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# West Virginia Correctional Population Forecast, 2010-2020

## *A Study of the State's Prison Population*

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This report continues the biennial updating of prison population projections for the state of West Virginia. It describes the current correctional population and provides policymakers with a 10-year correctional population forecast.

West Virginia's prison population is expected to grow over the next ten years. In 2009, the State had the second highest prison population growth rate in the nation (West and Sabol, 2010). However, the growth rate has slowed from 8.1% between 2000-2007 to 5.1% annually in recent years. This is in large part due to pronounced changes in prisoner commitments and releases between 2007 and 2008.

Nevertheless, the decline in WV's rate of growth is consistent with national trends. A 2009 Bureau of Justice Statistics (BJS) report showed the average prison population growth rate decreased in 24 states (West, 2009). Likewise, some states even reported a reduction in overall prison population in 2009 from the previous year (West, 2009). WV's prison population closely followed this trend, growing by only three inmates in 2008.

Despite these recent reductions in the rate of growth, the prison

population in WV is expected to increase steadily over the next 10 years. Over the coming decade, the correctional population is projected to grow an average of 4.6% each year. While less than the 7.3% growth rate observed between 2000 and 2010, an annual growth rate of 4.6% translates into a 45.7% increase in the total number of confined inmates by 2020. As a result, the state's correctional population is expected to reach 8,251 inmates by the end of 2015 and 9,732 inmates by the end of 2020.

### **Prison Population Forecasts: Basic Assumptions**

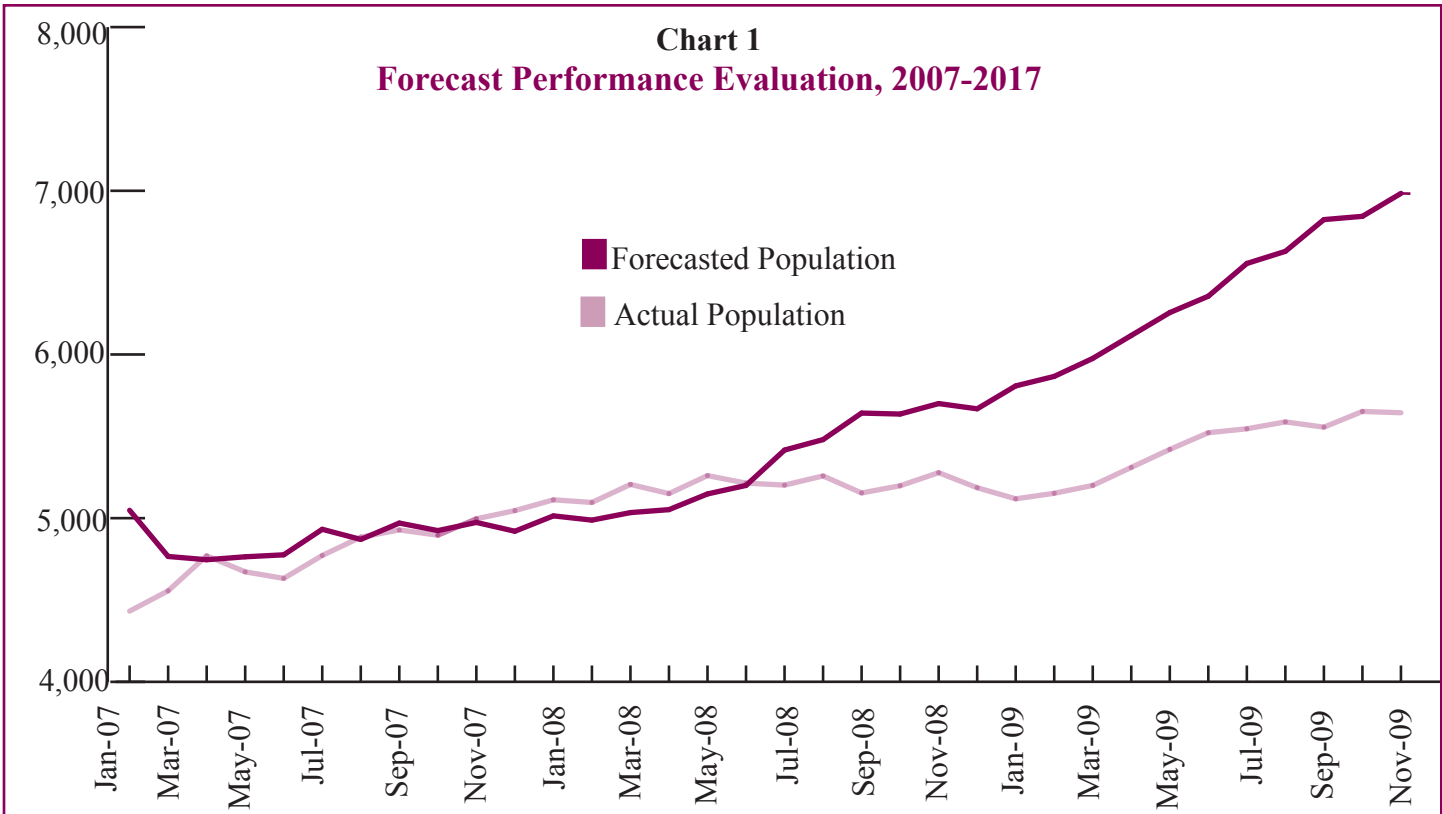
Recent fluctuations in WV's prison commitments and releases have highlighted the complexity of generating accurate prison population estimates. Forecast models rely heavily on basic assumptions about system processes and trends to formulate population projections. As a result, when substantial changes occur in such factors as the number of prisoners entering or leaving correctional institutions in a given year, it can have a dramatic effect on future population estimates.

The methods used in the present forecast are rooted on the assumption

State of West Virginia  
Department of Military Affairs & Public Safety  
Division of Justice and Community Services

### **Report Highlights**

- WV has the second fastest growing prison population in the nation.
- The prison population grew by 5.1% in 2009 and 4.9% in 2010.
- The correctional population is projected to grow over the next decade at an average rate of 4.6% each year.
- Over the next decade, the state prison system can expect to receive approximately 305 additional inmates per year, down from the 311 observed between 2008-2010.
- At the end of 2010, 6,681 inmates were in DOC custody. The population is expected to reach 8,251 inmates in 2015 and 9,732 in 2020.
- In 2010, 72.6% of all new prison admissions were for nonviolent offenses. Violent offenders, are expected to comprise less than half of the prison population in 2015.
- A peak of 539 parole violators were returned to prison in 2008, resulting in a 140.0% increase in returns between 2004 and 2008.
- In 2010, the parole grant rate dropped from a peak of 53.4% in 2008 to 46.2% by 2010.



that the trends in prison admissions and releases in a single year will remain constant. That is, the model assumes that various factors known to impact trends in commitments and releases of inmates will remain relatively stable over time. Based on this assumption, the present model simulates the movement of inmates through the prison system based on 12 months of admission and release data in 2009. As a consequence, any change in commitments and

releases has a direct bearing on the rate of prison population growth and on future population estimates.

This assumption is especially noteworthy given its recent impact on population projections in this state. Substantial fluctuations in prison admissions and releases between 2007 and 2008 resulted in less stable estimates of the prison population through 2017. Utilizing data on 2006 admission and releases, the 2007-2017 population forecast

predicted sharp increases in the correctional population beginning in 2007, continuing in 2008 and successive years. For reasons not fully understood, however, this predicted growth did not occur in 2008.

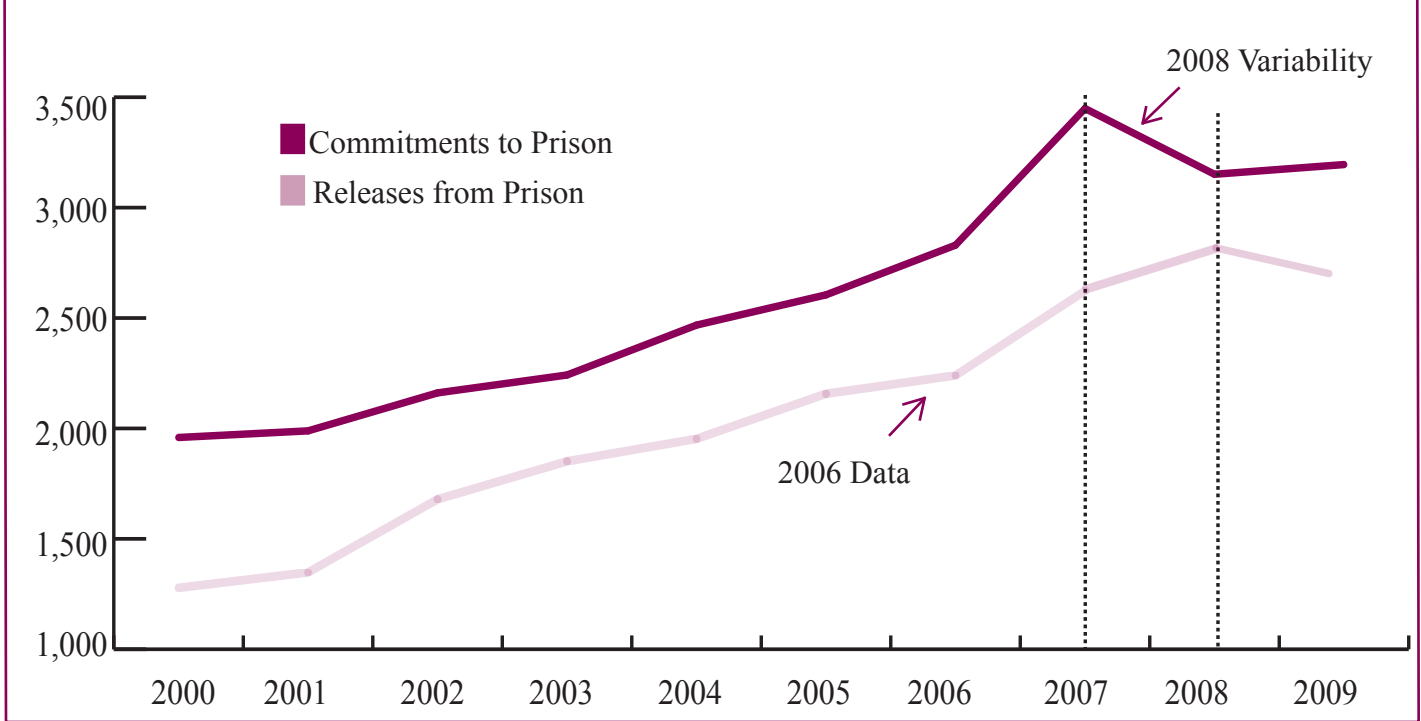
In 2008, for the first time in recent history, the number of commitments to DOC actually declined. In fact, the number of commitments declined by nearly 300 inmates; thereby, introducing a level of instability not reflected in 2006 admissions.

**Table 1**  
**Commitments and Releases 2006-2009**

	Commitments			Releases		
	N	# Change	% Change	N	# Change	% Change
2006	2,830	--	--	2,240	--	--
2007	3,449	+619	+21.9%	2,623	+383	+17.1%
2008	3,151	-298	-8.6%	2,698	+75	+2.9%
2009	3,190	+39	+1.2%	2,620	-78	-2.9%

Source: DOC Commitment and Release Logs

**Chart 2**  
**Trends in DOC Commitments and Releases, 2000-2009**



At the same time, this decline in commitments was not offset by inmate releases. As a result, the prison population grew by only 3 inmates in 2008, in clear contrast to the approximately 300 inmates added to the population in 2007. In short, these sizeable changes in 2007 and 2008 commitments and releases resulted in a slower rate of population growth that could not be predicted by the extant forecast model.

### *Changes in Growth Trends 2006-2009*

As early as June 2008, periodic performance reviews of the forecast projections suggested that the prison population was growing at a slower pace than predicted by the 2007-2017 population forecast (see Withrow, 2008). Chart 1 provides a comparison of actual versus forecasted prison population growth. As illustrated in Chart 1, the actual prison population grew

as predicted for all of 2007 and the first half of 2008. Beginning in June 2008, however, a gap began to grow between the actual and forecasted population numbers. This trend continued through the remainder of 2008 and 2009. By end of year 2009, the forecast projections were estimating 10% more inmates in the population than were actually being housed. As described in the preceding section of this report, this was the result of a dramatic change in prison admissions and releases between 2007 and 2008.

To further illustrate this point, Table 1 provides a summary of the changes observed between 2006 and 2009. As shown in Table 1, a total of 619 additional inmates were committed to DOC custody in 2007 compared to the previous year. This represented a 21.9% increase in the number of new commitments; thereby, outpacing the number of prisoners released

during the same year. This is despite the fact that the number of prisoners released in 2007 also increased substantially from 2006 to 2007.

As depicted in Chart 2, trends in DOC commitments and releases remained rather stable for the first half of this decade. That is, both commitments and releases steadily grew at a similar rate between 2000 and 2005. In 2007, however, growth in commitments clearly outpaced releases—despite both increasing significantly from the year prior.

These dramatic increases from 2006 to 2007 did not continue in 2008. Instead, the number of commitments dropped dramatically in 2008 in comparison to the 2007 peak. As shown in Table 1, there were 298 fewer commitments in 2008 compared to 2007. At the same time, however, the number of releases continued to grow. Seventy-five or 2.9% more inmates were released from DOC custody in 2008.

**Table 2**  
**Annual Change in Commitments to the Division of Corrections Custody, 2000-2010**

Year	New Felons	Anthony Center	Diagnostic	Parole Violators	Total	Annual Change N	Annual Change %
2000	1,436	199	110	214	1,959	--	--
2001	1,363	240	158	228	1,989	+30	+1.5%
2002	1,508	267	179	207	2,161	+172	+8.6%
2003	1,560	264	189	229	2,242	+81	+3.7%
2004	1,846	230	167	225	2,468	+226	+10.1%
2005	1,900	237	82	386	2,605	+137	+5.6%
2006	2,106	195	103	426	2,830	+225	+8.6%
2007	2,536	270	160	483	3,449	+619	+21.9%
2008	2,237	225	150	539	3,151	-298	-8.6%
2009	2,304	227	143	516	3,190	+39	+1.2%
2010	2,369	236	170	509	3,284	+94	+2.9%
<b>Average Annual Change, 2000-2010</b>						<b>+133</b>	<b>+6.8%</b>
<b>Average Annual Change, 2009-2010</b>						<b>+67</b>	<b>+1.5%</b>

These fluctuations in prison commitments and releases between 2007 and 2008 contributed greatly to the differences in the actual versus forecasted prison population estimates. The simultaneous decline in commitments, combined with the continued increase in 2008 releases, resulted in a smaller correctional population than predicted. Only 3 inmates were added to the end of year corrections population in 2008

At the end of 2008, these dramatic shifts resulted in a difference of 345 prisoners between the forecasted (6,404) and actual (6,059) prison population. This gap was compounded throughout 2009 as trends in both commitment and releases settled into more traditional growth patterns. Between 2008 and 2009 prison commitments rose by only 39 prisoners or 1.2%, while releases declined by only 78 prisoners or 2.9%. As shown in Table 7, this resulted in a net gain of 308 prisoners in 2009 which is more in-line with

population growth observed over the past decade. The following section describes recent trends in DOC commitments and releases.

### **Trends in Commitments and Releases**

This section of the report describes trends in DOC commitments and releases, including parole releases. As depicted in Table 2, a reduction in prison commitments and higher release rates have resulted in a smaller than average net growth over the past three years. To explore these trends further, the following discussion highlights recent changes in commitments, parole decisions and releases.

#### *Commitments*

Table 2 displays the annual change in commitments between 2000-2010. As illustrated, the total number of commitments into DOC facilities shows a steady pattern of increase every year since 2000 at

an average rate of 6.8%. The only exception to this growth pattern was a spike in commitments experienced in 2007. A peak of 539 parole violators were returned to prison in 2008, resulting in a 140.0% increase in returns between 2004 and 2008.

In 2008, there were 298 fewer commitments than 2007 resulting in a 8.6% reduction in total commitments. This represents the first decline in prison commitments in more than 10 years (see Table 2). After 2008, prisoner commitments once again began to increase by 39 prisoners in 2009, and 94 inmates in 2010. As a result, prison commitments have nearly leveled off over the past three years.

The primary reason for the stability in commitments over the last three years is that none of the commitment categories have increased substantially.

**Table 3**  
**Parole Decisions by Type and Year**

Year	Denied	Granted	Total	Further Con.	% Granted
2005	1,516	1,145	2,661	----	43.0%
2006	1,597	1,194	2,761	----	43.2%
2007	1,491	1,630	3,121	----	52.2%
2008	1,199	1,376	2,575	957	53.4%
2009	1,210	1,328	2,538	1,305	52.3%
2010	1,554	1,336	2,890	1,199	46.2%

Source: DOC Commitments and Releases Log/WV Parole Board Activity Sheets

Note: The total column represents the sum of all cases in which the outcome was either to grant or deny parole. Prisoner eligibility for parole is contingent upon an approved Home and Employment Plan (H&EP). Further Consideration (Further Con.) is an action taken by the parole board to delay a decision until a H&EP is verified and approved.

**Parole Releases**

Table 3 summarizes the results of parole decisions since 2005. Generally, the percentage of prisoners granted parole has increased since 2005 and 2006, peaking at 53.4% in 2008. Between 2007 and 2009, the parole grant rate exceeded 50% before declining approximately six percentage points to 46.2% in 2010.

**Releases**

Table 4 presents the number and types of releases from DOC custody between 2003 and 2010. While DOC releases have increased over the past years, there has been a great deal of variability. The largest number of prisoners were released in 2005 and 2007, representing 10.4% and 17.1% increases from the prior years. A spike in releases occurred

in 2007 with 383 additional inmates being released compared to the year before. In 2008 there were only 75 more releases than in 2007. Seventy-eight fewer prisoners were released from DOC facilities in 2009 than in 2008, resulting in the first decline in total releases since 2003.

As described previously, parole releases heavily contributed to the total number of releases observed in 2007 (see Table 4). During this year, the number of inmates released on parole increased by 310 over the prior year. A total of 1,437 inmates were paroled in 2007, translating into a 27.5% increase compared to 2006. In 2008, the number of parole releases rose again and peaked at 1,510 parolees. Since 2008, however, the number of parole releases has declined. In 2009 and 2010, the number of parole releases leveled off at 1,345 and 1,344, respectively.

Few other fluctuations in releases occurred between 2003 and 2010, except for the number of discharges.

**Table 4**  
**Annual Change in Releases from the Division of Corrections Custody, 2003-2010**

Year	Discharge	Parole	Anthony Center	Jail	Diagnostic	Other	Total	Annual Change N	Annual Change %
2003	519	806	247	78	183	18	1,851	--	--
2004	573	773	293	137	153	24	1,953	+102	+5.5%
2005	658	1,048	251	-----	180	20	2,157	+204	+10.4%
2006	700	1,127	237	-----	148	28	2,240	+83	+3.8%
2007	750	1,437	223	-----	184	29	2,623	+383	+17.1%
2008	765	1,510	278	-----	120	25	2,698	+75	+2.9%
2009	875	1,345	237	-----	138	25	2,620	-78	-2.9%
2010	837	1,344	274	-----	190	24	2,669	+49	+1.9%

Source: DOC Commitment and Release Logs

Notes: The discharge category includes both expired sentences and court-ordered releases. The other category includes escapes, medical respite, and deaths. The number of jail releases are not available between 2005-2010.



**Table 5**  
**Inmates Admitted by Type of Offense and Year, 2004-2010**

	2004	2005	2006	2007	2008	2009	2010	% Difference 2009-10	% Difference 2004-10
Murder	5.7%	4.8%	2.5%	2.6%	2.7%	2.9%	2.8%	-0.1%	-2.9%
Sex Crimes	10.1%	8.8%	7.1%	6.6%	6.4%	7.1%	7.9%	+0.8%	-2.2%
Robbery	6.2%	4.8%	6.2%	5.8%	5.8%	5.1%	6.1%	+1.0%	-0.1%
Assault	7.9%	7.4%	8.2%	8.7%	8.1%	8.9%	10.6%	+1.7%	+2.7%
Burglary	16.7%	15.3%	15.2%	15.1%	15.3%	14.4%	15.0%	+0.6%	-1.7%
Property	20.8%	21.9%	21.8%	25.3%	26.1%	24.7%	20.7%	-4.0%	-0.1%
Drug	15.7%	19.4%	23.6%	21.7%	21.1%	22.9%	21.9%	-1.0%	+6.2%
DUI	10.0%	7.8%	4.8%	5.5%	5.0%	4.5%	5.1%	+0.6%	-4.9%
Other	6.9%	9.8%	10.5%	8.8%	9.5%	9.6%	9.7%	+0.1%	+2.8%

Source: DOC Prisoner Admission Reports

Notes: Anthony Center inmates are not included in these figures, in order to allow for a historical comparison. There were no diagnostic inmate figures between 2003 and 2005 due to constraints on data availability. Percentages may not total to 100.0% due to rounding.

Discharges reached a high of 875 in 2009, and remained above eight hundred for 2010 at 837.

### Description of the Current Correctional Population

Not all offenders committed to DOC custody are housed in state prisons due to a lack of available beds. Some of those sentenced to prison serve part, or all, of their sentence in regional jails. When an offender enters a DOC facility they count as an admission for that year. The following section describes the offenders who are housed in DOC facilities.

#### Admissions

Three of the four violent crime categories have seen a general decline in prison admissions over the years. Roughly 5.0% of prison admissions were for murder from 2004-2005 (see Table 5). In 2010 that percentage dropped to only 2.8% of all admissions, resulting in a difference of 2.9% since 2004. The

proportion of sex crime admissions has also been reduced over time by 2.2% from 2004 to 2010. However, the lowest percentage of sex crime admissions was in 2008 at 6.4%. Robbery admissions have gone down only 0.1% since 2004; however, they grew by one percentage point in 2010 from 2009.

Of the four most common violent crimes, only assault has seen an increased trend in proportion of admissions. In 2010, 10.6% of prison admissions were for assault offenses. This represents the highest percentage of assault admissions in the past 7 years. Overall, the proportion of prison admissions for assaults in 2010 was 2.7% greater than in 2004.

Nonviolent crimes make up the majority of new admissions to state prisons. In 2010, 72.6% of all admissions to prison were for nonviolent offenses. However, drug (21.9%) and property (20.7%) crime offenders made up more than

a third of all admissions that same year. The proportion of admissions in 2010 for drug related crimes was 6.2% higher compared to 2004.

Property crime admissions have stayed relatively stable since 2004. However, property crimes comprised 4.0% fewer admissions in 2010 compared to 2009. Since 2004, burglary admissions have remained around 15.0%. Burglary admissions were at their lowest level in 2009 at 14.4%. Similarly, DUI admissions in 2009 were their lowest level at 4.5%. DUI admissions have seen the second greatest overall change of any offense type, dropping by 4.9% since 2004.

#### Maximum Sentence Length

Table 6 displays the average maximum sentence lengths (in months) by offense type and admission year. As shown in Table 6, there is a great deal of variability in the average maximum sentence by type of offense from year to year. As a consequence, it is difficult to isolate consistent patterns that

**Table 6**  
**Average Maximum Sentence Length (in Months) by Offense Type and Admission Year**

	2004	2005	2006	2007	2008	2009	2010	Change 09-10	Change 04-10
Murder	234.7	254.3	208.9	224.8	280.4	257.0	275.4	+18.4	+40.7
Sex Crimes	239.3	230.6	207.0	197.8	237.9	202.9	225.1	+22.2	-14.2
Robbery	234.1	241.4	233.0	242.0	241.8	236.7	222.4	-14.3	-11.7
Assault	95.1	94.8	91.8	85.2	94.4	87.5	87.4	-0.1	-7.7
Burglary	184.2	178.8	187.3	172.4	192.6	173.7	171.4	-2.3	-12.8
Property	148.5	128.8	133.0	130.8	139.2	140.0	133.0	-7.0	-15.5
Drug	133.4	139.7	129.9	126.0	136.7	131.2	120.8	-10.4	-12.6
DUI	46.1	42.4	39.1	39.3	38.8	39.6	39.3	-0.3	-6.8
Other	57.7	57.0	54.7	62.5	62.7	62.3	61.1	-1.2	+3.4

Source: DOC Prisoner Admission Reports

Notes: Anthony Center and diagnostic populations are not included in this table. Maximum sentences that exceeded 1,000 months or more were excluded based on historical methodology.

signify whether sentence lengths are getting longer or shorter over time for specific crime categories.

However, offenders sentenced to DOC for the most violent crime categories (i.e., murder, sex crimes, robbery) do seem to serve longer sentences on average, compared to other crimes. Likewise, only prisoners released for murder and sex crimes served longer sentences in 2010, compared to 2009. The observed increases were 18.4 and 22.2 months, respectively. In 2010, inmates serving time for murder served 40.7 months more than those released in 2004. Property offenders served less lengthy sentences in 2010 (-15.5 months) compared to 2004. Sex crime sentences also decreased by 14.2 months.

Violent offenses have the longest average maximum sentences, with the exception of assault. Prisoners entering the DOC system for assault had an average maximum sentence of 87.4 months. This is less than half

of the average maximum sentence for all other violent offenses. Of the nonviolent offenses, burglary had the highest average sentence of 171.4 months followed by property (133.0 months) and drug-related crime (120.8 months).

DUI sentences have been the most consistent over time as the average has been within one month since 2006. Similarly, the “other” offense category has hovered around 62 months for the past four years.

**Table 7**  
**Confined End-of-Year Population, 2000-2010**

Year	Population	Annual Change	
		N	%
2000	3,870	--	--
2001	4,215	+345	+8.9%
2002	4,544	+329	+7.8%
2003	4,758	+214	+4.7%
2004	5,067	+309	+6.5%
2005	5,312	+245	+4.8%
2006	5,733	+421	+7.9%
2007	6,056	+323	+5.6%
2008	6,059	+3	+0.1%
2009	6,367	+308	+5.1%
2010	6,681	+314	+4.9%
<b>Average Annual Change, 2000-07</b>		<b>+312</b>	<b>+8.1%</b>
<b>Average Annual Change, 2009-10</b>		<b>+311</b>	<b>+5.1%</b>

In comparison to 2004 averages, only two offense types showed increases in sentence length. Murder, and “other” sentence lengths grew by 40.7, and 3.4 months in 2010, respectively. However, in 2010 average sentence lengths were at their lowest for robbery, burglary and drug crimes compared to the previous 7 years.

**Total Population**

The WV prison population continues to grow at a steady rate of approximately 311 prisoners per year (see Table 7). At the end of 2010, DOC had custody of 6,681 prisoners which was an increase of 314 from the previous year. With the exception of 2008, the prison

population has seen roughly five percent increases each year since 2007. This average growth rate is reflected in the 2020 population forecast presented in the next section.

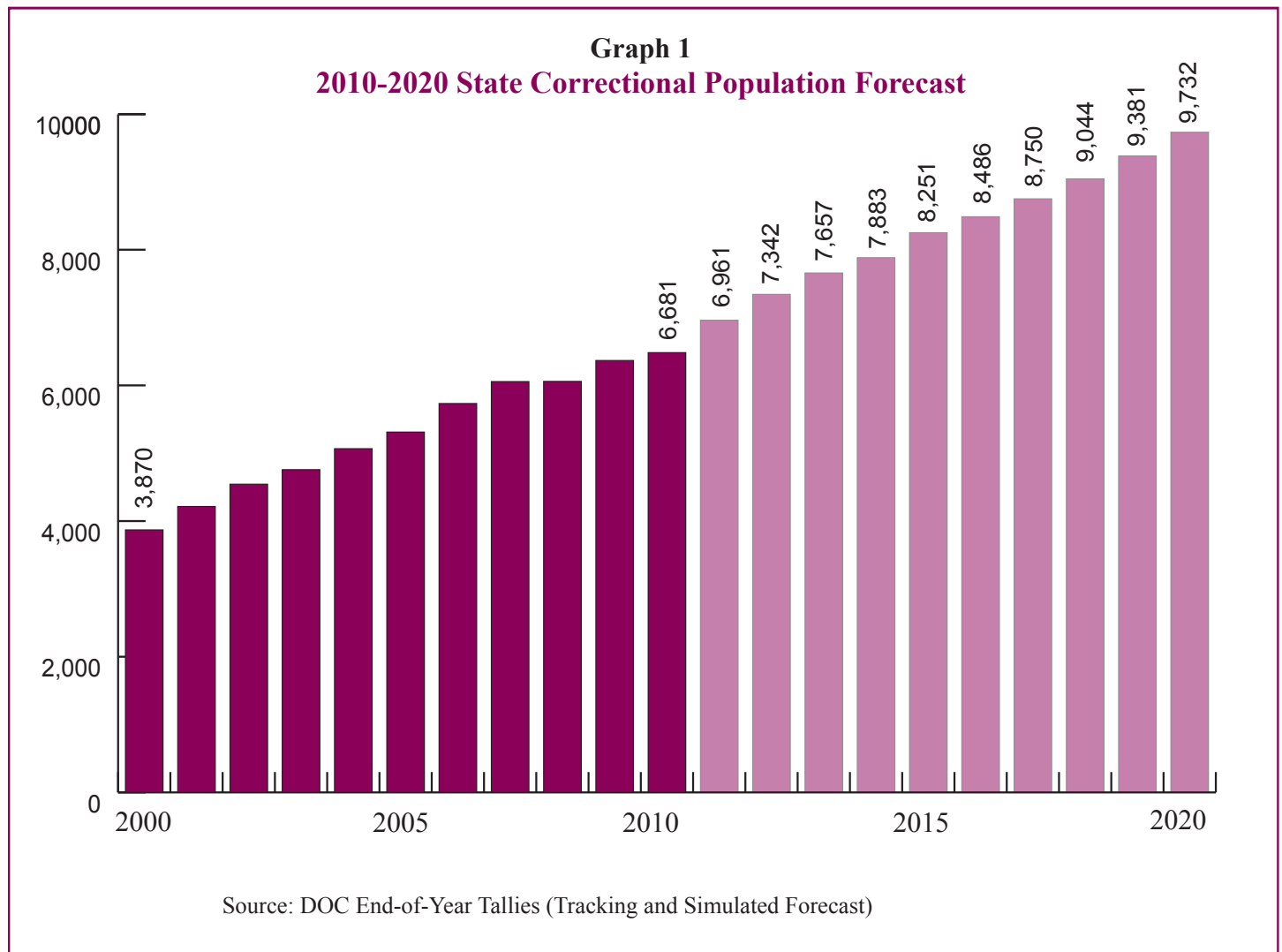
**Projections and Methods**

The results of the 2010-2020 forecast are presented in Graph 1. The forecasted projections include all offenders in DOC custody, which includes Anthony Correctional Center (ACC), diagnostic, and local/regional jail inmates.

In 2010, a backcast was conducted to test the accuracy of the projections. Over the course of this 12-month period, population projections fell within plus or minus 1.5% of the actual population each month.

According to the current forecast, the correctional population is expected to grow at an average annual growth rate of 4.6% over the next decade. This is less than the 5.6% growth rate estimated in the 2007-2017 population forecast. It is also less than the 8.1% average annual rate of growth between 2000 and 2007 and the 5.1% growth observed since 2008 (see Table 7). Based on current projections, DOC can expect to receive an average of 305 additional inmates per year over the next decade.

This will result in a correctional population that is expected to reach 8,251 inmates by the end of 2015 and 9,732 inmates by the end of 2020 (see Graph 1). This growth





translates into a 45.7% increase in the total number of inmates confined in WV’s adult correctional population between 2010 and 2020. This is less than the 72.6% growth experienced between 2000 and 2010.

**Projected Demographics**

Table 8 displays the projected characteristics of the correctional population through 2020. In 2010, violent offenders (based on most serious offense) comprised just over half of the prison population. However, the proportion of the population that violent offenders comprise is expected to decline by 10.2% over the next decade.

Meanwhile, the proportion of prisoners serving time in DOC facilities for property and drug offenses are expected to increase

slightly during the same period by 2.9%, and 1.8%, respectively. Drug offenders are expected to comprise 12.9% of the prison population by 2015. Likewise, public order crimes are forecasted to make up a greater proportion of the prison population in 2015 and beyond, increasing by 5.6%.

In terms of demographic characteristics, male inmates are projected to decrease only slightly as a proportion of the population, from 88.1% in 2010 to 84.6% in 2020. Conversely, females are expected to increase slightly from 11.9% in 2010 to 15.7% in 2015 and 15.4% in 2020. This represents an overall growth of 3.5% over the next decade. Finally, it appears that general population inmates will continue to make

up the vast majority of the prison population each year.

**Methodology**

This section of the report provides a description of the simulation model, forecast assumptions, and data sources used to produce the current 2010-2020 projections. Variable definitions and calculations are also provided. This section begins with a technical description of the forecast model and the various assumptions used to generate and interpret the correctional population projections.

**Technical Description of Model**

The forecast of the state correctional population was completed using Wizard 2000

**Table 8  
Characteristics of Forecasted Population, 2010-2020**

Population Type	2010		2015		2020	
	N	%	N	%	N	%
General Population	6,494	97.6%	8,065	97.7%	9,508	97.7%
Anthony Center	143	2.1%	168	2.0%	202	2.1%
Diagnostics	17	0.3%	18	0.2%	22	0.2%
<b>Total</b>	<b>6,654</b>	<b>100.0%</b>	<b>8,251</b>	<b>100.0%</b>	<b>9,732</b>	<b>100.0%</b>
<b>Gender</b>						
Male	5,325	88.1%	6,391	84.3%	7,637	84.6%
Female	719	11.9%	1,186	15.7%	1,390	15.4%
<b>Total</b>	<b>6,044</b>	<b>100.0%</b>	<b>7,577</b>	<b>100.0%</b>	<b>9,027</b>	<b>100.0%</b>
<b>Broad Offense Category</b>						
Violent	3,171	52.5%	3,289	43.4%	3,816	42.3%
Property	1,464	24.2%	1,989	26.3%	2,442	27.1%
Drug	679	11.2%	974	12.9%	1,172	13.0%
Public Order	730	12.1%	1,325	17.5%	1,597	17.7%
<b>Total</b>	<b>6,044</b>	<b>100.0%</b>	<b>7,577</b>	<b>100.0%</b>	<b>9,027</b>	<b>100.0%</b>

Source: Simulated Forecast for December 2010, 2015, and 2020

Notes: Total population figures include all offenders in DOC’s custody. This includes Anthony Center, diagnostic, and local or regional jail inmates. Due to the small number of Anthony Center and diagnostic inmates, gender and offense projections do not include these populations. Percentages may not total to 100.0% due to rounding.

projection software. This computerized simulation model mimics the flow of offenders through the state's correctional system over a ten-year forecast horizon and produces monthly projections of key inmate groups.

The simulation model utilizes a technique that is consistent with that of a stochastic entity simulation model. When a model is loaded with data, it will mimic the actual flow of cases through the correctional system being modeled. The model operates under the notion of a "growing admissions assumption." This assumes, as stated in the introduction, that what happened last year will carry over to the next year.

In order for the simulation model to work to its full potential, information must be gathered describing all of the entries and exits from the actual system for a previous one-year period. This applies to all offenders sentenced to the DOC custody. Additional data must be gathered describing the characteristics of the admission, confined, and release populations, parole hearing outcomes, and parole revocations. This information is then entered into the simulation model.

The model requires the formation of offense categories, also referred to as ID groups. It is assumed that offenders within each of the identified ID groups are handled by the criminal justice system in a similar fashion (in relation to sentencing, time served, and release decisions). Thus, specific offense categories or ID groups form the basis for all of the analysis contained in this report including the population forecast. These offense categories are murder, sex crimes,

robbery, assault, burglary, property, drug, DUI, and "other" offenses. Each offender's most serious offense was used to construct the ID groups.

In addition to the construction of ID groups, sentencing information is necessary for the simulation model. There are a variety of descriptive statistics (minimums, maximums, and means) required from the sentencing data. These sentence calculations and data sources are described later in this section.

#### *Data Sources*

***National Corrections Reporting Program "NCRP" (1998-2010).*** NCRP admission and release data describes the inmates who are entering and exiting from DOC facilities.

***Automated Inmate Information Tracking System "Tracking" (1995-2010).*** Data obtained from this tracking system are used to describe the inmates who currently reside in the physical custody of DOC.

***Inmate Management Information System "IMIS" (2009-2010).*** This is the current data system used by DOC. IMIS became effective in February 2005.

***Commitments and Releases Log "CRL" (1998-2010).*** The data from the CRL are used to monitor the trends in commitments to and releases from DOC custody, as well as parole grant rates.

***End-of-Month Log "EML" (1998-2010).*** The data contained in the EML includes the number of inmates in DOC custody at the end of each month.

***WV Parole Board Activity Sheets (2002-2010).*** Various pieces of data are collected on the processing of all hearings considered by the parole board on a monthly basis. ***Definitions and Calculations Correctional Population.*** The 2010 correctional population forecast includes inmates sentenced to ACC, and diagnostic inmates. Also, included are offenders committed to the DOC that are housed in local or regional jails. These DOC inmate populations are included in the forecast projections and other calculations unless otherwise noted.

***Anthony Correctional Center (ACC).*** Offenders sentenced to the ACC have a shorter length of stay compared to other DOC facilities. Young offenders are typically sentenced to 6 months to two years. Given that this population is handled differently from the general population of inmates, offenders sentenced to the ACC are separated from the general population in some analyses.

***Diagnostics.*** These offenders can be sentenced to 60 days for a diagnostic evaluation.

***Commitments.*** This term is used to describe the number of offenders that are ordered by the court to the custody of DOC. Commitments include all offenders sentenced to DOC custody, including inmates that may be housed in regional jails awaiting transfer to a DOC facility.

***Admissions.*** This term refers to offenders sentenced to a DOC facility and physically entered into a DOC facility. Admissions differ from commitments in that they do not

include inmates housed in regional jails pending transfer to a DOC facility.

**Violent Crimes.** Violent crime is composed of four offense categories, which are also referred to as ID groups. These categories include: murder, sex crimes, robbery, and assault.

**Nonviolent Crimes.** Nonviolent crime consists of five offense categories, or ID groups including: burglary, property, drug, DUI, and “other”. For greater detail on the types of offenses contained in each ID group, see Lester and Haas 2005, Appendices A-C.

**Average Annual Percentage Change.** The annual growth rate or percent change is calculated as follows:  $(V_{\text{present}} - V_{\text{past}}) / V_{\text{past}} * 100$ . The average is derived by the number of years being assessed for change.

**Average Maximum Sentence.** This is a conversion of the total maximum sentence given for all offenses into months. ACC and diagnostic populations are not included in the calculation of the average maximum sentence length. Maximum sentences that exceeded 1,000 months or more are excluded.

**Mean Time Served.** This is the average time served in a DOC facility, converted to months. It is calculated by subtracting the release date from the date of admission. This calculation does not include any time previously spent in jail, prior to admission into prison.

**Mean Percent of Maximum Sentence Served (in months).** This

is calculated by taking the total time served in prison and dividing that by the total maximum sentence for all offenses. Cases with zero time served and equal to 250 months or greater are excluded from total maximum sentence calculation.

**Parole Decision Rates.** The parole decision rates are calculated by taking the total number of cases granted and dividing that by the total number of all decisions to either grant or deny parole. Cases placed on further consideration do not count towards the total number of decisions.

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