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Conducting Justice and Corrections Research for Effective Policy Making

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

TEN-YEAR ADULT SECURE POPULATION PROJECTION
2020-2030

Prepared by

JFA Associates, LLC

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EXECUTIVE SUMMARY

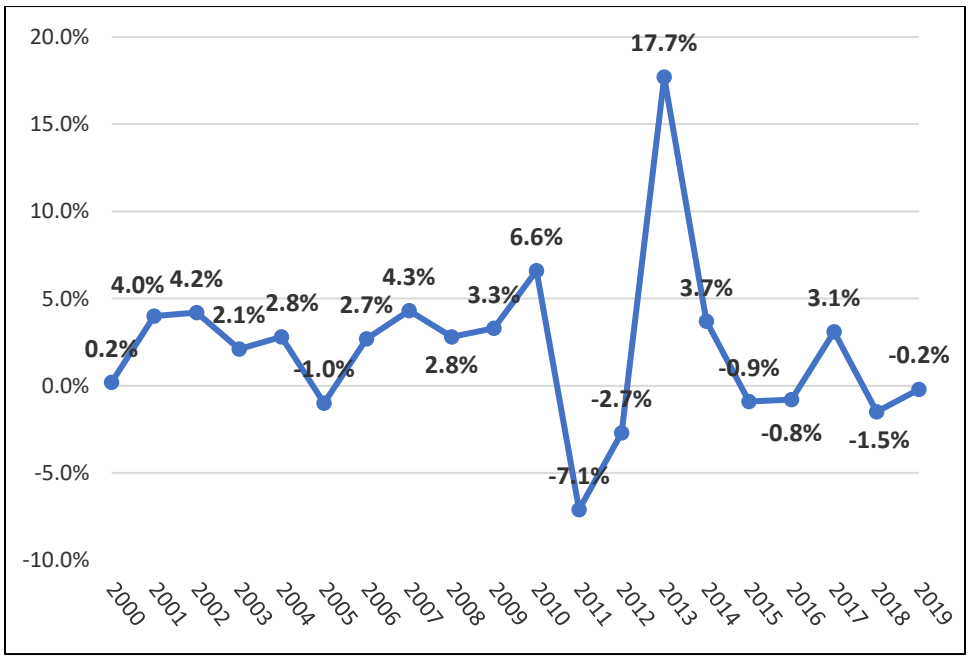
External Trends Impacting the Arkansas Prison Population

1. The Arkansas resident population and its "at-risk" population (males ages 18-35) have seen little to no growth in recent years.
2. Reported crime in Arkansas has declined by an average of 2.0 percent per year since 2010 (the most recent years data is available). However, violent crimes per 100,000 residents have increased at an average of 1.0 percent per year over the same time frame.

Historical Arkansas Prison Population Growth

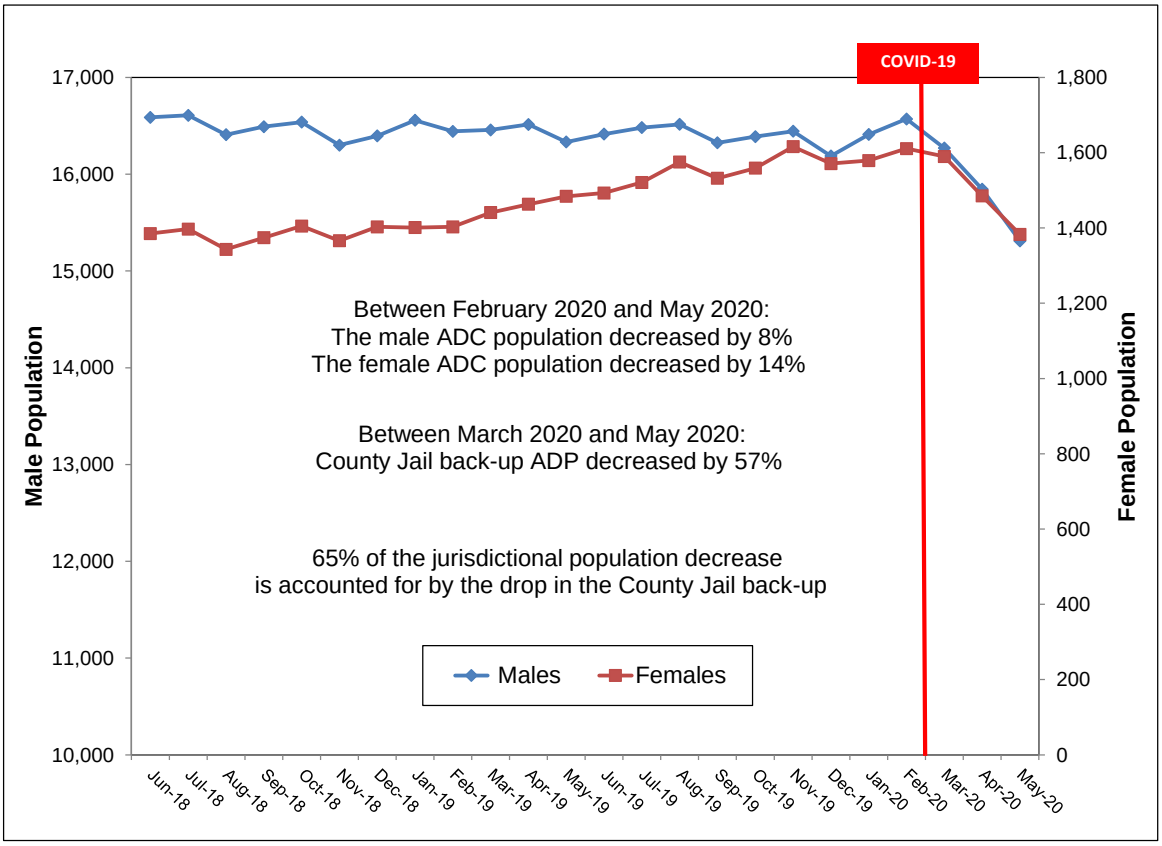
3. The Arkansas prison population (ADC) growth has stabilized in the years following the unprecedented one-year increase of 17.7 percent in 2013. The Arkansas prison population has decreased the previous two years (-1.5 percent in 2018 and -0.2 percent in 2019).
4. The ADC population has stabilized because the number of releases has outpaced the number of admissions in both 2018 and 2019.

FIGURE 1
ARKANSAS PRISON POPULATION GROWTH 2000 - 2019



Source: ADC Research & Planning.

FIGURE 2
END OF MONTH ADC POPULATION BY GENDER (MOST RECENT 24 MONTHS)



The Impact of COVID-19 on the ADC Population

5. Due to expanded EPA criteria and suspension of jury trial and court closures, the ADC population decreased 8 percent from February to May 2020. The majority (65 percent) of the decrease was observed in the county jail back log population and the remaining 35 percent in ADC facilities.

TABLE 1
NEW COMMITMENTS ADMITTED TO ADC 2017 – 2019

Seriousness Level	Number of New Commits		
	2017	2018	2019
1	3	0	3
2	216	236	239
3	1,225	1,389	1,550
4	685	609	678
5	621	598	699
6	1,157	1,028	919
7	460	484	420
8	330	373	345
9	137	140	128
10	73	58	48
Other	42	60	68
Total	4,949	4,975	5,097

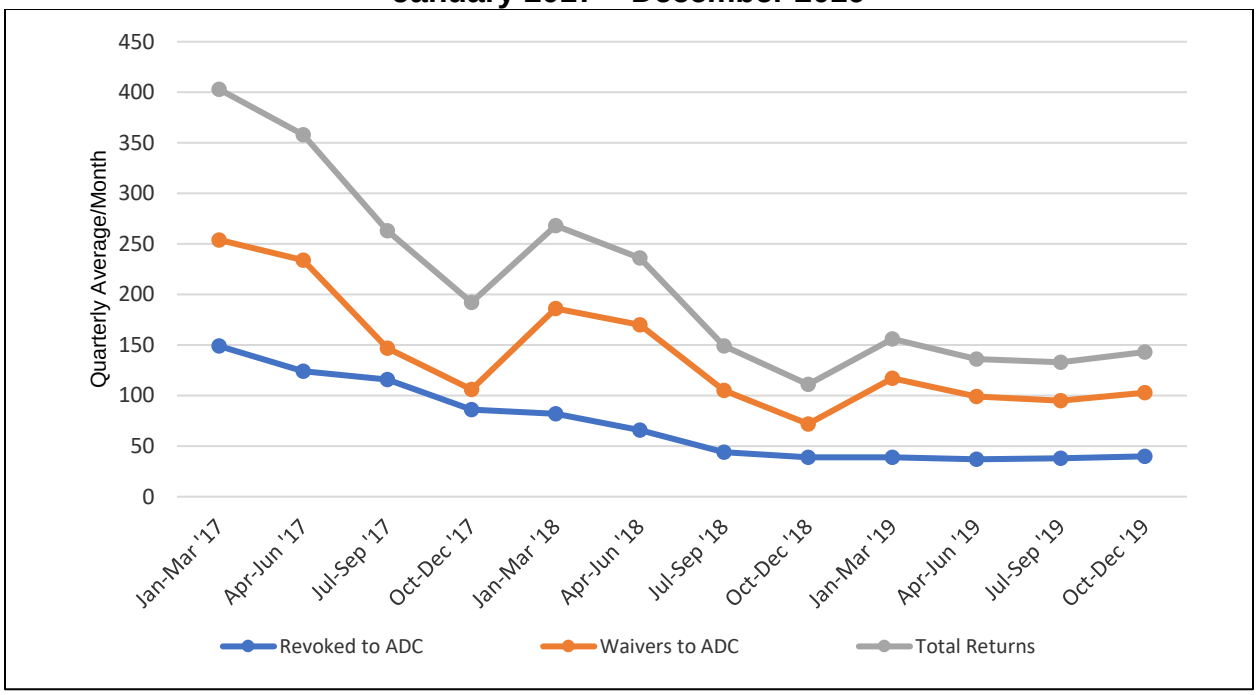
Source: ADC data extract admissions files; cases with an unknown seriousness level are included in 'Other'.

TABLE 2
PAROLE VIOLATORS ADMITTED TO ADC 2017 – 2019

Security Group	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	2019 Parole Violator New Charge	2019 Parole Violator Technical	2019 Parole Violator Total
Males	2,025	2,939	4,964	1,982	2,795	4,777	1,690	2,967	4,657
SC group 1-6	1,393	2,102	3,495	1,385	1,985	3,370	1,171	2,153	3,324
SC group 7-10	566	716	1,282	537	677	1,214	479	727	1,206
Other	66	121	187	60	133	193	40	87	127
Females	235	297	532	214	338	552	261	306	567
SC group 1-6	177	234	411	155	280	435	194	248	442
SC group 7-10	54	55	109	55	53	108	63	53	116
Other	4	8	12	4	5	9	4	5	9
Total	2,260	3,236	5,496	2,196	3,133	5,329	1,951	3,273	5,224

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 2017 – December 2019



Source: Arkansas Parole Board.

Major Internal Trends Impacting the Arkansas Prison Population

6. Total admissions to the ADC increased by only 0.2 percent between 2018 and 2019. New commitment admissions increased slightly for males and significantly for females (0.4 percent and 11.6 percent respectively). Female parole violator admissions increased by 2.7 percent between 2018 and 2019, however, male parole violator admissions decreased 2.5 percent. It is this decrease in male parole violator admissions, particularly new charge violations, that lessened the overall increase in intakes to the ADC in 2019.
7. Overall, parole violator admissions have decreased each of the past three years. However, parole violations remain at levels higher than those prior to 2013.
8. The average sentence among new commitments saw no appreciable changes across all seriousness levels between 2018 and 2019.
9. The average length of stay in prison across all seriousness levels has also remained stable in recent years.
10. EPA releases numbered 2,276 in 2019, on par with 2018 (2,251).
11. The number of persons held by the ADC beyond their transfer eligibility date increased by 228 offenders between 2018 and 2019. The change in the average time they are held beyond eligibility was negligibly higher.

2020-2030 Prison Population Projections

12. At the end of December 2030, 19,108 offenders are projected to be housed by the Arkansas Department of Correction.
13. At the end of 2019, the inmate prison population was 17,759. Due to the impact of COVID-19 measures, the baseline projection estimates the ADC population to decrease to 17,069 by the end of 2020.
14. Under the baseline projections, the male inmate population is projected to grow an annual average of 1.0 percent between 2020 and 2030 while the female inmate populations are projected to grow an average of 2.2 per year.

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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 2020 – 2030 horizon as well as an update to the comprehensive analysis of all trends in the State's criminal justice system to include calendar year 2019 data. Statistics generated for 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. The data and associated trends in this report are presented only germane to their use to build the simulation model and forecast.

The forecasts updated in this report were 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 consider that state's sentencing laws. The following discussion details how JFA Associates has tuned the simulation model to reflect specific changes in Arkansas.

[1] The amount of discretion correctional authorities have to release prisoners varies according to each state's sentencing structure. Many 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.

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 considered 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 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 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, 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 gauge their impact more adequately.

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 only 0.7 percent annually from 2019 estimated counts through the year 2025.*

Significant Finding: *UCR Part I reported crimes in Arkansas decreased by 2.0 percent between 2017 and 2018 (the most recent years of data that are available). This decrease is fueled by a 2.4 percent decrease in property crimes. Reported violent crimes decreased in 2018 after four straight years of increases.*

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 2019 estimate of 3,017,804 to 3,217,462 in 2030 (an increase of 6.6 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 2018 (the most recent data since the last decennial census) in Table 4. During this time, the at-risk population has increased by only 0.2 percent per year and by only 1.7 percent overall. Near future growth in this population will most likely mimic these trends.

TABLE 3
ARKANSAS PROJECTED RESIDENT POPULATION 2019 – 2030

Year	Total Resident Population	Annual Percent Change
Actual 2019	*3,017,804*	-
2020	3,078,021	2.0%
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%
2026	3,162,491	0.4%
2027	3,176,202	0.4%
2028	3,189,914	0.4%
2029	3,203,630	0.4%
2030	3,217,462	0.4%
Average Projected Change 2020-2030		0.4%

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

TABLE 4
HISTORICAL ARKANSAS AT-RISK POPULATION 2010 – 2018

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
2018	357,938
Percent Average Change 2010-2018	0.2%

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. This trend continued through 2003.

The crime index for CY 2004 showed that reported crime had increased by over 9.0 percent from the 2003 number. This was 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 6, 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.

The total number of violent crimes reported had increased every year since 2014. The 16,996 violent crimes reported in 2017 is 19.3 percent higher than the 2014 data. However, the number of violent crimes decreased in 2018 by -3.6 percent. Table 5 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 7, Arkansas's population and crime data are presented in comparison to the national levels and trends. Arkansas has had growth in residential population slower than the nation over the past decade, growing by 4.4 percent compared to 6.9 percent for the United States. Crime in the nation has decreased by a far larger percentage when compared to Arkansas. From 2008 to 2018, reported crime in the U.S. decreased by 30.0 percent while Arkansas saw a 20.2 percent decrease in reported crime.

In terms of state prison populations (using the most recent national data available: 2008-2018), Arkansas has significant growth while the national prison population has been shrinking. Arkansas grew by 17.1 percent overall between 2009 and 2019. This is compared to an 8.7 percent decrease nationally between 2008 and 2018. It is important to note that the Arkansas prison population appears to have stabilized in recent years. The ADC population decreased in both 2018 and 2019.

According to the Bureau of Justice Statistics, Arkansas' adult incarceration rate in 2018 was 768 prisoners per 100,000 state residents. The Arkansas rate vastly exceeded the national rate of 491. 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.

TABLE 5
CHANGES IN THE NUMBER OF REPORTED UCR CRIME IN ARKANSAS
2010 – 2018

Year	Total Reported UCR Crimes	Reported UCR Violent Crimes	Reported Property Crimes
2010	118,531	14,711	103,820
2011	124,603	14,173	110,430
2012	123,240	13,851	109,389
2013	120,182	13,705	106,477
2014	113,700	14,248	99,452
2015	113,160	15,769	97,391
2016	114,655	16,563	98,092
2017	111,415	16,996	94,419
2018	104,177	16,384	87,793
Average Annual Change 2010-2018	-1.5%	1.5%	-2.0%

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

TABLE 6
CHANGES IN REPORTED UCR CRIME RATES PER 100,000 RESIDENTS IN ARKANSAS 1993 – 2018

Year	Total Reported UCR Crime Index	Reported Violent UCR Crime Index	Reported Property UCR Crime Index
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
2018	3,456.6	543.6	2,913.0
Average Annual Percent Change 1993-2003	-1.3%	-1.9%	-1.2%
Average Annual Percent Change 2005-2009	-1.1%	0.6%	-1.3%
Average Annual Percent Change 2010-2018	-2.0%	1.0%	-2.4%

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

TABLE 7
COMPARISON BETWEEN UNITED STATES AND ARKANSAS ON KEY POPULATION AND CRIME DEMOGRAPHICS

	United States	Arkansas
POPULATION[2]		
Total Population (7/1/19)	328,239,523	3,017,804
Change in Population		
1-year change (7/1/18 – 7/1/19)	0.5%	0.3%
10-year change (7/1/09 – 7/1/19)	6.9%	4.4%
CRIME RATE[3] (Rate per 100,000 inhabitants)		
UCR Part I Reported Crime Rates (2018)		
Total	2,568.4	3,465.6
Violent	368.9	543.6
Property	2,199.5	2,913.0
Change in Total Reported Crime Rate		
1-year change (2017-2018)	-7.0%	-4.9%
10-year change (2008-2018)	-30.0%	-20.2%
PRISON POPULATION[4]		
Total Inmates (State Prisons Only) 2019**	1,285,260	17,759
1-year change (2018-2019)	-1.6%	-0.2%
10-year change (2009-2019)	-8.7%	17.1%
Average annual change (2009-2019)	-0.9%	1.8%
State Incarceration Rate (per 100,000 residents)[5]	491	768

***Year end 2018 is the latest data available for the U.S. and data is for States only, federal cases excluded.*

[2] U.S. Census Bureau, Population estimates for July 1, 2019.
[3] Uniform Crime Reports, Crime in the United States – 2018, Federal Bureau of Investigation.
[4] Prisoners in 2018, Bureau of Justice Statistics, April 2020; Arkansas Department of Correction Statewide Population Report.
[5] Prisoners in 2018, Bureau of Justice Statistics, April 2020; US (excludes federal prisons); Rate is for adults only.

ACCURACY OF THE JUNE 2019 PROJECTIONS

The previous inmate population forecast for the Arkansas Division of Correction was released in June 2019. Tracking the accuracy of the previous projections helps JFA Associates determine how well the Wizard model is simulating the Arkansas prison system.

Significant Finding: *Pre-COVID-19 (June 2019 to February 2020), the projections model over-estimated the male ADC population by an average of +0.6 percent. Post-COVID-19 (March 2020 to May 2020), the projections over-estimated the male ADC population by a monthly average of +4.8 percent.*

Significant Finding: *The Arkansas Division of Correction continued to exercise the Emergency Powers Act in 2019, 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 monthly by offsetting length of stay trends. In 2019, 2,276 offenders were released via the Emergency Powers Act.*

Tables 9 through 11 and Figures 6 and 7 present the accuracy of projections generated in June of 2019. Accuracy of the projections were tracked from June 2019 to May 2020 by comparing projected totals with the actual counts of male and female inmates.

- Through the most recent 12 months, the projected female population averaged a +2.3 percent difference from actual totals. On average, the 2019 simulation model averaged 33 more female inmates per month than actual counts. Pre-COVID-19, the projections averaged a percent difference from the actual population of 0.3 percent.

- Pre-COVID-19, the forecasted counts of male inmates over-estimated the actual population a maximum overestimation of 342 (December 2019) and a minimum under-estimation of 14 (July 2019). Post-COVID-19, the male population was over-estimated by an average of 747 inmates. The month of May 2020 saw the largest difference between the projected and actual male population (1,223 inmates).

- The total prison population forecast had an average percent difference of +1.7 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 2019. Table 8 details EPA releases since 2009. Over the past decade, an annual average of 2,508 persons per year were released via this method.

TABLE 8
EPA RELEASES 2009-2020

Year	Act 1721	Act 418	Special COVID-19	Total
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
2018	177	2,074	-	2,251
Total 2019	**181**	**2,095**	-	**2,276**
Jan-19	2	54	-	56
Feb-19	0	292	-	292
Mar-19	29	156	-	185
Apr-19	17	53	-	70
May-19	17	324	-	341
Jun-19	16	140	-	156
Jul-19	29	55	-	84
Aug-19	9	288	-	297
Sep-19	9	184	-	193
Oct-19	40	57	-	97
Nov-19	12	21	-	33
Dec-19	1	471	-	472
Jan-20	13	73	-	**86**
Feb-20	11	27	-	**38**
Mar-20	27	425	-	**452**
Apr-20	145	72	2	**219**
May-20	396	17	57	**470**
Jun-20	0	0	137	**137**
Total 2020	**592**	**614**	**196**	**1,402**

Source: ADC Planning & Research.

TABLE 9
ACCURACY OF THE 2019 TOTAL PRISON POPULATION FORECAST

Month-Year	Total			
	Projected	Actual	Numeric Difference	Percent Difference
Jun-18	17,964	17,907	57	0.3%
Jul-18	17,987	18,002	-15	-0.1%
Aug-18	18,054	18,090	-36	-0.2%
Sep-18	18,078	17,856	222	1.2%
Oct-18	18,109	17,947	162	0.9%
Nov-18	18,079	18,060	19	0.1%
Dec-18	18,123	17,759	364	2.0%
Jan-19	18,135	17,989	146	0.8%
Feb-19	18,160	18,181	-21	-0.1%
Mar-19	18,182	17,860	322	1.8%
Apr-19	18,161	17,331	830	4.8%
May-19	18,142	16,694	1,448	8.7%
Average Pre-COVID-19 Difference			100	0.6%
Average Post-COVID-19 Difference			867	5.1%
Average Total			292	1.7%

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

TABLE 10
ACCURACY OF THE 2019 FEMALE PRISON POPULATION FORECAST

Month-Year	Female			
	Projected	Actual	Numeric Difference	Percent Difference
Jun-18	1,511	1,493	18	1.2%
Jul-18	1,520	1,521	-1	-0.1%
Aug-18	1,562	1,575	-13	-0.8%
Sep-18	1,577	1,532	45	2.9%
Oct-18	1,580	1,559	21	1.3%
Nov-18	1,558	1,616	-58	-3.6%
Dec-18	1,593	1,571	22	1.4%
Jan-19	1,593	1,579	14	0.9%
Feb-19	1,606	1,611	-5	-0.3%
Mar-19	1,601	1,590	11	0.7%
Apr-19	1,607	1,485	122	8.2%
May-19	1,608	1,383	225	16.3%
Average Pre-COVID-19 Difference			5	0.3%
Average Post-COVID-19 Difference			119	8.4%
Average Total			33	2.3%

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

TABLE 11
ACCURACY OF THE 2019 MALE PRISON POPULATION FORECAST

Month-Year	Male			
	Projected	Actual	Numeric Difference	Percent Difference
Jun-19	16,453	16,414	39	0.2%
Jul-19	16,467	16,481	-14	-0.1%
Aug-19	16,492	16,515	-23	-0.1%
Sep-19	16,501	16,324	177	1.1%
Oct-19	16,529	16,388	141	0.9%
Nov-19	16,521	16,444	77	0.5%
Dec-19	16,530	16,188	342	2.1%
Jan-20	16,542	16,410	132	0.8%
Feb-20	16,554	16,570	-16	-0.1%
Mar-20	16,581	16,270	311	1.9%
Apr-20	16,554	15,846	708	4.5%
May-20	16,534	15,311	1,223	8.0%
Average Pre-COVID-19 Difference			95	0.6%
Average Post-COVID-19 Difference			747	4.8%
Average Total			258	1.6%

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 decreased in both 2017 and 2018 and increased only minimally in 2019.*

Significant Finding: *Total male admissions to prison decreased by 1.2 percent between 2017 and 2018. However, total female admissions increased by 8.2 percent, fueling an overall increase in admissions of 0.2 percent.*

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

Table 12 and Figure 8 present the admissions to prison in Arkansas from 2009 to 2019 for males and females. These data reflect official counts verified by ADC staff. Table 13 presents admissions by intake reason (new commitment versus parole violator). Table 14 and Figure 9 present the year-end inmate populations for inmates from 2009 to 2019. Table 15 lists releases for the past 10 years.

- The number of total admissions to prison in 2019 increased by 0.2 percent when compared to 2018. As seen in Table 13, the primary driver of the small admissions increase was an uptick in female new commitments of 11.6 percent.

- Releases from the ADC in 2019 decreased by 1.7 percent compared to 2018 counts. While the number of releases decreased, the total number of releases still outpaced the total number of admissions causing the slight decrease in the ADC population in 2019.

- The female prison population increased by 12.0 percent in 2019. This is the largest increase in the female ADC population since 2013.

- At year-end 2019, the total Arkansas prison population was 17,759, which was 17.1 percent larger than the total prison population at year end 2009.

- As of the end of May 2020, the total prison population was 16,694, a decrease of 8.2 percent from pre-COVID-19 count of 18,181 (February 2020).

TABLE 12
HISTORICAL ADMISSIONS TO THE ADC BY GENDER 2009-2019

Year	Males	Females	Total
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
2019	8,751	1,570	10,321
Numeric Change 2009 – 2019	2,068	778	2,846
Percent Change 2009 – 2019	30.9%	98.2%	38.1%
Average Annual Percent Change 2009 – 2019	3.7%	9.1%	4.3%
Percent Change 2018 – 2019	-1.2%	8.2%	0.2%

Source: ADC Research & Planning; Note: 2016 - 2019 data were generated using new extract file coding.

TABLE 13
HISTORICAL ADMISSIONS TO THE ADC BY ADMISSION TYPE 2009-2019

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
2019	4,094	1,003	4,657	567
Average Percent Change 2009-2019	-0.7%	5.9%	13.0%	27.6%
Percent change 2018-2019	0.4%	11.6%	-2.5%	2.7%

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 - 2019 data were generated using new extract file coding.

TABLE 14
HISTORICAL END OF YEAR ADC POPULATION
2009 - 2019

Year	Male	Female	Total
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
2019	16,188	1,571	17,759
Numeric Change 2009 – 2019	2,079	509	2,588
Percent Change 2009 – 2019	14.7%	47.9%	17.1%
Average Annual Percent Change 2009 – 2019	1.6%	4.3%	1.8%
Percent Change 2018 – 2019	-1.3%	12.0%	-0.2%

Source: ADC Research & Planning; Note: population as of May 2020 was 16,694.

TABLE 15
HISTORICAL RELEASES FROM THE ADC 2008-2018

Year	Males	Females	Total
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
2019	8,970	1,392	10,362
Numeric Change 2009 – 2019	2,598	582	3,180
Percent Change 2009 – 2019	40.8%	71.9%	44.3%
Average Annual Percent Change 2009 – 2019	4.3%	6.6%	4.6%
Percent Change 2018 – 2019	-1.1%	-5.2%	-1.7%

**Note: 2007-2009, 2011 counts were calculated by JFA Associates. Source for 2010, 2012-2016: ADC Research & Planning. 2016 - 2019 data were generated using new extract file coding.*

V. CURRENT ARKANSAS INMATE POPULATION ADC POPULATION TRENDS

A. 2019 Admissions to Prison

Significant Finding: *The average sentence applied to the entire admissions population (excluding lifers) in 2019 was 99.1 months (8.3 years), versus 100.8 months (8.4 years) in 2018.*

Table 17 provides information about the population admitted to prison in 2019 based on the ADC admissions extract data file. The admissions population in Table 17 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. Some groupings are specialized for modeling purposes. These include unique ccategories for persons sentenced to life in prison, for those sentenced under 70% Acts and persons sentenced under habitual offender Acts. The rest of admissions for the simulation model are divided into new commitments and parole violators and then by seriousness level. Parole violators are further disaggregated into a new charge and technical violators. All groups are differentiated by gender.

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 2019, male parole violators accounted for 45.2 percent of all ADC admissions while male new commits accounted for 39.7 percent.

- In 2019, 3.9 percent of admissions had minimum serving time restrictions. This 3.9 percent is comprised of 64 admissions for 50% methamphetamine crimes, 17 admissions for life sentences, 54 admissions for habitual offenders and 267 admissions for all 70 percent crimes.

- The groups discussed in the above bullet comprise a small portion of yearly admissions, however, because of their long sentences the numbers of these groups stack up over time in the prison population. The ADC population on

December 31, 2019 was over 28 percent inmates with minimum serving time restrictions.

- Much of the 70 percent offenders were admitted to the ADC due to a conviction related to an aggravated robbery (45.3 percent) or rape (33.0 percent).

- Habitual offenders accounted for 3.3 percent (585) of the prison population at the end of 2019. 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 16 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 18.0 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 81.3 months (6.8 years) in 2019. Across all seriousness levels, average sentences among male new commitments saw no significant changes between 2018 and 2019.

- New commitment females averaged a sentence of 63.9 months (5.3 years) in 2019.

- In 2018 male parole violators admitted with a new charge had an average sentence of 115.0 months (9.6 years) while in 2019 male new charge parole violators had an average sentence of 112.2 months (9.4 years). This represents a 2.4 percent decrease in the average sentence for this group.

- In 2018 male technical parole violators admissions had an average sentence of 111.4 months (9.3 years) while in 2019 male technical parole violators had an average sentence of 110.7 months (9.2 years). This represents a 0.6 percent decrease in the average sentence for this group.

- In 2019 female parole violators with a new charge had an average sentence of 92.7 months (7.7 years) while female technical parole violator sentences averaged 81.5 months (6.8 years).

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

- 50 percenters convicted of manufacturing methamphetamine in 2019 had an average sentence of 146.7 months (12.2 years), up from the average of 119.1 months (9.9 years) in 2018.
- Those convicted of aggravated robbery and rape in 2019 had average sentences of 166.3 months (13.9 years) and 334.0 months (27.8 years), respectively.
- The average sentence for the 50 inmates admitted for first degree murder in 2019 was 401.5 months (33.5 years) , the most severely sanctioned group excluding lifers.

TABLE 16
HISTORICAL 50 & 70 PERCENT ACTS ADMISSIONS & YEAR END COUNT
2009-2019

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
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
2019	269	64	243	3,021	105
Numeric Change 2009-2019	37	-45	-20	460	-301
Percent Change 2009-2019	15.9%	-41.3%	-7.6%	18.0%	-74.1%
Percent Change 2018-2019	-1.1%	-15.8%	5.6%	1.9%	-11.0%

Source: ADC data extract admission and stock files. Note: 2016 - 2019 data were generated using new extract file coding.

TABLE 17
ADC ADMISSIONS COUNTS AND AVERAGE SENTENCE BY ID GROUP IN 2019

ID Group	Number Admitted	Percent of Total	Average Sentence (mos.) 2019	Average Sentence (mos.) 2018
Lifers	**17**	**0.2%**	**Life**	**Life**
Habitual Offenders (Act 1805)	**54**	**0.5%**	**238.4**	**194.4**
50 & 70 Percent Acts Inmates	**331**	**3.2%**	**242.9**	**230.1**
1st Degree Murder	50	0.5%	401.5	358.7
Rape	88	0.9%	334.0	328.1
Aggravated Robbery	121	1.2%	166.3	187.3
Kidnapping	8	0.1%	177.0	229.5
Drug – Methamphetamine 50%	64	0.6%	146.7	119.1
New Commitments – Males	**3,834**	**37.1%**	**81.3**	**85.0**
Seriousness levels 1-2	213	2.1%	39.9	42.9
Seriousness level 3	1,174	11.4%	46.0	46.1
Seriousness level 4	546	5.3%	75.0	69.4
Seriousness level 5	565	5.5%	75.2	72.3
Seriousness level 6	736	7.1%	99.0	101.7
Seriousness level 7	333	3.2%	137.9	133.8
Seriousness levels 8-10	267	2.6%	175.7	200.0
New Commitments – Females	**982**	**9.5%**	**63.9**	**64.6**
Seriousness levels 1-6	854	8.3%	56.6	55.4
Seriousness levels 7-10	128	1.2%	112.6	111.3
Parole Violators New Charge – Males	**1,650**	**16.0%**	**112.2**	**115.0**
Seriousness levels 1-6:	1,171	11.3%	97.3	99.2
Seriousness levels 7-10:	479	4.6%	148.5	155.6
Parole Violators Technical – Males	**2,883**	**27.9%**	**110.7**	**111.4**
Parole Violators New Charge – Females	**257**	**2.5%**	**92.7**	**86.9**
Seriousness levels 1-6:	194	1.9%	75.1	71.8
Seriousness levels 7-10:	63	0.6%	146.7	129.5
Parole Violators Technical – Females	**303**	**2.9%**	**81.5**	**73.3**
Unknown seriousness level	**10**	**0.1%**	**115.8**	**n/a**
TOTAL	**10,321**	**100.0%**	**99.1***	**100.8***

*Note: *Average sentence for all admissions excludes lifers; Source: ADC data extract admissions file.*

B. New Commitment Sentence Length Comparison 2014-2019

Significant Finding:

Table 18 and Figure 12 depict average sentences for new commitments by seriousness level for 2014 through 2019. These data reflect the stability in sentencing practices in Arkansas and identify years where new laws have impacted sentences in specific seriousness levels.

- Between 2014 and 2019, the average of seriousness level 3 average annual sentences averaged 40 months. In 2019, seriousness level 3 averaged sentences of 46 months.

- Between 2014 and 2019, the average of seriousness level 4 average annual sentences averaged 64 months. In 2019, seriousness level 4 averaged sentences of 71 months.

- The average sentence for new commitment seriousness level 6 offenses in 2019 was 98 months, above the average for the past six years (92 months).

- Seriousness levels 4 and 8 average sentences have seen average annual growth near and/or above 3 percent.

- Seriousness level 5 is the only level to see average sentences decline between 2014 and 2019.

TABLE 18
AVERAGE SENTENCES OF NEW COMMITMENTS TO ADC BY SERIOUSNESS LEVEL 2014 - 2019

Seriousness Level	Average Sentence (mos.)						Average 2014-2019	Average Percent Change 2014-2019
	2014	2015	2016	2017	2018	2019		
Seriousness levels 1-2	39	43	34	39	43	41	40	1.7%
Seriousness level 3	42	37	36	39	45	46	41	2.1%
Seriousness level 4	60	60	70	63	66	71	65	3.7%
Seriousness level 5	75	68	70	67	70	72	70	-0.6%
Seriousness level 6	90	87	86	91	99	98	92	1.7%
Seriousness level 7	128	117	116	120	129	128	123	0.2%
Seriousness level 8	141	149	164	160	173	161	158	2.9%
Seriousness level 9	308	301	294	297	320	321	307	0.9%
Seriousness level 10	419	492	422	475	373	415	433	1.1%

Source: ADC data extract admissions files. Note: 2016 - 2019 data were generated using new extract file coding.

C. 2019 Release Population

Significant Finding: *The average length of stay in prison for persons released from the ADC in 2019 was 18.8 months. This is on-par with 2018 (18.7 months).*

Significant Finding: *The majority of release events in 2019 (92 percent) exited incarceration via parole or supervised release, followed by 7 percent released via discharge, and the remaining 1 percent released via various other mechanisms.*

Table 19 provides information about the population released from prisons in Arkansas in 2019. For each ID group, Table 19 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 9.0 months for seriousness levels 1-2, to 78.6 months for seriousness levels 8-10 (combined).

- The average length of stay (ALOS) of female new commitments across all seriousness levels in 2019 was 11.1 months. Lower level offenders (1 – 6) averaged an ALOS of 8.6 months while higher level (7-10) averaged 26.8 months.

- Regardless of release type or id group, total releases in 2019 had an average length of stay of 18.8 months (1.6 years) which is consistent with the 2018 ADC release LOS of 18.7 months.

- The average LOS of male parole violators with a new charge released in 2019 was 19.0 months (1.6 years). Male technical parole violators averaged a LOS of 8.1 months.

- In 2019, the average LOS of female parole violators with a new charge was 12.8 months. Female technical parole violators averaged a LOS of 5.7 months.

- In 2019, 29 habitual offenders sentenced under Act 1805 stipulations were released from prison after serving an average length of stay of 66.1 months (5.5 years).

Releases by Release Mechanism 2019

- As with previous years, the primary release mechanism for the ADC in 2019 was by Parole Board action.

- As with releases in 2018, male and female technical parole violators in 2019 had a higher rate of release via discharge (9 percent and 11 percent respectively) than the population.

- Excepting Lifers, 1st degree murder offenders averaged the longest LOS upon release in 2019 (174.4 months).

TABLE 19
AVERAGE LENGTH OF STAY AND RELEASE TYPE FOR ADC RELEASES IN 2019

ID Group	Number of Releases	Percent	Length of Stay (mos.)	Percent by Release Mechanism		
				Parole	Discharge	Other
Lifers	**44**	**0.4%**	**294.1**	**18%**	**0%**	**82%**
Habitual Offenders (Act 1805)	**29**	**0.3%**	**66.1**	**31%**	**62%**	**7%**
50 & 70 Percent Acts Inmates	**312**	**3.0%**	**90.6**	**85%**	**9%**	**6%**
1st Degree Murder	30	0.3%	174.4	83%	3%	13%
Rape	78	0.8%	136.1	72%	14%	14%
Aggravated Robbery	123	1.2%	76.9	87%	10%	3%
Kidnapping	6	0.1%	76.8	83%	17%	0%
Drug – Methamphetamine 50%	75	0.7%	33.2	96%	4%	0%
New Commitments – Males	**3,803**	**36.7%**	**20.6**	**93%**	**5%**	**1%**
Seriousness levels 1-2	225	2.2%	9.0	90%	8%	1%
Seriousness level 3	1,105	10.7%	9.1	93%	6%	1%
Seriousness level 4	517	5.0%	15.5	91%	9%	1%
Seriousness level 5	540	5.2%	15.8	95%	4%	1%
Seriousness level 6	794	7.7%	22.0	95%	4%	1%
Seriousness level 7	364	3.5%	32.5	94%	3%	3%
Seriousness level 8-10	258	2.5%	78.6	93%	4%	4%
New Commitments – Females	**881**	**8.5%**	**11.1**	**97%**	**3%**	**0%**
Seriousness levels 1-6	762	7.4%	8.6	97%	3%	0%
Seriousness levels 7-10	119	1.1%	26.8	98%	3%	0%
Parole Violators New Charge – Males	**1,855**	**17.9%**	**19.0**	**94%**	**5%**	**2%**
Seriousness levels 1-6	1,285	12.4%	16.0	94%	6%	1%
Seriousness levels 7-10	570	5.5%	25.9	93%	4%	4%
Parole Violators Technical – Males	**2,921**	**28.2%**	**8.1**	**89%**	**11%**	**0%**
Parole Violators New Charge – Females	**187**	**1.8%**	**12.8**	**93%**	**6%**	**1%**
Seriousness levels 1-6	144	1.4%	11.1	94%	6%	0%
Seriousness levels 7-10	43	0.4%	18.7	100%	0%	0%
Parole Violators Technical – Females	**301**	**2.9%**	**5.7**	**91%**	**9%**	**0%**
Unknown	**29**	**0.3%**	**22.3**	**97%**	**3%**	**0%**
TOTAL	**10,362**	**100.0%**	**18.8**	**92%**	**7%**	**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. 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 2019.

New law transfer rates will remain constant at the rates observed during 2019 throughout the forecast horizon. Table 20 displays the number and rates at which new law offenders were not released at the transfer eligibility dates for 2018 and 2019. As can be seen in Table 20, approximately 50.5 percent of all new commitment inmates released via discharge or parole are held beyond their transfer eligibility date and serve an average of 9.3 months beyond that date before being released. The statistics shown in Table 20 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 2019.

Table 18 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 2019.

A new method for generating the ADC prison extract files began in 2018. With this being the second year of these data being used, JFA is now very confident that with these new files have increased the level of accuracy in identifying parole violators readmitted to prison, both technical and with a new charge. As a result, there has been a four-year revision and establishment of a new baseline historical level and categorization of parole violators.

As previously noted in the report, parole violators returned are flat/slightly declining for males and slightly increasing for females. It is assumed the level for both males and females will remain constant at levels observed in 2019 over the forecast horizon.

D. Projections New Commitment Assumption.

Under the projections assumptions, male new commitments are projected to increase at the same rate as the projected state demographic population, an annual average of 0.4 percent per year throughout the forecast horizon. As noted earlier in the report, female new court commitments have seen a sharp one-year increase in new court commitments in 2019 (11.6 percent). As a result, female new court commitments are projected to increase an average if 1.6 percent per year through the forecast horizon.

At this time, no additional assumptions have been made about continued fewer admission to prison as a result of COVID-19. In the forecast presented in this document, court case processing and jury trials are assumed to resume at 40% in June 2020 and gradually increase to 100 percent by September. Backlog of cases are assumed to be processed on an ongoing basis through June 2021. As a result, admissions to ADC custody are projected to be reduced by 1,600 in CY 2020 but increase an equal amount in 2021.

TABLE 20
ADC INMATES (RELEASED VIA DISCHARGE OR PAROLE) HELD BEYOND TRANSFER ELIGIBILITY DATE IN 2018 & 2019

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
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**
2019				
New Commitments – Males	3,775	1,999	53.0%	10.1
New Commitments – Females	879	351	39.9%	5.3
TOTAL	**4,654**	**2,350**	**50.5%**	**9.3**

**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 2020-2030

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

A. Projected Inmate Population

Tables 21 and 22 and Figure 4 display the historical and projected inmate populations for the period 2009 to 2030. 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 these complex interplays are present in the Arkansas prison system and influence the resulting projections.

- At the end of December 2030, 19,108 offenders are projected to be housed in the Arkansas Division of Correction.

- At the end of 2019, the inmate prison population was 17,759. Under the baseline projection, the population is projected to decrease to 17,069 inmates at the end of 2020 and then to increase to 18,492 in 2025. The projected growth represents average annual increases of 1.1 percent per year through the year 2030.

- Under the baseline projections, the male inmate population is projected to grow an annual average of 1.0 percent between 2020 and 2030 while the female inmate populations are projected to grow an average of 2.2 per year.

TABLE 21
HISTORICAL AND PROJECTED END OF YEAR ADC POPULATION 2009-2030

Year	Historical	Baseline Projection
2009	15,171	
2010	16,176	
2011	15,035	
2012	14,627	
2013	17,211	
2014	17,850	
2015	17,684	
2016	17,537	
2017	18,078	
2018	17,799	
2019	***17,759***	***17,759***
2020		17,069
2021		17,569
2022		17,851
2023		18,105
2024		18,363
2025		18,492
2026		18,662
2027		18,830
2028		18,944
2029		19,022
2030		19,108
Numeric Difference 2009-2019	2,588	
Percent Difference 2009-2019	17.1%	
Average Percent Difference 2009-2019	1.8%	
Numeric Difference 2020-2030		2,039
Percent Difference 2020-2030		11.9%
Average Percent Difference 2020-2030		1.1%

Source: JFA Simulation Model.

FIGURE 4
ACTUAL & PROJECTED ADC POPULATION 2009-2030

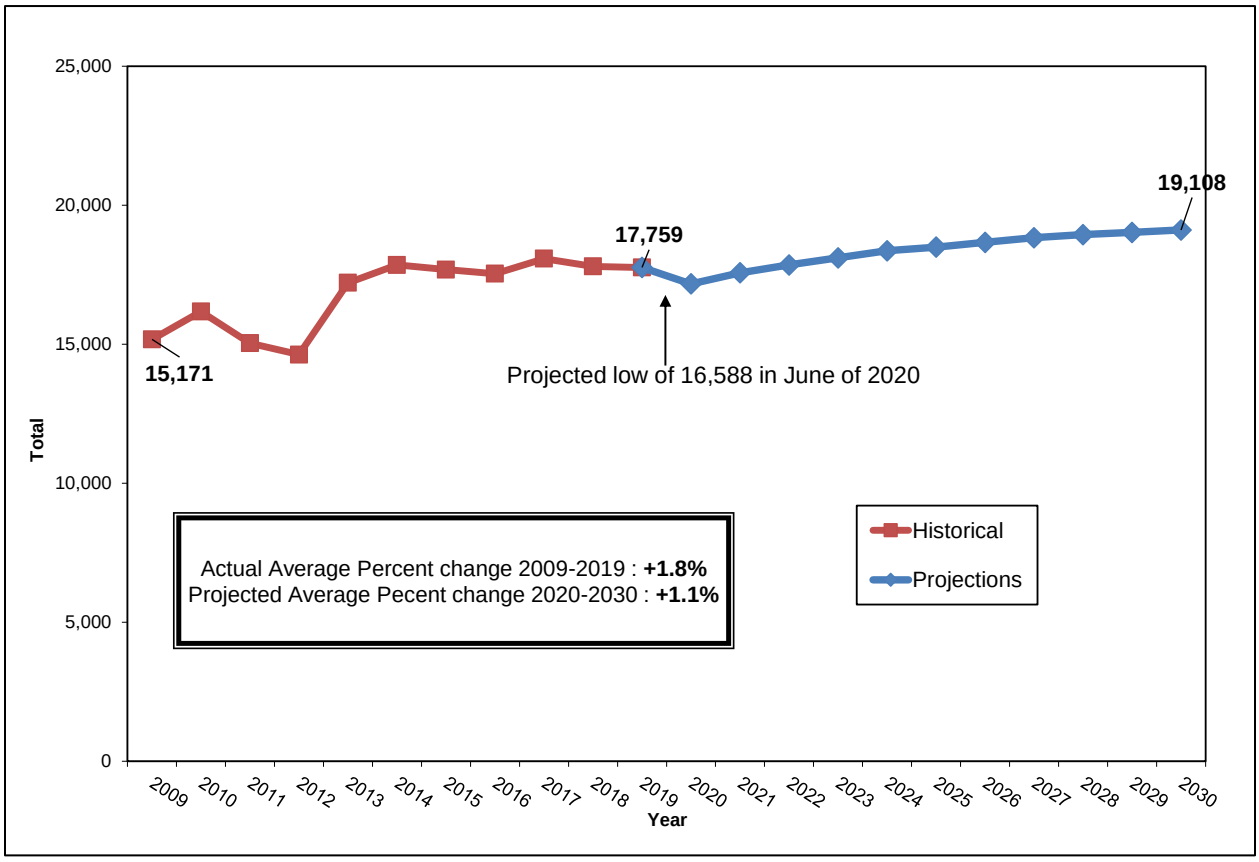


TABLE 22
HISTORICAL AND PROJECTED END OF YEAR ADC POPULATION BY GENDER
2009-2030

Year	Historical Males	Historical Females	Baseline Projection Males	Baseline Projection Females
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	1,403		
2019	***16,188***	***1,571***	***16,188***	***1,571***
2020			15,723	1,346
2021			16,065	1,504
2022			16,309	1,542
2023			16,535	1,570
2024			16,774	1,589
2025			16,888	1,604
2026			17,045	1,617
2027			17,201	1,629
2028			17,303	1,641
2029			17,372	1,650
2030			17,443	1,665
Numeric Difference 2009-2019	2,079	509		
Percent Difference 2009-2019	14.7%	47.9%		
Average Percent Difference 2009-2019	1.7%	4.8%		
Numeric Difference 2020-2030			1,720	319
Percent Difference 2020-2030			10.9%	23.7%
Average Percent Difference 2020-2030			1.0%	2.2%

Source: JFA Simulation Model.

APPENDIX
ADDITIONAL TABLES AND FIGURES

TABLE 23
PROJECTED TOTAL ADC POPULATION BY MONTH 2020-2030

Year	January	February	March	April	May	June	July	August	September	October	November	December
Actual	17,989	18,181	17,860	17,331	16,694							
2020	17,970	18,116	17,789	17,387	16,693	16,588	16,607	16,714	16,828	16,878	16,909	17,069
2021	17,117	17,207	17,283	17,367	17,402	17,432	17,469	17,491	17,540	17,554	17,562	17,569
2022	17,620	17,636	17,683	17,692	17,701	17,719	17,740	17,753	17,774	17,783	17,833	17,851
2023	17,903	17,952	17,891	17,906	17,937	17,952	17,969	17,993	18,071	18,090	18,104	18,105
2024	18,131	18,145	18,179	18,221	18,245	18,269	18,277	18,296	18,308	18,329	18,363	18,363
2025	18,362	18,392	18,430	18,437	18,460	18,467	18,480	18,492	18,494	18,494	18,486	18,492
2026	18,539	18,536	18,581	18,580	18,587	18,595	18,601	18,612	18,625	18,655	18,656	18,662
2027	18,705	18,691	18,699	18,713	18,734	18,740	18,753	18,791	18,788	18,804	18,830	18,830
2028	18,829	18,806	18,775	18,767	18,780	18,811	18,821	18,857	18,849	18,887	18,884	18,944
2029	18,960	18,962	18,959	18,963	18,972	18,982	18,987	18,997	18,991	19,022	19,010	19,022
2030	18,996	19,027	19,042	19,071	19,056	19,058	19,050	19,081	19,129	19,113	19,127	19,108

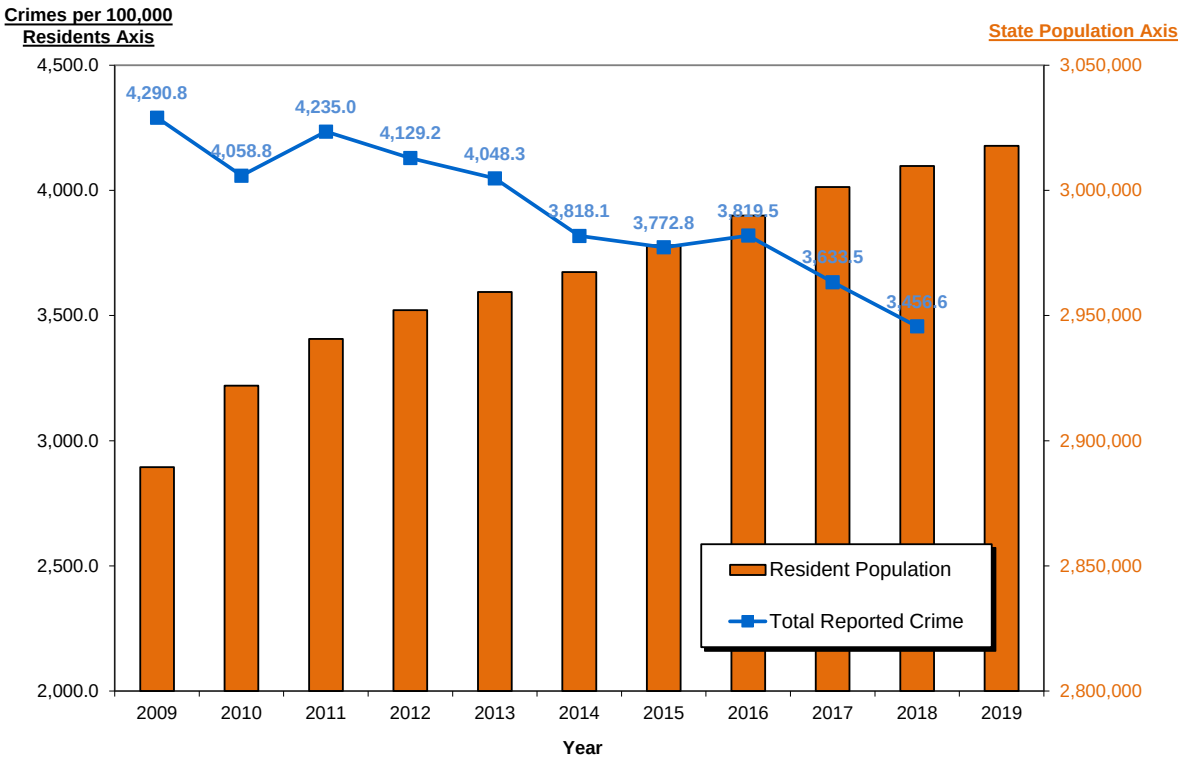
TABLE 24
PROJECTED TOTAL FEMALE ADC POPULATION BY MONTH 2020-2030

Year	January	February	March	April	May	June	July	August	September	October	November	December
Actual	1,579	1,611	1,590	1,485	1,383							
2020	1,564	1,584	1,598	1,496	1,395	1,310	1,323	1,337	1,340	1,338	1,340	1,346
2021	1,361	1,407	1,432	1,441	1,445	1,459	1,460	1,469	1,480	1,483	1,490	1,504
2022	1,503	1,517	1,518	1,522	1,532	1,521	1,524	1,513	1,522	1,531	1,539	1,542
2023	1,530	1,544	1,545	1,549	1,560	1,548	1,551	1,540	1,549	1,559	1,567	1,570
2024	1,548	1,563	1,564	1,568	1,578	1,567	1,570	1,559	1,568	1,577	1,586	1,589
2025	1,564	1,578	1,580	1,584	1,594	1,583	1,586	1,574	1,584	1,593	1,601	1,604
2026	1,576	1,591	1,592	1,596	1,607	1,595	1,598	1,587	1,596	1,606	1,614	1,617
2027	1,588	1,603	1,604	1,608	1,619	1,607	1,610	1,598	1,608	1,617	1,626	1,629
2028	1,599	1,614	1,615	1,619	1,630	1,618	1,621	1,610	1,619	1,629	1,637	1,641
2029	1,608	1,623	1,624	1,629	1,639	1,628	1,631	1,619	1,629	1,638	1,647	1,650
2030	1,623	1,638	1,639	1,643	1,654	1,642	1,645	1,634	1,643	1,653	1,662	1,665

TABLE 25
PROJECTED TOTAL MALE ADC POPULATION BY MONTH 2020-2030

Year	January	February	March	April	May	June	July	August	September	October	November	December
Actual	17,989	18,181	17,860	17,331	16,694							
2020	16,406	16,532	16,191	15,891	15,298	15,278	15,284	15,377	15,488	15,540	15,569	15,723
2021	15,756	15,800	15,851	15,926	15,957	15,973	16,009	16,022	16,060	16,071	16,072	16,065
2022	16,117	16,119	16,165	16,170	16,169	16,198	16,216	16,240	16,252	16,252	16,294	16,309
2023	16,373	16,408	16,346	16,357	16,377	16,404	16,418	16,453	16,522	16,531	16,537	16,535
2024	16,583	16,582	16,615	16,653	16,667	16,702	16,707	16,737	16,740	16,752	16,777	16,774
2025	16,798	16,814	16,850	16,853	16,866	16,884	16,894	16,918	16,910	16,901	16,885	16,888
2026	16,963	16,945	16,989	16,984	16,980	17,000	17,003	17,025	17,029	17,049	17,042	17,045
2027	17,117	17,088	17,095	17,105	17,115	17,133	17,143	17,193	17,180	17,187	17,204	17,201
2028	17,230	17,192	17,160	17,148	17,150	17,193	17,200	17,247	17,230	17,258	17,247	17,303
2029	17,352	17,339	17,335	17,334	17,333	17,354	17,356	17,378	17,362	17,384	17,363	17,372
2030	17,373	17,389	17,403	17,428	17,402	17,416	17,405	17,447	17,486	17,460	17,465	17,443

Figure 5: Comparison of Arkansas Resident Population with Crime Index 2009 - 2019



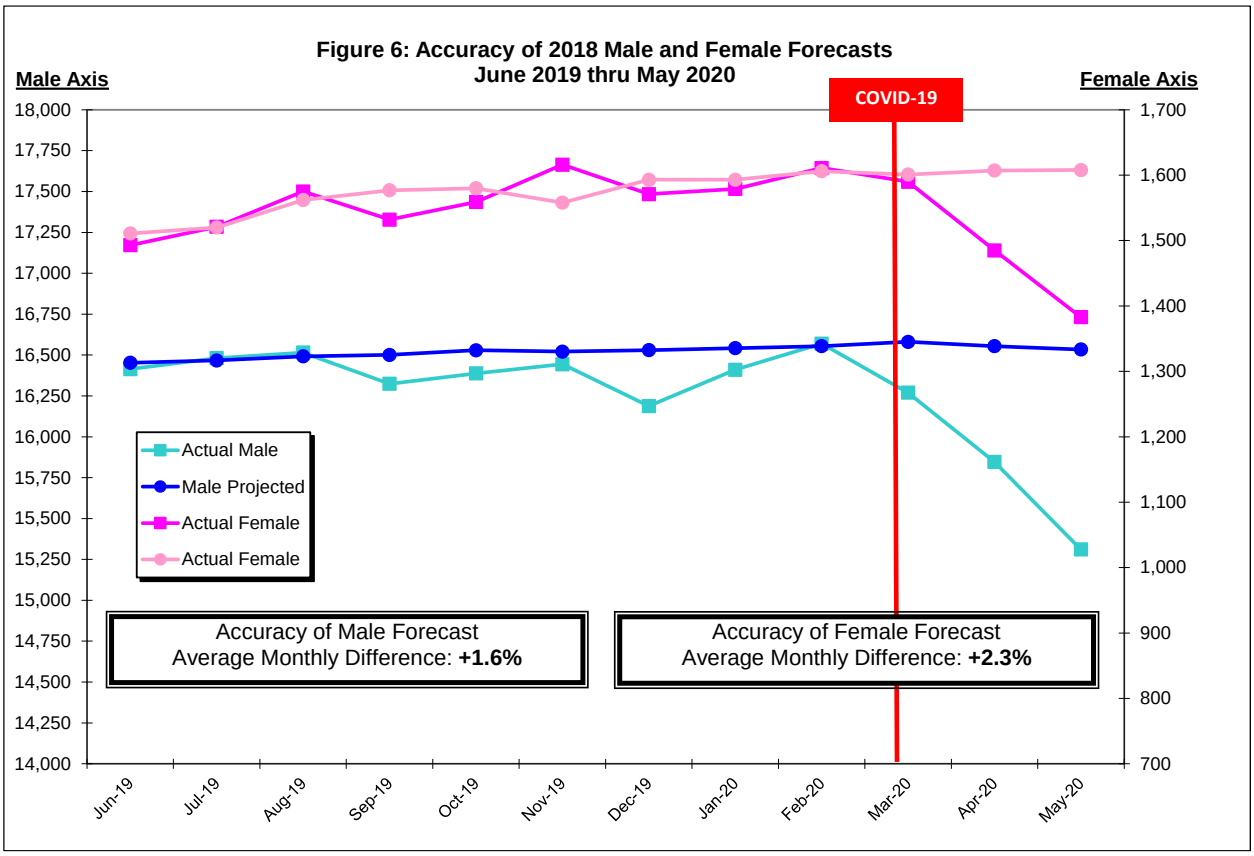
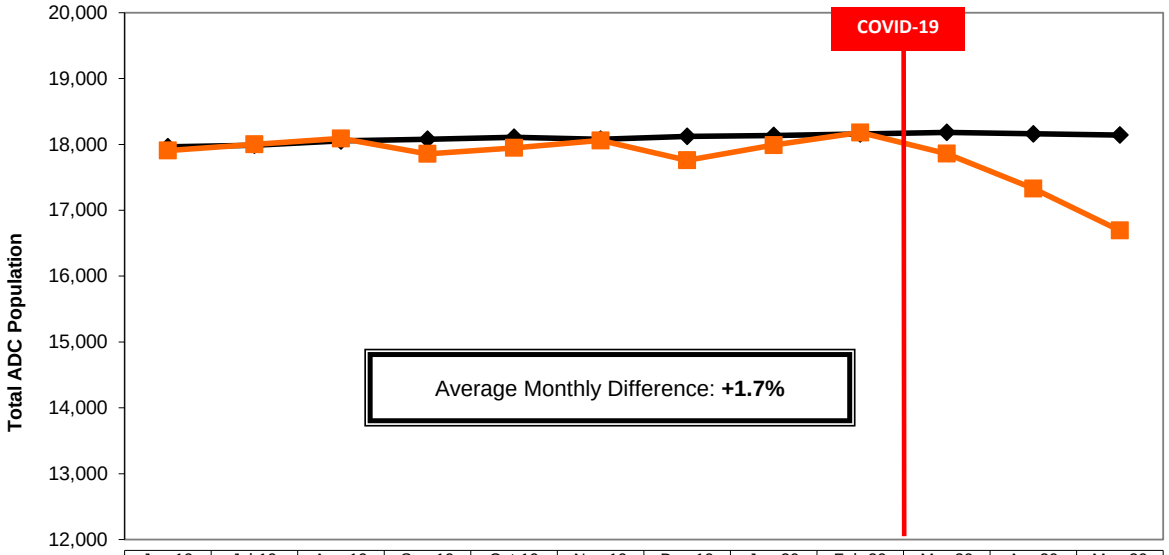


Figure 6: Accuracy of 2018 Male and Female Forecasts
June 2019 thru May 2020
Male Axis
Female Axis
COVID-19
18,000
17,750
17,500
17,250
17,000
16,750
16,500
16,250
16,000
15,750
15,500
15,250
15,000
14,750
14,500
14,250
14,000
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
Actual Male
Male Projected
Actual Female
Actual Female
Accuracy of Male Forecast
Average Monthly Difference: +1.6%
Accuracy of Female Forecast
Average Monthly Difference: +2.3%
Jun-19
Jul-19
Aug-19
Sep-19
Oct-19
Nov-19
Dec-19
Jan-20
Feb-20
Mar-20
Apr-20
May-20

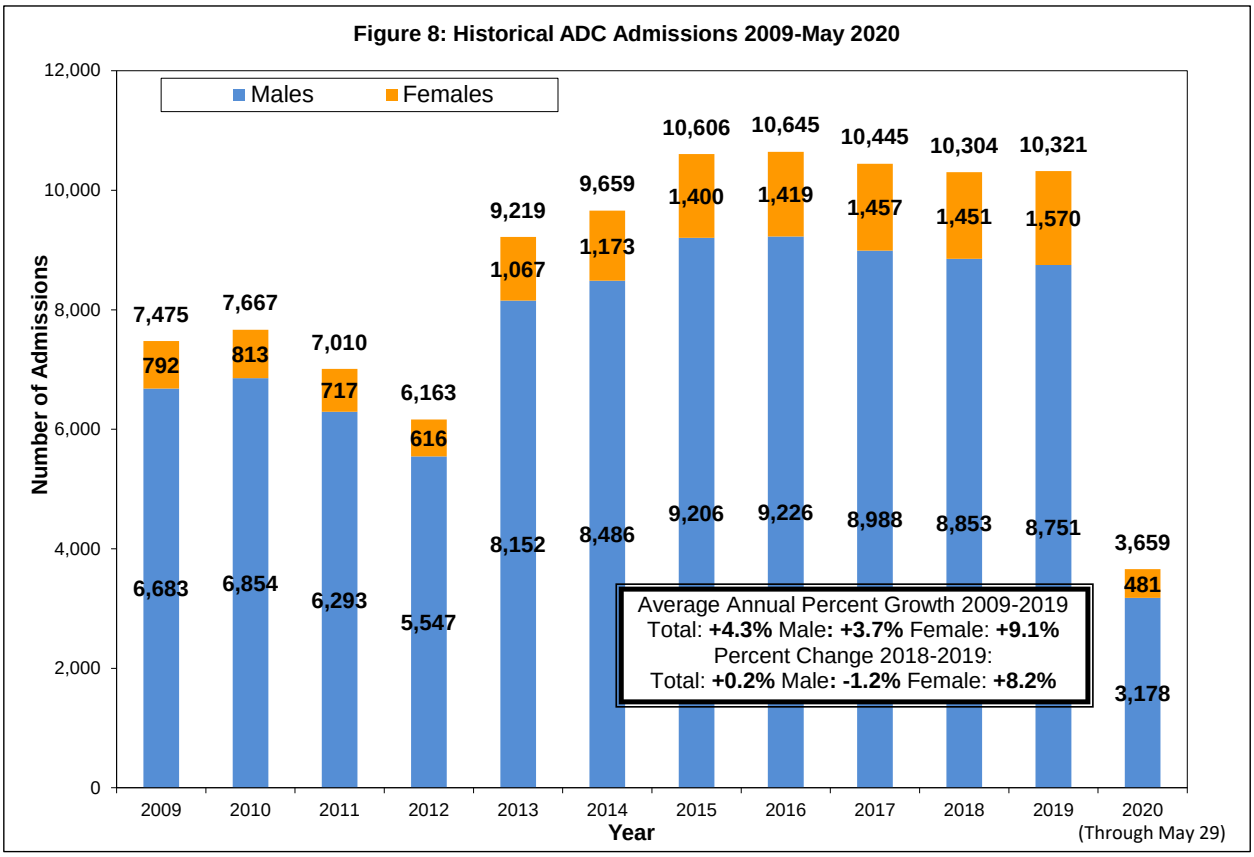
Figure 7: Accuracy of 2019 Total ADC Population Forecast



	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Projected	17,964	17,987	18,054	18,078	18,109	18,079	18,123	18,135	18,160	18,182	18,161	18,142
Actual	17,907	18,002	18,090	17,856	17,947	18,060	17,759	17,989	18,181	17,860	17,331	16,694

Month/Year

Figure 8: Historical ADC Admissions 2009-May 2020



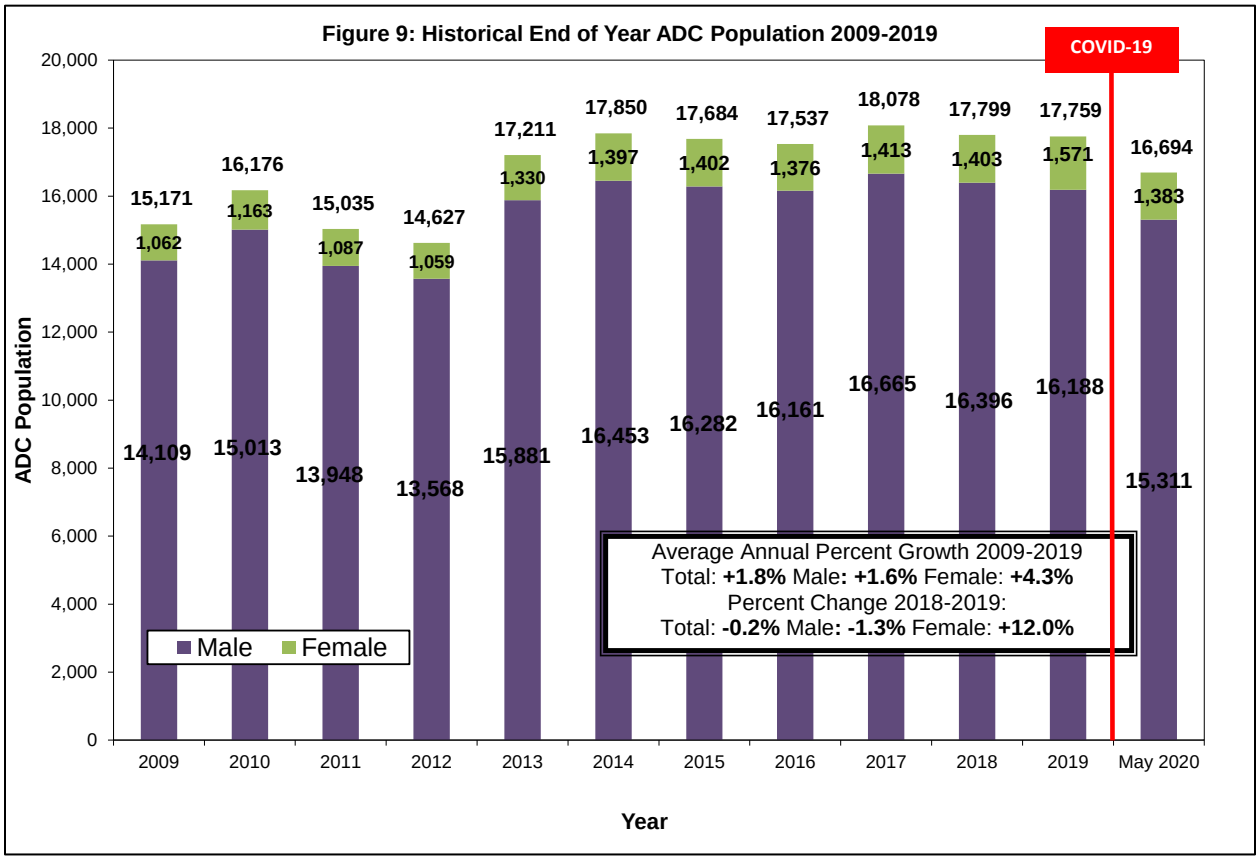


Figure 9: Historical End of Year ADC Population 2009-2019
COVID-19
ADC Population
Year
Male
Female
Average Annual Percent Growth 2009-2019
Total: +1.8% Male: +1.6% Female: +4.3%
Percent Change 2018-2019:
Total: -0.2% Male: -1.3% Female: +12.0%
2009 15,171 1,062 14,109
2010 16,176 1,163 15,013
2011 15,035 1,087 13,948
2012 14,627 1,059 13,568
2013 17,211 1,330 15,881
2014 17,850 1,397 16,453
2015 17,684 1,402 16,282
2016 17,537 1,376 16,161
2017 18,078 1,413 16,665
2018 17,799 1,403 16,396
2019 17,759 1,571 16,188
May 2020 16,694 1,383 15,311

Figure 10: Number of ADC Admissions in 2019
by Gender, Seriousness Level and Admission Type

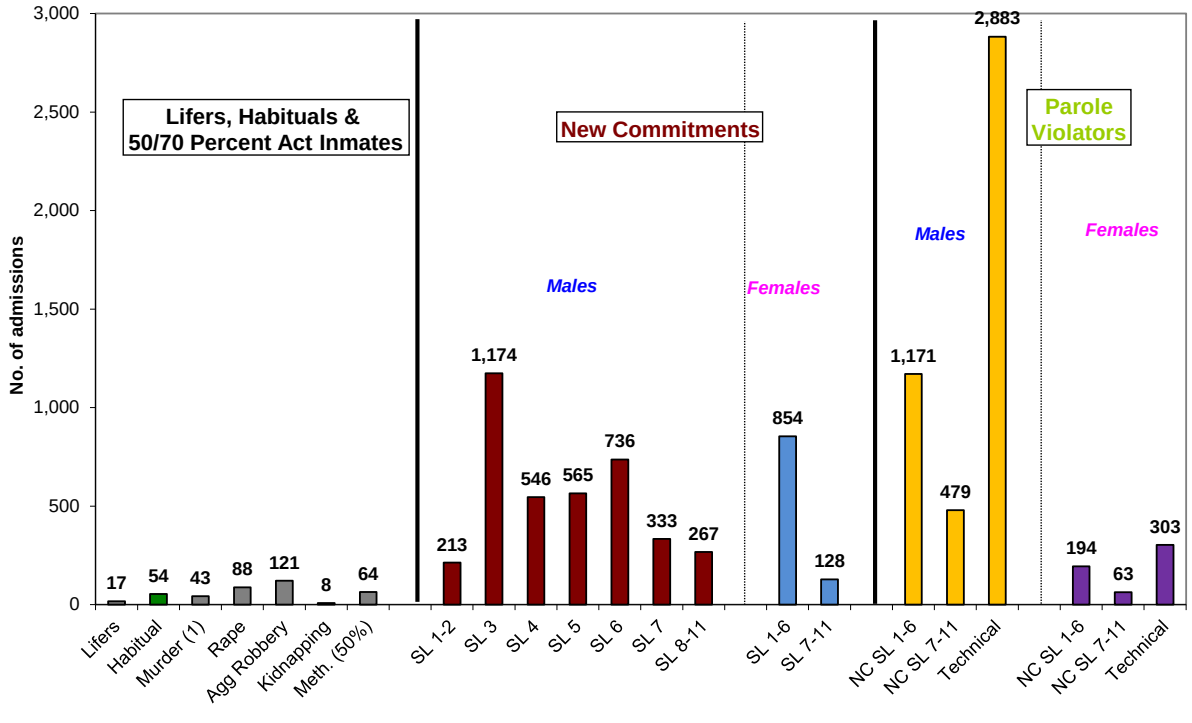
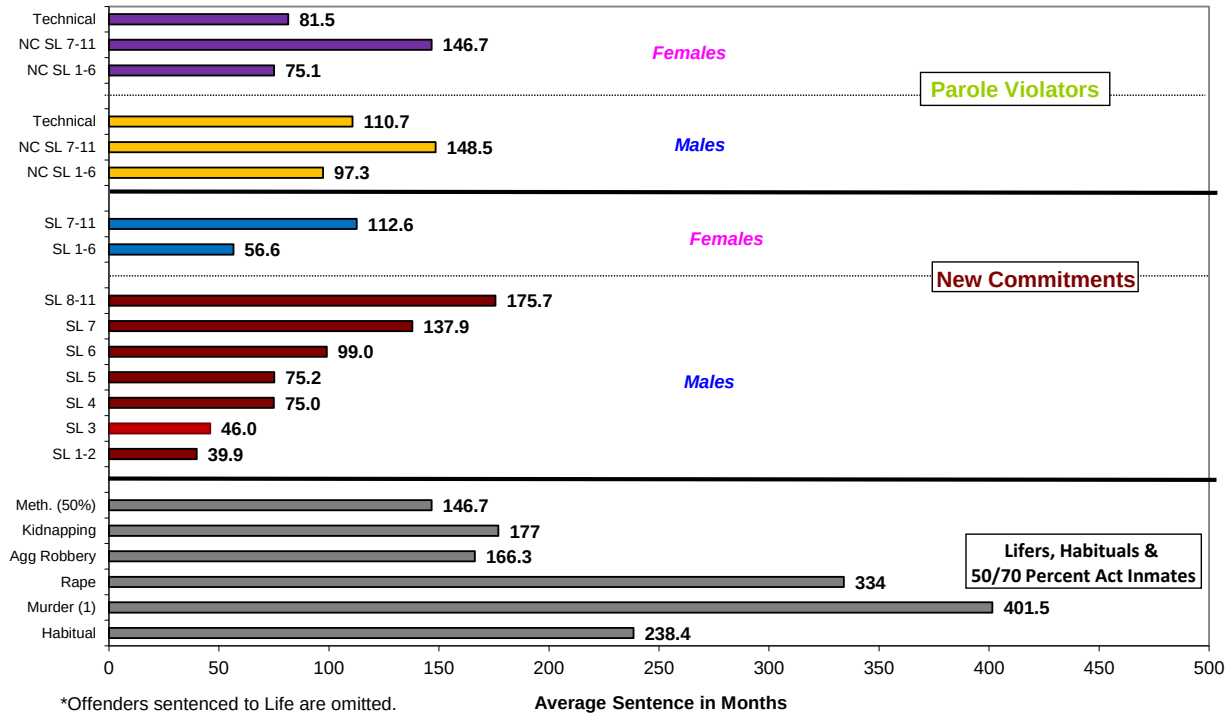
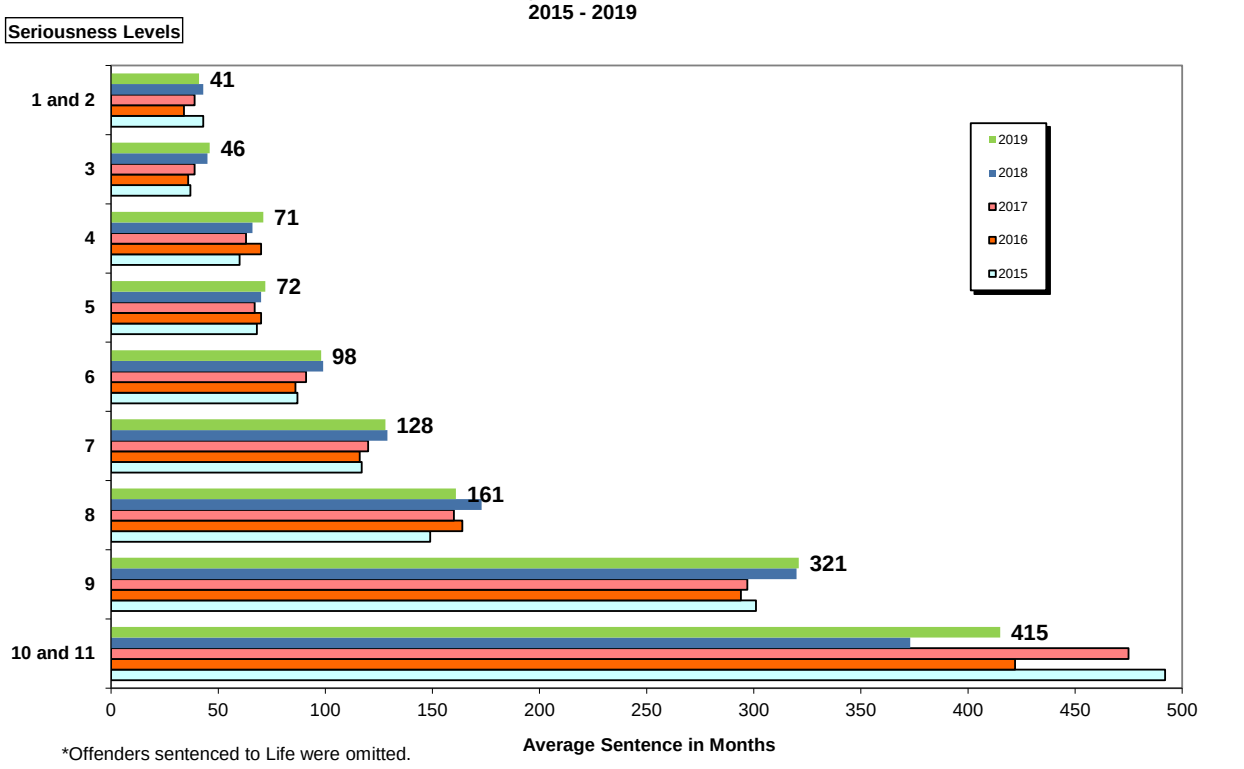


Figure 11: Average Sentences of ADC Admissions in 2019 by Gender, Seriousness Level and Admission Type



*Offenders sentenced to Life are omitted.

Figure 12: Comparison of Average Sentences for New Commitments to ADC by Seriousness Level 2015 - 2019



*Offenders sentenced to Life were omitted.