Conducting Justice and Corrections Research for Effective Policy Making

Nevada Department of Correction Ten Year Prison Population Projections 2013-2023

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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 2012, October 2012 and February 2013. 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 forecast cycle, February 2013.

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 2024, 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 mid-January 2013 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 October 2012 forecast of the total Nevada state prison population generated by JFA accurately estimated the actual population from January 2012 through January 2013, with an average monthly difference of 0.7 percent between the projected population and the actual population (an average accuracy of ± 2.0 percent is considered accurate). The October 2012 forecast of male inmates differed from the actual male population by an average of 84 offenders per month, or 0.7 percent, from January 2012 through January 2013. The forecast overprojected the actual male population throughout the timeframe with a maximum overprojection of 1.2 percent in March and November. Since November, the overestimation of the forecasted and actual male counts has decreased to 0.8 percent in December and to 0.5 percent in January 2013.

For female inmates, the October 2012 forecast generally over-estimated the actual female population from January 2012 through January 2013. A steady and substantial rise in female inmates started in May 2012 and peaked in October – after which the female population declined fairly sharply before rising again in January 2013. The forecast slightly underestimated the population peak. Overall, the forecast estimated the female population to an average of 11 offenders per month, or 1.1 percent, from January 2012 through January 2013.

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 has utilized the Prophet Simulation software to produce its prison population forecast for more

than ten years. JFA has 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.

From December 2002 to August 2005, the Nevada state prison system housed a number of male inmates from Wyoming and Washington State (for JFA reports, 363 at year-end 2003 and 2004 was assumed). Although our simulation model does accurately account for interstate compact cases housed in Nevada, the nature of the arrangement for housing the Wyoming and Washington offenders could not be anticipated. Furthermore, these offenders should not be included in prison population estimates. Traditional prison population estimates are designed to provide an accurate estimation of future demands on a prison system as dictated by crime rates, parole violations, sentencing laws, parole board behavior, etc. As a result, these offenders have been excluded from actual counts and future estimates provided in the reports. At present, NDOC is not housing any out of state contract inmates.

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 that caused death) will be deducted from the minimum term imposed by the sentence. Previously, these credits could not be applied to the minimum term imposed, only the maximum.

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. This caused an immediate and dramatic increase in the number of offenders who were parole eligible and a corresponding backlog in the parole board caseload. During the first half of 2008, the parole board made diligent efforts to hear and release lower level offenders in order to get the prison population down as quickly as possible. During the latter half of 2008, most hearings were held in absentia which are typically made up of more serious offenders. As a result, parole grant rates were higher in January-June and lower July-December 2008. The overall yearly average of all months combined should prove representative of parole board practices under AB 510.

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 estimated at 3.8 percent by the U.S. Census and 4.3 percent by the Nevada State Demographer. Since 2007, the state's population has grown at a much slower rate (an average annual rate of 1.2 percent from 2007 to 2012 according to the U.S. Census). The Nevada State Demographer projects that the state's population will grow at an average annual rate of 1.2 percent from 2013 to 2023.

Significant Finding: Levels of serious crime in Nevada rose in the first part of the 1990s (average annual increases of 6.8 percent for UCR Part I crimes from 1990 to 1995), fell in the latter part of that decade (average annual decreases of -4.2 percent from 1995 to 1999), and then increased every year from 2000 to 2006 (average annual increases of 6.0 percent). Since 2006, however, UCR Part I crimes in Nevada have declined each year with an average decrease of -6.7 percent per year from 2006 to 2011.

Significant Finding: Rates of UCR Part I crimes in Nevada rose slightly for the early part of the 1990s and then fell distinctly the latter part of the decade. The UCR Part I crime rate rose substantially from 2001 to 2003 (at an average annual rate of 7.2 percent), and remained fairly level from 2003 through 2006. Since 2006, however, the state's serious crime rate has decreased each year at an average rate of -8.3 percent per year from 2006 to 2011.

A. Population

The U.S. Census Bureau conducts a decennial census and the Census Bureau's Population Estimates Program publishes population numbers 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 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. We also present population estimates issued by Nevada's State Demographer (which has not yet issued an estimate for 2012).

For over two decades through 2007, Nevada experienced a phenomenal growth in population, but that growth has slowed. In December 2011, the U.S. Census bureau noted: "Nevada, the nation's fastest-growing state between 2000 and 2010, ranked only 27th in population growth between April 1, 2010, and July 1, 2011, increasing by 0.8 percent."¹ From July 1, 2011 to July 1, 2012, however, Nevada returned to the top ten fastest growing states, coming in at 6th in the nation with a population increase of 1.4 percent.²

¹ U.S. Census Bureau. Press Release 12/21/2011 (visited 1/27/2012)

[[]http://www.census.gov/newsroom/releases/archives/population/cb11-215.html]

² U.S. Census Bureau. Press Release 12/20/2012 (visited 2/1/2013)

[[]http://www.census.gov/newsroom/releases/archives/population/cb12-250.html]

Year	Population Estimates (US Census)	% change	Population Estimates (Nevada State Demographer)	% change
2000	1,998,250*		2,023,378	
2001	2,098,399	5.0%	2,132,498	5.4%
2002	2,173,791	3.6%	2,206,022	3.4%
2003	2,248,850	3.5%	2,296,566	4.1%
2004	2,346,222	4.3%	2,410,768	5.0%
2005	2,432,143	3.7%	2,518,869	4.5%
2006	2,522,658	3.7%	2,623,050	4.1%
2007	2,601,072	3.1%	2,718,337	3.6%
2008	2,653,630	2.0%	2,738,733	0.8%
2009	2,684,665	1.2%	2,711,206	-1.0%
2010	2,700,551*	0.6%	2,724,634	0.5%
2011	2,720,028	0.7%	2,721,794	-0.1%
2012	2,758,931	1.4%	#	
Numeric Change 2002-2012	585,140			
Percent Change 2002-2012	26.9%			
Average Annual Change 2002-2012		2.4%		

 TABLE 1: ESTIMATES OF NEVADA'S POPULATION: 2000 – 2012

* Actual April 1, 2000 and 2010 US Census figures. All other figures are July 1 estimates from the US Census Bureau and the Nevada State Demographer. Note that the US Census Bureau updates prior year estimates after a decennial census. As such, the estimates shown for 2001 to 2009 will sometimes differ from prior year's reports.

[#] The Nevada State Demographer had not issued a 2012 population estimate as of 2/1/2013.

Both sets of 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 and 4.3 percent from the U.S. Census and the Nevada State Demographer, respectively. Since 2000, Nevada's population has 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, from 2007 to 2011, the average annual rate of growth was 1.2 percent, while the increase in Nevada's population from July 2011 to July 2012 was 1.4 percent. According to the Nevada State Demographer, from 2007 to 2011, the average annual rate of growth was 0.0 percent.

In October 2012, the Nevada State Demographer issued population projections. From 2013 to 2023, average annual growth is expected to be 1.2 percent. (See Figure 1.)

B. Crime

Although no statistical significance can be found between crime rates and prison admissions, observing these rates can provide some anecdotal evidence that allows some insight into state prison admission trends. 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 displayed a generally decreasing trend during the latter. From 1990 to 1995, the number of UCR Part I crimes in Nevada increased each year, rising at an average annual rate of 6.8 percent. From 1995 to 1999, the number of UCR Part I crimes fell at an average annual rate of -4.2 percent. Serious crime increased each year from 2000 to 2006 at an average of 6.0 percent per year. Since 2006, however, UCR Part I crimes in Nevada have fallen at an average of -6.7 percent per year from 2006 to 2011. From 2010 to 2011, UCR Part I crimes in Nevada declined by -8.3 percent, comprised of a decline of -14.2 percent in serious violent crimes (the largest percentage decrease in over a decade) and a -6.9 percent drop in serious property crimes. (See Figure 2).

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 has fallen each year since 2006 with an average annual decrease of -6.8 percent from 2006 to 2011. From 2010 to 2011, serious crime declined by -6.5 percent in the LVMPD's jurisdiction, with serious violent and property crimes falling by -14.5 and -4.1 percent, respectively. (See Figure 2A).

Unfortunately, we do not have access to the numbers of UCR Part II crimes for Nevada. As the Part II crime category includes many crimes that can result in prison sentences (especially drug offenses), the absence of these data substantially limits our capacity to use crime data to guide prison admissions projections.³

C. Putting Population and Crime Together: Crime Rates

The decline in serious crime in the later 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 1994, the UCR Part I crime rate in Nevada rose at an average annual rate of 2.5 percent, while from 1994 to 2000, the rate fell significantly at an average annual rate of -7.0 percent. After remaining essentially unchanged from 2000 to 2001, Nevada's crime rate increased at an average annual rate of 7.2 percent from 2001 to 2003. From 2003 to 2006, there was little movement in the overall Part I crime rate. However, each year since 2006, Nevada has experienced a 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.

³ The FBI publishes data that include Part II *arrest* data, however, those data are missing for certain years. Additionally, the number of law enforcement jurisdictions from Nevada (like many other states) reporting arrests to the FBI changes from year to year resulting in changes in the number of arrests reported by the FBI that may not reflect actual and overall changes in the number of arrests in the state.

In the area served by the LVMPD, the crime rate dropped by an average annual rate of -9.3 percent from 1995 to 2000.⁴ Like the statewide trends, the large percentage declines in the crime rates for the LVMPD jurisdiction in the late 1990s did not continue. From 2000 to 2001, the crime rate fell by a much smaller -2.7 percent, while from 2001 to 2003, the urban crime rate grew at an average annual rate of 11.4 percent. From 2003 to 2006, the LVMPD crime rate remained essentially unchanged. Again, similar to the statewide situation, the UCR Part I crime in the LVMPD's jurisdiction has declined each year since 2006. From 2006 to 2011, the serious crime rate in the LVMPD's jurisdiction dropped at an average annual rate of -8.7 percent.

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 2002 to 2012, Nevada's population growth (26.9 percent) far outpaced the national population growth (9.1 percent). However, from 2011 to 2012, the increase in population for Nevada (1.4 percent) outpaced the rise in the nation's population of 0.7 percent.

In terms of crime rates in 2011, Nevada had notably higher serious violent crime rates per 100,000 inhabitants as compared to the nation, while it had slightly lower serious property crime rates than the nation as a whole. However, the long term *trends* in the crime rates for Nevada and the nation over the past 10 years were similar, although the ten-year decline in Nevada's serious crime rate (-26.8 percent) was larger than the nationwide decline (-20.8 percent). In the shorter term, Nevada has experienced a sharper decline in crime rates than the nation as a whole: Nevada's serious crime rate decreased by -9.1 percent from 2010 to 2011, while the nationwide crime rate fell by -1.7 percent over the same time frame.

In terms of state prison populations, Nevada has seen much larger growth than the nation as a whole since 2000, but more recently is showing signs of slower growth and reductions in state prison population. From 2000 to 2010, Nevada's prison population grew at an average annual rate of 2.4 percent, while the nationwide state prison population grew at an average annual rate of 1.1 percent. From 2010 to 2011, the Nevada state prison population remained almost unchanged, while the nationwide state prison population declined by -1.5 percent.

The 2011 state prisoner incarceration rate in Nevada (469.8 per 100,000 residents) exceeded that of the nation (443.7 per 100,000).

⁴ 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.

	United States	Nevada
POPULATION ⁵		
Total Population (7/1/12)	313,914,040	2,758,931
Change in Population		
1-year change $(7/1/11 - 7/1/12)$	0.7%	1.4 %
10-year change $(7/1/02 - 7/1/12)$	9.1%	26.9%
CRIME RATE ⁶ (Rate per 100,000 inhabitants)		
UCR Part I Reported Crime Rates (2011)		
Total	3,295.0	3,122.6
Violent	386.3	562.1
Property	2,908.7	2,560.5
Change in Total Reported Crime Rate		
1-year change (2010-2011)	-1.7%	-9.1%
10-year change (2001-2011)	-20.8%	-26.8%
PRISON POPULATION ' (State Prisoners Only)		
Total Inmates 2011	1,382,418	12,778
1-year change (2010-2011)	-1.5%	0.1%
10-year change (2001-2011)	10.9%	23.4%
Average annual change (2000-2010)	1.1%	2.4%
Incarceration Rate (per 100,000 inhabitants) ⁸	443.7	469.8

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

⁵ U.S. Census Bureau, Population Division. Population estimates for July 1, 2012.
⁶ Uniform Crime Reports, Crime in the United States – 2011, Federal Bureau of Investigation.

⁷ Prisoners in 2010, Bureau of Justice Statistics Bulletin (December 2011; revised 2/9/12). Nevada data provided by the Nevada Department of Corrections is from CY2010.

⁸ Rates were generated by using U.S. Census population counts from 7/1/2011.

IV. INMATE POPULATION LEVELS AND ACCURACY OF THE OCTOBER 2012 PROJECTION

Significant Finding: Overall, the October 2012 forecast estimated the Nevada state prison population accurately from January 2012 through January 2012 (with an average monthly difference in the projected and actual populations of 0.7 percent).

Significant Finding: The forecast of the male inmate population very slightly overestimated the actual population with an average monthly difference in the forecast and actual counts from January 2012 through January 2013 of 84 offenders, or 0.7 percent.

Significant Finding: The forecast of the female population generally over-estimated the actual population with an average monthly difference from January 2012 through January 2013 of 11 offenders, or 1.1 percent.

TABLE 3 and Figures 3 and 4 illustrate the accuracy of the October 2012 projections of the male and female inmate populations. The monthly inmate projections are compared with the actual population counts reported by the Nevada Department of Corrections.

The October 2012 forecast of the male inmate population for January 2012 through January 2013 tracked the actual population well within the acceptable accuracy differential of ± 2.0 percent. For each month from January 2012 through January 2013, the forecasted population was always at or above the actual counts, always falling within 1.2 percent of the actual population. The average monthly numeric error for the male forecast for January 2012 through January 2013 was 84 offenders and the average monthly percent difference was 0.7 percent. (See TABLE 3.)

Female prison populations are historically more volatile than male populations because of their small sizes and facility constraints, and projections are generally less accurate. The October 2012 forecast of the female inmate population generally, but modestly over-estimated the actual population from January 2012 to January 2013. The actual female population grew significantly and steadily from 981 at the end of April to 1,072 at the end of October – an increase of 9.3 percent in just six months. The October 2012 forecast slightly under-estimated the actual population as it peaked in the early fall, but then over-estimated the actual population when the female population dropped by -3.2 percent from October to December 2012. (See Figure 4.) The average monthly numeric error for January 2012 to January 2013was 11 offenders and the average monthly percent difference was 1.1 percent, within the acceptable accuracy differential of ± 2.0 percent. (See TABLE 3.)

	Male				Female				Total			
	Actual	Projected	# Diff	% Diff	Actual	Projected	# Diff	% Diff	Actual	Projected	# Diff	% Diff
2012												
January	11,847	11,895	48	0.4%	1,000	1,003	3	0.3%	12,847	12,898	51	0.4%
February	11,812	11,887	75	0.6%	1,004	1,006	2	0.2%	12,816	12,893	77	0.6%
March	11,757	11,903	146	1.2%	997	1,009	12	1.2%	12,754	12,912	158	1.2%
April	11,763	11,893	130	1.1%	981	1,020	39	4.0%	12,744	12,913	169	1.3%
May	11,795	11,931	136	1.1%	1,006	1,033	27	2.7%	12,801	12,964	163	1.3%
June	11,852	11,964	112	0.9%	1,025	1,040	15	1.5%	12,877	13,004	127	1.0%
July	11,879	11,959	80	0.7%	1,046	1,046	0	0.0%	12,925	13,005	80	0.6%
August	11,962	11,962	0	0.0%	1,055	1,053	-2	-0.2%	13,017	13,015	-2	0.0%
September	11,938	11,947	9	0.1%	1,069	1,054	-15	-1.4%	13,007	13,001	-6	0.0%
October	11,911	11,958	47	0.4%	1,072	1,067	-5	-0.5%	12,983	13,025	42	0.3%
November	11,819	11,965	146	1.2%	1,053	1,071	18	1.7%	12,872	13,036	164	1.3%
December	11,845	11,940	95	0.8%	1,038	1,073	35	3.4%	12,883	13,013	130	1.0%
January 2013	11,865	11,930	65	0.5%	1,049	1,068	19	1.8%	12,914	12,998	84	0.7%
Numeric Change												
Jan – Jan	18	35			49	65			67	100		
Average Monthly												
Difference												
Jan – Jan			84	0.7%			11	1.1%			95	0.7%

TABLE 3: ACCURACY OF THE OCTOBER 2012 FORECAST:TOTAL INMATE POPULATION JANUARY 2012 – JANUARY 2013

V. INMATE POPULATION TRENDS

A. Trends in Admissions

Significant Finding: From 2002 to 2006, male admissions grew significantly at an average annual rate of 6.3 percent. From 2007 to 2010, however, male admissions were either virtually unchanged from the prior year or showed distinct declines. From 2010 to 2011, male admissions grew by 1.9 percent, followed by a decline of -4.4 percent from 2011 to 2012.

Significant Finding: Male new commitment admissions have been declining since 2007 and dropped again by -4.6 percent in 2012 (the largest decline in over a decade). Conversely, after decreasing substantially each year from 2003 through 2008, male parole violator admissions increased at an average annual rate of 18.8 percent from 2008 through 2011. Bucking that trend, in 2012, male parole violator admissions dropped by -3.6 percent.

Significant Finding: For the past decade, female admissions have been quite erratic. 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. From 2010 to 2011, female admissions dropped by -6.5 percent, only to grow by 5.0 percent from 2011 to 2012.

TABLE 4 and TABLE 5 present the male and female admissions to prison from 2002 to 2012. The NDOC provided a datafile of admissions to prison in 2012.

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 (except for 2007 when only total admissions are shown).

After reaching a high of nearly 6,300 in 2006 and 2007, total admissions to NDOC declined by -5.4 percent in 2008 and by -2.5 percent in 2009. That decline ended when total admissions rose by 1.2 percent in 2010 and by 0.8 percent in 2011. In 2012, total admissions declined by -3.2 percent to 5,719 – the lowest level since 2004.

1. Males Admitted to Prison

From 2002 to 2012, the average annual change in the number of males admitted to prison for any reason was 1.5 percent.⁹ From 2002 to 2006, male admissions to NDOC grew at an average annual rate of 6.3 percent, and then were virtually unchanged from 2006 to 2007. From 2007 to 2009, the pattern shifted and male admissions declined at an average annual rate of -3.8 percent, and then remained virtually unchanged from 2009 to 2010. From 2010 to 2011, male admissions grew by 1.9 percent, but from 2011 to 2012, they declined by -4.4 percent.

Male new commitment admissions declined at an average annual rate of -2.9 percent from 2007 to 2011, and fell by -5.7 percent in 2012. Conversely, after decreasing at an average annual rate of -10.8 percent from 2003 through 2008, male parole violator admissions increased at an average annual rate of 18.8 percent from 2008 through 2011. In 2012, male parole violator admissions decreased by -3.6 percent.

Note that male new commitment admissions have ranged from 78 to 88 percent of total male admissions to NDOC each year throughout the past decade. In 2012, male new commitment admissions accounted for 82.1 percent of all male admissions.

2. Females Admitted to Prison

From 2002 to 2012, the average annual change in the number of females admitted to prison was 3.6 percent. Female admissions fluctuated with alternating increases and decreases every year from 1996 to 2004. Fluctuations have continued since 2004. After growing by 20.0 percent from 2005 to 2006, female admissions declined by -2.8 percent from 2006 to 2007, and by -10.6 percent from 2007 to 2008. From 2008 to 2009, female admissions showed a slight increase of 1.6 percent, and grew again by 9.2 percent in 2010, before falling by -6.5 percent in 2011. From 2011 to 2012, female admissions shifted course again and increased by 5.0 percent.

After peaking in 2006, female new commitments declined each year through 2009, then showed an 8.0 percent increase in 2010 that was erased in 2011. In 2012, female new commitment admissions grew by 3.0 percent. Female parole violator admissions have risen each year since 2006, and posted a 16.3 percent increase in 2012. Similar to male admissions, female new commitments comprised 81.5 percent of total female admissions in 2012.

⁹ In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, JFA utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

Year	New Court Commitments & Probation Violators	Safekeepers	NPR/CC	Total New Commitments	Discretionary Parole Violators	Mandatory Parole Violators	Total Parole Violators	Other/ Missing	TOTAL
2002	3,120	224	40	3,384	758	162	920		4,304
2003*	3,214	217	50	3,481	774	180	954		4,435
2004	3,711	274	58	4,043	653	229	882		4,925
2005	3,943	272	52	4,267	596	214	810		5,077
2006	4,389	285	70	4,744	520	213	733	0	5,477
2007**		247							5,489
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^^^	3,930	269	61	4,260	772	117	889	28	5,177
2012^^^	3,739	263	61	4,063	736	121	857	28	4,948
Numeric Change 2002 – 2012	619	39	21	679	-22	-41	-63		644
Percent Change 2002–2012	19.8%	17.4%	52.5%	20.1%	-2.9%	-25.3%	-6.8%		15.0%
Average Annual Percent Change 2002 – 2012	2.0%	2.2%	5.6%	2.1%	0.4%	#	0.3%		1.5%
Percent Change 2011 - 2012	-4.9%	-2.2%	0.0%	-4.6%	-4.7%	3.4%	-3.6%		-4.4%

TABLE 4: HISTORICAL ADMISSIONS TO PRISON BY ADMISSION TYPE: MALES: 2002 –2012

*Male new court commitment numbers for 2003 do not include 367 offenders admitted under contract from Wyoming and Washington State.

** Prior to 2007, Table 4 was usually populated with data from NDOC monthly reports, but as those were unavailable for 2007, the admissions data shown in Table 4 for 2007 was from the NDOC admissions data file. The admissions data file for 2007 from NDOC provided unreliable data for admissions by type. As a result, only the safekeeper and total admissions populations are presented for 2007.

[^] 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 in Table 4 for 2009 through 2012 are from the NDOC admissions data file.

^{##} In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, JFA utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

[#] The drop in mandatory parole violators down to 1 in 2010, followed by an increase to 117 in 2011 (which is an increase of 11600%) generates a misleading result for the average annual change in mandatory parole violators over the past 10 years (1136%).

Year	New Court Commitments & Probation Violators	Safekeepers	NPR/CC	Total New Commitments	Discretionary Parole Violators	Mandatory Parole Violators	Total Parole Violators	Other/ Missing	TOTAL
2002	464	0	5	469	75	26	101		570
2003	437	3	1	441	74	20	94		535
2004	564	2	4	570	60	19	79		649
2005	601	0	3	604	55	20	75		679
2006	734	1	11	746	46	23	69	0	815
2007**		0							792
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^^	606	1	3	610	112	11	123	1	734
2012^^	623	2	3	628	138	5	143	0	771
Numeric Change 2002 – 2012	159	2	-2	159	63	-21	42		201
Percent Change 2002–2012	34.3%		-40.0%	33.9%	84.0%	-80.8%	41.6%		35.3%
Average Annual									
2002 – 2012	3.7%	17.1%	45.2%	3.7%	8.2%	#	4.6%		3.6%
Percent Change 2011 - 2012	2.8%	100.0%	0.0%	3.0%	23.2%	-54.5%	16.3%		5.0%

TABLE 5: HISTORICAL ADMISSIONS TO PRISON BY ADMISSION TYPE: FEMALES: 2002 –2012

** TABLE 5 is usually populated with data from NDOC monthly reports, but as those were unavailable for 2007, the admissions data shown in TABLE 5 for 2007 is from the NDOC admissions data file. The admissions data file for 2007 from NDOC provided unreliable data for admissions by type. As a result, only the safekeeper and total admissions populations are presented for 2007.

[^] 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 in TABLE 5 for 2009 through 2012 are from the NDOC admissions data file.

^{##} In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, JFA utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

[#] The drop in mandatory parole violators down to 1 in 2010, followed by an increase to 11 in 2011 (which is an increase of 1000%) generates a misleading result for the average annual change in mandatory parole violators over the past 10 years (73.5%).

B. Trends in Parole Release Rates

Significant Finding: In 2012, male and female discretionary and mandatory release rates declined, as compared to 2011. The overall release rate in 2012 was 59.5 – lower than in 2010 and 2011, but still higher than the overall rates for over a decade prior to 2010.

Significant Finding: Overall discretionary release rates for 2012 dropped to 58.7 percent. Male discretionary release rates (which make up the majority of discretionary release rates) decreased by -4.1 percentage points compared to 2011, while female discretionary release rates fell by -4.4 percentage points. The discretionary release rates for males and females remain higher than they were prior to 2010, but have come down from the higher rates observed in 2010 and 2011.

Significant Finding: Overall mandatory release rates for 2012 fell to 61.7 percent. Male mandatory release rates (which make up the majority of all mandatory release rates) decreased by -2.9 percentage points compared to 2011, while female mandatory release rates decreased by -0.4 percentage points.

TABLE 6 compares parole release rates from 2000 through 2012 (with 2002 figures representing data from November 1, 2001 to October 31, 2002) by type of parole hearing.

TABLE 7 and TABLE 8 present the parole release rate characteristics for male and female inmates in 2012. Figures 7 and 8 present recent parole release rate data: Figure 7 shows the overall release rates from 2007 to 2012 by type of hearing while Figure 8 presents the data from 2009 to 2012 disaggregated by gender. Since 1999, Ms. Ware and JFA have generated release rate statistics disaggregated by gender. The simulation model utilizes these genderbased 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, it is counted in JFA's statistics as one denial. Parole board statistics would label this as a grant and then a denial. To avoid confusion, all rates presented in this report are labeled release rates rather than grant rates.

- For male inmates in 2012, the total discretionary release rate ranged from 50.2 for A felons to 51.9 for B felons to 89.0 percent for E felons. These rates are lower than the 2011 male discretionary release rates for each felony level.
- The overall discretionary release rate for male offenders fell each year from 2001 (54.3 percent) to 2005 (47.1 percent). From 2004 to 2007, the male discretionary release rate hovered around 47 to 48 percent. 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 dropped slightly to 59.7 percent in 2011 and further to 55.6 in 2012.

- For female inmates in the first half of 2012, the total discretionary release rates ranged from 72.9 percent (B felons) to 98.1 percent (E felons). Similar to the males, female inmates experienced lower discretionary release rates in 2012 at the B, C and D felony levels as compared to 2011.
- 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 percent in 2006. After dipping in 2007, female discretionary release rate rose to 67.2 percent in 2008, to 75.9 in 2009 and to 84.8 percent in 2010. They declined slightly to 84.3 percent in 2011, and then more distinctly to 79.9 percent in 2012.
- The mandatory parole release rate for male offenders in 2012 was 59.8 percent down from the 62.7 percent rate in 2011. The mandatory parole release rate for female offenders in 2012 was 82.4 almost unchanged from 2011.
- As presented in TABLE 6, the total discretionary release rate for males and females together was in the mid-50 percent range from 2000 to 2002, before falling slightly to the high-40/low-50 percent range from 2003 to 2007. The total discretionary release rate fell to 46.3 in 2008, and then rebounded to 54.4 percent in 2009. It rose to 63.1 percent in 2010 the highest level observed in the past decade before dipping slightly to 62.7 percent in 2011, and then more distinctly to 58.7 in 2012.
- The mandatory release rate for males and females combined was in the upper-40 percent range from 2000 to 2002 before jumping to around 60 percent for 2003 to 2005 and to around 70 percent for 2006 and 2007. For 2008, the mandatory release rate dropped significantly to 55.6 percent, and then they too rebounded to 69.2 percent in 2009. For 2010, the mandatory release rate declined to 65.9 percent, and further to 64.2 percent in 2011, and still further to 61.7 in 2012. (See Figures 7 and 8.)

	Discretionary	Mandatory	Total	
	Release Rate	Release Rate	Release Rate	
Males				
2000	52.5	45.3	50.9	
2001	54.3	46.2	52.4	
2002*	52.7	47.7	51.5	
2003	50.7	59.7	52.9	
2004	48.3	58.7	51.2	
2005	47.1	59.3	50.4	
2006	48.5	69.4	54.7	
2007	47.9	70.0	52.2	
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	
Females				
2000	72.6	47.0	69.2	
2001	72.6	46.5	66.5	
2002*	66.9	47.4	62.4	
2003	57.4	63.4	58.7	
2004	58.5	60.0	58.9	
2005	57.2	57.1	57.1	
2006	68.9	84.1	73.4	
2007	63.1	76.4	65.0	
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	
Total				
2000	54.9	46.9	53.2	
2001	56.4	46.3	54.0	
2002*	54.2	47.6	52.6	
2003	51.5	60.1	53.6	
2004	49.5	58.9	52.0	
2005	48.4	59.0	51.2	
2006	50.9	71.1	56.9	
2007	50.0	70.6	53.9	
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	

TABLE 6: PAROLE RELEASE RATES 2000 -2012

* 2002 figures represent data for November 1, 2001 to October 31, 2002

Offender Felony Category		Discretion	nary Parole Rele	ease Rates	Total Discretionary	*Average Wait Time (months) to	Total Mandatory	Total Parole	
	Hearing #1	Hearing #2	Hearing #3	Hearing #4	Hearing #5	Parole Release Rate	Discretionary Release Hearing	Parole Release Rate	Release Rate
A Felons	35.3	55.9	54.5	50.0	62.6	50.2	27.6	37.9	48.9
B Felons	48.5	56.0	65.7	67.2	74.0	51.9	13.7	61.6	55.2
C Felons	62.4	72.1	(3/4) = 75.0	(1/2) = 50.0	(2/2) = 100.0	63.5	12.0	56.2	61.4
D Felons	80.1	85.7	(0/1) = 0.0	(1/1) = 100.0	N/A	80.2	12.0	53.4	75.1
E Felons	88.8	(2/2) = 100.0	N/A	N/A	N/A	89.0	12.0	54.5	85.6
TOTAL	53.5	57.9	62.6	60.0	66.7	55.6	15.6	59.8	56.8

TABLE 7: INMATE PAROLE RELEASE HEARINGS HELD: MALES 2012

TABLE 8: INMATE PAROLE RELEASE HEARINGS HELD: FEMALES 2012

Offender		Discretion	nary Parole Rel	ease Rates		Total Discretionary	*Average Wait Time (months) to	Total Mandatory	Total Parole
Category	Hearing #1	Hearing #2	Hearing #3	Hearing #4	Hearing #5	Parole Release Rate	Discretionary Release Hearing	Parole Release Rate	Release Rate
A Felons	(7/8) = 87.5	(3/3) = 100.0	(1/2) = 50.0	N/A	(2/3) = 66.7	81.3	(n=3) 19.5	N/A	81.3
B Felons	71.9	76.5	72.7	(1/1) = 100.0	(1/1) = 100.0	72.9	13.0	81.9	75.5
C Felons	85.3	68.8	(2/2) = 100.0	(1/1) = 100.0	N/A	83.6	12.0	85.7	83.9
D Felons	88.9	(2/2) = 100.0	(1/1) = 100.0	N/A	N/A	89.3	(n=9) 12.0	80.0	88.3
E Felons	97.9	(5/5) = 100.0	N/A	N/A	N/A	98.1	(n=1) 12.0	(1/1) = 100.0	98.1
TOTAL	80.3	77.9	75.0	(2/2) = 100.0	(3/4) = 75.0	79.9	12.9	82.4	80.4

* 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 2011 to 2012, the Nevada State prison population rose by 105 offenders, or 0.8 percent, to 12,883. Since its year-end high of 13,341 in 2007, the population had declined or remained almost unchanged through 2011.

Significant Finding: Looking at the population since 2000, the Nevada prison population exhibited modest growth from 2000 to 2003, followed by strong growth from 2004 to 2006 (posting average annual increases of 7.7 percent). From 2006 to 2012, the population has increased or decreased by about 1 percent or less each year with the exception of a -2.8 percent decline from 2008 to 2009.

Significant Finding: From year end 2011 to 2012, the male prison population rose by 0.3 percent, while the female prison population increased by 7.3 percent (after posting annual declines since 2006).

TABLE 9 and Figure 9 present the year-end inmate populations for male and female inmates from 2002 to 2012.

- The male prison population increased by 2, 233 offenders from end of year 2002 to 2012 – a total increase of 23.2 percent with an average increase of 2.2 percent per year. From 2011 to 2012, the male inmate population increased by 34 offenders, or 0.3 percent, for a total of 11,845 male inmates.
- The female prison population increased by 190 offenders from end of year 2002 to 2012 – a total increase of 22.4 percent with an average increase of 2.4 percent per year. From year-end 2011 to 2012, the female confined population increased by 71 offenders, or 7.3 percent, for a total of 1,038 female inmates.
- Females made up 8.1 percent of the state prison population at the end of 2012. In the past decade, the percentage of the prison population that is female has ranged from 7.6 to 9.0 percent.
- When looking at the changes in the population over the past decade, the population grew rapidly in 2004, 2005 and 2006 before showing a mix of much slower growth and declines over the past five years. The male population grew at an average annual rate of 7.2 percent from 2003 to 2006. After growing by 2.0 percent from 2006 to 2007, the male population declined or remained almost unchanged from 2007 to 2012 declining at an average annual rate of -0.7 percent.
- The female population has shown greater fluctuation: the average annual rate of change was +13.3 percent from 2003 to 2006, and -6.1 percent from 2006 to 2009. In 2010, the female population was virtually unchanged, followed by a decline of -1.2 percent in 2011. The 7.3 percent increase in the female population from 2011 to 2012 stands in stark contrast to the yearly declines since 2006.

Year	Male Population	Female Population	Total Population
2002	9,612	848	10,460
2003*	9,736	816	10,552
2004*	10,490	949	11,439
2005	11,075	1,008	12,083
2006	12,003	1,183	13,186
2007	12,245	1,096	13,341
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
Numeric Change			
2002 - 2012	2,233	190	2,423
Percent Change			
2002 - 2012	23.2%	22.4%	23.2%
Average Annual			
Percent Change			
2002 - 2012	2.2%	2.4%	2.2%
Percent Change			
2011 - 2012	0.3%	7.3%	0.8%

TABLE 9: HISTORICAL INMATE POPULATION: 2002 –2012

* Male year-end 2003 and 2004 figures do not include 363 prisoners held on contract from Wyoming and Washington State.

Numbers represent end of calendar year figures.

D. Trends in Releases from Prison

Significant Finding: The average lengths of stay for male inmates released to parole have remained fairly stable for the past few years. The average lengths of stay for inmates paroled in the first half of 2012 were down slightly for males compared to 2011. The average lengths of stay for female inmates paroled in the first half of 2012 were up compared to 2011.

Significant Finding: For inmates discharged from prison, average lengths of stay remained fairly steady for males and females from 2009 through 2011. In the first half of 2012, the average lengths of stay for male and female inmates discharged from prison dropped by just over 1.5 months as compared to 2011.

Important Note: Average lengths of stay for those discharged from prison rose notably in 2007 and remained at similar levels in 2008 before dropping distinctly in 2009 (and remaining at those lower levels in 2010 and 2011). It is suspected that part of the decrease in length of stay for those discharged after 2008 resulted from a combination of shorter sentences and the increase in offenders receiving more earned time credits.

TABLE 10 and TABLE 11 present the average length of stay for male and female inmates by release type (parole or discharge) for 2009 to 2012. Note that any released offenders who had a sentence of life or life with parole were excluded from these tables.

- The average length of stay for males released to parole had been declining since 2004 from 26.8 months in 2004 to 21.3 months in 2008. Average length of stay for males remained close to 2008 levels in 2009 and 2010. For 2011, the average length of stay for males released to parole increased to 22.6 months, and then to 23.6 months for 2012.
- The same trend occurred for females released to parole. In 2004, the average length of stay for females released to parole was 24.9 months, falling distinctly each year to 14.1 months in 2008. In 2009, however, the average length of stay for females release to parole increased to 15.5 months, then fell back to 14.8 months in 2010, and fell further to 13.8 months in 2011 its lowest level in a decade. The declining trend has reversed with average length of stay for females released to 14.4 months for 2012.
- The average length of stay for males discharged from prison jumped from 22.0 months in 2006 to 29.9 months in 2007. After dipping slightly in 2008, the average length of stay for males discharged from prison in 2009 dropped nearly 6 months to 23.6 months. It remained very close to that level in 2010 and 2011. In 2012, average length of stay for males discharged from prison fell to 22.1 months.
- The average length of stay for female inmates discharged from prison jumped from 14.6 months in 2006 to 23.0 months in 2007. Like the males, the average length of stay for females discharged from prison dropped slightly in 2008, then dropped dramatically to 14.8 months in 2009. It declined modestly in 2010 and 2011. In 2012, the average length of stay for females discharged from prison declined to 13.5 months.

Offender	LENGTH OF STAY (months)										
Category	2009		2010		2011		2012				
	Parole	Discharge	Parole	Discharge	Parole	Discharge	Parole	Discharge			
A Felons*	60.8	39.0	49.0	48.4	68.6	38.8	64.4	33.3			
B Felons	25.6	27.8	25.0	26.7	25.7	26.8	27.8	24.8			
C Felons	11.4	15.4	10.3	15.5	9.6	12.9	9.5	14.4			
D Felons	8.1	12.1	7.1	12.7	7.0	11.1	6.8	11.8			
E Felons	6.4	9.0	5.7	8.9	5.9	8.9	5.5	6.1			
Safekeepers	Safekeepers 4.6 5.6			3.7		2.7					
TOTAL	21.6	23.6	21.0	23.9	22.6	23.4	23.6	22.1			

TABLE 10: AVERAGE LENGTH OF STAY FOR MALEINMATES BY RELEASE TYPE: 2009-2012

* Prior to 2009, there were very few A Felon male releases (fewer than 40 in 2007 and 2008). In 2009, A Felon male releases rose to 141, and to 164 in 2010. There were 156 A felons released in 2011, and 87 from Jan – Jun 2012. Note: Any offenders with a life or death sentence (including life w/ parole) were excluded from this table. Due to the changes to the data file for 2007, the way prisoners were identified as released to parole or discharge in 2007 and beyond is different than in prior years. Results appear comparable.

TABLE 11: AVERAGE LENGTH OF STAY FOR FEMALEINMATES BY RELEASE TYPE: 2009-2012

Offender	LENGTH OF STAY (months)							
Category	2009		2010		2011		2012	
	Parole	Discharge	Parole	Discharge	Parole	Discharge	Parole	Discharge
A Felons*	57.0	26.3	86.8	69.3	100.1	47.3	54.7	55.4 (n=1)
B Felons	21.3	20.3	20.4	19.5	18.6	19.8	19.5	18.9
C Felons	9.9	11.3	8.6	8.0	6.6	9.4	8.5	8.8
D Felons	7.7	9.5	6.3	7.8	5.9	7.6	6.0	6.5
E Felons	7.0	8.4	5.2	7.0	5.3	8.9	5.1	5.9
TOTAL	15.5	14.8	14.8	14.5	13.8	14.2	14.4	13.5

* There are very few A Felon female releases

Note: Any offenders with a life or death sentence (including life w/ parole) were excluded from this table. Due to the changes to the data file for 2007, the way prisoners were identified as released to parole or discharge in 2007 and beyond is different than in prior years. Results appear comparable.

VI. KEY POPULATION PROJECTION ASSUMPTIONS

The inmate population projections contained in this report were completed using the Wizard 2000 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. JFA has made the following key assumptions that have a significant impact on the projection results.

A. Future Release Rates

Future discretionary release rates will reflect what was observed in 2012 (55.6 percent for males and 79.9 percent for females). Future mandatory parole release rates will be consistent with release rates associated with hearings held at that time. During this time frame, the mandatory release rate for males was 59.8 percent and the female rate was 82.4 percent.

For the baseline projections presented in this document, probabilities of parole release are assumed to be the same as those observed in 2012. The release rates associated with each gender and felony class subgroup, for each of five hearings, are assumed to remain unchanged over the forecast horizon. As noted earlier in the report, these assumed release rates are generally lower than what was observed over the past two years, but the discretionary rates especially are still high when compared with those in the decade prior to 2010. It is important to continue to track these rates closely to observe whether this trend continues.

In 2012 both male discretionary and mandatory release rates have decreased form 2011 levels by approximately 4 percentage points in all categories. Female discretionary rates have almost decreased by approximately 4 percentage point from 2001 levels while female mandatory rates remain stable. Parole release rates can naturally fluctuate a couple of percentage points based on the composition of offenders. Although the decrease in the rate of parole in 2012 is not overly dramatic, it is slightly higher than this expected fluctuation and should be monitored by the parole board in the coming year.

The composition of future new commitment admissions is assumed to be the same as the composition of new commitment admissions during 2012.

Projections in this report are based on admission and release data provided to JFA Associates by the NDOC for 2012. 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 TABLE 14 and TABLE 18.)

B. Future Parole Revocation Rates

We assume that both male and female parole violators will increase at an average annual rate of 0.5 percent per year over the forecast horizon.

From 2000 to 2003, the number of parole violators admitted to NDOC increased or decreased by 5.0 percent or less each year. From 2003 to 2006, the number of parole violators declined by approximately 8 percent each year. We have no count of parole violators for 2007 since the NDOC monthly reports were unavailable for 2007 and the admissions data file from NDOC for 2007 could not provide reliable data for admissions by type. (See TABLE 12.)

In 2008, parole violator admissions declined by -23.7 percent from 2006. The decrease in parole violations is 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. In 2009, we observe the first increase in parole violators returned to prison since 2003 – an increase of 12.6 percent from 2008 to 2009, followed by an increase of 13.5 percent from 2009 to 2010, but the actual number of parole violators returned in 2010 was still far lower than the levels observed a decade earlier. In 2011, parole violator admissions jumped dramatically by 29.4 percent to 1,012. In 2012, however, parole violator returns levels stabilized and fell slightly by -1.2 percent to 1,000 in 2012.

Due to the continued increase in the number of parolee releases, JFA assumes male parole violation levels will increase slightly from an average of 1,000 to 1,100 parole per year.

Year	Total Parole	Percent Change
	Violators	
2000	1,006	
2001	972	-3.4
2002	1,021	+5.0
2003	1,048	+2.6
2004	961	-8.3
2005	885	-7.9
2006	802	-9.4
2007*		
2008 **	612	-23.7
		(change from 2006)
2009	689	+12.6
2010	782	+13.5
2011	1,012	+29.4
2012	1,000	-1.2

TABLE 12: PAROLE VIOLATORS ADMITTED BY YEAR: 2000-2012

Prior to 2007, this table utilized counts from the NDOC monthly reports. Since 2009, this table has been populated using counts from the NDOC admissions datafiles.

* The admissions data file for 2007 from NDOC provided unreliable data for admissions by type, so the parole violator admissions could not be established.

** 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.

C. Future Admissions Counts

Male new commitment admissions are projected to increase by 0.4 to 0.5 percent per year through the year 2023, while female new commitment admissions are projected to increase by 0.5 to 0.6 percent per year.

Male new commitment admissions increased each year from 2002 to 2006, at an average annual rate of 8.9 percent. These several years of increases, however, were not steady. The largest increase was 16.1 percent in 2004, while other years were near 3 percent. JFA does not know the count of male new commitments in 2007, but male new commitment admissions declined approximately¹⁰ -2.6 percent from 2006 to 2008. Male new commitment admissions continued a fairly steady decline from 2008 to 2011, falling at an average annual rate of -2.7 percent. In 2012, male new admissions have continued their decline posting a -4.6 percent drop compared to 2011.

Over the past decade, female new commitment admissions have fluctuated widely with several years of increases and decreases of varying magnitudes. From 2002 to 2003, new commitment admissions to prison for females decreased by -6.0 percent, followed by a staggering increase of 29.3 percent in 2004. In 2005, female new commitments grew by a much smaller 6.0 percent, and then by a far larger 23.5 percent in 2006. Again, JFA does not know the count of female new commitments in 2007, but female new commitment admissions declined approximately -16.8 percent from 2006 to 2008, and dropped by another -1.6 percent from 2008 to 2009. No longer in decline, the female new commitment admissions grew by 8.0 percent from 2009 to 2010, before declining by -7.6 percent from 2010 to 2011. In 2012, female new court commitments increased by 3.0 percent.

The male inmate population forecast assumes that the number of annual male new commitment admissions will increase by 0.4 to 0.5 percent per year through 2023. (See TABLE 19.).

The female inmate population forecast assumes that the number of annual female new commitment admissions will increase by an average of 0.5 to 0.6 percent per year through 2023. (See TABLE 19.)

¹⁰ Again, since the admissions datafile 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. Thus, the full count of new commitments for 2008 is an estimate.

Offender	Number	Percent	Average	Average Jail	Average	Average
Felony	Admitted	Admitted	Good Time	Time	Maximum	Minimum
Category			Days Per	(Days)	Sentence	Sentence
			Month		(Months)	(Months)
A Felons*	269	6.5%	28.4	718.1	524.1	112.5
B Felons	2,798	67.6%	29.5	208.3	84.3	31.3
C Felons	623	15.1%	28.3	131.3	42.1	11.3
D Felons	338	8.2%	28.7	130.8	37.9	9.1
E Felons	109	2.6%	30.3	110.1	36.2	7.3
Subtotal	4,137	100.0%				
Missing	10					
Total	4,147					

TABLE 13: NEW COURT COMMITMENT ADMISSIONCHARACTERISTICS BY CATEGORY: MALES: 2010

* A Felon category includes all offenders sentenced to life

TABLE 14: NEW COURT COMMITMENT ADMISSIONCHARACTERISTICS BY CATEGORY: MALES: 2011

Offender	Number	Percent	Average	Average Jail	Average	Average
Felony	Admitted	Admitted	Good Time	Time	Maximum	Minimum
Category			Days Per	(Days)	Sentence	Sentence
			Month		(Months)	(Months)
A Felons*	269	6.8%	28.3	743.8	447.6	102.6
B Felons	2,695	68.1%	29.2	216.1	86.6	32.6
C Felons	599	15.1%	28.1	142.4	42.5	12.2
D Felons	297	7.5%	27.9	128.9	38.1	9.5
E Felons	96	2.4%	29.5	131.6	37.0	7.7
Subtotal	3,956	100.0%				
Missing	35					
Total	3,991					

* A Felon category includes all offenders sentenced to life

TABLE 15: NEW COURT COMMITMENT ADMISSIONCHARACTERISTICS BY CATEGORY: MALES: 2012

Offender	Number	Percent	Average	Average Jail	Average	Average
Felony	Admitted	Admitted	Good Time	Time	Maximum	Minimum
Category			Days Per	(Days)	Sentence	Sentence
			Month		(Months)	(Months)
A Felons*	263	6.9%	28.4	743.3	479.7	112.1
B Felons	2,560	67.5%	28.9	237.2	85.6	30.9
C Felons	568	15.0%	27.7	138.4	44.1	12.2
D Felons	283	7.5%	27.9	123.0	39.4	10.2
E Felons	118	3.1%	29.1	122.7	36.2	7.7
Subtotal	3,792	100.0%				
Missing	8					
Total	3,800					

* A Felon category includes all offenders sentenced to life

Offender	Number	Percent	Average	Average Jail	Average	Average
Felony	Admitted	Admitted	Good Time	Time	Maximum	Minimum
Category			Days Per	(Days)	Sentence	Sentence
			Month		(Months)	(Months)
A Felons*	12	1.8%	27.7	697.8	512.3	111.8
B Felons	365	55.7%	30.0	168.0	74.3	26.1
C Felons	136	20.8%	28.6	106.4	40.5	9.8
D Felons	103	15.7%	29.1	125.3	36.3	8.2
E Felons	39	6.0%	30.1	137.7	33.9	7.1
Subtotal	655	100.0%				
Missing	0					
Total	655					

TABLE 16: NEW COURT COMMITMENT ADMISSIONCHARACTERISTICS BY CATEGORY: FEMALES: 2010

* A Felon category includes all offenders sentenced to life

TABLE 17: NEW COURT COMMITMENT ADMISSIONCHARACTERISTICS BY CATEGORY: FEMALES: 2011

Offender	Number	Percent	Average	Average Jail	Average	Average
Felony	Admitted	Admitted	Good Time	Time	Maximum	Minimum
Category			Days Per	(Days)	Sentence	Sentence
			Month		(Months)	(Months)
A Felons*	11	1.8%	28.8	1,753.6	572.9	168.1
B Felons	341	56.1%	30.1	183.6	75.5	27.2
C Felons	122	20.1%	27.9	121.7	39.5	9.8
D Felons	91	15.0%	28.5	109.9	37.9	8.8
E Felons	43	7.1%	31.2	127.1	38.0	8.0
Subtotal	608	100.0%				
Missing	1					
Total	609					

* A Felon category includes all offenders sentenced to life

TABLE 18: NEW COURT COMMITMENT ADMISSIONCHARACTERISTICS BY CATEGORY: FEMALES: 2012

Offender	Number	Percent	Average	Average Jail	Average	Average
Felony	Admitted	Admitted	Good Time	Time	Maximum	Minimum
Category			Days Per	(Days)	Sentence	Sentence
			Month		(Months)	(Months)
A Felons*	13	2.1	30.9	896.0	547.7	117.8
B Felons	338	54.1	30.0	162.6	75.5	27.7
C Felons	135	21.6	28.9	115.4	41.5	9.9
D Felons	89	14.2	29.4	105.9	38.9	10.3
E Felons	50	8.0	27.8	113.7	36.0	7.4
Subtotal	625	100.0				
Missing	1					
Total	626					

* A Felon category includes all offenders sentenced to life

.

Year	Males	Females	Total
2002	3,384	469	3,853
2003*	3,481	441	3,922
2004	4,043	570	4,613
2005	4,267	604	4,871
2006	4,744	746	5,490
2007**			
2008^	4,622	621	5,243
2009	4,475	611	5,086
2010	4,405	660	5,065
2011	4,260	610	4,870
2012	4,063	628	4,691
2013	4,165	632	4,797
2014	4,185	635	4,820
2015	4,206	638	4,844
2016	4,226	641	4,867
2017	4,245	644	4,889
2018	4,263	647	4,910
2019	4,282	651	4,933
2020	4,301	654	4,955
2021	4,320	657	4,977
2022	4,338	660	4,998
2023	4,355	664	5,019
Numeric Change			
2002 – 2012	679	159	838
Percent Change			
2002 – 2012	20.1%	33.9%	21.7%
Average Annual			
Percent Change			
2002 - 2012##	2.1%	3.7%	2.2%
Percent Change			
2011 - 2012	-4.6%	3.0%	-3.7%
Numeric Change			
2013 – 2023	190	32	222
Percent Change			
2013 - 2023	4.6%	5.1%	4.6%
Average Annual			
Percent Change			
2013 - 2023	0.4%	0.5%	0.5%

TABLE 19: HISTORICAL AND PROJECTED NEW COMMITMENTS: 2002-2023

*Male new court commitment numbers for 2003 do not include 367 offenders admitted under contract from Wyoming and Washington State.

** This table is usually populated with data from NDOC monthly reports, but as those were unavailable for 2007, and the admissions datafile for 2007 from NDOC provided unreliable data for admissions by type, JFA could not report the count of new commitment admissions for 2007.

[^] The 2008admissions 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. ^{##} In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, we utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

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.

TABLE 22 presents the summary table of male, female and total population projections from 2013 to 2023. These forecasts are based on the assumption that male new commitment admissions will grow by an average of 0.4 percent each year from 2013 to 2023, and female new commitment admissions will grow by an average of 0.5 percent each year from 2013 to 2023.

A. Projected Male Inmate Population

TABLE 20 displays a summary of the historical and projected male inmate population for the period 2002 to 2023. Neither the actual population counts for 2003 and 2004 nor the forecasted population through 2023 includes inmates transferred into Nevada and held on contract from Wyoming and Washington State.

Figure 12 presents the February 2013 forecasts of male new commitment admissions and stock population.

Baseline Forecast

- In 2023, 12,406 male offenders are projected to be housed in the Nevada Department of Corrections system.
- The male inmate prison population was 11,845 at the end of 2012. The population is projected to increase from 11,845 inmates at the end of 2012 to 12,193 in 2018 and to 12,406 inmates by the end of 2023. The projected growth represents average increases of 56 inmates, or 0.5 percent per year through the year 2018. Through the year 2023, this projected growth represents average increases of 49 inmates, or 0.4 percent, per year.
- The male forecast is very close to the October 2012 forecast as two distant trends appear to be compensating for each other. The stabilization of parole violators admissions have offset the slight decrease in parole release rates.

1010		
Year	Historical	
2002	9,612	
2003*	9,736	
2004*	10,490	
2005	11,075	
2006	12,003	
2007	12,245	
2008	12,223	
2009	11,911	
2010	11,790	
2011	11,811	
2012	11,845	
		Projected
2013		11,914
2014		11,943
2015		11,972
2016		12,028
2017		12,132
2018		12,193
2019		12,213
2020		12,260
2021		12,292
2022		12,331
2023		12,406
Numeric Change		
2002 - 2012	2,233	
Percent Change		
2002 - 2012	23.2%	
Average Annual		
Percent Change		
$2002 - 2012^{\#}$	2.2%	
Percent Change		
2011 - 2012	0.3%	
Numeric Change		
2013 - 2023		492
Percent Change		
2013 - 2023		4.1%
Average Annual		
Percent Change		
2013 - 2023		0.4%

TABLE 20: HISTORICAL AND PROJECTED INMATEPOPULATION: MALES: 2002 – 2023

*Numbers represent end of calendar year figures.

Male year-end 2003 and 2004 figures do not include 363 prisoners held on contract from Wyoming and Washington State.

B. Projected Female Inmate Population

TABLE 21 displays a summary of the historical and projected female inmate population for the period 2002 to 2023.

Figure 13 presents the February 2012 forecasts of female new commitment admissions and stock population.

Baseline Forecast

- In 2023, 1,182 female offenders are projected to be housed in the Nevada Department of Corrections system.
- The female inmate prison population was 1,038 inmates at the end of 2012. The population is projected to increase from 1,038 inmates at the end of 2012 to 1,120 in 2018 and 1,182 inmates by the end of 2023. This projected growth represents average increases of 12 inmates, or 1.1 percent, per year through the year 2023.
- The female forecast is slightly higher than the October 2012 forecast due to two factors: a slight decrease in the discretionary parole release rate and an increase in the number of new admissions to prison.

Year	Historical	
2002	848	
2003	816	
2004	949	
2005	1,008	
2006	1,183	
2007	1.096	
2008	1,042	
2009	980	
2010	979	
2011	967	
2012	1.038	
	,	Projected
2012		1.062
2013		1,005
2014		1,070
2015		1,003
2010		1,095
2017		1,102
2018		1,120
2019		1,132
2020		1,140
2021		1,158
2022		1,109
2023		1,102
Numeric Change	100	
$\frac{2002 - 2012}{\text{Demont Change}}$	190	
2002 2012	22.494	
Average Appuel	22.470	
Porcont Change		
$2002 - 2012^{\#}$	2 4%	
Percent Change	2.170	
2011 - 2012	7.3%	
Numeric Change		
2013 - 2023		119
Percent Change		117
2013 - 2023		11.2%
Average Annual		
Percent Change		
2013 – 2023		1.1%

TABLE 21: HISTORICAL AND PROJECTED INMATEPOPULATION: FEMALES: 2002 – 2023

Numbers represent end of calendar year figures.

Year	Male Population	Female Population	Total Population
2012	11,845	1,038	12,883
2013	11,914	1,063	12,977
2014	11,943	1,076	13,019
2015	11,972	1,085	13,057
2016	12,028	1,093	13,121
2017	12,132	1,102	13,234
2018	12,193	1,120	13,313
2019	12,213	1,132	13,345
2020	12,260	1,146	13,406
2021	12,292	1,158	13,450
2022	12,331	1,169	13,500
2023	12,406	1,182	13,588
Numeric Change			
2013 - 2023	492	119	611
Percent Change			
2013 - 2023	4.1%	11.2%	4.7%
Average Annual			
Percent Change			
2013 - 2023	0.4%	1.1%	0.5%

TABLE 22: ACTUAL AND PROJECTED INMATE POPULATION: 2012 – 2023

Numbers represent projections of end of calendar year figures.

APPENDIX A: FIGURES













** 2007 data represents total male admissions.

*** 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

















APPENDIX B: PROJECTIONS

Table A: Total Male and Female Population												
Year	January	February	March	April	May	June	July	August	September	October	November	December
2013	12,913	12,920	12,932	12,937	12,937	12,935	12,942	12,953	12,962	12,956	12,963	12,977
2014	12,975	12,975	12,980	12,974	12,985	12,984	12,991	12,995	13,001	13,010	13,009	13,019
2015	13,011	13,012	13,021	13,022	13,021	13,024	13,035	13,043	13,049	13,057	13,058	13,057
2016	13,059	13,062	13,070	13,069	13,090	13,105	13,106	13,115	13,113	13,118	13,121	13,121
2017	13,120	13,170	13,193	13,202	13,218	13,217	13,218	13,225	13,233	13,215	13,218	13,234
2018	13,248	13,242	13,250	13,261	13,269	13,276	13,289	13,297	13,311	13,309	13,324	13,313
2019	13,321	13,324	13,326	13,338	13,335	13,329	13,332	13,332	13,349	13,340	13,348	13,345
2020	13,352	13,360	13,369	13,371	13,387	13,380	13,387	13,397	13,391	13,399	13,407	13,406
2021	13,409	13,412	13,418	13,426	13,428	13,435	13,433	13,436	13,425	13,442	13,441	13,450
2022	13,455	13,451	13,461	13,457	13,469	13,470	13,481	13,486	13,488	13,507	13,503	13,500
2023	13,536	13,554	13,553	13,550	13,554	13,554	13,555	13,568	13,570	13,580	13,589	13,588

FEBRUARY 2013 FORECAST

Table B: Total Male Population												
Year	January	February	March	April	May	June	July	August	September	October	November	December
2013	11,862	11,872	11,881	11,889	11,890	11,884	11,893	11,901	11,906	11,903	11,911	11,914
2014	11,911	11,916	11,922	11,917	11,924	11,921	11,925	11,927	11,930	11,939	11,934	11,943
2015	11,938	11,935	11,942	11,947	11,946	11,950	11,952	11,961	11,970	11,975	11,970	11,972
2016	11,972	11,980	11,985	11,983	12,002	12,015	12,018	12,025	12,021	12,027	12,028	12,028
2017	12,038	12,077	12,104	12,107	12,120	12,115	12,126	12,130	12,133	12,120	12,125	12,132
2018	12,147	12,142	12,153	12,160	12,166	12,163	12,177	12,180	12,188	12,183	12,206	12,193
2019	12,196	12,199	12,200	12,207	12,206	12,195	12,198	12,201	12,217	12,212	12,212	12,213
2020	12,215	12,224	12,228	12,232	12,246	12,241	12,245	12,250	12,249	12,252	12,265	12,260
2021	12,265	12,267	12,275	12,283	12,284	12,282	12,277	12,276	12,266	12,280	12,286	12,292
2022	12,300	12,292	12,297	12,291	12,305	12,310	12,322	12,326	12,330	12,334	12,332	12,331
2023	12,362	12,382	12,385	12,376	12,379	12,385	12,381	12,389	12,390	12,398	12,410	12,406

Table C: Total Female Population												
Year	January	February	March	April	May	June	July	August	September	October	November	December
2013	1,051	1,048	1,051	1,048	1,047	1,051	1,049	1,052	1,056	1,053	1,052	1,063
2014	1,064	1,059	1,058	1,057	1,061	1,063	1,066	1,068	1,071	1,071	1,075	1,076
2015	1,073	1,077	1,079	1,075	1,075	1,074	1,083	1,082	1,079	1,082	1,088	1,085
2016	1,087	1,082	1,085	1,086	1,088	1,090	1,088	1,090	1,092	1,091	1,093	1,093
2017	1,082	1,093	1,089	1,095	1,098	1,102	1,092	1,095	1,100	1,095	1,093	1,102
2018	1,101	1,100	1,097	1,101	1,103	1,113	1,112	1,117	1,123	1,126	1,118	1,120
2019	1,125	1,125	1,126	1,131	1,129	1,134	1,134	1,131	1,132	1,128	1,136	1,132
2020	1,137	1,136	1,141	1,139	1,141	1,139	1,142	1,147	1,142	1,147	1,142	1,146
2021	1,144	1,145	1,143	1,143	1,144	1,153	1,156	1,160	1,159	1,162	1,155	1,158
2022	1,155	1,159	1,164	1,166	1,164	1,160	1,159	1,160	1,158	1,173	1,171	1,169
2023	1,174	1,172	1,168	1,174	1,175	1,169	1,174	1,179	1,180	1,182	1,179	1,182