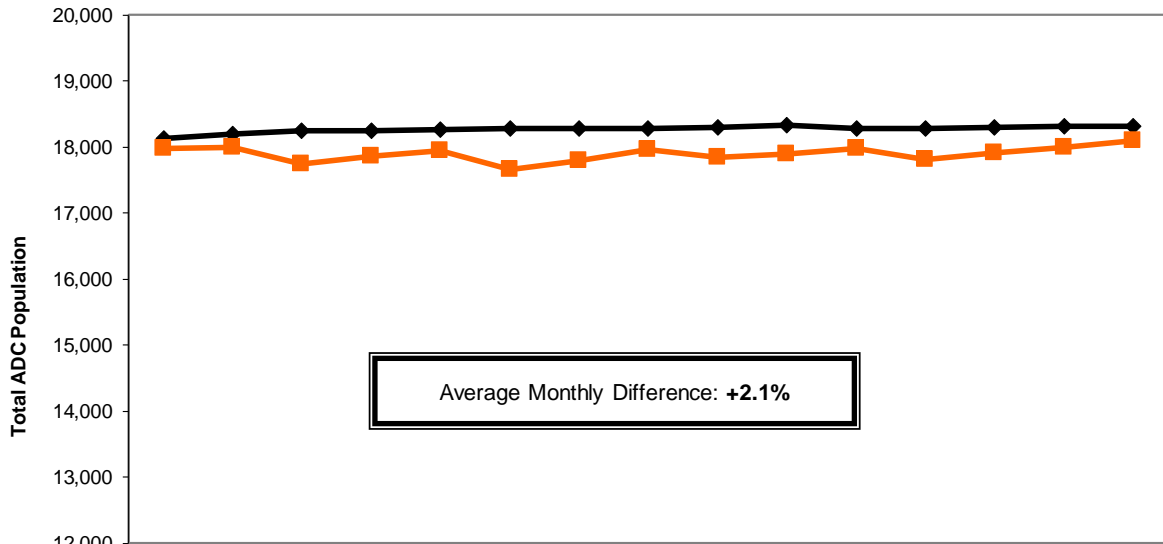Figure 6: Accuracy of 2018 Male and Female Forecasts
June 2018 thru August 2019

Figure 7: Accuracy of 2018 Total ADC Population Forecast

	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
Projected	18,137	18,194	18,253	18,251	18,262	18,276	18,288	18,280	18,294	18,333	18,284	18,285	18,302	18,320	18,316
Actual	17,972	18,005	17,751	17,865	17,943	17,666	17,799	17,958	17,846	17,898	17,977	17,817	17,907	18,002	18,090

Average Monthly Difference: **+2.1%**

Month/Year

Figure 8: Historical ADC Admissions 2008-2018
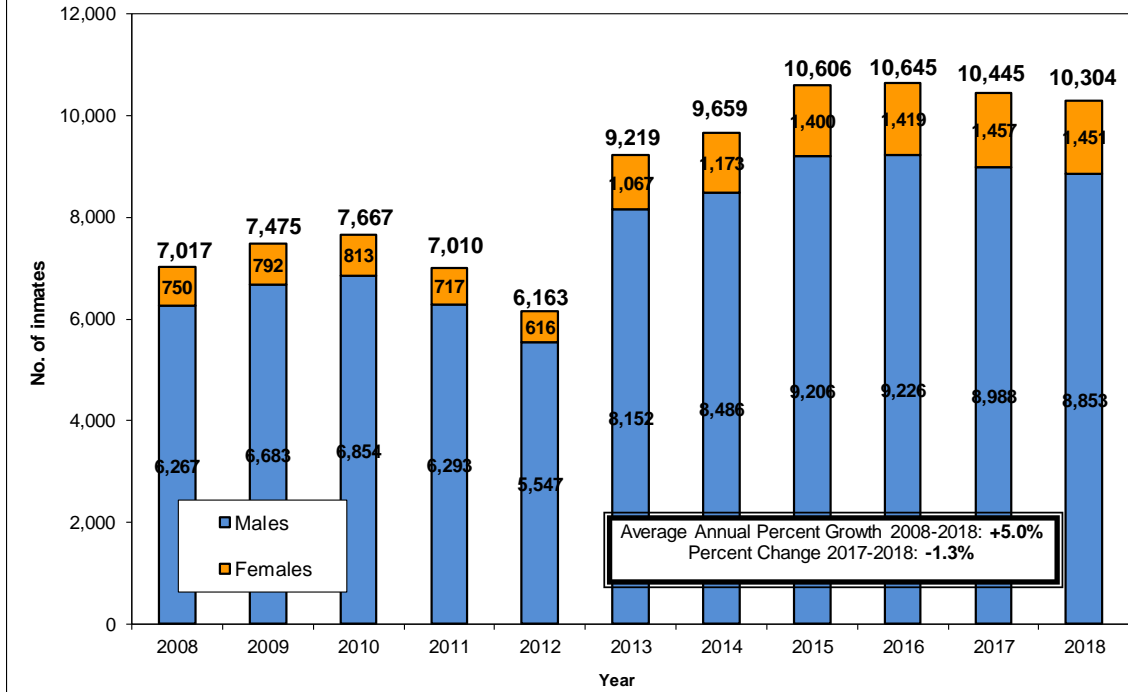
Figure 9: Historical ADC Population 2008-2018

Average Annual Percent Growth 2008-2018: **+2.1%**
Percent Change 2017-2018: **-1.5%**

Year	Male	Female	Total
2008	13,627	1,059	14,686
2009	14,109	1,062	15,171
2010	15,013	1,163	16,176
2011	13,948	1,087	15,035
2012	13,568	1,059	14,627
2013	15,881	1,330	17,211
2014	16,453	1,397	17,850
2015	16,282	1,402	17,684
2016	16,161	1,376	17,537
2017	16,665	1,413	18,078
2018	16,396	1,403	17,799
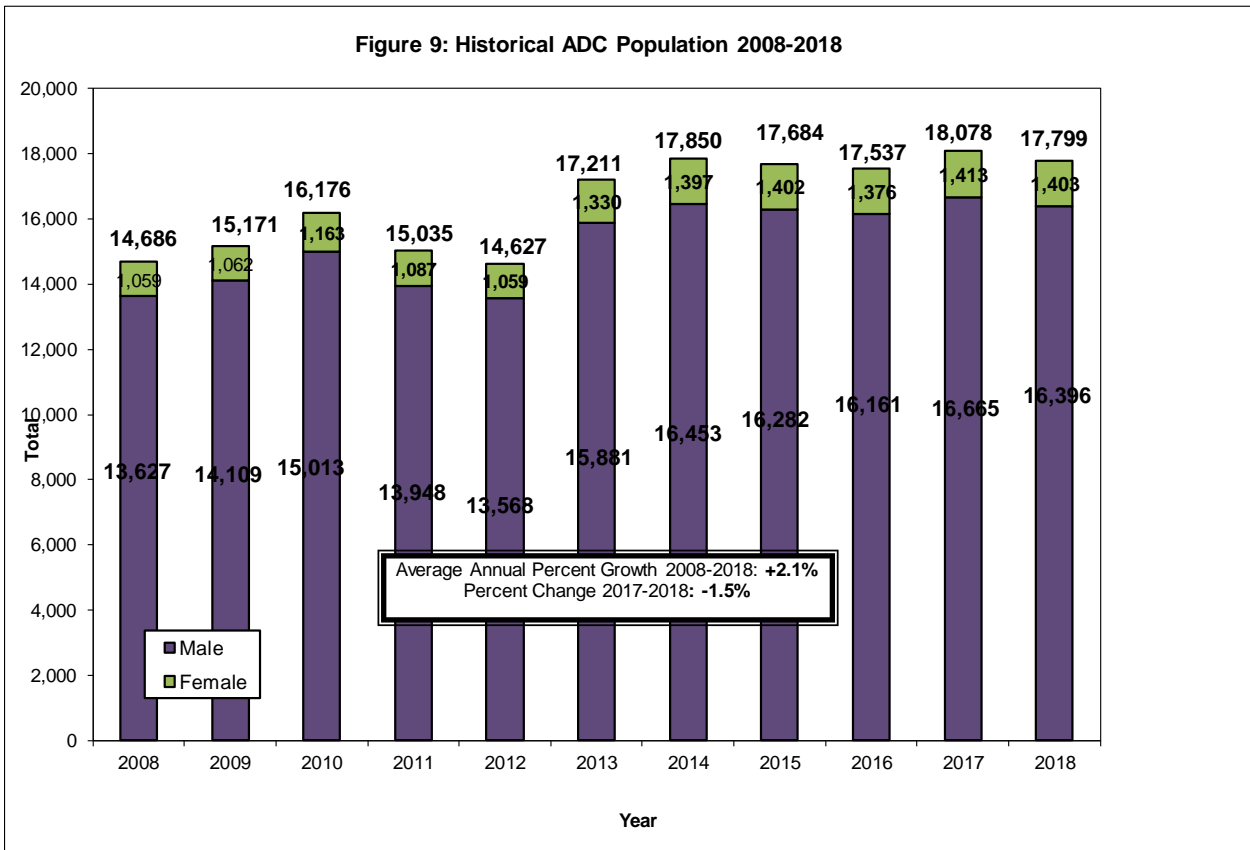
Figure 10: Number of ADC Admissions in 2018 by Gender, Seriousness Level and Admission Type
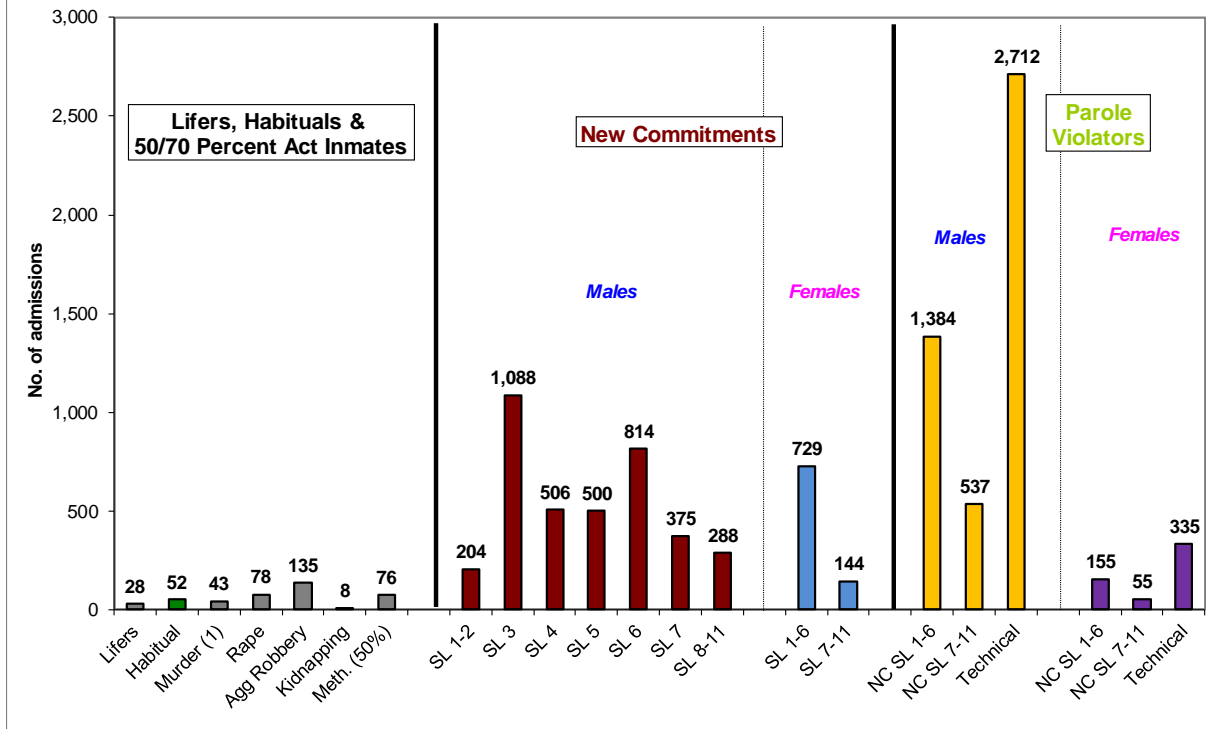
Figure 11: Average Sentences of ADC Admissions in 2018 by Gender, Seriousness Level and Admission Type

Parole Violators

Females
- Technical: 73.3
- NC SL 7-11: 129.5
- NC SL 1-6: 71.8

Males
- Technical: 111.4
- NC SL 7-11: 155.6
- NC SL 1-6: 99.2

New Commitments

Females
- SL 7-11: 111.3
- SL 1-6: 55.4

Males
- SL 8-11: 200.0
- SL 7: 133.8
- SL 6: 101.7
- SL 5: 72.3
- SL 4: 69.4
- SL 3: 46.1
- SL 1-2: 42.9

Lifers, Habituals & 50/70 Percent Act Inmates
- Meth. (50%): 119.1
- Kidnapping: 229.5
- Agg Robbery: 187.3
- Rape: 328.1
- Murder (1): 358.7
- Habitual: 194.4

*Offenders sentenced to Life are omitted.
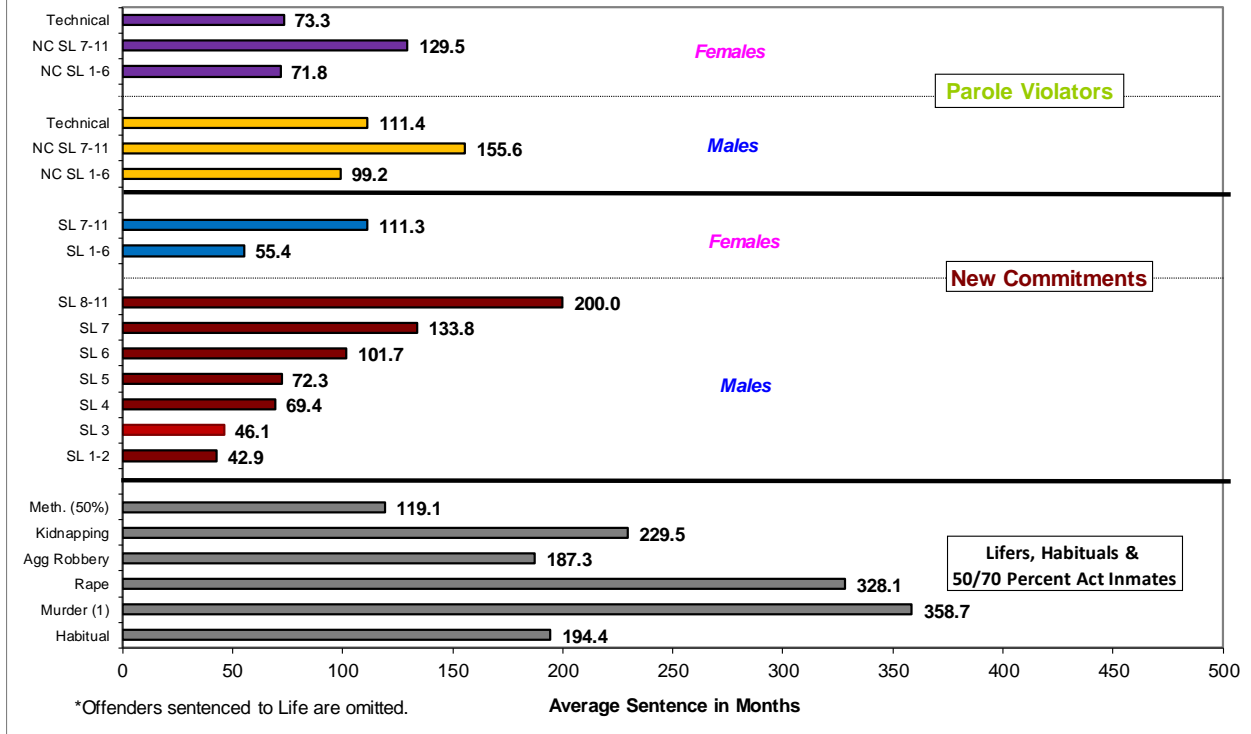
Average Sentence in Months

Figure 12: Comparison of Average Sentences for New Commitments to ADC by Seriousness Level 2014 - 2018

*Offenders sentenced to Life were omitted.