Nevada Department of Correction
Ten Year Prison Population Projections
2019-2029

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NEVADA DEPARTMENT OF CORRECTIONS
TEN-YEAR PRISON POPULATION PROJECTIONS

I.   INTRODUCTION

The Nevada State Budget Office has asked JFA Associates, LLC (JFA) to produce three separate forecasts for the state prison population to be completed in April 2018, October 2018, and February 2019. JFA, under the direction of Ms. Wendy Ware, utilized the Wizard 2000 simulation model to produce prison population projections for male and female offenders. This briefing document represents the results of the analysis and simulation for the third and final forecast cycle, February 2019.

For the current forecast, JFA reviewed current inmate population trends and analyzed computer extract files provided by the Nevada Department of Corrections (NDOC). This briefing document contains a summary of projections of male and female inmates through the year 2029, a summary of recent offender trends, and an explanation of the primary assumptions on which the projections are based. The contents that follow are based on the analysis of computer extract files provided by the Department of Corrections in December 2018 as well as general population and crime trend data. All figures are contained in Appendix A of this document.

Accuracy of Past Forecast
Overall, the April 2018 forecast estimated the Nevada state prison population very closely for January through December 2018 (an average monthly difference in the projected and actual populations of 0.4 percent). Tracking of the forecast by gender also proved accurate for 2018.

The April 2018 forecast of the male inmate population estimated the actual population at an average of 0.3 percent per month for 2018 (an average accuracy of ±2.0 percent is considered accurate). The forecast slightly overestimated the actual male population for much of the 12-month time frame, but by no more than 1.0 percent in any month.

The April 2018 forecast of the female population slightly underestimated the actual population from January through March before overestimating the actual population from April through October. In November and December 2018, the actual female population counts exceeded the forecast counts by less than 5 inmates. The forecast estimated the actual female population by an average monthly difference of 1.0 percent throughout 2018, well within acceptable standards.

II.   BACKGROUND

The forecast of correctional populations in Nevada was completed using Wizard 2000 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 of key inmate groups. Wizard 2000 represents a new version of the previously used Prophet Simulation model and introduces many enhancements over the Prophet Simulation model. The State of Nevada utilized the Prophet Simulation software to produce its prison population forecast for more than ten years. JFA upgraded the existing Nevada model into the latest Wizard 2000 software in order to take full advantage of the model's newest features.

Prior to 1995, sentenced inmates in Nevada received a maximum sentence and were required by law to serve at least one-third of the maximum sentence before a discretionary parole release hearing was held. Those offenders not granted discretionary parole release were released on mandatory parole three months prior to their maximum sentence expiration date. Under SB 416, offenders in Nevada are assigned both a maximum and a minimum sentence as recommended by Nevada State Parole and Probation officers. A

complex grid was developed to recommend these sentences. The grid was revised several times between July 1995 and March 1996 before a final formula was agreed upon. The resulting statute-mandated offenders are not eligible for discretionary parole release until they have served their entire minimum sentence (less jail credits). Monthly good-time earned credits are no longer applied to the reduction of the time until discretionary parole eligibility. The system of mandatory parole release remained unchanged under the new statute. In addition to these sentence recommendation changes, SB 416 also put in place the diversion of all E felony offenders from prison.

The current simulation model mimics the flow of inmates admitted under two sentencing policies: 1) inmates admitted to prison with "old law" sentences and 2) inmates admitted under SB 416. Within the simulation model, all inmates admitted to prison are assigned minimum and maximum sentences for their most serious admitting offenses. The model performs time calculations, simulates the parole hearing process, and releases offenders from prison based on existing laws and procedures.

In July 2007, the State of Nevada passed AB 510 which changed three main aspects of a prisoner's good time credit calculations. First, under AB 510 the monthly earning of good time for an offender who engages in good behavior increased from 10 days to 20 days. Second, AB 510 increased the amount of good time awarded for all education, vocations training and substance abuse treatment programs completed while incarcerated. Credits for program completion would apply to both the minimum and maximum sentences. Lastly, AB 510 provided that certain credits to the sentence of an offender convicted of certain category C, D or E felonies (that do not involve violence, a sexual offense or a DUI) will be deducted from the minimum term imposed by the sentence until the offender becomes eligible for parole and from the maximum term imposed by the sentence. Previously, these credits could not be applied to the minimum term imposed, only the maximum. Since the "Williams decisions" offenders who commitment offenses between 7/17/1997 and 6/30/2007, are under review and are subject to credit adjustments that include having credits applied to their minimum terms. JFA will continue to track how this decision and credit reviews will impact future prison population estimates.

AB 510 was passed and went into effect on all offenders to be admitted to the NDOC in July 2007. Also, offenders housed within the NDOC at that time were made retroactively eligible for all credits listed in the bill (to July 1, 2000). This caused an immediate and dramatic increase in the number of offenders who were parole eligible reflected in the 2007-2008 data.

III.   **TRENDS IN POPULATION AND CRIME IN NEVADA**

Significant Finding: *The Nevada population grew at an astonishing rate for over two decades through 2007. The average annual rate of growth from 2000 to 2007 was 3.8 percent. Since 2007, the state's population has grown at a much slower rate (an average annual rate of 1.3 percent from 2007 to 2017 according to the U.S. Census),but has picked up in recent years. From 2017 to 2018, Nevada's population grew by 2.1 percent*.

Significant Finding: *Levels of serious crime in Nevada rose steadily in the first part of the 1990s, fell in the latter part of that decade, and then increased every year from 1999 to 2006 (average annual increases of 5.3 percent). From 2006 through 2011, the number of UCR Part I crimes in Nevada declined each year with an average decrease of -6.7 percent. From 2011 to 2012, UCR Part I crimes in Nevada rose by 10.9 percent, and have alternately increased and decreased more modestly since. From 2016 to 2017, the number of UCR Part I crimes in Nevada fell by -0.9 percent.*

Significant Finding: *Rates of UCR Part I crimes in Nevada were high and generally rising for the first half of the 1990s – hitting a high in 1994 of any rate observed in the past two decades -- and then fell distinctly the latter part of the decade. The UCR Part I crime rate (crimes per 100,000 people) rose from 2001 to 2003, and remained fairly level from 2003 through 2006. From 2006 through 2011, the state's serious crime rate decreased each year at an average rate of -8.3 percent per year. In a distinct departure from that downward trend, the UCR Part I crime rate in Nevada rose 9.6 percent from 2011 to 2012. Since 2012, the UCR Part I crime rate in Nevada has been on a general downward trend posting an average annual decline of -1.2 percent through 2016. From 2016 to 2017, UCR Part I crime rates in Nevada fell by -2.8 percent to hit its lowest point in over 25 years.*

A.   **Population**

The U.S. Census Bureau conducts a decennial census and the Census Bureau's Population Estimates Program publishes population estimates between censuses. After each decennial census, the Census Bureau examines its estimates and revises them, where necessary. In September 2011, the U.S. Census undertook such a revision, and the new estimates for 2001 to 2009 appear in TABLE 1. The decennial census results for Nevada for 2000 and 2010 are shown in bold in TABLE 1, while the remainder of the column shows the US Census estimates for July 1 of each year.

For over two decades through 2007, Nevada experienced a phenomenal growth in population and was the nation's fastest-growing state between 2000 and 2010.[1] The state population growth slowed for a couple years, but since 2012, Nevada has been among the top 10 fastest growing states in the country each year.[2] Just as it was in 2016, Nevada was the 2nd fastest growing state in the nation in 2017.[3,4] In 2018, Nevada shared the top spot with Idaho as the fastest growing state in the nation.[5]

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[1] U.S. Census Bureau. Press Release 12/21/2011
[http://www.census.gov/newsroom/releases/archives/population/cb11-215.html]
[2] Population change and rankings: April 1, 2010 to July 1, 2016 (NST-EST2016-popchg2010-2016)
[http://www.census.gov/data/datasets/2016/demo/popest/state-total.html]
[3] U.S. Census Bureau Press Release 12/20/2016
[http://www.census.gov/newsroom/press-releases/2016/cb16-214.html]
[4] U.S Census Bureau Press Release 12/20/2017
[https://www.census.gov/newsroom/press-releases/2017/estimates-idaho.html]
[5] U.S Census Bureau Press Release 12/19/2018
[https://www.census.gov/newsroom/press-releases/2018/estimates-national-state.html]

TABLE 1: ESTIMATES OF NEVADA'S POPULATION: 2000 – 2018

Year	Population Estimates (US Census)	% change
2000	**1,998,250***	
2001	2,098,399	5.0%
2002	2,173,791	3.6%
2003	2,248,850	3.5%
2004	2,346,222	4.3%
2005	2,432,143	3.7%
2006	2,522,658	3.7%
2007	2,601,072	3.1%
2008	2,653,630	2.0%
2009	2,684,665	1.2%
2010	**2,700,551***	0.6%
2011	2,712,799	0.5%
2012	2,744,566	1.2%
2013	2,776,972	1.2%
2014	2,819,012	1.5%
2015	2,868,666	1.8%
2016	2,919,772	1.8%
2017	2,972,405	1.8%
2018	3,034,392	2.1%
Numeric Change 2008-2018	**380,762**	
Percent Change 2008-2018	**14.3%**	
Average Annual Change 2008-2018		**1.4%**

* Actual April 1, 2000 and 2010 US Census figures. All other figures are July 1 estimates from the US Census Bureau. Note that the US Census Bureau occasionally updates prior year estimates. As such, the estimates shown will sometimes differ from prior year's reports.

The population numbers in Table 1 demonstrate a staggering rate of growth in Nevada's population between 2000 and 2007, with average annual growth estimates of 3.8 percent. From 2000 to 2010, Nevada's population increased by over 700,000 people to exceed 2.7 million people in 2010. However, since 2007, the pace of growth has slowed substantially. According to the U.S. Census estimates, from 2008 to 2018, the average annual rate of growth was 1.4 percent, with the increase in Nevada's population from July 2017 to July 2018 estimated at 2.1 percent.

The Nevada State Demographer (who is now housed within the Nevada Department of Taxation) estimates that the state population will grow at an average annual rate of 0.8 to 0.9 percent from 2019 through 2029; although in the shorter term, the state population is forecasted to grow at 1.2 to 1.3 percent from 2019 to 2024.[6]

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[6] Nevada County Population Projections: 2018 to 2037. Prepared by Jeff Hardcastle, NV State Demographer, NV Department of Taxation, October 1, 2018.

B.   Crime

Observing historical levels of crime can provide some guidance in projecting future admissions to prison. During the 1990s, the level of the most serious violent and property crimes (defined by the FBI's Uniform Crime Reports Part I Crime category) in Nevada increased steadily during the first part of the decade, and then displayed a generally decreasing trend during the latter. Serious crime increased each year from 2000 to 2006 at an average of 6.0 percent per year. From 2006 to 2011, the number of UCR Part I crimes in Nevada fell at an average of -6.7 percent per year. Bucking the downward trend, UCR Part I crimes in Nevada rose by 10.9 percent from 2011 to 2012. Since 2012, the number of UCR Part I crimes in Nevada have increased and decreased fairly modestly each year, displaying a -0.9 percent decline from 2016 to 2017. (See Figure 1).

It is worth noting that in 2015 and 2016 the total number of UCR Part I <u>violent</u> crimes reported were at the highest level observed in at least the past 25 years, with the FBI reporting 20,118 Part I violent crimes in Nevada in 2015 and 19,936 in 2016.[7] Also notably, UCR Part I violent crimes dropped by -16.3 percent from 2016 to 2017 to 16,667. Since the number of UCR Part I property crimes (78,322 reported in Nevada by the FBI in 2017) far outnumber the violent crimes, the trends in serious violent crimes are not readily observed in the overall trends of serious crime in Nevada. The number of serious property crimes in Nevada for each of the past nine years has been below the average of the past 27 years,

The area served by the Las Vegas Metropolitan Police Department (LVMPD) has generally exhibited similar changes in crime levels as the state as a whole. This area represents approximately half of the state's population and over half of the state's Part I crime. The area served by the LVMPD experienced a decline in UCR Part I crimes from 1995 to 2000, but posted increases each year from 2000 to 2006. The average annual increase from 2000 to 2006 was 7.9 percent. Like the statewide trend, serious crime in the LVMPD's jurisdiction fell each year from 2006 to 2011 with an average annual decrease of -6.8 percent. From 2011 to 2012, serious crime increased by 11.1 percent in the LVMPD's jurisdiction. Since 2012, Part I crimes in the LVMPD's jurisdiction has alternately risen and fallen, displaying a -2.6 percent drop from 2016 to 2017. (See Figure 2). Similar to the state picture, the raw number of serious violent crimes reported in the LVMPD's jurisdiction in 2015 was at its highest level in the past 20 years, while the raw number of serious property crimes reported are below the 20-year average and have been for the past nine years. Despite being relatively low compared to historical averages, serious property crime in the LVMPD's jurisdiction increased 4.1 percent from 2016 to 2017. Notably, serious violent crime in the LVMPD's jurisdiction fell by a whopping -25.5 percent from 2016 to 2017.[8]

C.   Putting Population and Crime Together: Crime Rates

The decline in serious crime in the latter part of the 1990's occurred as the state population continued its dramatic increase -- resulting in a distinct shift in crime *rates*. From 1990 to 1997, the UCR Part I crime rate (crimes per 100,000 people) in Nevada remained fairly steady, while from 1997 to 2001, the rate fell significantly at an average annual rate of -8.3 percent. After increases from 2001 to 2003, there was little movement in the overall Part I crime rate from 2003 to 2006. Then, each year from 2006 to 2011, Nevada experienced a sharp decline in its UCR Part I crime rate. The average annual decrease in UCR Part I crime rate from 2006 to 2011 was -8.3 percent. From 2011 to 2012, the UCR Part I crime rate in Nevada rose 9.6 percent and has been moving generally downward ever since. From 2016 to 2017, the UCR Part I crime rate in Nevada fell -2.8 percent.

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[7] Uniform Crime Reports, Crime in the United States – 2015, Federal Bureau of Investigation, Table 4.
Uniform Crime Reports, Crime in the United States – 2016, Federal Bureau of Investigation, Table 2.
[8] Uniform Crime Reports, Crime in the United States – 2017, Federal Bureau of Investigation, Table 6.

Notably, the Nevada UCR Part I crime rate is at its lowest point in over 25 years, as displayed in the following chart.

UCR Part I Crime Rate in Nevada, 1990-2017
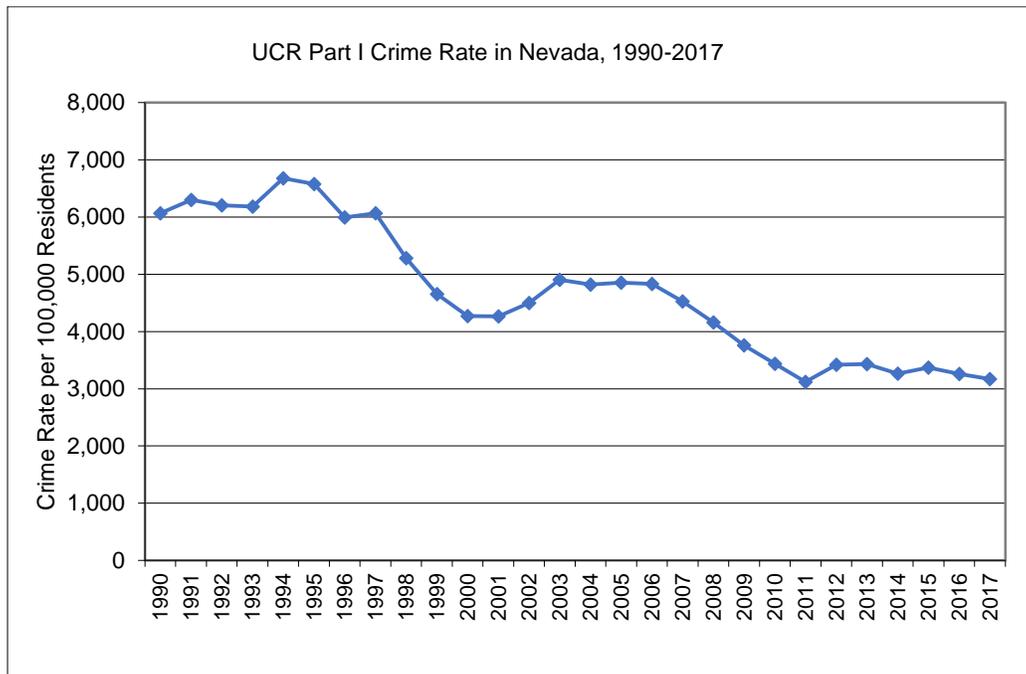
In the area served by the LVMPD, the crime rate dropped by an average annual rate of -8.2 percent from 1995 to 2001.[9] Like the statewide trends, the large percentage declines in the crime rates for the LVMPD jurisdiction in the late 1990s did not continue as the serious crime rate rose notably from 2001 to 2003. After remaining largely unchanged from 2003 to 2006, the LVMPD crime rate declined each year from 2006 to 2011 dropping at an average annual rate of -8.7 percent. From 2011 to 2012, the UCR Part I crime rate in the LVMPD's jurisdiction rose 9.5 percent, and has been on a general downward track in the years since. The serious crime rate in the LVMPD's jurisdiction fell -4.7 percent from 2016 to 2017.

D.   Comparison of Nevada and the United States

In the discussion above, the population and crime data are observed in terms of changes over time within Nevada. In TABLE 2, we present Nevada's population and crime data compared to the national levels and trends. TABLE 2 makes clear the striking increases in Nevada's population relative to the national trends over the past decade. From 2008 to 2018, Nevada's population growth (14.3 percent) far outpaced the national population growth (7.6 percent). From 2017 to 2018, the increase in population for Nevada (2.1 percent) still exceeded the rise in the nation's population (0.6 percent).

In terms of crime rates in 2017, Nevada had a notably higher serious *violent* crime rate per 100,000 inhabitants as compared to the nation, while it had a higher but more similar serious *property* crime rate to the nation as a whole. The long-term trends in the crime rates for Nevada and the nation over the past 10 years were similar, although Nevada posted a slightly larger ten-year decline than the entire country, with Nevada's serious crime rate dropping -30.0 percent compared to the nationwide decline of -26.8 percent from 2007 to 2017. In the recent term, from 2016 to 2017, Nevada's serious crime rate exhibited a

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[9] The FBI did not show the reported crime for the LV MPD for 1997. For the 1995-2000 average, it was assumed that the 1997 figure was the average of the 1996 and 1998 figures.

smaller decline than the national serious crime rate with Nevada's decreasing by -2.8 percent while the nation saw a decline of -3.3 percent.

In the past ten years, Nevada's state prison population has grown 7.3 percent while the state prison population for the nation as a whole has declined -4.3 percent. Aside from an uptick in 2013, the US state prison population has declined each year since 2009. In Nevada, the state prison population decreased each year from 2007 to 2010, and then increased each year from 2011 to 2016 to end at its highest level. From 2006 to 2015, the nationwide state prison population decreased at an average annual rate of -0.3 percent, while Nevada's prison population grew at an average annual rate of 0.4 percent.[10]

The 2016 state prisoner incarceration rate in Nevada (481.5 per 100,000 residents) exceeded that of the nation (407.0 per 100,000).

Note that the Bureau of Justice Statistics' Prisoners in 2017 report would typically be issued by early January 2019. However, due to the govt shutdown, it has not. The BJS website states: "Due to the lapse in appropriations, Department of Justice websites will not be regularly updated."
JFA will plan to update these statistics when available.

TABLE 2: COMPARISON BETWEEN UNITED STATES AND NEVADA ON POPULATION, CRIME AND CORRECTIONS MEASURES

	United States	Nevada
POPULATION[11]		
Total Population (7/1/18)	327,167,434	3,034,392
Change in Population		
1-year change (7/1/17 – 7/1/18)	0.6%	2.1%
10-year change (7/1/08 – 7/1/18)	7.6%	14.3%
CRIME RATE[12] (Rate per 100,000 inhabitants)		
UCR Part I Reported Crime Rates (2017)		
Total	2,745.1	3,168.3
Violent	382.9	555.9
Property	2,362.2	2,612.4
Change in Total Reported Crime Rate		
1-year change (2016-2017)	-3.3%	-2.8%
10-year change (2007-2017)	-26.8%	-30.0%
PRISON POPULATION[13] (State Prisoners Only)		
Total Inmates 2016	1,316,205	14,153
1-year change (2015-2016)	-1.0%	3.4%
10-year change (2006-2016)	-4.3%	7.3%

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[10] Prisoners in 2016, Bureau of Justice Statistics Bulletin (January 2018). Nevada data provided by the Nevada Department of Corrections is from CY2016.

[11] U.S. Census Bureau, Population Division. Population estimates for July 1, 2018.

[12] Uniform Crime Reports, Crime in the United States – 2017, Federal Bureau of Investigation, Tables 1 and 4.

[13] Prisoners in 2016, Bureau of Justice Statistics Bulletin (January 2018). Nevada data provided by the Nevada Department of Corrections is from CY2016.

Average annual change (2006-2015)	-0.3%	0.4%
Incarceration Rate (per 100,000 inhabitants)[14] 2016	407.0	481.5

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[14] Rates were generated by using U.S. Census population estimates from 7/1/2016.

IV. INMATE POPULATION LEVELS AND ACCURACY OF THE APRIL 2018 PROJECTION

Significant Finding: *Overall, the April 2018 forecast estimated the Nevada state prison population very closely for January through December 2018 (an average monthly difference in the projected and actual populations of 0.4 percent).*

Significant Finding: *The forecast of the male inmate population estimated the actual population very closely and well within acceptable standards (at an average of 0.3 percent per month). The forecast slightly overestimated the actual male population through much of the 12-month time frame, but by no more than 0.7 percent in any month.*

Significant Finding: *The forecast of the female population slightly underestimated the actual population from January through April 2018 (at an average monthly difference of -1.2 percent) and then overestimated the actual population from April through October 2018 (at an average monthly difference of 2.3 percent) In November and December 2018, the forecast almost exactly matched the actual female population counts. Over the whole 12-month time frame, the average monthly difference of the forecast and the actual population was 1.0 percent.*

TABLE 3 and Figures 3 and 4 illustrate the accuracy of the April 2018 projections of the male and female inmate populations. The monthly inmate projections are compared with the actual population counts reported by the NDOC.

The April 2018 forecast of the male inmate population for January through December 2018 estimated the actual male inmate population very closely throughout the 12-month period. The forecast slightly overestimated the actual male population for all but two months with an average monthly difference of 0.3 percent from January through December. The largest difference from the actual population occurred in December when it differed by 1.0 percent. As Figure 3 illustrates, the actual male population made very small changes from month to month before showing consistent declines in the last three months of 2018.

The average monthly numeric error for the male forecast for January through December 2018 was 41 offenders and the average monthly percent difference was 0.3 percent. (See Figure 3 and TABLE 3.)

The April 2018 forecast of the female inmate population initially underestimated the actual female inmate population from January through March, before overestimating the actual population from April through October as the female population experienced significant declines in April and May. Those declines were erased when the female actual population grew by almost 5 percent from the end of August to the end of November. Notably, the April forecast estimated the female population to within 2 inmates in November and 4 inmates in December.

The average monthly numeric error for the female forecast for January through December 2018 was 12 offenders and the average monthly percent difference was 1.0 percent. (See Figure 4 and TABLE 3.)

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TABLE 3: ACCURACY OF THE APRIL 2018 FORECAST:
TOTAL INMATE POPULATION JANUARY - DECEMBER 2018

	Male				Female				Total			
	Actual	Projected	# Diff	% Diff	Actual	Projected	# Diff	% Diff	Actual	Projected	# Diff	% Diff
2018												
January	12,516	12,550	34	0.3%	1,288	1,281	-7	-0.5%	13,804	13,831	27	0.2%
February	12,499	12,553	54	0.4%	1,301	1,277	-24	-1.8%	13,800	13,830	30	0.2%
March	12,542	12,558	16	0.1%	1,296	1,280	-16	-1.2%	13,838	13,838	0	0.0%
April	12,525	12,561	36	0.3%	1,273	1,283	10	0.8%	13,798	13,844	46	0.3%
May	12,504	12,562	58	0.5%	1,250	1,284	34	2.7%	13,754	13,846	92	0.7%
June	12,512	12,568	56	0.4%	1,263	1,287	24	1.9%	13,775	13,855	80	0.6%
July	12,539	12,563	24	0.2%	1,251	1,291	40	3.2%	13,790	13,854	64	0.5%
August	12,584	12,571	-13	-0.1%	1,240	1,286	46	3.7%	13,824	13,857	33	0.2%
September	12,583	12,575	-8	-0.1%	1,262	1,291	29	2.3%	13,845	13,866	21	0.2%
October	12,560	12,573	13	0.1%	1,277	1,294	17	1.3%	13,837	13,867	30	0.2%
November	12,489	12,579	90	0.7%	1,299	1,297	-2	-0.2%	13,788	13,876	88	0.6%
December	12,451	12,580	129	1.0%	1,301	1,297	-4	-0.3%	13,752	13,877	125	0.9%
Numeric Change Jan – Dec 2018	**-65**	**30**			**13**	**16**			**-52**	**46**		
Average Monthly Difference Jan – Dec 2018			**41**	**0.3%**			**12**	**1.0%**			**53**	**0.4%**

V.   INMATE POPULATION TRENDS

A.   Trends in Admissions

Significant Finding: From 2003 to 2006, total male admissions grew significantly at an average annual rate of 7.3 percent. From 2007 to 2010, however, male admissions were either virtually unchanged from the prior year or showed distinct declines. After increasing in 2011, male admissions exhibited further declines in 2012 and 2013, and in 2013 were at their lowest level since 2003. Since then, however, male admissions have risen each year – at first, more significantly (by 4.1 and 5.2 percent in 2014 and 2015) and then more modestly (by 0.9 and 1.6 percent in 2016 and 2017). In 2018, total male admissions are on track to grow by 2.1 percent, based on the admissions counts from the first eleven months of the year.

IMPORTANT NOTE: The male admissions trends of the past three years are increasingly influenced by the admissions to the Parole Housing Unit (PARHU). It is important to note these offenders are granted parole, recorded as a release and then recorded as an immediate admission into the PARHU. This alters the resulting trends in both admission and release movement types.

Starting in 2015, 68 male offenders who were released to parole and determined to not have place to live were temporarily housed in an NDOC transitional housing unit that is included in the total prison population count. In 2016, the number of released offenders admitted to this unit increased to 243 and increased again in 2017 to 277. If those PARHU admissions are not included in the total admissions counts, then the increase in male admissions in 2015 would be 3.9 percent (instead of 5.2), and in 2016, male admissions would have declined by -2.5 percent (rather than grow by 0.9 percent), and in 2017, male admissions would have increased by 1.0 percent (rather than 1.6 percent). In the first 11 months of 2018, PARHU admissions are slightly below the levels observed in 2015 and 2016, and are continuing to influence admissions trends nonetheless.

Significant Finding: Male new commitment admissions largely declined from 2007 to 2013, changing at an average annual rate of -2.6 percent. In 2014, male new commitment admissions increased by 3.9 percent and further increased by 5.5 percent in 2015. In 2016, male new commitment admissions declined by -2.9 percent, but then rebounded by 2.8 percent in 2017. In 2018, male new commitment admissions are on track to decline by -2.2 percent.

Significant Finding: After decreasing substantially each year from 2003 through 2008, male parole violator admissions increased at an average annual rate of 17.2 percent from 2008 through 2011. After holding steady in 2012, male parole violator admissions dropped -13.2 percent in 2013, followed by an increase in 2014 and then a decrease in 2015, both of about 5 percent. Male parole violator admissions in 2016 were virtually unchanged from the prior year, but then fell by -9.3 percent in 2017. In 2018, male parole violator admissions are on track to jump by 38.6 percent.

Significant Finding: For the past decade, female admissions have been quite erratic, but have generally displayed an upward trajectory. After growing at an average annual rate of 15.3 percent from 2003 to 2006 – rising from 535 females admitted in 2003 to 815 in 2006 – female admissions declined notably for two years and then largely erased those declines with increases over the following two years. After a decline of -6.4 percent in 2011, female admissions grew at an average annual rate of 4.3 percent from 2011 to 2016. In 2017, female admissions grew by 15.9 percent to 1,052 (the highest annual count observed to date). In 2018, female admissions are on track to decline by -2.1 percent. Notably in the first 11 months of 2018, female new commitment admissions

are set to decline by -8.0 percent while female parole violator admissions are on track to increase by 22.1 percent.

IMPORTANT NOTE: *If the female PARHU admissions in 2016 (n=46) and 2017 (n=115) are excluded, then in 2016, total female admissions actually declined by -1.9 percent (rather than grew 3.3 percent) and grew by 8.7 percent (rather than by 15.9 percent) in 2017. In 2018, the possible decline in female admissions of -2.1 percent would be -3.1 percent if the PARHU admissions were excluded from admissions counts.*

TABLE 4 and TABLE 5 present the male and female admissions to prison from 2008 to 2018 (January through November). The NDOC provided a data file of admissions to prison in the first 11 months of 2018. Figures 5 and 6 show the male and female admissions to prison over the past decade, distinguishing the new court commitments from the parole violators. In the admissions tables and figures, the Parole Housing Unit admissions are captured in the "Other/Missing" column.

After reaching a high of nearly 6,300 in 2006 and 2007, total admissions to NDOC declined notably over the next two years to approximately 5,800 in 2009. After two years of modest increases followed by two years of slightly larger decreases, total admissions hit 5,617 in 2013 – the lowest level since 2004. From 2014 to 2017, total admissions grew at an average annual rate of 3.7 percent to reach 6,485. If the trends of the 11 months of 2018 hold for the remainder of the year, then the total admissions to NDOC would rise 6,577 – a new high. HOWEVER, if the offenders admitted to the Parole Housing Unit are not included in the total admissions counts, then in 2015, total admissions would increase by 4.1 percent (rather than 5.2), and the 2016 total admissions would decline by -2.4% to just under 6,000 (rather than increase by 1.2 percent). In 2017, total admissions would have increased by 2.1 percent without the PARHU admissions (rather than by 3.6). If the admissions trends of the first 11 months of 2018 hold for the remainder of the year, then non-PARHU admissions would total 6,225.

1.   Males Admitted to Prison

From 2008 to 2018 (January through November), the average annual change in the number of males admitted to prison for any reason was 0.6 percent. From 2003 to 2006, male admissions to NDOC grew at an average annual rate of 7.3 percent. From 2006 to 2013, the number of male admissions followed a generally downward path, declining at an average annual rate of -1.7 percent. In 2012 and 2013, male admissions declined further and were below 5,000 for the first time since 2004. In 2014 and 2015, total male admissions to NDOC increased by approximately 4.5 percent each year. The 2016 count of male admissions increased by 0.9 percent (or declined -2.5 percent if the PARHU admissions are excluded). In 2017, total male admissions rose by 1.6 percent (or by 1.0 percent if PARHU admissions are excluded). If the trends from the first 11 months of 2018 hold for the remainder of the year, then male admissions would increase by 2.1 percent to a high of 5,547; excluding PARHU admissions, male admissions would increase by 3.1 percent to 5,317 in 2018.

Male new commitment admissions declined at an average annual rate of -3.1 percent from 2008 to 2012. After being almost unchanged in 2013, male new commitment admissions rose by 3.9 percent in 2014 and again by 5.5 percent in 2015. In 2016, male new commitment admissions declined by -2.9 percent, before rebounding by 2.8 percent in 2017. In 2018, male new commitment admissions are on track to decline by -2.2 percent.

Male parole violator admissions have been quite erratic over the past decade. They increased at an average annual rate of 13.1 percent from 2008 through 2012 (after decreasing at an average annual rate of -10.8 percent from 2003 through 2008). Male parole violator admissions exhibited

a sharp decline of -13.2 percent in 2013 before rising by 4.9 percent in 2014, and then falling by -5.1 percent in 2015. In 2016, male parole violator admissions were virtually unchanged, and then declined by -9.3 percent in 2017. In 2018, male parole violator admissions are on track to jump by 38.6 percent, driven by especially large increases in discretionary parole violators.

Note that male new commitment admissions have ranged from 81 to 88 percent of total male admissions to NDOC each year throughout the past decade. In the first 11 months of 2018, male new commitment admissions accounted for 82.2 percent of all male admissions when PARHU admissions are excluded.

2.   Females Admitted to Prison
From 2008 to 2018 (January through November), the average annual change in the number of females admitted to prison was 4.0 percent. Female admissions fluctuated with alternating increases and decreases every year from 1996 to 2004. Fluctuations have continued. After growing by 20.0 percent from 2005 to 2006, female admissions either declined or held steady from 2006 to 2009 at an average annual rate of -4.0 percent. From 2010 to 2013, female admissions alternately rose (9.2 percent), fell (-6.4 percent) and rose again (5.2 percent). They held fairly steady in 2013, before increasing by 7.9 percent in 2014 and by 5.1 percent in 2015. In 2016, total female admissions increased by 3.3 percent and then by a whopping 15.9 percent in 2017 to reach the highest number of female admissions to date (1,052). However, as highlighted above, if the PARHU admissions are excluded, total female admissions in 2016 declined by -1.9 percent (rather than increased by 3.3 percent), and rose by 8.7 percent in 2017 (rather than by 15.9 percent). If the trends from the first 11 months of 2018 hold for the remainder of the year, then female admissions would decrease by -2.1 percent to 1,030; excluding PARHU admissions, female admissions would decrease by -3.1 percent to 908 in 2018.

Prior to 2017, female new commitments peaked at 746 in 2006. They declined each year through 2009, then showed an 8.0 percent increase in 2010 that was erased in 2011. Female new commitment admissions grew at an average annual rate of 4.7 percent from 2011 to 2015. In 2016, female new commitment admissions decreased by -2.3 percent, followed by a substantial increase of 13.3 percent in 2017 to reach 811 – a new high point. In 2018, female new commitment admissions are on track to decrease by -8.0 percent.

Female parole violator admissions either rose or remained the same each year from 2006 to 2012, growing at an average annual rate of 13.9 percent. In a distinct shift, female parole violator admissions declined by -14.6 percent in 2013. That decline has been erased by increases of 12.2 percent and 5.1 percent in 2014 and 2015, respectively. In 2016, female parole violator admissions remained the same as 2015, before declining by -13.1 percent in 2017. In 2018, female parole violator admissions are on track to jump by 22.1 percent.

Note that female new commitment admissions have ranged from approximately 80 to 90 percent of total female admissions to NDOC each year throughout the past decade. In the first 11 months of 2018, female new commitment admissions accounted for 82.2 percent of all female admissions when PARHU admissions are excluded.

TABLE 4: HISTORICAL ADMISSIONS TO PRISON BY ADMISSION TYPE: MALES: 2008 –2018 (JAN-NOV)

Year	New Court Commitments & Probation Violators	Safekeepers	Int. Sanction Probation**	NPR/CC	Total New Commitments≈	Discretionary Parole Violators	Mandatory Parole Violators	Total Parole Violators	Other/ Missing/ PARHU	TOTAL
2008^	4,318	245		59	4,622	493	44	537	77	5,236
2009	4,118	286		71	4,475	577	6	583	17	5,075
2010	4,089	258		58	4,405	663	1	664	11	5,080
2011+	3,897	262	38	70	4,269	723	128	858++	61^^	5,188
2012+	3,732	265	8	70	4,081	743	120	863	0	4,943
2013	3,769	220	44	53	4,088	639	110	749	5	4,842
2014	3,804	291	73	79	4,247	658	128	786	7	5,040
2015	4,123	268	28	60	4,481	628	118	746	76##	5,303
2016	4,042	221	9	76	4,350	642	103	745	254##	5,349
2017	4,182	215	0	74	4,471	566	110	676	286##	5,433
2018 (Jan-Nov)	*3,807*	*157*	*0*	*43*	*4,008*	*751*	*108*	*859*	*218##*	*5,085*
2018 (Ann'd)*	4,153	171	0	47	4,372	819	118	937	238##	5,547
Numeric Change 2008–2018(ann'd)	**-165**	**-74**		**-12**	**-250**	**326**	**74**	**400**		**311**
Percent Change 2008–2018(ann'd)	**-3.8%**	**-30.1%**		**-20.5%**	**-5.4%**	**66.2%**	**167.8%**	**74.5%**		**5.9%**
Average Annual Percent Change 2008–2018(ann'd)	**-0.3%**	**-2.4%**		**1.1%**	**-0.5%**	**6.3%**	**#**	**6.8%**		**0.6%**
Percent Change 2017–2018(ann'd)	**-0.7%**	**-20.3%**		**-36.6%**	**-2.2%**	**44.7%**	**7.1%**	**38.6%**		**2.1%**

NOTE: The admissions data shown are from the NDOC admissions data file.

* The 2018 data from January through November was annualized by multiplying by 12/11.

^ The 2008 admissions datafile did not contain admissions by type for July and August. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

+ The admissions data shown for 2011 and 2012 have been updated to reflect data from an NDOC report provided to JFA in March 2013. Changes to the counts are mostly minor, but due to differences in how small populations of admitted offenders are categorized, past data is not fully comparable with data from 2011 and beyond. Prior years' data has not been re-categorized.

** Prior to the March 2013 data update, the Intermediate Sanction Probation admissions had been included in the New Commitment & Probation Violator column.

≈ The following admissions are included in the Total New Commitments column for the year indicated; these small numbers of admissions are not shown in a separate column:

2011: 2 Intermediate Sanction Parole admissions; 2012: 5 Interstate Compact admissions and 1 PRC admission; 2013: 2 PRC admissions; 2015: 2 PRC admissions; 2016: 2 PRC admissions; 2018: 1 Interstate Compact

++ Includes 7 SafeKeeper Misdemeanor admissions not shown in a separate column.

^^ The 61 admissions shown in the Other/Missing column for 2011 were for the PRIDE program.

The drop in mandatory parole violators down to 1 in 2010, followed by an increase to 128 in 2011 (which is an increase of 12700%) generates a misleading result for the average annual change in mandatory parole violators over the past 10 years (1253%).

Prisoners admitted to the Parole Housing Unit (PARHU) after release to parole are shown in the Other/Missing column. The 68 offenders admitted to PARHU in 2015 were moved to the Other/Missing column (they had been counted with Discretionary Parole Violators). In 2016, 243 male offenders were admitted to PARHU. In 2017, 277 male offenders were admitted to PARHU. In 2018 (Jan-Nov), 211 male offenders were admitted to PARHU.

TABLE 5: HISTORICAL ADMISSIONS TO PRISON BY ADMISSION TYPE: FEMALES: 2008 –2018 (JAN-NOV)

Year	New Court Commitments & Probation Violators	Safekeepers	NPR/CC	Total New Commitments$^≈$	Discretionary Parole Violators	Mandatory Parole Violators	Total Parole Violators	Other/ Missing/ PARHU	TOTAL
2008$^$	615	3	3	621	72	3	75	21	708
2009	603	2	6	611	104	2	106	2	719
2010	646	5	9	660	117	1	118	7	785
2011$^+$	605	0	5	611	108	9	118^{++}	6$^{^^}$	735
2012$^+$	623	2	3	629$^{≈≈}$	138	6	144	0	773
2013	644	2	5	651	114	9	123	1	775
2014	685	4	8	697	123	15	138	1	836
2015	723	1	9	733	139	6	145	1	879
2016	707	1	8	716	143	2	145	47$^{##}$	908
2017	800	2	9	811	116	10	126	115$^{##}$	1,052
2018 (Jan-Nov)	*672*	*4*	*7*	*684*	*132*	*9*	*141*	*119$^{##}$*	*944*
2018 (Ann'd)*	733	4	8	746	144	10	154	130$^{##}$	1,030
Numeric Change 2008–2018(ann'd)	**118**	**1**	**5**	**125**	**72**	**7**	**79**		**322**
Percent Change 2008–2018(ann'd)	**19.2%**	**45.5%**	**154.5%**	**20.2%**	**100.0%**	**227.3%**	**105.1%**		**45.5%**
Average Annual Percent Change 2008–2018(ann'd)	**2.0%**	**--**	**19.1%**	**2.1%**	**8.9%**	**107.2%**	**8.6%**		**4.0%**
Percent Change 2017–2018(ann'd)	**-8.4%**	**118.2%**	**-15.2%**	**-8.0%**	**24.1%**	**-1.8%**	**22.1%**		**-2.1%**

NOTE: The admissions data shown are from the NDOC admissions data file.

* The 2018 data from January through November was annualized by multiplying by 12/11.

$^$ The 2008 admissions datafile did not contain admissions by type for July and August. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

$^+$ The admissions data shown for 2011 and 2012 have been updated to reflect data from an NDOC report provided to JFA in March 2013. Changes to the counts are mostly minor, but due to differences in how small populations of admitted offenders are categorized, past data is not fully comparable with data from 2011 and beyond. Prior years' data has not been re-categorized.

$^≈$ The following admissions are included in the Total New Commitments column for the year indicated; these small numbers of admissions are not shown in a separate column:

2011: 1 Intermediate Sanction Probation admission; 2012: 1 Interstate Compact admission; 2018: 1 PRC admission

$^{++}$ Includes 1 SafeKeeper Misdemeanor admission not shown in a separate column.

$^{^^}$ The 6 admissions shown in the Other/Missing column for 2011 were for the PRIDE program.

$^{##}$ Prisoners admitted to the Parole Housing Unit (PARHU) after release to parole are shown in the Other/Missing column. In 2016, 46 female offenders were admitted to PARHU. In 2017, 115 female offenders were admitted to PARHU. In 2018 (Jan-Nov), 112 (of the 119 Other/Missing/PARHU) female offenders were admitted to PARHU.

B. **Trends in Parole Release Rates**

Significant Finding: In the first 11 months of 2018, overall release rates increased compared to 2017, after having increased substantially from 2016 to 2017. The overall release rate in 2016 was 51.2 – the lowest rate since 2008. Then in 2017, the overall release rate rose to 62.5 before rising to 64.7 in the first 11 months of 2018 (the highest rate since 2000).

Significant Finding: Overall discretionary release rates for the first 11 months of 2018 rose to 64.2 (the highest rate since 2000). Both the male and female discretionary release rates rose in the first 11 months of 2018 after having increased dramatically in 2017 compared to 2016.

Significant Finding: Overall mandatory release rates for the first 11 months of 2018 increased to 65.9. The mandatory release rates had risen notably from 2016 to 2017 by 6.8 percentage points, while from 2017 to 2018 they increased by 2.5 percentage points.

TABLE 6 compares parole release rates from 2008 through 2018 (January through November) by type of parole hearing.

TABLE 7 and TABLE 8 present the parole release rate characteristics for male and female inmates in the first 11 months of 2018. Figures 7 and 8 present recent parole release rate data: Figure 7 shows the overall release rates from 2010 to 2018 (Jan-Nov) by type of hearing, while Figure 8 presents the data from 2015 to 2018 (Jan-Nov) disaggregated by gender. Since 1999, JFA has generated release rate statistics disaggregated by gender. The simulation model utilizes these gender-based release rates. For discretionary release hearings, the release rates for female offenders are higher than for male offenders. The rates for mandatory release hearings used to be fairly similar for males and females, but have become consistently higher for females as well.

Release rates issued in the report are actually release rates rather than grant rates. If an offender is temporarily granted parole and then it is rescinded before an offender is released or if an offender is not heard within 30 days of their minimum eligibility date, it is counted in JFA's statistics as a denial. Parole board statistics would label this as a grant and then a denial in the former case or a grant in the latter case. To avoid confusion, all rates presented in this report are labeled release rates rather than grant rates.

- For male inmates in the first 11 months of 2018, the total discretionary release rate ranged from 57.4 for B felons to 83.5 for E felons. The 2018 (Jan-Nov) discretionary release rates for males in all felony levels are higher than those observed in 2017.

- From 2004 to 2007, the overall male discretionary release rate hovered around 47 to 48. In 2008, the male discretionary release rate fell to 43.5, before jumping to 51.3 in 2009, and to 60.4 in 2010. They then declined each year, hitting 44.9 in 2016, before leaping to 58.6 in 2017 and rising again to 61.3 in the first 11 months of 2018.

- For female inmates in the first 11 months of 2018, the total discretionary release rates ranged from 71.4 for A felons to 95.2 for E felons. Female inmates experienced lower discretionary release rates in 2018 (Jan-Nov) for all but C felons as compared to 2017.

- In 2005, the total discretionary release rate for female offenders was 57.2 percent (the lowest it had been in the prior five years). The female discretionary release rate jumped to 68.9 in

2006. After dipping in 2007, female discretionary release rate rose markedly each year to reach 84.8 in 2010. The female discretionary release rate bounced around in the upper 70s from 2012 to 2015 before falling to 72.1 in 2016. The female discretionary release rate jumped up to 82.9 in 2017 and rose slightly in the first 11 months of 2018 to 83.2.

- The mandatory parole release rate for male offenders in the first half of 2018 was 64.0 percent, up from 60.8 in 2017 and up significantly from 54.7 percent in 2016. The mandatory parole release rate for male offenders had declined each year from 2009 to 2015.

- The mandatory parole release rate for female offenders in the first 11 months of 2018 was 82.4 – down slightly from 82.8 in 2017. The mandatory release rate had been 76.3 in 2016.

- The total discretionary release rate for males and females together was in the high-40/low-50 range from 2003 to 2007. The total discretionary release rate fell to 46.3 in 2008, and then shot up to 63.1 in 2010. Aside from a slight uptick in 2014, the total discretionary release rate declined each year from 2010 to 2016 when it dropped to 48.6. In 2017, the total discretionary release rate leaped to 62.1 before rising further to 64.2 in the first 11 months of 2018.

- The mandatory release rate for males and females combined was around 60 for 2003 to 2005, before jumping to around 70 for 2006 and 2007. In 2008, the mandatory release rate dropped significantly to 55.6, and then it rebounded to 69.2 in 2009. From 2009 to 2015, the mandatory release rate declined each year, hitting 56.0 in 2015. In 2016, the mandatory release rate edged up slightly to 56.6 and then rose significantly to 63.4 in 2017. In the first 11 months of 2018, it rose again to 65.9. (See Figures 7 and 8.)

TABLE 6: PAROLE RELEASE RATES 2008 –2018 (JAN-NOV)

	Discretionary Release Rate	Mandatory Release Rate	Total Release Rate
Males			
2008	43.5	53.0	46.8
2009	51.3	66.9	55.3
2010	60.4	64.4	61.4
2011	59.7	62.7	60.5
2012	55.6	59.8	56.8
2013	52.6	57.2	54.0
2014	52.3	54.6	53.0
2015	49.7	54.0	51.1
2016	44.9	54.7	48.2
2017	58.6	60.8	59.3
2018 (Jan-Nov)	61.3	64.0	62.1
Females			
2008	67.2	78.4	70.7
2009	75.9	88.0	78.7
2010	84.8	81.6	84.0
2011	84.3	82.8	84.0
2012	79.9	82.4	80.4
2013	77.4	73.6	76.5
2014	79.4	79.7	79.5
2015	76.8	74.1	76.2
2016	72.1	76.3	73.1
2017	82.9	82.8	82.9
2018 (Jan-Nov)	83.2	82.4	83.0
Total			
2008	46.3	55.6	49.5
2009	54.4	69.2	58.2
2010	63.1	65.9	63.9
2011	62.7	64.2	63.1
2012	58.7	61.7	59.5
2013	55.7	58.7	56.6
2014	55.9	57.0	56.2
2015	53.5	56.0	54.3
2016	48.6	56.6	51.2
2017	62.1	63.4	62.5
2018 (Jan-Nov)	64.2	65.9	64.7

TABLE 7: INMATE PAROLE RELEASE HEARINGS HELD: MALES 2018 (JAN-NOV)

Offender Felony Category	Discretionary Parole Release Rates					Total Discretionary Parole Release Rate	*Average Wait Time (months) to Discretionary Release Hearing	Total Mandatory Parole Release Rate	Total Parole Release Rate
	Hearing #1	Hearing #2	Hearing #3	Hearing #4	Hearing #5				
A Felons	49.2	54.3	64.4	64.5	69.5	59.7	28.1	60.6	59.8
B Felons	55.5	58.6	63.5	66.0	75.4	57.4	13.7	67.0	60.7
C Felons	59.8	64.2	(1/2) = 50.0	N/A	(0/1) = 0.0	60.0	12.0	59.5	59.8
D Felons	65.6	84.6	(1/2) = 50.0	N/A	N/A	66.1	12.0	56.5	63.7
E Felons	83.4	(6/7) = 85.7	N/A	N/A	N/A	83.5	12.0	57.1	80.2
TOTAL	60.6	60.6	63.6	65.5	70.9	61.3	14.7	64.0	62.1

TABLE 8: INMATE PAROLE RELEASE HEARINGS HELD: FEMALES 2018 (JAN-NOV)

Offender Felony Category	Discretionary Parole Release Rates					Total Discretionary Parole Release Rate	*Average Wait Time (months) to Discretionary Release Hearing	Total Mandatory Parole Release Rate	Total Parole Release Rate
	Hearing #1	Hearing #2	Hearing #3	Hearing #4	Hearing #5				
A Felons	(2/3) = 66.7	(4/7) = 57.1	(1/1) = 100.0	N/A	(3/3) = 100.0	71.4	(n=4) 31.9	(1/1) = 100.0	73.3
B Felons	75.4	82.8	(3/4) = 75.0	(2/3) = 66.7	(2/2) = 100.0	76.4	13.6	88.6	80.5
C Felons	85.9	80.0	(2/3) = 66.7	N/A	N/A	84.9	12.1	65.2	80.2
D Felons	83.7	(4/4) = 100.0	N/A	N/A	N/A	84.3	12.0	76.9	83.5
E Felons	94.9	(3/3) = 100.0	N/A	N/A	N/A	95.2	(n=3) 12.0	(3/3) = 100.0	95.4
TOTAL	83.4	81.4	(6/8) = 75.0	(2/3) = 66.7	(5/5) = 100.0	83.2	13.7	82.4	83.0

* Many of the cases in the parole hearing data file were missing a next hearing entry, and so the calculation of the "Average Wait Time (months) to Discretionary Release Hearing" is based on an unusually small number of cases.

C. Trends in the Prison Inmate Population

Significant Finding: From year-end 2017 to year-end 2018, the Nevada State prison population fell by -110 offenders, or -0.8 percent, to 13,752. In May 2017, the Nevada State prison population hit its highest month-end total: 14,179.

Significant Finding: Looking at the Nevada State prison population since 2000, the Nevada prison population exhibited modest growth in 2001 and 2002, followed by stronger growth from year-end 2002 to 2006 (posting average annual increases of 6.0 percent). From 2007 through 2014, the population declined or posted relatively small increases. The 4.6 percent increase in the Nevada State prison population from 2014 to 2015 was the largest observed since 2006, and it was followed by an increase of 3.4 percent in 2016. The prison population declined by -2.1 percent in 2017 and by -0.8 percent in 2018.

Significant Finding: From year-end 2017 to year-end 2018, the male prison population declined by -1.0 percent, while the female prison population increased by 0.9 percent.

Error! Reference source not found. and Figure 9 present the year-end inmate populations for male and female inmates from 2008 to 2018.

- The male prison population increased by 228 offenders from end of year 2008 to end of year 2018 – a total increase of 1.9 percent with an average increase of 0.2 percent per year. From year-end 2017 to year-end 2018, the male inmate population decreased by -121 offenders, or -1.0 percent, for a total of 12,451 male inmates.

- The female prison population increased by 259 offenders from end of year 2008 to end of year 2018 – a total increase of 24.9 percent with an average increase of 2.3 percent per year. From year-end 2017 to year-end 2018, the female confined population increased by 11 offenders, or 0.9 percent, for a total of 1,301 female inmates.

- Females made up 9.5 percent of the state prison population at the end of 2018. In the past decade, the percentage of the prison population that is female has ranged from 7.6 to 9.3 percent.

- When looking at the changes in the population over the past decade or so, the population grew rapidly from year-end 2002 to 2006 before showing a mix of much slower growth and declines through year-end 2014. The total population grew notably in 2015 and 2016 before declining in 2017 and 2018.

- The male population grew at an average annual rate of 5.7 percent from year-end 2002 to 2006. After growing by 2.0 percent from 2006 to 2007, the male population declined or posted modest increases in 2007 through 2014 – declining at an average annual rate of -0.3 percent. The increases of 4.2 percent in 2015 and 3.0 percent in 2016 were a sharp departure from the trends observed through much of the prior decade. That two-year increase, however, was halted in 2017 with the male population decreasing -2.1 percent, followed by a decrease of -1.0 percent in 2018.

- The female population has shown greater fluctuation: the average annual rate of change was +13.3 percent from year-end 2003 to 2006, and -6.1 percent from year-end 2006 to 2009. In 2010 and 2011, the female population continued to decline, but at a slower pace. From year-end 2011 to 2016, the female population grew at a steady and significant rate -- an average annual rate of 6.4 percent. Like the male population, the upward trend in the female population halted in 2017 with a decline of -2.1 percent. In 2018, the female population edged up 0.9 percent.

TABLE 9: HISTORICAL INMATE POPULATION: 2008 –2018

Year	Male Population	Female Population	Total Population
2008	12,223	1,042	13,265
2009	11,911	980	12,891
2010	11,790	979	12,769
2011	11,811	967	12,778
2012	11,845	1,038	12,883
2013	11,963	1,091	13,054
2014	11,961	1,130	13,091
2015	12,466	1,226	13,692
2016	12,836	1,317	14,153
2017	12,572	1,290	13,862
2018	12,451	1,301	13,752
Numeric Change 2008–2018	**228**	**259**	**487**
Percent Change 2008–2018	**1.9%**	**24.9%**	**3.7%**
Average Annual Percent Change 2008–2018	**0.2%**	**2.3%**	**0.4%**
Percent Change 2017–2018	**-1.0%**	**0.9%**	**-0.8%**

Numbers represent end of calendar year figures.

Trends in Length of Stay

Significant Finding: When A felons are excluded, the overall average length of stay for male inmates <u>paroled</u> in the first 11 months of 2018 rose significantly from 2017, while for females paroled in 2018 (January through November), it declined.

Significant Finding: Similarly, for males <u>discharged</u> from prison (excluding A felons), their average length of stay in the first 11 months of 2018 was longer than what was observed in 2017, while for females it was shorter.

Important Note: The average length of stay calculations have been modified from past reports. Starting in the April 2016 report, offenders sentenced to Life With Parole are included in the analysis in their appropriate felony categories. In addition, parole violators with no new convictions have been excluded from the length of stay analysis. Results presented in the tables for prior years have been re-analyzed and updated using the new criteria, and will not be comparable to results presented in reports prior to April 2016. Finally, offenders released from the Parole Housing Unit are excluded from the analysis.

Important Note: While Tables 10 and 11 display the average length of stay for inmates in the various felony categories by release type, it is important to note that the proportion of inmates who are released in the various felony categories changes from year to year, and thus the overall average lengths of stay are influenced by those changing proportions.

Error! Reference source not found. and **Error! Reference source not found.** present the average length of stay for male and female inmates by felony category and release type (parole or discharge) for 2015 to 2018 (January through November).

- The average length of stay for males released to parole over the past few years (excluding the relatively small population of A felons) has remained fairly steady around 24 months with the exception of a drop to 22.8 months in 2015. However, in the first 11 months of 2018, the average length of stay for males released to parole (excluding A felons) rose notably to 25.3 months.

- The average length of stay for females released to parole (excluding the very small number of A felons) fell between 14.0 and 15.0 months from 2014 to 2016. In 2017, the average length of stay for females released to parole (excluding A felons) rose slightly to 15.2 months, before falling to 14.6 months in the first 11 months of 2018.

- The average length of stay for males discharged from prison (excluding the relatively small population of A felons) rose notably in 2017 to 28.5 months after spending two years at just under 27 months. In the first 11 months of 2018, the average length of stay for discharged males further increased to 29.1 months. It is notable that the average length of stay for males discharged from prison in 2018 (Jan-Nov) was still slightly lower than that observed in 2013.

- Similar to the males discharged from NDOC in 2017, the average length of stay for female inmates discharged from prison (excluding the very small number of A felons) rose distinctly to 22.1 months after spending two years just under 20 months. In the first 11 months of 2018, the average length of stay for discharged females declined to 20.4 months. Again, like the males, the average length of stay for females discharged from prison in 2018 (Jan-Nov) was still lower than that observed in 2013 and 2014.

TABLE 10: AVERAGE LENGTH OF STAY FOR MALE
INMATES BY RELEASE TYPE: 2015-2018 (JAN-NOV)

Offender Felony Category	LENGTH OF STAY (months)							
	2015		**2016**		**2017**		**2018 (Jan-Nov)**	
	Parole	Discharge	Parole	Discharge	Parole	Discharge	Parole	Discharge
A Felons	141.3	56.2	145.0	81.5	178.4	96.7	181.2	102.2
B Felons	32.7	32.3	37.5	35.6	37.4	39.5	39.2	39.1
C Felons	8.8	15.9	10.1	17.1	11.2	18.0	10.3	19.3
D Felons	7.0	12.2	8.3	14.4	8.4	16.2	8.1	16.4
E Felons	5.7	10.2	7.4	13.4	7.3	15.8	6.7	17.0
TOTAL	**27.2**	**28.0**	**30.7**	**28.5**	**31.2**	**29.7**	**32.9**	**30.2**
TOTAL (No A Felons)	**22.8**	**26.8**	**24.5**	**26.9**	**24.1**	**28.5**	**25.3**	**29.1**

TABLE 11: AVERAGE LENGTH OF STAY FOR FEMALE
INMATES BY RELEASE TYPE: 2015-2018 (JAN-NOV)

Offender Felony Category	LENGTH OF STAY (months)							
	2015		**2016**		**2017**		**2018 (Jan-Nov)**	
	Parole	Discharge	Parole	Discharge	Parole	Discharge	Parole	Discharge
A Felons	153.0 (n=3)	19.5 (n=1)	109.8 (n=2)	55.3	129.7 (n=7)	--- (n=0)	125.1 (n=6)	171.2 (n=2)
B Felons	22.2	23.7	24.9	27.3	26.8	30.4	24.5	27.9
C Felons	7.2	15.6	8.8	15.0	8.9	17.4	8.1	18.3
D Felons	6.0	13.3	7.7	13.5	7.1	15.0	6.7	12.3
E Felons	5.4	11.8 (n=9)	7.4	12.5	6.8	11.1	5.9	10.2
TOTAL	**14.7**	**19.7**	**17.0**	**20.3**	**16.4**	**22.1**	**15.8**	**23.5**
TOTAL (No A Felons)	**14.0**	**19.7**	**15.0**	**19.8**	**15.2**	**22.1**	**14.6**	**20.4**

IMPORTANT NOTE ABOUT TABLES 10 & 11: If comparing these tables to previous versions of this report, please note that offenders sentenced to Life With Parole are now included in the analysis in their appropriate Felony Category. The very small number of offenders with a Life or Death sentence who are released continue to be excluded from these tables. Safekeepers discharged from prison also continue to be excluded from these tables. Prior year data has been re-analyzed using the same criteria listed above so that the results are comparable across the years shown. These tables, however, are not comparable to the ones in reports issued prior to April 2016. Offenders released from the Parole Housing Unit are excluded from these tables.

The table below presents the results of a separate analysis of the average length of stay of parole violators released over the past several years.

For parole violators with no new offense, their average length of stay displayed a steady upward trend from 7.1 months in 2013 to 11.6 months in 2017. In the first 11 months of 2018, the average length of stay for that population declined slightly to 11.1 months. For the small number of parole violators with a new offense, their average length of stay has bounced around, but has displayed an upward trend in the past few years.

SUPPLEMENTAL: AVERAGE LENGTH OF STAY
FOR PAROLE VIOLATORS: 2013-2018

Parole Violators	LENGTH OF STAY (months)					
	2013	2014	2015	2016	2017	2018 (Jan-Nov)
PVs: No new offense	7.1	8.0	9.6	10.7	11.6	11.1
PVs: With new offense	17.6	28.0	23.0	24.6	26.1	34.9/29.8*

For the January 2019 report, we excluded prisoners with a Life or Death sentence – this resulted in no changes to any of the figures previously reported except that the average length of stay for Parole Violators with a new offense released in 2017 shifted slightly upward.

* One B felon released in 2018 (Jan-Nov) who was a Parole Violator with a new offense had a length of stay over 200 months – a huge outlier. When that prisoner is included in the analysis, the average length of stay for the Parole Violator with a new offense released in 2018 (Jan-Nov) is 34.9 months. When that prisoner is excluded, the average length of stay for that population falls to 29.8 months. Note that the numbers of prisoners released each year who are Parole Violators with a new offense has ranged from 33 to 56 released prisoners over the past six years. As it is a relatively small population, outliers can shift the average quite significantly.

VI.   KEY POPULATION PROJECTION ASSUMPTIONS

The inmate population projections contained in this report were completed using the Wizard simulation model. The 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. It simulates the movements of individual cases, by felony class subgroup, and projects each separately. Males and females, as well as inmates sentenced under different sentencing policies, move through the system differently. The forecast presented in this document was produced using the NDOC data from January through November 2018 presented in this report. The list below summarizes the key additional assumptions not inherently reflected in the January through November 2018 data.

A. **Future Release Rates:**
Future discretionary release rates will reflect a hybrid of 2017 and 2018 observed parole release rates. Future mandatory parole release rates will be held at an overall discretionary rate of 59.9 percent for males and 83.0 percent for females. Mandatory release rates will be held at an overall rate of 62.3 percent males and 82.6 percent for females.

As noted earlier in the report: **Trends in Parole Release Rates**
Significant Finding: In the first 11 months of 2018, overall release rates increased compared to 2017, after having increased substantially from 2016 to 2017. The overall release rate in 2016 was 51.2 – the lowest rate since 2008. Then in 2017, the overall release rate rose to 62.5 before rising to 64.7 in the first 11 months of 2018 (the highest rate since 2000).

Significant Finding: Overall discretionary release rates for the first 11 months of 2018 rose to 64.2 (the highest rate since 2000). Both the male and female discretionary release rates rose in the first 11 months of 2018 after having increased dramatically in 2017 compared to 2016.

Significant Finding: Overall mandatory release rates for the first 11 months of 2018 increased to 65.9. The mandatory release rates had risen notably from 2016 to 2017 by 6.8 percentage points, while from 2017 to 2018 they increased by 2.5 percentage points.

2018 through November marks a second year of continued increased parole release rates. As noted above, this trend started in 2017 when male and female both discretionary and mandatory release rates increased rapidly. Historically in prison systems, a dramatic increase in grant rates as a result of new policy efforts is often not sustainable at the level first seen, however, this trend has continued for almost two years. Based on this and to support a forecast used for long term planning, the following assumptions were made to arrive at assumed parole release rates for the simulation model. Each grant rate assumption was made individually by gender and idgroup.

1. Idgroups whose 2018 release rates were lower than their 2017 release rates were assumed to be the 2018 rate.
2. Idgroups whose 2018 release rates were higher than their 2017 release rates were assumed to be the average of the rates from 12 months of 2017 and the first 11 months of 2018.

Parole release rates in 2017, the first 11 months of 2018 and the resulting assumptions for the 2019 forecast by Wizard model idgroup is presented below. For the baseline projections presented in this document, probabilities of parole release are assumed to be as presented in the table below. The release rates associated with each gender and felony class subgroup, for each of five hearings, are assumed to remain unchanged at these rates over the forecast horizon.

Mandatory Parole Release Rates: 2017, 2018 & Forecast Assumption for 2019

Male ID Group	2017	2018 (Jan-Nov)	Assumed Rate For 2019 Forecast	Female ID Group	2017	2018 (Jan-Nov)	Assumed Rate For 2019 Forecast
Burglary_AB	58.8%	79.3%	68.6%	Burglary	83.3%	86.7%	84.9%
Drug_AB	86.4%	87.6%	87.0%	Drug_AB	96.3%	100.0%	98.1%
Drug_CD	68.6%	64.0%	64.0%	Drug_CD	100.0%	100.0%	100.0%
DUI	77.1%	76.5%	76.5%	DUI	90.9%	100.0%	95.3%
E Felon	68.3%	57.1%	57.1%	E Felon	100.0%	100.0%	100.0%
Murder	28.6%	40.0%	34.1%	Other Non-Violent	87.5%	66.7%	66.7%
Other Non-Violent	54.7%	60.4%	57.4%	Property_AB	86.4%	100.0%	92.9%
Property_AB	67.3%	78.9%	72.8%	Property_C	77.1%	60.0%	60.0%
Property_C	63.7%	70.8%	67.1%	Property_D	81.3%	85.7%	83.4%
Property_D	70.2%	80.0%	74.9%	Sex_Viol_AB	70.9%	77.4%	74.0%
Rape_Sex_A	55.6%	62.5%	58.9%	Sex_Viol_CD	66.7%	64.0%	64.0%
Sex_BCD	63.3%	59.3%	59.3%	Weapon	90.0%	87.5%	87.5%
Violent_AB	49.4%	55.6%	52.4%	**Total**	**82.8%**	**82.4%**	**82.6%**
Violent_CD	50.2%	42.0%	42.0%				
Weapon	54.6%	62.9%	58.6%				
Total	**60.8 %**	**64.0 %**	**62.3%**				

Discretionary Parole Release Rates: 2017, 2018 & Forecast Assumption for 2019

Male ID Group	2017	2018 (Jan-Nov)	Assumed Rate For 2019 Forecast	Female ID Group	2017	2018 (Jan-Nov)	Assumed Rate For 2019 Forecast
Burglary_AB	60.1%	68.5%	64.1%	Burglary	79.6%	71.1%	71.1%
Drug_AB	80.8%	82.6%	81.7%	Drug_AB	97.5%	83.3%	83.3%
Drug_CD	72.9%	79.8%	76.2%	Drug_CD	95.7%	92.3%	92.3%
DUI	75.6%	68.6%	68.6%	DUI	81.3%	87.5%	84.3%
E Felon	80.5%	83.5%	81.9%	E Felon	96.3%	95.2%	95.2%
Life	53.5%	58.1%	55.7%	Life	57.1%	60.0%	58.5%
Murder	53.7%	62.1%	57.7%	Muder_Sex_Viol	85.7%	100.0%	92.5%
Other Non-Violent	45.4%	58.8%	51.8%	Other Non-Violent	72.0%	83.3%	77.4%
Property_AB	64.2%	72.6%	68.2%	Property_AB	87.9%	82.9%	82.9%
Property_C	61.2%	66.9%	63.9%	Property_C	81.3%	87.1%	84.1%
Property_D	69.7%	74.4%	71.9%	Property_D	86.3%	92.0%	89.0%
Rape_Sex_A	34.5%	37.5%	35.9%	Sex_Viol_AB	63.6%	72.0%	67.6%
Sex_BCD	26.3%	31.2%	28.6%	Sex_Viol_CD	46.4%	45.8%	45.8%
Violent_AB	48.9%	50.1%	49.5%	Weapon	70.0%	54.5%	54.5%
Violent_CD	29.5%	32.2%	30.8%	**Total**	**82.9%**	**83.2%**	**83.0%**
Weapon	54.7%	54.5%	54.5%				
Total	**58.6%**	**61.3%**	**59.9%**				

B. **Future Admissions Composition:**
The composition of future new commitment admissions is assumed to be the same as the composition of new commitment admissions during January through November 2018.

Projections in this report are based on admission and release data provided to JFA Associates by the NDOC for January through November 2018. Future admissions are assumed to "look like" these admissions in terms of the proportion of admitting charges, sentences received, jail credit days earned, good time credit awards, and serving times to parole eligibility. (See **Error! Reference source not found.** and **Error! Reference source not found.**.)

C. **Future Admissions Counts:**
Male new commitment admissions are projected to increase at an average rate of 1.0 percent every year through the year 2029; and female new commitment admissions are projected to increase at an average rate of 1.1 percent every year through the year 2029.

Male new commitment admissions increased each year from 2002 to 2006, at an average annual rate of 8.9 percent to hit almost 4,750 in 2006. From 2007 to 2012, male new commitment admissions exhibited a fairly steady decline, falling at an average annual rate of about -3 percent to hit just over 4,000 in 2012. After being largely unchanged in 2013, male new commitment admissions increased at an average annual rate of 4.7 percent from 2013 to 2015. The -2.9 percent decline in male new commitment admissions in 2016 was erased by a similar increase in 2017. In 2018, male new commitment admissions are on track to decline by -2.2 percent. The three-year average rate of change in male new court commitments is -0.8 percent per year while the five-year rate of change is 1.4 percent.

Over the past two decades, female new commitment admissions have fluctuated widely with several years of increases and decreases of varying magnitudes. From 2004 to 2006, female new commitments grew at an average annual rate of 14.7 percent to hit almost 750 in 2006. Female new commitment admissions declined for the next few years to just over 600 in 2009. After rising in 2010 and falling in 2011, female new court commitments increased at an average annual rate of 4.7 percent from 2011 to 2015. In 2016, female new commitment admissions declined by -2.3 percent before leaping by 13.3 percent in 2017. In 2018, female new commitment admissions are on track to decline by -8.0 percent. The three-year average rate of change in female new court commitments is 1.0 percent per year while the five-year rate of change is 3.0 percent.

With a slight decline in male and female new commitments in 2017 combined with a similar three and five-year rate of admissions, new commitments are projected to grow at an average rate of 1.0 percent and 1.2 percent per year, respectively. This assumed rate is lower that the previous iteration of this report.

JFA feels dividing admissions to prison into categories is essential in looking at drivers of the overall prison population. New court commitments will spend significantly longer on average than parole violators and PARHU offenders. PARHU admissions in 2018 have stabilized and NDOC has indicated this is the continued level that will be seen over the forecast horizon.

D.   Future Parole Revocation and Parole Violators Returned to Prison Rates:
Both male and female parole violators are assumed to grow at a slightly faster rate over the
forecast horizon than observed in 2017 and 2018.

After hovering around 1,000 for the first part of the 2000s, the number of parole violators admitted to NDOC declined to hit approximately 612 in 2008.[15] The decrease in parole violations was a result of AB 510 which shortened the time on parole for most offenders. With less time on parole, there is less opportunity for revocation. After 2008, the number of parole violators returned to prison increased substantially until 2012 when the number admitted to NDOC was again around 1,000. For the next several years, the number of parole violators remained around 900, and in 2017, dropped to 802. If the pattern for the first 11 months of 2018 holds for the remainder of the year, parole violator admissions will surge by 36.0 percent to hit its highest level in almost two decades. (See **Error! Reference source not found.**.)

TABLE 12: PAROLE VIOLATORS ADMITTED BY YEAR: 2008-2018 (JAN-NOV)

Year	Total Parole Violators	Percent Change
2008*	612	
2009	689	+12.6
2010	782	+13.5
2011^	976	+24.8
2012^	1,007	+3.2
2013	872	-13.4
2014	924	+6.0
2015	891	-3.6
2016	890	-0.1
2017	802	-9.9
2018 (Jan-Nov)	*1,000*	
2018 (Ann'd)**	1,091	+36.0

This table is populated using counts from the NDOC admissions datafiles.
* The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.
^ 2011 and 2012 counts were updated using NDOC monthly reports provided in March 2013.
** The 2018 data from January through November was annualized by multiplying by 12/11.

NOTE: Housing of Nevada Contract Inmates
As of December 2018, there were 198 Nevada offenders (labeled NBV in aggregate reports) housed under contract in the Arizona State Prison system. It is assumed these offenders will continued to be housed at this number over the forecast horizon. The level of contract beds is not assumed to increase or decrease based on any trends.

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[15] The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

TABLE 13: NEW COURT COMMITMENT ADMISSION
CHARACTERISTICS BY CATEGORY: MALES: 2016^

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons	153	3.7%	28.3	762.2	647.5	404.1
B Felons	2,006	48.9%	29.1	206.2	105.4	37.2
C Felons	1,085	26.4%	28.5	131.7	46.6	12.2
D Felons	626	15.3%	28.7	126.0	40.1	9.6
E Felons	233	5.7%	29.8	108.4	37.6	7.6
Subtotal	4,103	100%				
Missing	13					
Total	4,116					

TABLE 14: NEW COURT COMMITMENT ADMISSION
CHARACTERISTICS BY CATEGORY: MALES: 2017^

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons	141	3.3%	28.4	812.9	665.5	468.6
B Felons	2,127	50.0%	28.8	208.8	103.2	36.3
C Felons	1,071	25.2%	28.3	141.8	47.5	12.6
D Felons	658	15.5%	28.4	117.8	39.8	9.5
E Felons	254	6.0%	29.9	127.4	39.2	8.3
Subtotal	4,251	100.0%				
Missing	4					
Total	4,255					

TABLE 15: NEW COURT COMMITMENT ADMISSION
CHARACTERISTICS BY CATEGORY: MALES: 2018 (JAN-NOV)^

Offender Felony Category	Number Admitted (JAN-NOV)	Percent Admitted (JAN-NOV)	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons	158	4.1%	28.8	626.4	663.8	356.4
B Felons	1,977	51.4%	29.2	214.1	106.7	37.0
C Felons	956	24.8%	28.4	146.0	46.5	12.3
D Felons	552	14.3%	28.5	127.1	39.4	9.4
E Felons	205	5.3%	29.4	117.6	38.4	7.8
Subtotal	3,848	100.0%				
Missing	2					
Total	3,850					

^ These tables include New Commitments admissions as well as a small population of offenders who were 'Not Physically Received (NPR)." They do not include Safe Keepers or Intermediate Sanction Probationers. Offenders sentenced to Life and Life With Parole were put in their assigned felony categories; the vast majority of the time, they are A felons.

TABLE 16: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: FEMALES: 2016^

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons	8	1.1%	29.0	736.6	620.0	560.1
B Felons	318	44.5%	28.8	150.6	86.7	30.4
C Felons	194	27.1%	27.9	129.3	43.7	10.4
D Felons	127	17.8%	27.9	116.3	37.7	8.2
E Felons	68	9.5%	28.1	115.5	38.6	8.6
Subtotal	715	100.0%				
Missing	0					
Total	715					

TABLE 17: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: FEMALES: 2017^

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons	16	2.0%	28.6	1,091.4	637.8	304.5
B Felons	319	39.4%	28.6	183.6	85.9	29.4
C Felons	212	26.2%	28.0	131.4	44.0	10.8
D Felons	175	21.6%	28.6	110.6	38.5	8.5
E Felons	87	10.8%	28.9	117.5	38.2	7.9
Subtotal	809	100.0%				
Missing	0					
Total	809					

TABLE 18: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: FEMALES: 2018 (JAN-NOV)^

Offender Felony Category	Number Admitted (JAN-NOV)	Percent Admitted (JAN-NOV)	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons	13	1.9%	28.9	564.5	441.2	185.5
B Felons	305	45.2%	28.5	177.3	90.8	30.4
C Felons	171	25.3%	28.1	130.4	44.1	11.1
D Felons	116	17.2%	28.5	127.7	38.1	8.2
E Felons	70	10.4%	28.3	114.8	37.9	8.0
Subtotal	675	100.0%				
Missing	5					
Total	680					

^ These tables include New Commitments admissions as well as a small population of offenders who were 'Not Physically Received (NPR)." They do not include Safe Keepers or Intermediate Sanction Probationers. Offenders sentenced to Life and Life With Parole were put in their assigned felony categories; the vast majority of the time, they are A felons.

TABLE 19: HISTORICAL AND PROJECTED NEW COMMITMENT AND TOTAL ADMISSIONS: 2008-2029

Year	Males	Females	Total
Admit Group:	NC / Total	NC / Total	NC / Total
2008^	4,622 / 5,236	621 / 708	5,243 / 5,944
2009	4,475 / 5,075	611 / 719	5,086 / 5,794
2010	4,405 / 5,080	660 / 785	5,065 / 5,865
2011#	4,269 / 5,188	611 / 735	4,880 / 5,923
2012#	4,081 / 4,944	629 / 773	4,710 / 5,717
2013	4,088 / 4,842	651 / 775	4,739 / 5,617
2014	4,247 / 5,040	697 / 836	4,944 / 5,876
2015	4,481 / 5,303	733 / 879	5,214 / 6,182
2016	4,350 / 5,349	716 / 908	5,066 / 6,257
2017	4,471 / 5,433	811 / 1,052	5,282 / 6,485
2018 (Ann'd)*	4,372 / 5,547	746 / 1,030	5,118 / 6,577
	Projected	**Projected**	**Projected**
2019	4,424 / 5,614	761 / 1,151	5,185 / 6,765
2020	4,468 / 5,679	775 / 1,171	5,243 / 6,850
2021	4,513 / 5,742	787 / 1,189	5,300 / 6,931
2022	4,558 / 5,804	798 / 1,205	5,356 / 7,009
2023	4,603 / 5,863	808 / 1,220	5,411 / 7,083
2024	4,649 / 5,919	816 / 1,234	5,465 / 7,153
2025	4,696 / 5,976	822 / 1,245	5,518 / 7,221
2026	4,743 / 6,034	829 / 1,256	5,572 / 7,290
2027	4,790 / 6,092	835 / 1,267	5,625 / 7,359
2028	4,838 / 6,150	842 / 1,277	5,680 / 7,427
2029	4,887 / 6,209	849 / 1,288	5,736 / 7,497
Numeric Change 2008–2018 (Jan-Nov)	**-250 / 311**	**125 / 322**	**-125 / 633**
Percent Change 2008–2018 (Jan-Nov)	**-5.4% / 5.9%**	**20.2% / 45.5%**	**-2.4% / 10.7%**
Average Annual Percent Change 2008–2018 (Jan-Nov)	**-0.5% / 0.6%**	**2.1% / 4.0%**	**-0.2% / 1.1%**
Percent Change 2017–2018 (Jan-Nov)	**-2.2% / 2.1%**	**-8.0% / -2.1%**	**-3.1% / 1.4%**
Numeric Change 2019 – 2029	**463 / 595**	**88 / 137**	**551 / 732**
Percent Change 2019 – 2029	**10.5% / 10.6%**	**11.6% / 11.9%**	**10.6% / 10.8%**
Average Annual Percent Change 2019 – 2029	**1.0% / 1.0%**	**1.1% / 1.1%**	**1.0% / 1.0%**

^ The 2008 admissions datafile did not contain admissions by type for July and August. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August

2011 and 2012 counts were updated from NDOC monthly reports provided in March 2013

* The 2018 data from January through November was annualized by multiplying by 12/11.

VII.   PRISON POPULATION PROJECTIONS

This section contains the inmate population projections based on the assumptions set forth above. Projections are presented for male and female inmates, and the total inmate population.

Error! Reference source not found. presents the summary table of male, female and total population projections from 2018 to 2029.

A.   Projected Male Inmate Population

Error! Reference source not found. displays a summary of the historical and projected male inmate population for the period 2008 to 2029.

Figure 12 presents the February 2019 forecasts of male new commitment admissions and stock population.

Baseline Forecast
- In 2029, 13,704 male offenders are projected to be housed in the Nevada Department of Corrections system.

- The male inmate prison population was 12,451 at the end of 2018. The population is projected to increase to 13,081 in 2024 and to 13,704 inmates by the end of 2029. The projected growth represents average increases of 0.9 percent per year through the year 2029.

- The male forecast for this cycle represents a very similar forecast to the most recent Spring and Fall 2018 forecast.   Shifts in a slightly higher discretionary and mandatory parole grant rate along with a slightly lower new commitment assumption were counter balanced by a higher parole return rate and increasing length of stays for parole violators.

TABLE 20: HISTORICAL AND PROJECTED INMATE POPULATION: MALES: 2008 – 2029

Year	Historical	Projected
2008	12,223	
2009	11,911	
2010	11,790	
2011	11,811	
2012	11,845	
2013	11,963	
2014	11,961	
2015	12,466	
2016	12,836	
2017	12,572	
2018	12,451	
		Projected
2019		12,544
2020		12,651
2021		12,763
2022		12,859
2023		12,965
2024		13,081
2025		13,187
2026		13,318
2027		13,453
2028		13,579
2029		13,704
Numeric Change 2008–2018	**228**	
Percent Change 2008–2018	**1.9%**	
Average Annual Percent Change 2008–2018	**0.2%**	
Percent Change 2017–2018	**-1.0%**	
Numeric Change 2019 – 2029		**1,160**
Percent Change 2019 – 2029		**9.2%**
Average Annual Percent Change 2019 – 2029		**0.9%**

Numbers represent end of calendar year figures.

B.   **Projected Female Inmate Population**

Error! Reference source not found. displays a summary of the historical and projected female inmate population for the period 2008 to 2029.

Figure 13 presents the February 2019 forecasts of female new commitment admissions and stock population.

Baseline Forecast
- In 2029, 1,498 female offenders are projected to be housed in the Nevada Department of Corrections system.

- The female inmate prison population was 1,301 at the end of 2018. The population is projected to increase to 1,403 in 2024 and to 1,498 inmates by the end of 2029. The projected growth represents average increases of 1.3 percent per year through the year 2029.

- The female forecast for this cycle represents a slightly higher forecast to the most recent Spring and Fall 2018 forecast. Shifts in a slightly higher discretionary and mandatory parole grant rate were counter balanced by a higher parole return rate and increasing length of stays for parole violators.

TABLE 21: HISTORICAL AND PROJECTED INMATE POPULATION: FEMALES: 2008 – 2029

Year	Historical	Projected
2008	1,042	
2009	980	
2010	979	
2011	967	
2012	1,038	
2013	1,091	
2014	1,130	
2015	1,226	
2016	1,317	
2017	1,290	
2018	1,299	
		Projected
2019		1,312
2020		1,335
2021		1,348
2022		1,366
2023		1,383
2024		1,403
2025		1,425
2026		1,443
2027		1,461
2028		1,480
2029		1,498
Numeric Change 2008–2018	**259**	
Percent Change 2008–2018	**24.9%**	
Average Annual Percent Change 2008–2018	**2.3%**	
Percent Change 2017–2018	**0.9%**	
Numeric Change 2019 – 2029		**186**
Percent Change 2019 – 2029		**14.2%**
Average Annual Percent Change 2019 – 2029		**1.3%**

Numbers represent end of calendar year figures.

TABLE 22: ACTUAL AND PROJECTED INMATE POPULATION: 2018 – 2029

| Year	Male Population	Female Population	Total Population
2018	12,451	1,301	13,752
2019	12,544	1,312	13,856
2020	12,651	1,335	13,986
2021	12,763	1,348	14,111
2022	12,859	1,366	14,225
2023	12,965	1,383	14,348
2024	13,081	1,403	14,484
2025	13,187	1,425	14,612
2026	13,318	1,443	14,761
2027	13,453	1,461	14,914
2028	13,579	1,480	15,059
2029	13,704	1,498	15,202
Numeric Change 2019 – 2029	**1,160**	**186**	**1,346**
Percent Change 2019 – 2029	**9.2%**	**14.2%**	**9.7%**
Average Annual Percent Change 2019 – 2029	**0.9%**	**1.3%**	**0.9%**

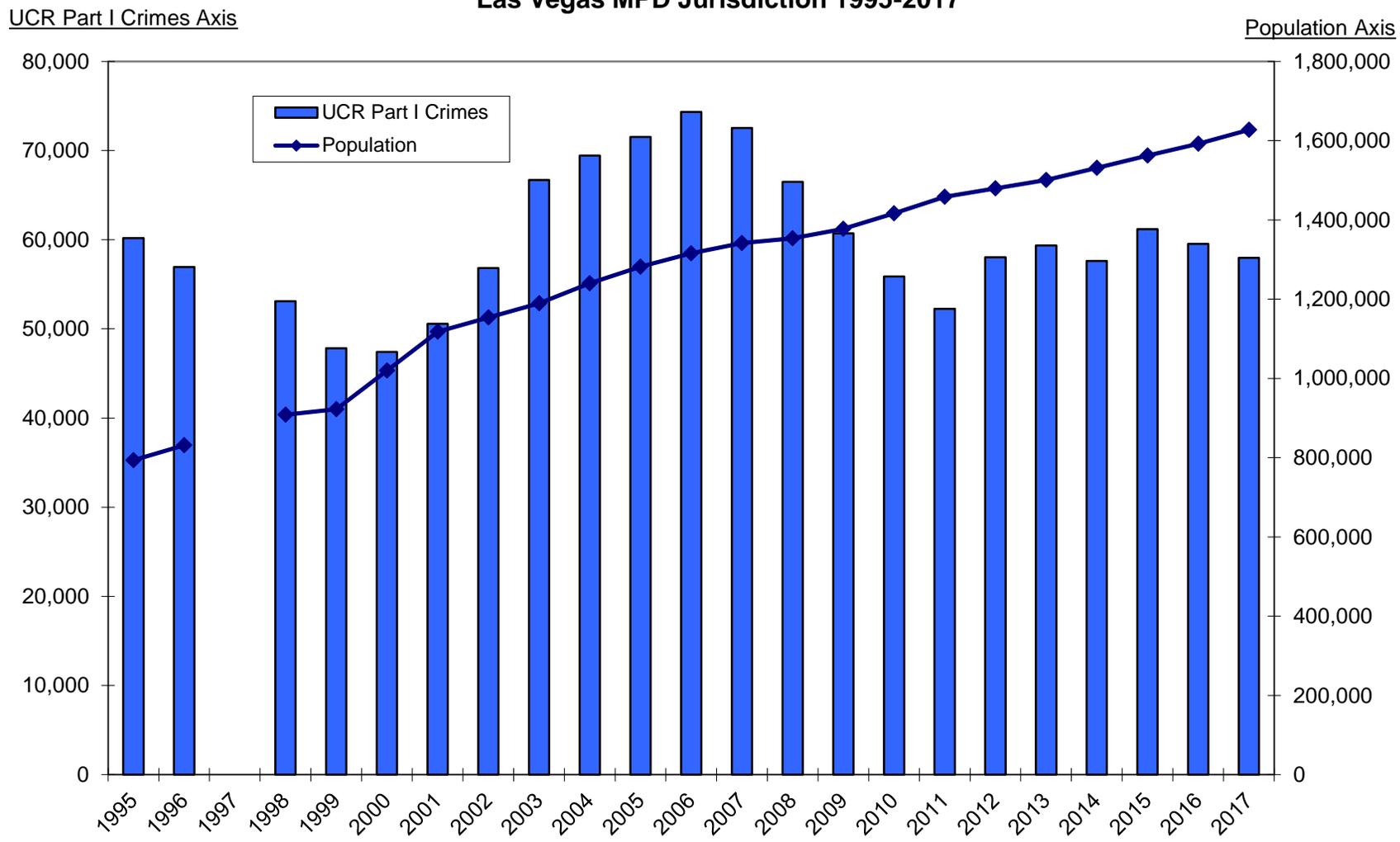Projections numbers represent end of calendar year figures.

APPENDIX A: FIGURES

FIGURE 1: Reported Crime and Population: Nevada 1990-2017

UCR Part I Crimes Axis

Population Axis

Legend: UCR Part I Crimes; NV Population
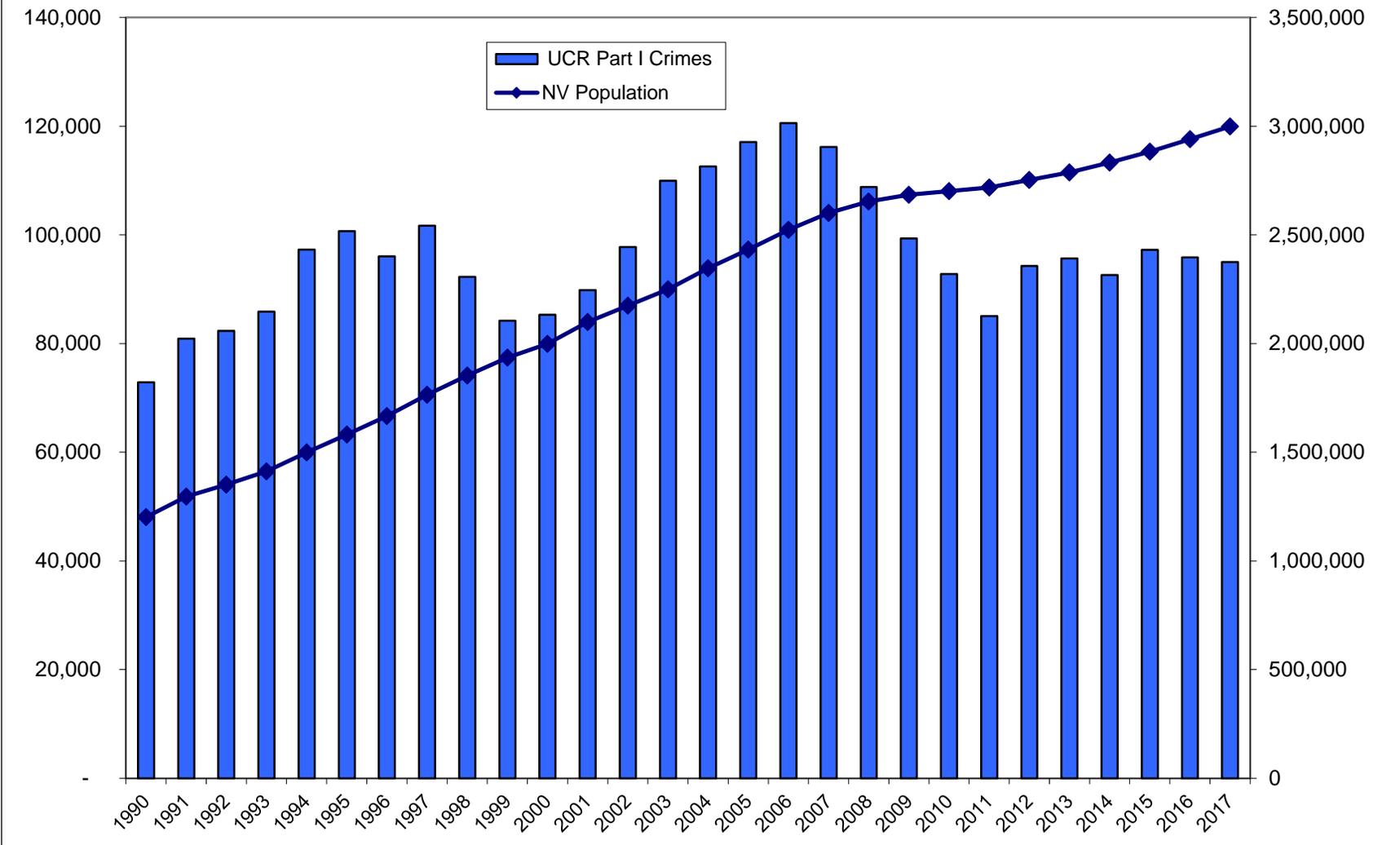
**FIGURE 2: Reported Crime and Population:
Las Vegas MPD Jurisdiction 1995-2017**

UCR Part I Crimes Axis

Population Axis

NOTE: The FBI's Uniform Crime Reports for 1997 did not show the reported crime for the Las Vegas Metropolitan Police Dept jurisdiction.

FIGURE 3: Accuracy of JFA's April 2018 Forecast
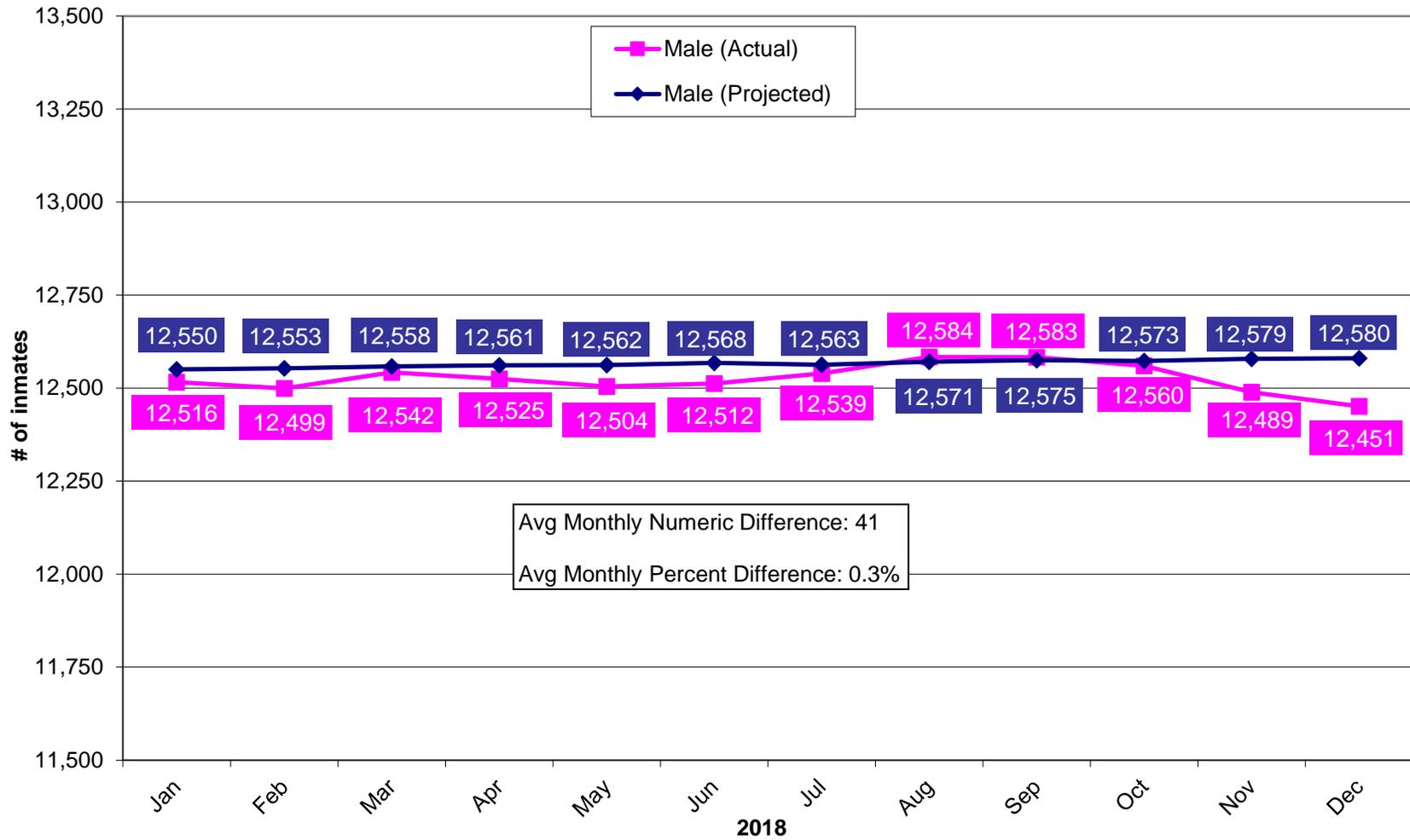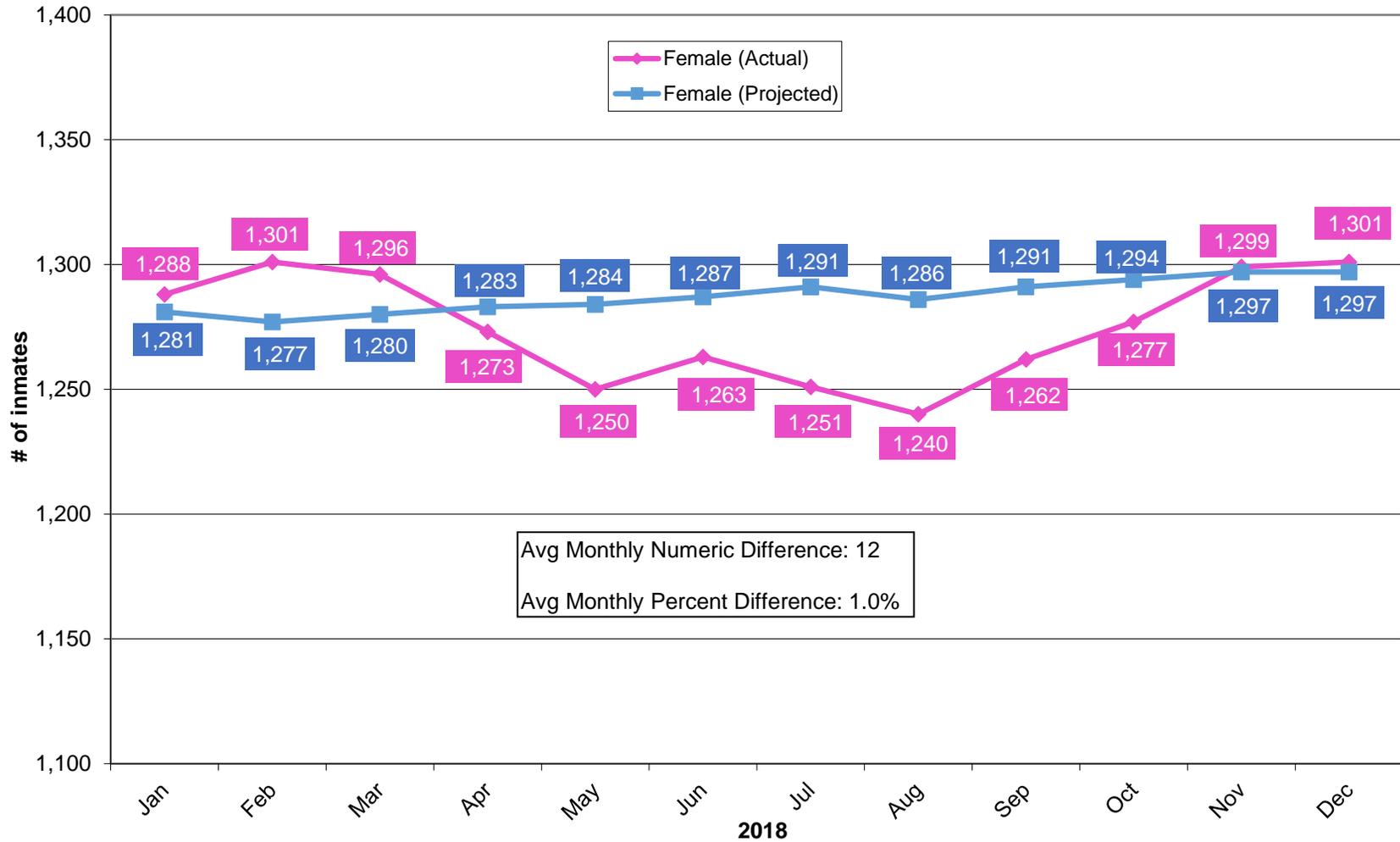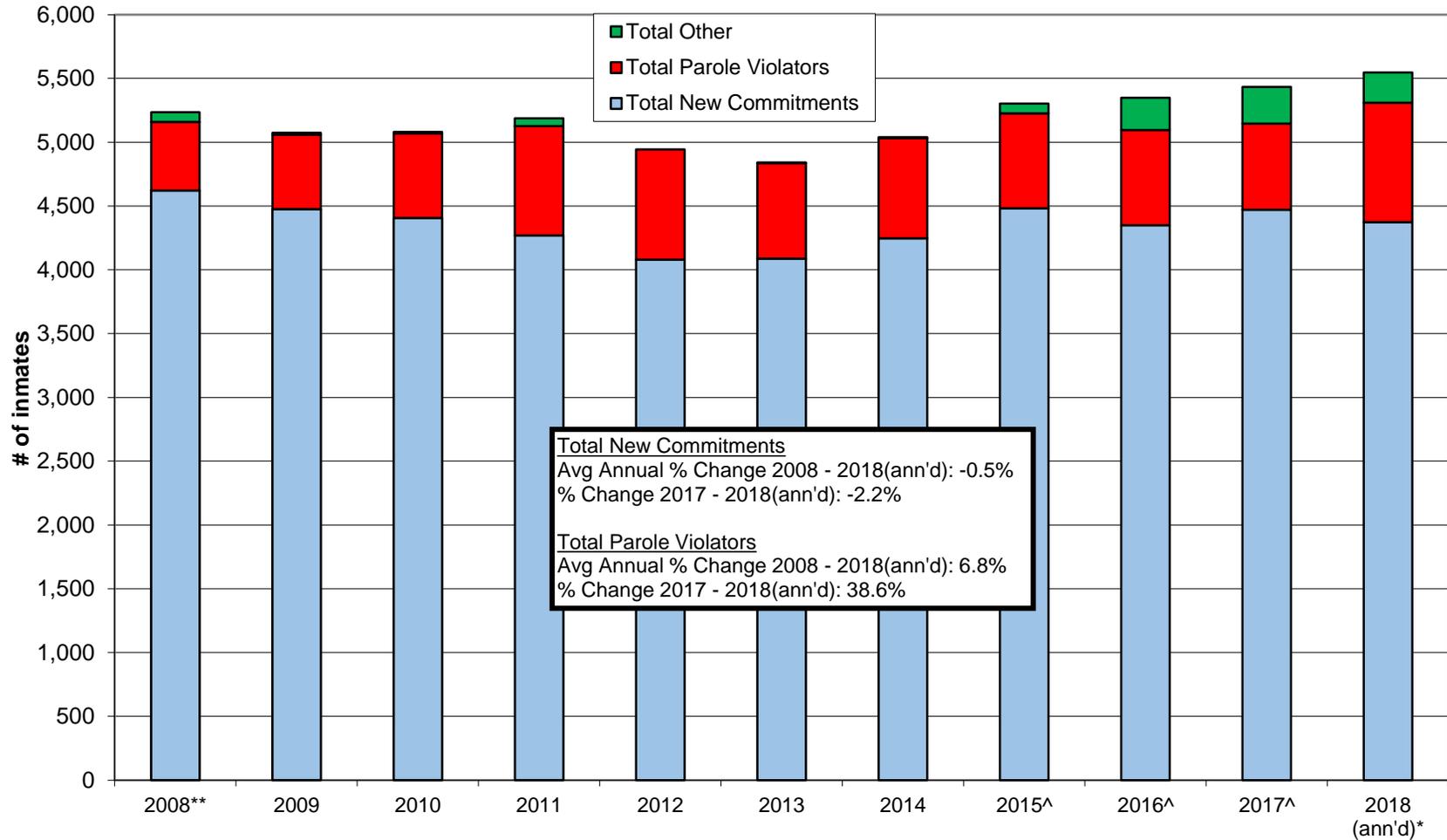**Total Male Inmate Population: January through December 2018**

Avg Monthly Numeric Difference: 41

Avg Monthly Percent Difference: 0.3%

FIGURE 4: Accuracy of JFA's April 2018 Forecast
Total Female Inmate Population: January through December 2018

Avg Monthly Numeric Difference: 12

Avg Monthly Percent Difference: 1.0%

FIGURE 5: Historical Male Admissions to Prison
2008 - 2018 (Jan-Nov: Annualized)

Total New Commitments
Avg Annual % Change 2008 - 2018(ann'd): -0.5%
% Change 2017 - 2018(ann'd): -2.2%

Total Parole Violators
Avg Annual % Change 2008 - 2018(ann'd): 6.8%
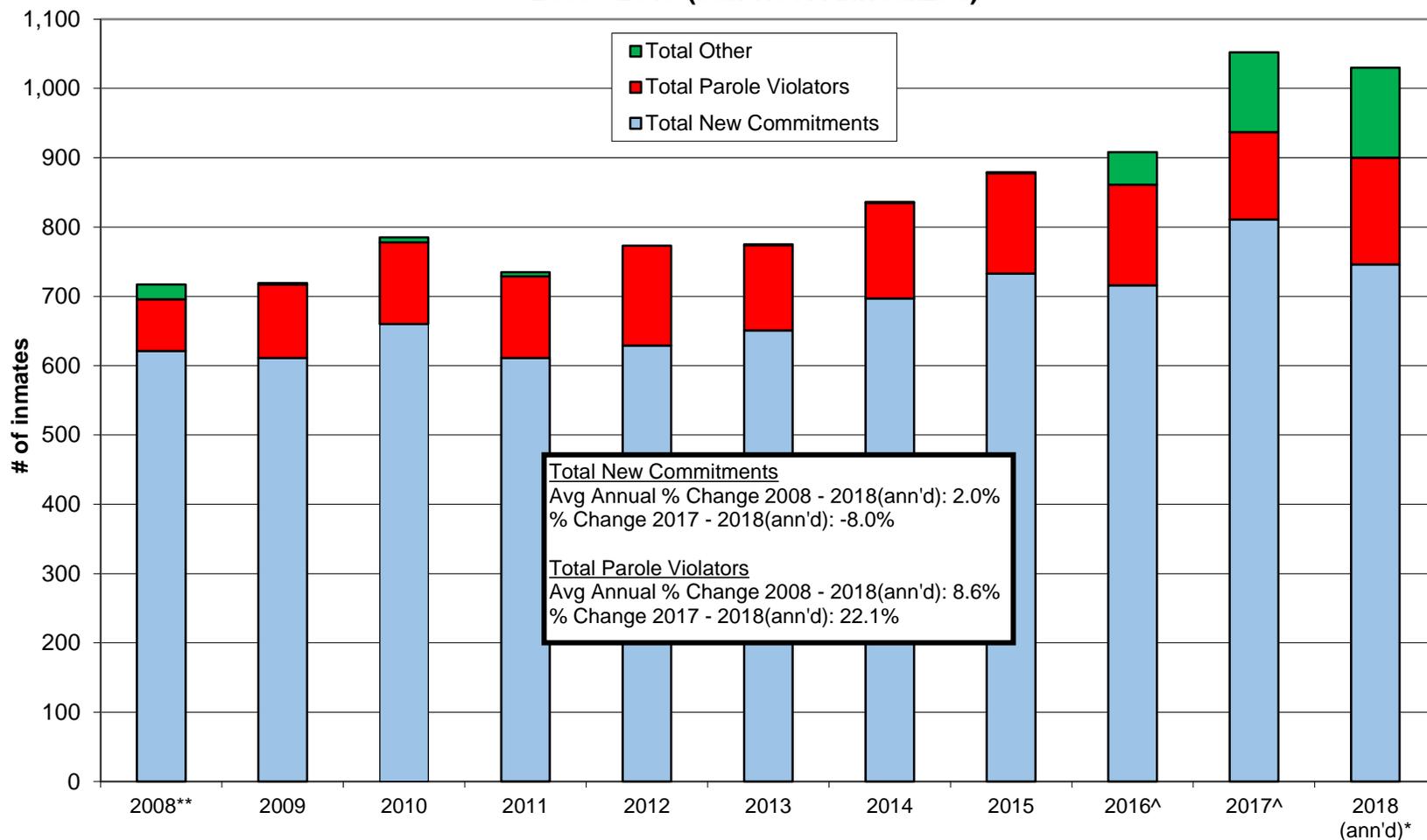% Change 2017 - 2018(ann'd): 38.6%

**The 2008 admissions datafile did not contain admissions by type for July and August. We utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.
* The 2018 data from January through November was annualized by simply multiplying by 12/11.
^ Almost all of the "Others" in 2015 - 2018 are Parole Housing Unit admissions.

FIGURE 6: Historical Female Admissions to Prison
2008 - 2018 (Jan-Nov: Annualized)

Legend:
- ■ Total Other
- ■ Total Parole Violators
- ■ Total New Commitments

Total New Commitments
Avg Annual % Change 2008 - 2018(ann'd): 2.0%
% Change 2017 - 2018(ann'd): -8.0%

Total Parole Violators
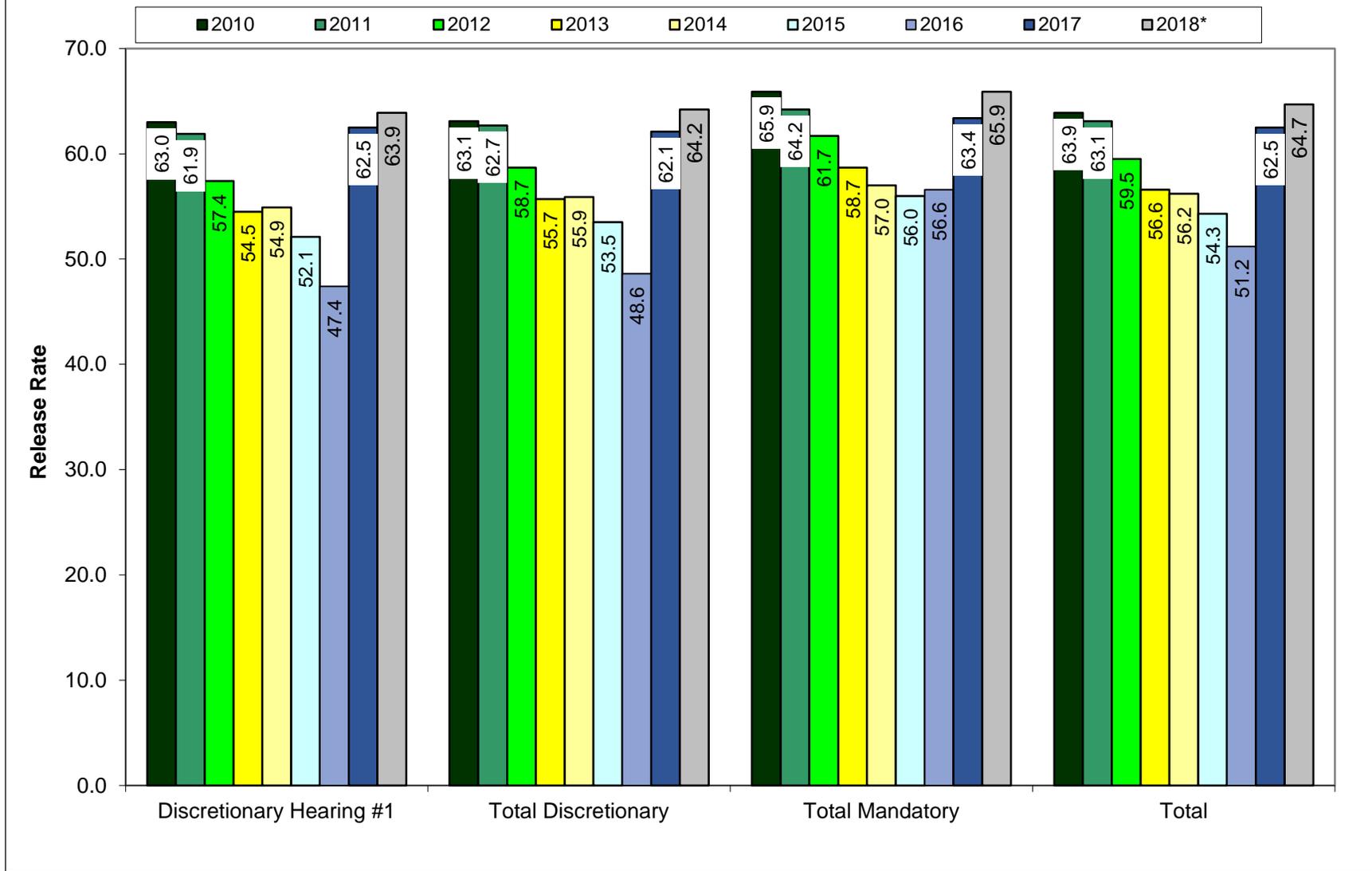Avg Annual % Change 2008 - 2018(ann'd): 8.6%
% Change 2017 - 2018(ann'd): 22.1%

** The 2008 admissions datafile did not contain admissions by type for July and August. We utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.
* The 2018 data from January through November was annualized by simply multiplying by 12/11.
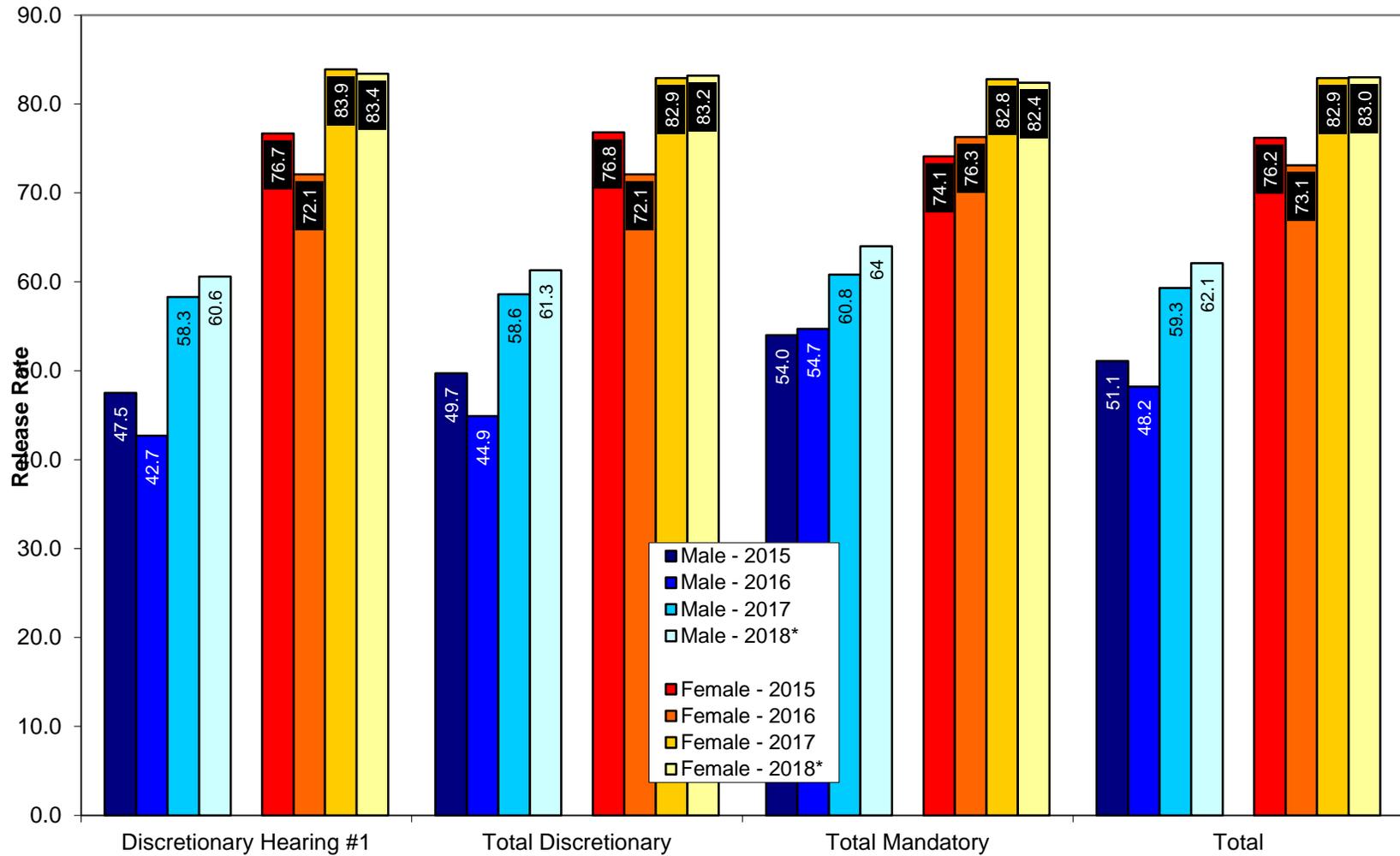^ Virtually all of the "Others" in 2016 - 2018 are Parole Housing Unit admissions.

FIGURE 7: Parole Release Rates: 2010 to 2018 (Jan-Nov)*

Legend: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018*

Discretionary Hearing #1
- 2010: 63.0
- 2011: 61.9
- 2012: 57.4
- 2013: 54.5
- 2014: 54.9
- 2015: 52.1
- 2016: 47.4
- 2017: 62.5
- 2018*: 63.9

Total Discretionary
- 2010: 63.1
- 2011: 62.7
- 2012: 58.7
- 2013: 55.7
- 2014: 55.9
- 2015: 53.5
- 2016: 48.6
- 2017: 62.1
- 2018*: 64.2

Total Mandatory
- 2010: 65.9
- 2011: 64.2
- 2012: 61.7
- 2013: 58.7
- 2014: 57.0
- 2015: 56.0
- 2016: 56.6
- 2017: 63.4
- 2018*: 65.9

Total
- 2010: 63.9
- 2011: 63.1
- 2012: 59.5
- 2013: 56.6
- 2014: 56.2
- 2015: 54.3
- 2016: 51.2
- 2017: 62.5
- 2018*: 64.7

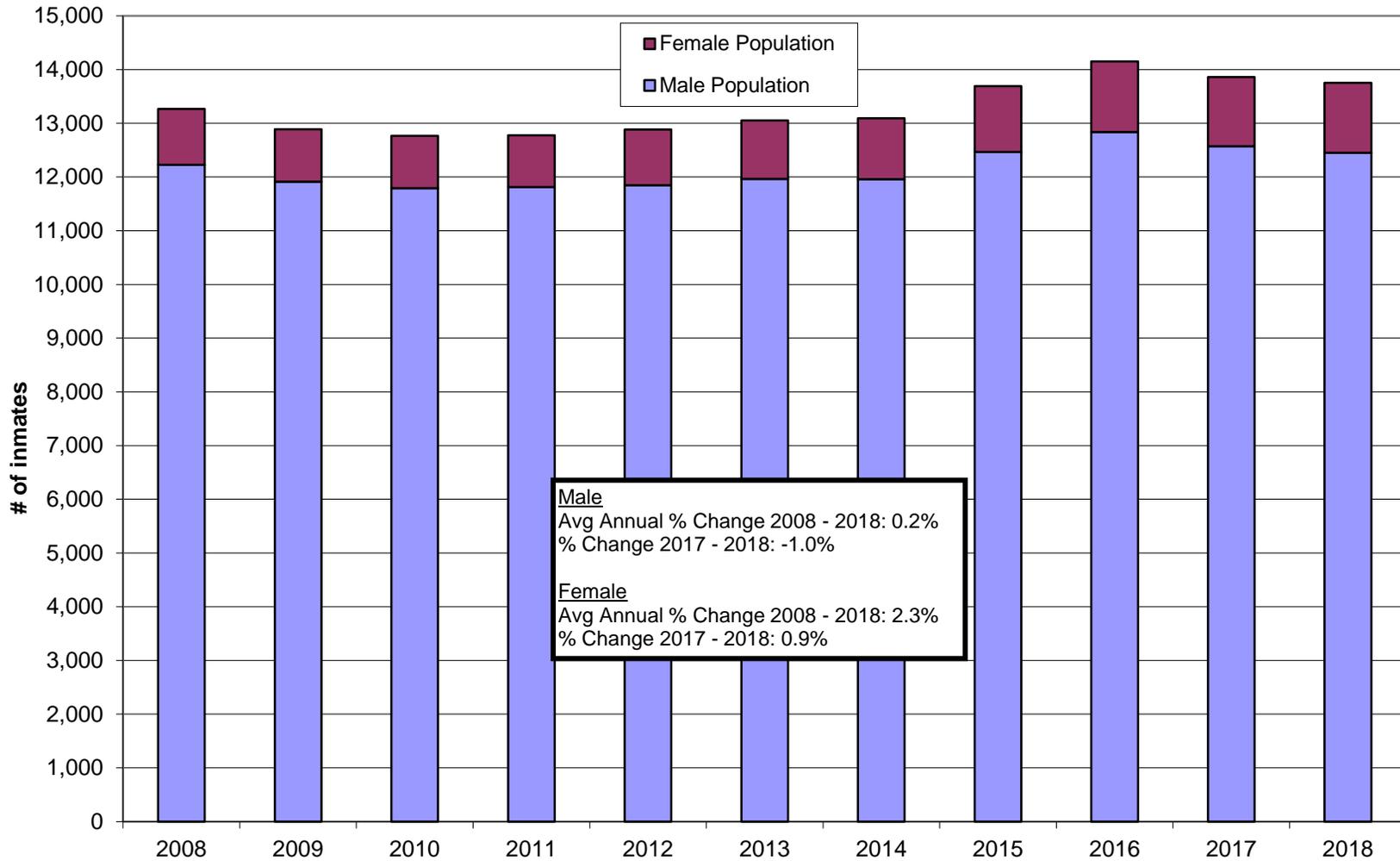*Y-axis: Release Rate (0.0 to 70.0)*

v

FIGURE 8: Parole Release Rates by Gender: 2015 to 2018 (Jan-Nov)*

FIGURE 9: Historical End-of-Year Inmate Population by Gender 2008 - 2018
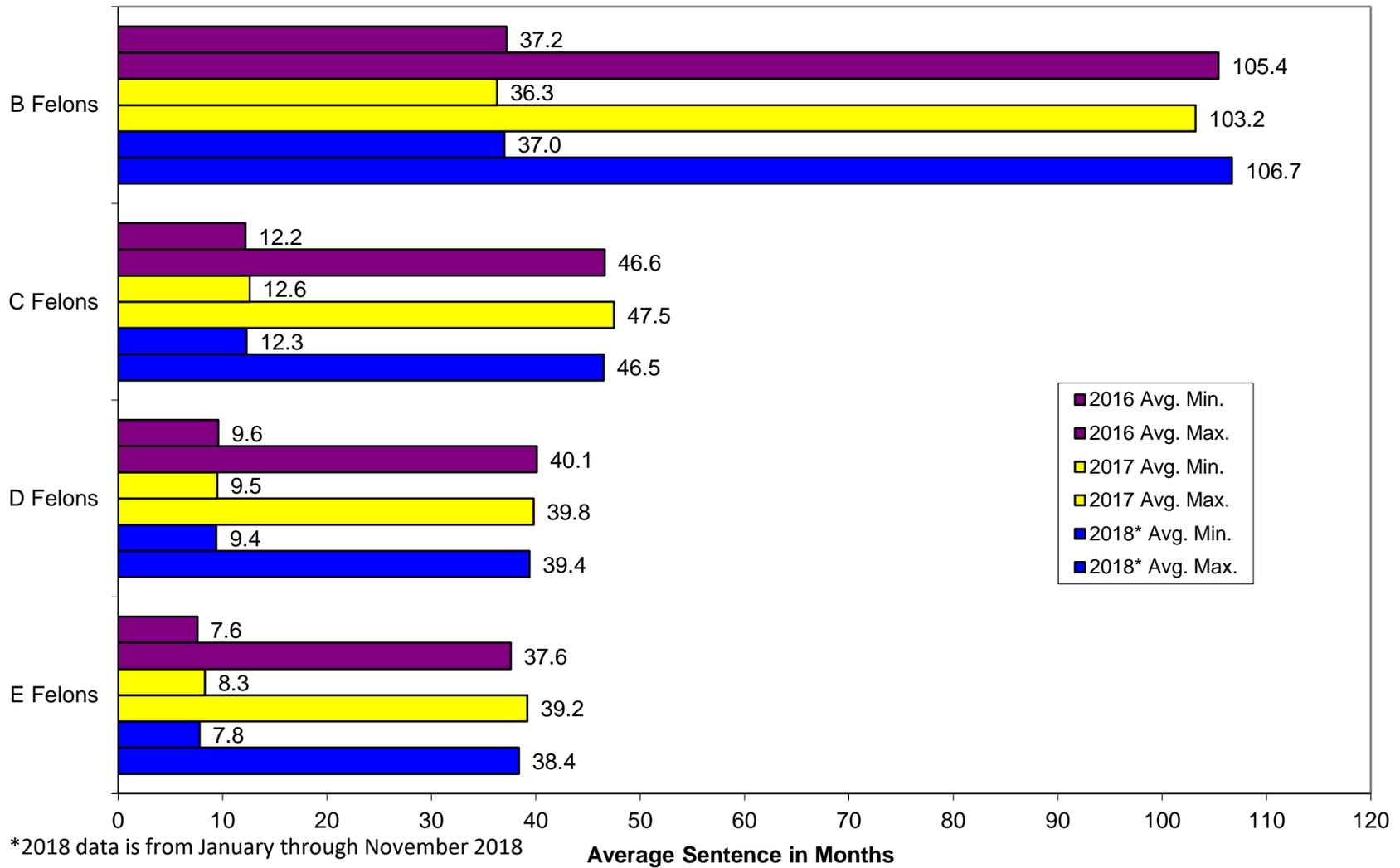
Male
Avg Annual % Change 2008 - 2018: 0.2%
% Change 2017 - 2018: -1.0%

Female
Avg Annual % Change 2008 - 2018: 2.3%
% Change 2017 - 2018: 0.9%

All figures represent end of year counts.

FIGURE 10: Average Minimum and Maximum Sentences by Felony Category Male New Commitment Admissions to Prison: 2016 - 2018 (Jan-Nov)

B Felons
- 37.2
- 105.4
- 36.3
- 103.2
- 37.0
- 106.7

C Felons
- 12.2
- 46.6
- 12.6
- 47.5
- 12.3
- 46.5

D Felons
- 9.6
- 40.1
- 9.5
- 39.8
- 9.4
- 39.4

E Felons
- 7.6
- 37.6
- 8.3
- 39.2
- 7.8
- 38.4

Legend:
- 2016 Avg. Min.
- 2016 Avg. Max.
- 2017 Avg. Min.
- 2017 Avg. Max.
- 2018* Avg. Min.
- 2018* Avg. Max.

*2018 data is from January through November 2018

Average Sentence in Months

41

FIGURE 11: Average Minimum and Maximum Sentences by Felony Category
Female New Commitment Admissions to Prison: 2016 - 2018 (Jan-Nov)

*2018 data is from January through November 2018   **Average Sentence in Months**
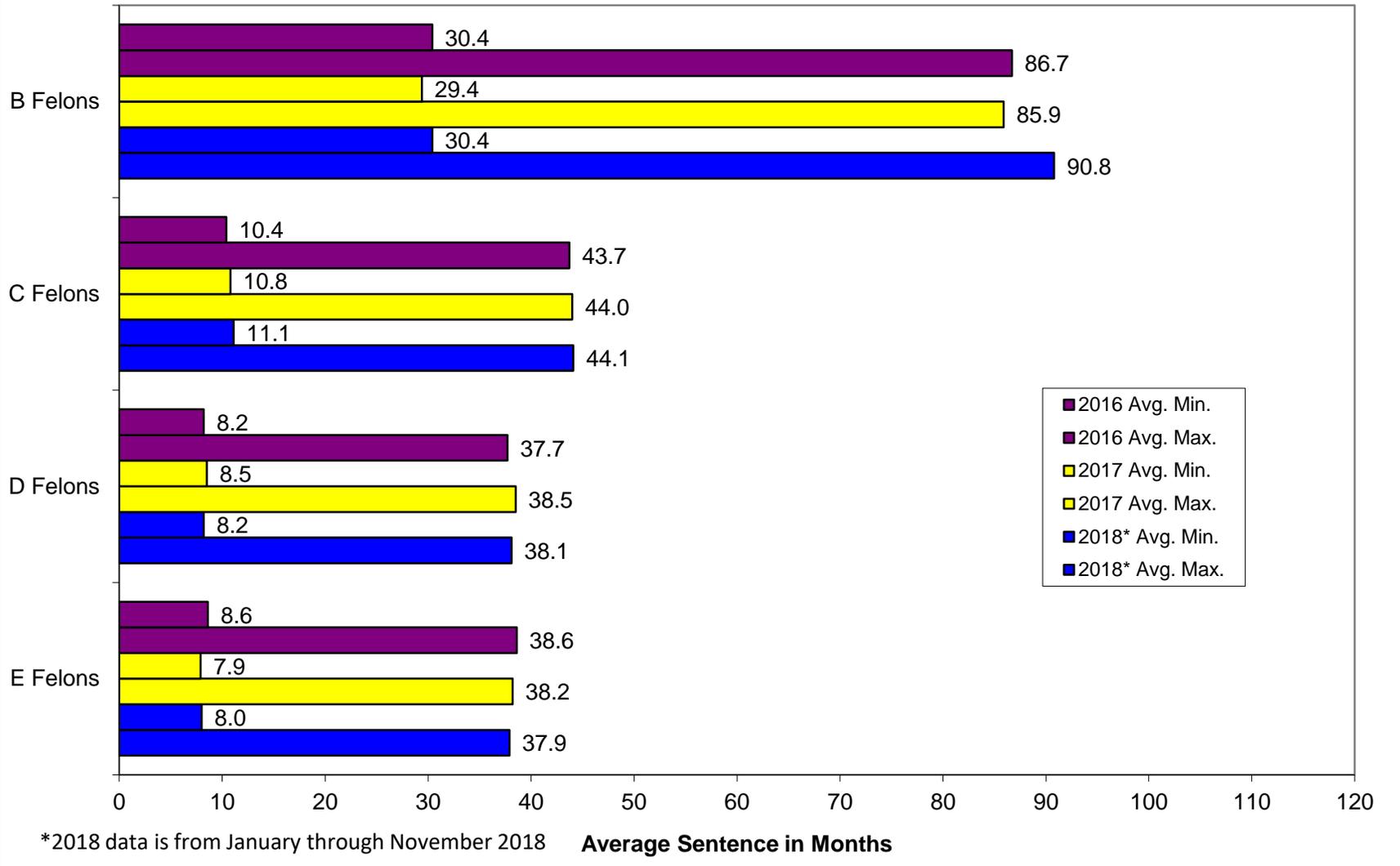
FIGURE 12: Projected Male New Commitment and Total Admissions and Stock Population February 2019 Forecasts
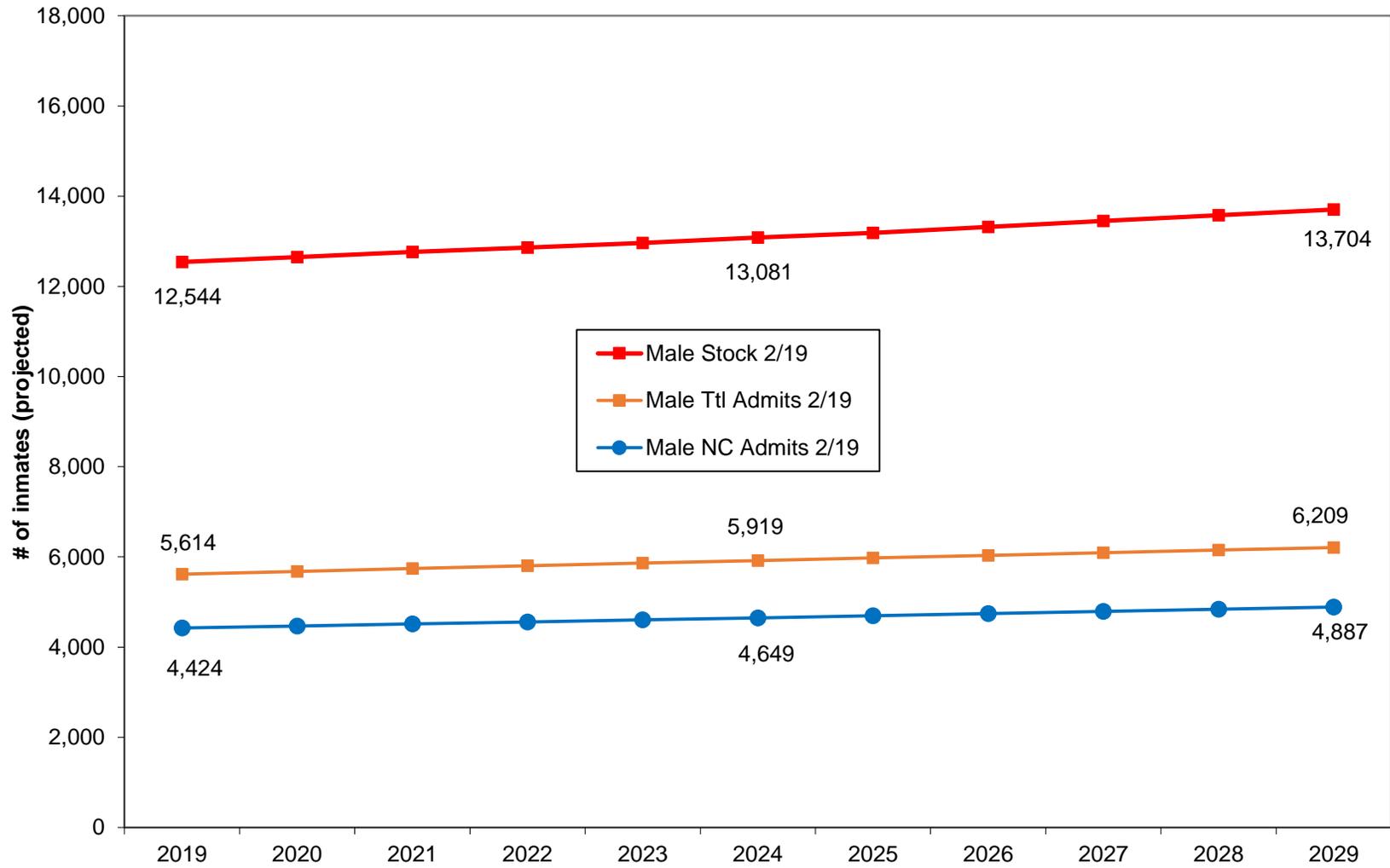
FIGURE 13: Projected Female New Commitment, Total Admissions and Stock Population February 2019 Forecasts