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West Virginia Correctional Population Forecast: 2005-2015 *A Study of the State's Prison Population*

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This report describes the current correctional population in West Virginia (WV) and provides policy-makers with a 10-year population forecast. Data is presented which indicates that WV's current correctional population has grown in recent years and will continue to grow over the next decade.

The total number of inmates confined in WV's correctional population at the end of 2005 was 5,312. The state added 245 additional inmates over the previous year. The state's correctional population grew by an annual rate of 4.8%, close to half the average annual growth rate of 8.0% since 1993.

According to the most recent figures released by the Bureau of Justice Statistics (BJS), WV ranked 40th in the nation in 2005, with an incarceration rate of 291 per 100,000 residents (Harrison and Beck, 2006). In comparison, the national rate was 491 per 100,000 residents for this same year. Additionally, WV also had the lowest incarceration rate among southern states (Harrison and Beck, 2006).

Despite the fact that WV has one of the nation's lowest correctional populations and incarceration rates, the state continues to have one of the fastest growing prison populations in the nation. Between 1995 and 2005, the nation's

prison population experienced an average annual growth of 3.0%. During this period there were twelve states that had an average annual growth of at least 5.0% in their prison populations. WV was one of these states, ranking second in the nation with an average annual growth of 7.9% between 1995 and 2005. Only North Dakota had a higher average annual growth (9.3%) during this same period (Harrison and Beck, 2006).

This report begins with a description of the state's current and historical correctional population and growth. The report concludes with the presentation of the current 2005-2015 forecast projections.

West Virginia Correctional Population

This section describes the number and type of commitments, admissions, and releases to and from the Division of Corrections (DOC). Special attention is given to the proportion of new admissions and commitments that are comprised of parole violators. Trends in average maximum sentence lengths are also presented. Lastly, the time prisoners serve in DOC facilities is described by type of offense.

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

Report Highlights

- WV ranked 40th in the nation in 2005, with an incarceration rate of 291 per 100,000 residents.
- Between 1995 and 2005, WV had the 2nd fastest growing prison population in the nation.
- Commitments to DOC grew by 5.6% in 2005, resulting in 2,605 new inmates.
- Parole violators comprised a high of 14.8% of all new commitments in 2005.
- In 2005, only 4.1% of all parole violators were returning due to the commission of a new crime.
- In 2004, 7 out of 10 new admissions were for nonviolent offenses.
- Excluding assault, violent offenders received the longest sentences in 2004.
- As of December 2005, WV's correctional population was over two and one-half times its size in 1993.
- Between 1998 and 2000, 53.2% of inmates were released to parole compared to 41.8% between 2001 and 2005.
- Nearly half (48.6%) of all inmates released in 2005 were granted parole.
- The largest percent increase in parole grant rates occurred in 2005, with a 10.0% increase from the previous year.
- WV's correctional population is forecasted to increase at an average annual growth rate of 3.3% over the next decade.
- According to the forecast, DOC can expect to receive approximately 205 additional inmates per year.
- The correctional population is expected to reach 6,192 inmates in 2010 and 7,369 in 2015.

Table 1
Annual Change in Commitments to the Division
of Corrections Custody, 1994-2005

Year	New Felons	Anthony Center	Diagnostic	Parole Violators	Total	Total Annual Change	
						N	%
1994	864	31	43	----	938		
1995	814	55	58	178	1,105	+167	17.8%
1996	920	82	47	188	1,237	+132	11.9%
1997	1,166	194	21	161	1,542	+305	24.7%
1998	1,185	205	143	214	1,747	+205	13.3%
1999	1,381	194	106	197	1,878	+131	7.5%
2000	1,436	199	110	214	1,959	+81	4.3%
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%
Average						152	9.9%

Source: DOC Commitment and Release Logs

Note: Available data did not allow for parole violators to be separated from the number of new felons in 1994.

Commitments to Custody

Table 1 represents the number of offenders committed to DOC by commitment type from 1994 through 2005. The term *commitments* refers to all offenders that are ordered by the court to the custody of DOC.

The number of offenders committed to DOC custody continues to increase at a stable rate. The annual growth rate, however, is much smaller than what was observed in the mid to late 1990's.

In 2005, a total of 2,605 offenders were committed to DOC custody. This was an increase of 137 inmates or 5.6% over the 2004 figure of 2,468 (see Table 1). Over two-thirds (72.9%) of new commitments in 2005 were for new felons. The commitment figures available for 2005 included other types of commitments such as Anthony Correctional Center (9.1%) and offenders returning as a result of a parole violation (14.8%).

Between 2004 and 2005, the largest

increase occurred for offenders returning to prison for a parole violation. In 2005, the number of parole violators committed to DOC facilities increased by 161 offenders or 71.6% compared to the previous year. To a much lesser extent, Anthony Correctional Center (ACC) and new felon commitments also contributed to the growth at 3.0% and 2.9% respectively.

While the number of new commitments continues to rise, the rate of growth has slowed in recent years. The correctional population in WV experienced tremendous growth during the mid to late 1990's. The number of offenders committed to DOC more than doubled between 1994 and 1999, from 938 in 1994 to 1,878 in 1999 (see Table 1). As a result, new commitments grew at an average annual rate of growth of approximately 15.0% over this period.

However, since the 1990's the number of new commitments and the average annual rate of growth has

slowed considerably. Between 2000 and 2005, there was approximately a 33.0% increase in the number of commitments. In 2005 there were 2,605 new commitments, up from 1,959 in 2000, resulting in an average annual rate of growth of only 5.6%.

Since 1994, new commitments have increased by 152 offenders per a year on average with an annual growth of 9.9%. Increases have occurred for every type of new commitment. However, the most frequent type of commitment has been for new felons. The number of new felon commitments has increased by 119.9% from 864 in 1994 to 1,900 in 2005. Although fewer in number, there have also been substantive increases in the number of ACC and diagnostic commitments over the past eleven years.

Parole Violator Returns

Similar to other types of commitments, the number of offenders

returning to DOC custody for a parole violation has increased substantially over the past decade. Parole violator returns include offenders that have had their parole revoked by the parole board. These revocations are either due to a technical violation of their parole, or the offender has committed a new crime while under parole supervision.

From 1995 to 2005, the number of offenders returning to prison for a violation of parole more than doubled. Parole violators returning to custody increased by 116.9%, from 178 in 1995 to 386 in 2005 (see Table 1). This resulted in an average annual rate of growth of approximately 10.3% during this ten year period.

In contrast to other types of commitments, however, most of the growth in the number of parole violators

returning to prison has taken place in the past five years. New commitments for parole violators increased 10.7% from 178 in 1995 to 197 in 1999 for an average annual rate of growth of 4.1%. Yet, the number of parole violators returning to DOC facilities has increased by 80.4% since 2000 with an average annual rate of growth of approximately 14.4%.

Nevertheless, while parole violator returns have grown considerably over the past decade, their *proportion* of total commitments has remained relatively stable. In 1996, the proportion of commitments for parole violations was at a high of 15.2%. Parole violator returns reached a low at 9.1% of all commitments in 2004. In 2005, the proportion of new commitments consisting of parole violators nearly reached a ten year high at 14.8%.

Graph 1 shows the proportion of all parole violator returns to custody by the type of violation (i.e., technical or new crime). As shown in Graph 1, offenders returning to custody are overwhelmingly doing so based on technical violations rather than for the commission of a new crime. Between 1998 and 2005, an average of 91.8% of all parole violator returns were due to technical violations. As a result, only about 1 in 10 parolees returned to prison for the commission of a new crime between 1998 and 2005.

It is clear that technical violations contributed to the substantial increase in the number of parolees returning to DOC custody in 2005. In 2005, only 16 or 4.1% of the 386 parole violators were returned to prison for the commission of a new crime.

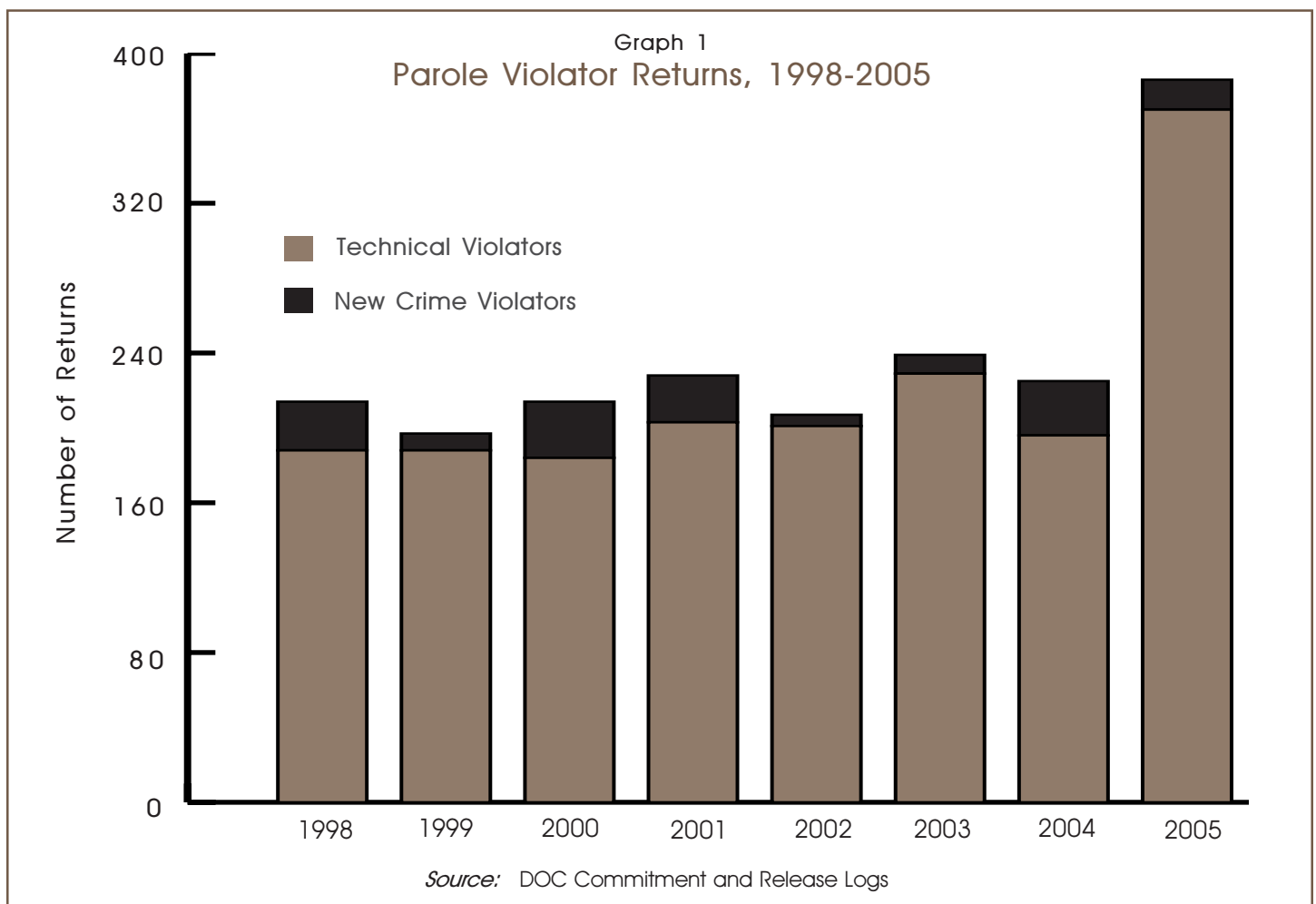


Table 2
Inmates Admitted by Type of Offense and Year
1998-2004

	1998	1999	2000	2001	2002	2003	2004	% Change 03-04	% Change 98-04
Murder	7.2%	3.9%	5.1%	3.9%	3.3%	4.9%	5.7%	+0.8%	-1.5%
Sex Crimes	12.7%	11.5%	11.3%	10.6%	7.8%	8.7%	10.1%	+1.4%	-2.6%
Robbery	6.8%	5.0%	4.0%	6.0%	5.5%	6.7%	6.2%	-0.5%	-0.6%
Assault	10.0%	10.2%	9.4%	8.1%	8.0%	7.8%	7.9%	+0.1%	-2.1%
Burglary	13.6%	15.3%	15.1%	19.8%	15.0%	15.9%	16.7%	+0.8%	+3.1%
Property	15.4%	16.8%	16.1%	17.4%	20.6%	23.1%	20.8%	-2.3%	+5.4%
Drug	15.2%	14.8%	13.9%	10.9%	15.7%	15.5%	15.7%	+0.2%	+0.5%
DUI	15.2%	17.7%	18.6%	13.4%	15.3%	10.3%	10.0%	-0.3%	-5.2%
Other	4.0%	4.7%	6.5%	9.8%	8.8%	7.1%	6.9%	-0.2%	+2.9%

Source: NCRP 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 inmates in the 2003 or 2004 figures due to constraints on data availability. Percentages may not total to 100.0% due to rounding.

Admissions by Offense Category

The percentage distribution of admissions by offense category for 1998-2004 are presented in Table 2. *Admissions*, as opposed to commitments, refers to all offenders who are committed *and* are physically housed in a DOC facility.

Admissions figures continue to indicate that most inmates are admitted for nonviolent offenses. In 2004, roughly 7 in 10 inmates were admitted to DOC facilities for nonviolent offenses. Property and burglary offenses represented the majority of these admissions. These two categories comprised more than one-third of the total admissions (37.5%) in 2004. Drug (15.7%) and DUI (10.0%) offenses contained the next largest percentages of nonviolent admissions. The “other” category rounded out the nonviolent admissions at 6.9%.

Less than thirty percent (29.9%) of all 2004 admissions were comprised of offenders sentenced for violent offenses. The largest percentage of violent offense admissions were for sex crimes at

10.1%, followed by assault (7.9%) and robbery (6.2%). The murder category represented the smallest percentage of all admissions at 5.7%.

Between 2003 and 2004, the largest percent increase occurred in the sex crimes category at 1.4% (see Table 2). This category was followed by increases in admissions for murder and burglary at 0.8%, respectively. The assault, drug, and “other” categories remained relatively stable at +/-0.2%.

A comparison of 1998 and 2004 admission figures by offense reveals an increase in admissions for property offenses. Meanwhile, admissions for all violent offenses have declined (see Table 2). Property offenses (including burglary) increased by 8.5%, while admissions for violent offenses (including murder, sex crimes, robbery, and assault) declined by 6.8%. The largest increase occurred in the property category at 5.4%, followed by burglary (3.1%) and “other” offenses (2.9%). The largest decline in admissions occurred in the DUI category at 5.2%, followed by sex crimes (2.6%) and assault (2.1%).

Average Maximum Sentences by Offense Category

The average maximum sentence lengths for admissions to DOC facilities from 1998-2004 are described in Table 3. The average maximum sentences for many violent offenses have decreased substantially over the past decade. Meanwhile, there has been an increase in sentence lengths for burglary, property, and other nonviolent offenses.

With the exception of assault, violent offenders were given the longest sentences in 2004. Sex offenders received the longest sentences at an average of 239 months (see Table 3). Offenders sentenced for murder and robbery received sentences that averaged 235 and 234 months, respectively. Among violent offenses, offenders sentenced for assault were given the shortest average maximum sentences at approximately 95 months.

Offenders sentenced for burglary, property, and drug offenses were also given lengthy sentences. Persons sentenced for burglary offenses received sentences that averaged 184 months. Property and drug offenders

received sentences that averaged 149 and 133 months (see Table 3). The shortest average sentence length was given to DUI offenders at 46 months.

Between 2003 and 2004, most offenses experienced a reduction in terms of average maximum sentence length. This includes all violent offenses as well as the offense of burglary. The largest decline occurred in the murder category, with a decrease of approximately 11 months. Sex crimes and robbery offenses both decreased by an average of nearly 6 months. Sentences for burglary offenses decreased by approximately 4 months. Sentences for assault underwent the smallest reduction at roughly 1 month during this period.

Average maximum sentence lengths increased for all remaining nonviolent offenses. Drug offenses received the largest increase in sentence length at nearly 6 months. Property,

DUI, and “other” offense categories followed at approximately 4 months.

Since 1998, sentence lengths for most violent offenses have fallen. The largest reductions in average sentences occurred for murder and assault offenses. Sentence lengths for murder declined by more than 4 years or nearly 53 months. Sentence lengths declined more than three and one-half years, or 44 months, for offenders serving time for assault. Sentences for robbery followed with a reduction of over two years or 26 months. Sex offenders were the only group of violent offenders to experience an increase in average maximum sentence length. The sentence lengths for sex offenders increased at an average of 7 months between 1998 and 2004.

Conversely, sentence lengths for *all* nonviolent offenses increased during this time frame. Burglary and property offenders received the largest increases

in sentence length, at 16 and 9 months, respectively. The sentence lengths for drug and DUI offenders increased between 8 and 7 months.

Sentences for “other” miscellaneous crimes were the only nonviolent offense category to exhibit reductions. During this same seven year period, sentences for “other” miscellaneous offenses declined by nearly two and one-half years or 31 months.

Correctional Population Growth

The correctional population, which includes all inmates in DOC custody, has steadily increased for more than a decade. As a result, the number of confined inmates in WV reached an all-time high in 2005 (see Table 4). At the end of 2005, there were 5,312 inmates confined in the state correctional system at year’s end. This population consisted of 245 additional inmates than were

Table 3
Average Maximum Sentences (in Months) by
Type of Offense and Admission Year

	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Change 2003-2004</u>	<u>Change 1998-2004</u>
Murder	287.8	246.3	258.0	247.4	384.9	245.4	234.7	-10.7	-53.1
Sex Crimes	232.8	228.3	257.4	237.7	181.0	245.2	239.3	-5.9	+6.5
Robbery	260.3	239.0	447.0	244.7	294.4	239.7	234.1	-5.6	-26.2
Assault	138.9	103.1	103.6	108.8	103.3	96.2	95.1	-1.1	-43.8
Burglary	168.6	167.9	191.8	215.8	198.4	188.5	184.2	-4.3	+15.6
Property	139.5	136.9	138.3	142.9	142.9	144.5	148.5	+4.0	+9.0
Drug	125.8	124.5	121.7	123.5	128.9	127.5	133.4	+5.9	+7.6
DUI	39.6	37.6	41.3	45.9	45.8	42.3	46.1	+3.8	+6.5
Other	88.4	67.7	63.8	70.8	73.4	54.1	57.7	+3.6	-30.7

Source: NCRP 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. As a result, 41 cases were excluded from the murder category in 2004. Of these 41 cases, 13 of them received 1,116 months and 28 received 1,152 months as the average maximum sentence. Three cases were excluded from the sex crimes category. All 3 cases were for first degree sexual abuse with a second offense of sexual abuse by a parent/guardian. One of these cases had an average maximum sentence of 2,640 months, while the other two cases had sentences of 2,400 and 1,560 months respectively. The robbery category had 1 case excluded, with a sentence of 1,140 months for robbery with possession of a firearm. Lastly, the assault category had 4 cases excluded. All of these cases were for kidnapping offenses with sentences of 1,152 months.

present in 2004, resulting in a 4.8% increase between 2004 and 2005.

At the end of 2005, the WV correctional population was more than two and one-half times its size in 1993 (see Table 4). From 1993 to 2005, the number of inmates in DOC custody increased by 151.8%. This translates into an average annual increase of 267 inmates per year.

In spite of the increases in the number of confined prisoners each year, annual growth rates have slowed in recent years. Since 2000, the correctional population has increased by approximately 7.0% each year on average (see Table 4). This is slightly lower than the 9.1% average annual growth rate observed between 1994 and 1999.

Confined Population by Offense Category at Midyear

The total confined prison population includes all inmates housed in DOC facilities. There were a total of 3,943 offenders imprisoned in DOC facilities as of August 31, 2005.

Graph 2 illustrates the offense categories for the 2005 confined prison population. More than one-half of all inmates (54.2%) were serving time for a violent offense. Almost one-third (29.3%) were confined for a property offense, and less than ten percent (8.9%) for a drug offense. Meanwhile, 7.6% were confined for DUI and “other” offenses.

Sex and murder offenders continue to comprise the largest groups of inmates in the total confined prison population at 19.6% and 17.3%, respectively. These offenders were followed by prisoners confined for property (15.0%), burglary (14.3%), robbery (8.9%), drug (8.9%), assault (8.4%), and “other” (4.9%)

Table 4
Confined End-of-Year Population, 1993-2005

Year	Population	Annual Change	
		N	%
1993	2,110		
1994	2,325	+215	10.2%
1995	2,517	+192	8.3%
1996	2,832	+315	12.5%
1997	3,198	+366	12.9%
1998	3,535	+337	10.5%
1999	3,543	+8	0.2%
2000	3,870	+327	9.2%
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%
Average		267	8.0%

Source: DOC End-of-Year Tallies (Tracking)

offenses. Inmates serving time for DUI offenses made up the smallest proportion of the total confined prison population at 2.7%.

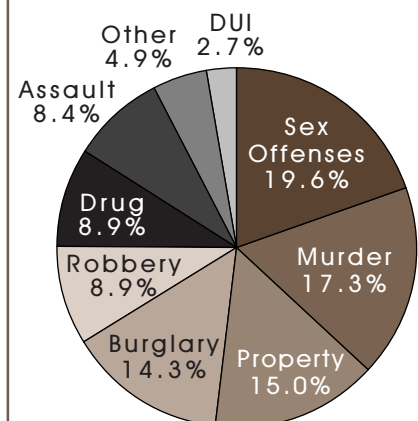
Releases from DOC Custody

Table 5 presents the number and type of releases from DOC custody from 1998 until 2005. These figures include DOC inmates housed in local and regional jails, as well as those confined in DOC facilities.

In 2005, there were a total of 2,157 prisoners released from DOC custody. Of these 2,157 inmates released, most were granted release by the parole board. A total of 1,048 or 48.6% of all inmates released in 2005 were granted parole. Another 658 or 30.5% were discharged as a result of a court order or the completion of their sentence. Other types of releases included diagnostic (8.3%), ACC (11.6%), and “other” miscellaneous (0.9%).

In 2005, there were 204 or 10.4% more inmates released compared to 2004. The largest increase in releases

Graph 2
2005, Confined Prison Population by Offense
(N=3,931)



Source: DOC Automated Inmate Information Tracking System for 8/31/05.

Note: There were 12 missing cases.

occurred for inmates transitioning to parole. Prisoners released in this category increased by 35.6%. In contrast, discharged inmates increased by only 14.8%. Inmates released in the diagnostic category increased by 17.6%. There was a reduction in releases for ACC prisoners and inmates serving time for “other” offenses between 2004 and 2005.

Since 2000, the number of offenders released from DOC custody has steadily increased. Between 2000 and 2005, the number of inmates released from DOC custody increased from a total of 1,278 in 2000 to 2,157 in 2005. This translates into a 68.8% increase in the number of inmates being released from DOC custody over this period.

Since 1998, there have been a total of 13,050 inmates released from DOC custody. The vast majority of inmates released are either discharged or granted parole. Over forty-five percent (45.4%) were released to parole, while 33.1% have been discharged as a result of a court order or expiration of their

sentence.

The *proportion* of releases to parole has decreased in recent years. Between 1998 and 2000, there were 4,062 inmates released from DOC custody. Of these inmates 2,162 or 53.2% were granted parole while 1,452 or 35.7% were discharged. In comparison, there were 8,988 inmates released between 2001 and 2005. Only forty percent (41.8%) comprised parole releases, while roughly one-third (31.9%) consisted of discharged inmates.

Offenses of Prisoners Released from DOC Facilities

Graph 3 illustrates the percentage distribution of 2004 releases from DOC facilities by the type of release and offense. Less than one-half (46.7%) of the total number of releases in 2004 were placed on parole supervision, compared to slightly more than one-half (51.3%) the previous year. Prisoners discharged as a result of completing their sentence represented 28.1% of all releases in 2004. This was a 1.8% decrease from

2003. Court-ordered releases comprised 23.6%, while “other types of releases accounted for only 1.5% of the total releases.

Parole releases were most prevalent among drug, burglary, murder, and property offenders (see Graph 3). A parole release constituted 55.5% of all releases for these offenses. Among these four offenses, drug offenders were the most likely to receive a period of supervised release on parole. Sixty percent of drug offenders released from DOC facilities in 2004 were granted parole.

Prisoners serving time for sex crime, DUI, assault, and “other” offenses were least likely to be paroled in 2004. Sex offenders were considerably less likely than other inmates to be granted parole (see Graph 3). Less than twenty percent (18.6%) of sex offenders were released to parole supervision. Instead, nearly half (49.6%) served their full sentence and were discharged. Sex offenders were followed by those serving time for DUI

Table 5
Annual Change in Releases from the Division of
Corrections Custody, 1998-2005

Year	Discharge	Parole	Anthony Center	Jail	Diagnostic	Other	Total	Annual Change	
								N	%
1998	480	713	----	N/A	143	N/A	1,336		
1999	517	825	----	N/A	106	N/A	1,448	+112	8.4%
2000	455	624	----	N/A	86	113	1,278	-170	-11.7%
2001	626	480	----	21	165	56	1,348	+70	5.5%
2002	489	650	233	120	177	10	1,679	+331	24.6%
2003	519	806	247	78	183	18	1,851	+172	10.2%
2004	573	773	293	137	153	24	1,953	+102	5.5%
2005	658	1,048	251	----	180	20	2,157	+204	10.4%

Source: DOC Commitment and Release Logs

Notes: The figures prior to 2001 do not include offenders released from jail while awaiting transfer to a DOC facility. Prior to 2002, ACC releases were not separately reported. The *discharge* category includes both expired sentences and court-ordered releases. The *other* category includes escapes, medical respite, and deaths. In 2005, the number of jail releases were not able to be extracted from the overall total due to changes in the data systems at DOC.

offenses. Nearly two-thirds (58.1%) of all DUI offenders released from DOC facilities in 2004 were discharged upon completion of their sentence.

Time Served in DOC Facilities

Graph 4 illustrates the mean number of months served by inmates released from DOC facilities in 2004. Inmates imprisoned for such violent crimes as murder, sex offenses, and robbery spent the greatest amount of time in prison. With the exception of assault, violent offenders spent more than twice the amount of time in prison as property

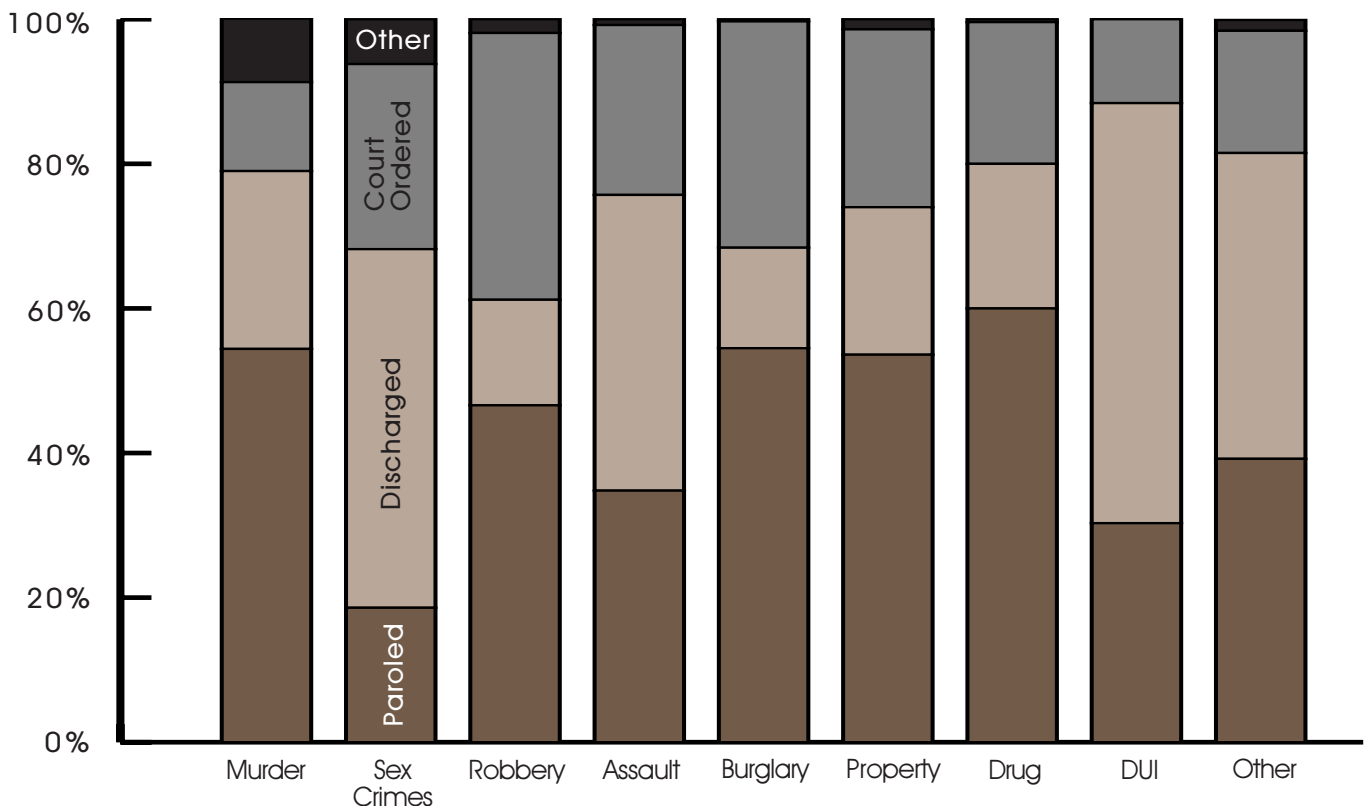
offenders and nearly three times the amount as drug offenders (see Graph 4). Inmates convicted of murder served the greatest amount of time in prison at 94.1 months, followed by sex offenders (51.3 months), and robbery offenders (46.2 months).

Burglary and property offenders served the second longest amount of time in a DOC facility. Burglary and property offenders served 26.2 months and 21.9 months, respectively. Property offenders were followed by inmates confined for assault (21.8 months), drug (15.5 months), DUI, and “other” offenses (both at 12.3 months). As

expected, ACC inmates served the shortest amount of time at 7.9 months.

Between 2003 and 2004, there was a large increase (18.1 months) in the mean number of months served for inmates confined for murder. Increases in time served were also found among property offenders (3.1 months), and sex offenders (1.6 months). There was a slight increase in time served for inmates incarcerated in the ACC, by 0.5 months. Time served in DOC facilities for burglary offenders remained the same for both years at 26.2 months. The largest decreases occurred for violent offenders serving time for robbery and

Graph 3
Type of Release by Offense Category, 2004
(N=1,641)



Source: NCRP 2004 Prisoner Release File

Notes: The *paroled* category includes both board decisions and mandatory parole releases. The *discharge* category includes expired sentences. *Court-ordered* includes probation releases, other conditional releases, and releases to custody/detainer/or warrant. *Other* includes other conditional releases, deaths, and suicides. Type of release was missing for one case.

assault, at 4.1 and 2.8 months respectively.

Another measure of time spent in incarceration is the percentage of maximum sentence served by inmates. This measure provides an estimate of the actual amount of time offenders served in DOC facilities in relation to the maximum sentence they received from the courts.

Anthony Correctional Center (ACC) inmates served the greatest proportion of their maximum sentences compared to the general population during 2004. ACC inmates served more than one-third or 32.7% of their maximum sentence.

In terms of the general population,

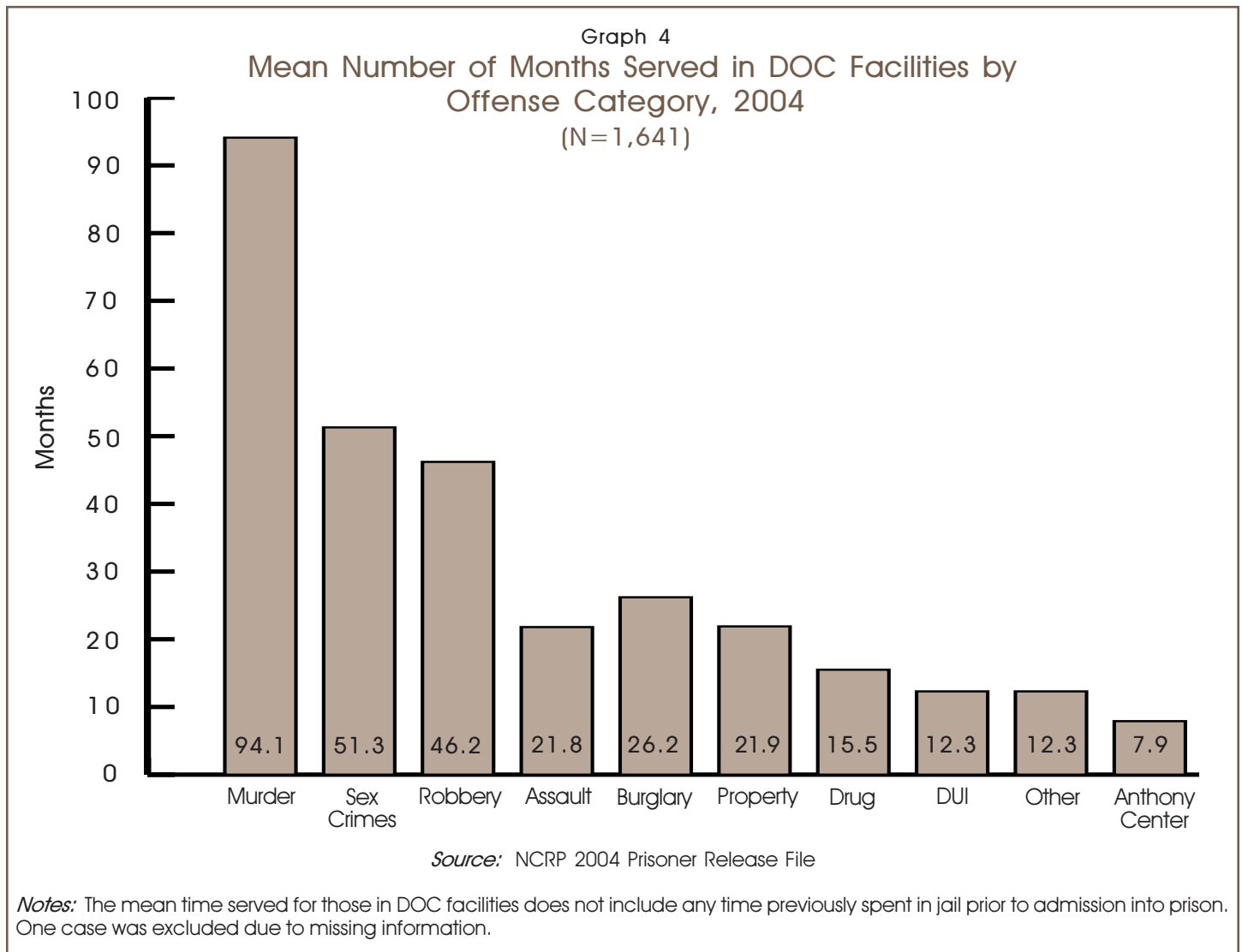
both DUI and sex offenders served nearly one-third of their maximum sentences at approximately 29.7% each. Violent offenders incarcerated for assault and murder served roughly one-quarter of their maximum sentences at 24.9% and 23.0%. Meanwhile, the smallest percentage of maximum sentence served for a violent offense occurred in the robbery category at 17.0%. Inmates imprisoned for “other” types of offenses were serving 22.5% of their maximum sentence.

With the exception of robbery, property and drug offenders served the smallest percentage of their maximum sentence in 2004. In terms of property offenses, burglary offenders had served

16.8% of their maximum sentence. Meanwhile offenders serving time for other types of property crimes such as forgery/fraud and grand larceny completed 18.5% of their maximum sentence upon release. Inmates imprisoned for drug offenses served an average of 15.9 of their maximum sentence in 2004.

Parole Board Decisions

Parole board decisions for the current correctional population are examined in Table 6. Although there are multiple outcomes that may occur during a WV parole board hearing, the total number of decisions that resulted in either the granting or denying of parole



to an inmate are presented in Table 6.

Since 2000, the proportion of cases granted parole has fluctuated. For most years, roughly one-third of cases have been granted parole. However, parole decisions varied substantially in 2001 and in 2005 compared to other years. In 2001, slightly less than one-quarter (24.5%) of all cases considered by the parole board were granted parole. In contrast, the percentage of cases granted parole peaked in 2005 at 43.0%.

As a result, there was a substantial increase in the number of cases granted parole in 2005. Of the 2,661 hearings in which a decision was made to either grant or deny parole in 2005, a total of 1,145 cases were granted parole (see Table 6). This represents a 10.0% increase in the percent of cases granted parole between 2004 and 2005, which

Year	Denied	Granted	Total	% Granted
2000	1,226	679	1,905	35.6%
2001	1,514	492	2,006	24.5%
2002	1,414	723	2,137	33.8%
2003	1,483	838	2,321	36.1%
2004	1,625	799	2,424	33.0%
2005	1,516	1,145	2,661	43.0%

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

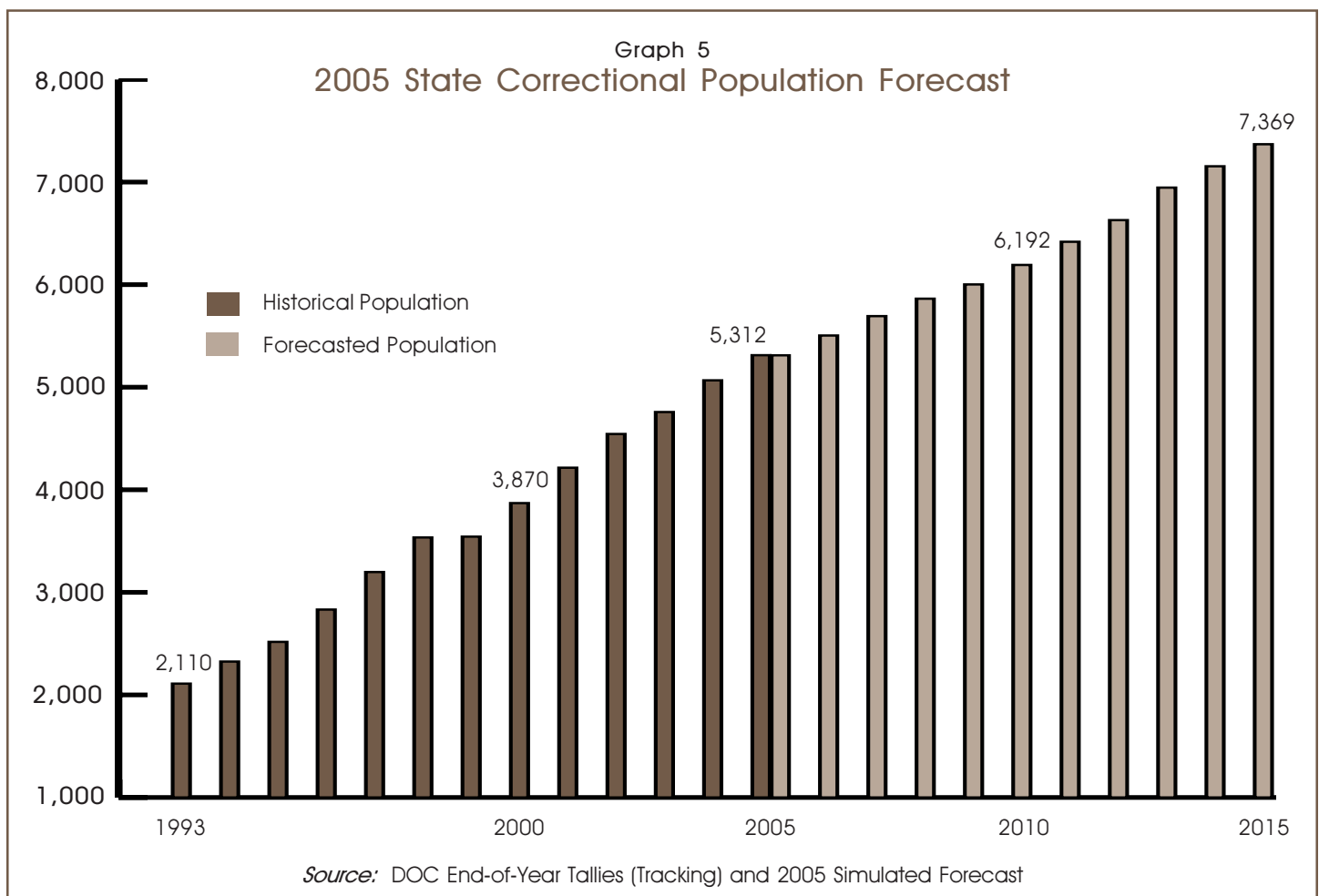
Note: The total column represents the sum of all cases in which the outcome was either to grant or deny parole.

corresponds to the largest percent increase in the grant rate since 2000.

Correctional Population Forecast

This section of the report presents the current 2005-2015 correctional

population forecast, along with selected characteristics of this population. A *backcast* of the 2005-2015 forecast is also discussed. The backcast provides a means for evaluating the accuracy of the current forecast for the 2005 calendar year.



Previous forecast projections have been rather accurate. However, the potential for greater error increases with time. According to the 2004-2014 forecast report (see Lester and Haas, 2005), for any given month since January 2001 forecast estimates have been within +/- 3.4% of actual population counts. The most recent correctional forecast update documented percent differences that fell within +/- 1.6% between the actual and forecasted populations (see Lester and Haas, 2006). Therefore, given the small amount of error associated with previous forecast projections, the current population projections can be anticipated to fall within this +/-3.4% of the actual population over the course of the next year. This section begins with a presentation of the current forecast projections.

Current Forecast Projections, 2005-2015

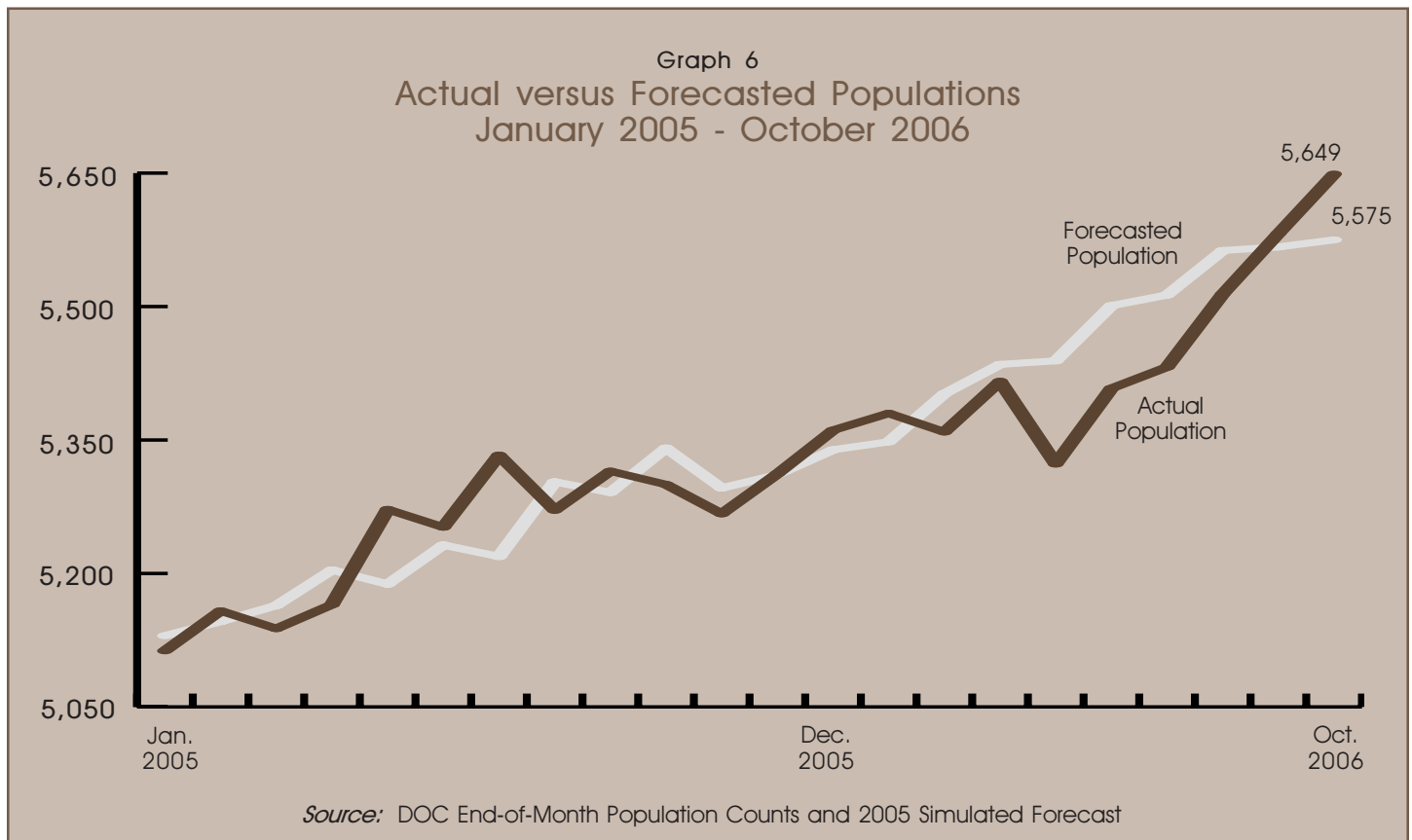
The results of the 2005-2015 forecast are presented in Graph 5. The forecast projections depicted in this graph represent all offenders in DOC custody, which includes Anthony Correctional Center (ACC), diagnostic, and local/regional jail inmates.

The actual correctional population was comprised of 5,312 inmates at the end of 2005. According to the current forecast, the correctional population is expected to grow at an average annual growth rate of 3.3% over the next decade. This will result in a correctional population that is expected to reach 6,192 inmates by the end of 2010 and 7,369 inmates by the end of 2015. This growth translates into a 38.7% increase in the total number of inmates confined in WV's adult correctional population between 2005 and 2015.

Based on the average annual

growth rate of 3.3% over the next ten years, DOC can expect to receive an average of 205 additional inmates per year. Once the known error that has been found to exist with previous forecasts has been considered, it is likely that the average will fall somewhere between 198 and 212 additional inmates over the next few years.

The projected growth in the correctional population over the next decade, however, is less than what the state experienced in the previous decade. Between 1995 and 2005, the state's correctional population increased at an average rate of 7.8% or 280 additional inmates annually. The result was a correctional population that more than doubled in the course of a decade. There was an 111.0% increase in the number of inmates in DOC custody, from 2,517 in 1995 to 5,312 in 2005. This is compared to a forecasted average annual growth rate of 3.3%, with a total



increase of 38.7% between 2005 and 2015.

Backcast and Accuracy Performance Evaluations

Graph 6 illustrates the backcast and performance evaluation for the current 2005-2015 forecast, comparing the actual and forecasted populations. January through December 2005 represents the backcast period (one full calendar year prior to when the current forecast officially begins). As shown in Graph 6, the forecasted population closely paralleled the actual population over the course of the backcast period. The difference between the actual and forecasted population averaged 6 more inmates than the forecast model anticipated. This corresponded to an average difference of 0.1% over the backcast period.

Over the course of the 12-month period in 2005, population projections fell

within plus or minus 2.1%. Percentage differences ranged from a high of 2.1% in July of 2005 to a low of 0.0% in December of 2005 (see Graph 6).

The performance accuracy of the current 2005-2015 forecast can be evaluated from January through October 2006. During this 10-month period, the difference between the forecasted and actual population of inmates averaged 26 more than actually existed. This corresponded to an absolute average difference of 0.5% over this time period.

Throughout this 10-month evaluation period, forecast projections remained fairly accurate with projections falling within plus or minus 2.2% of the actual population. Percentage differences ranged from a high of 2.2% in May of 2006 to a low of 0.3% in September of 2006 (see Graph 6).

Characteristics of Forecasted Population by Year

Selected characteristics of the forecasted population by year are presented in Table 7. The figures represented in this table are based solely on forecast estimates. The purpose of this table is to describe any changes that may occur in the adult correctional population over time.

The proportion of the correctional population serving time in the general population is forecasted to decrease slightly between 2005 and 2015. The 2005 estimates predicted that the general population of inmates should account for 95.3% of the total DOC population. By 2015, these same inmates are projected to comprise 94.9% of the total correctional population. While the general population is forecasted to decrease slightly over the forecast period, the ACC population is projected to increase. The ACC population is

Table 7
Characteristics of Forecasted Population by Year

Population Type	2005		2010		2015	
	N	%	N	%	N	%
General Population	5,064	95.3%	5,889	95.1%	6,991	94.9%
Anthony Center	216	4.0%	268	4.3%	333	4.5%
Diagnostics	32	0.6%	35	0.6%	45	0.6%
Total	5,311	100.0%	6,192	100.0%	7,369	100.0%
Gender						
Male	4,665	92.1%	5,409	91.8%	6,423	91.9%
Female	399	7.9%	480	8.2%	568	8.1%
Total	5,064	100.0%	5,889	100.0%	6,991	100.0%
Broad Offense Category						
Violent	2,860	56.5%	3,494	59.3%	4,131	59.1%
Property	1,160	22.9%	1,180	20.0%	1,375	19.7%
Drug	379	7.5%	450	7.6%	537	7.7%
Public Order	665	13.1%	765	13.0%	948	13.6%
Total	5,064	100.0%	5,889	100.0%	6,991	100.0%

Source: Simulated Forecast for December 2005, 2010, and 2015

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.

expected to make up 4.5% of the total correctional population in 2015, up from 4.0% in 2005. Meanwhile, the diagnostic population is forecasted to remain stable representing only 0.6% of the total correctional population over the next decade (see Table 7).

In terms of the gender distribution of inmates, males are clearly forecasted to comprise the majority of DOC prisoners. Male inmates are projected to decrease only slightly from 92.1% in 2005 to 91.9% in 2015. Females, conversely, are expected to increase slightly from 7.9% in 2005 to 8.2% in 2010 and 8.1% in 2015.

Forecast estimates indicate that violent offenders should comprise 56.5% of the general population in 2005. There is an expected 2.8% increase in violent offenders between 2005 and 2010 (see Table 7). By 2015, forecast estimates predict a slight decrease of 0.2% in proportion of the population made up of violent offenders. Hence, the general population of DOC offenders in 2015 is projected to comprise 2.6% more violent offenders compared to 2005 estimates.

These forecasted increases in the proportion of violent offenders are accompanied by a reduction in the percentage of property offenders serving time in DOC custody. Inmates serving time for property crimes are estimated to decrease by 3.2% over the next ten years to 19.7% of the correctional population.

In the meantime, drug and public order offenders are forecasted to make up a greater proportion of the correctional population in the future. Public order offenders are projected to increase by 0.5% between 2005 and 2015 (see Table 7). Likewise, offenders incarcerated for drug crimes are estimated to experience a slight increase

of 0.2% over the next decade.

Methodology

This section of the report provides a description of the simulation model, forecast assumptions, and data sources used to produce the current 2005-2015 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 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 Wizard 2000 simulation model utilizes a technique that is consistent with that of a stochastic entity simulation model. It is stochastic, or probabilistic, in the sense that random numbers are used in the modeling process, and an entity simulation in the sense that the model is conceptually designed around the movement of individuals through the correctional system. The model is also generally an example of a Monte Carlo simulation technique, again because random numbers are used in the process of simulating the system. Individual cases (offenders admitted to supervision in WV) are processed by the model through a series of possible statuses (e.g., awaiting trial, prison, parole, and parole violation) based upon the transition probabilities fed in by the

researcher.

Once the simulation model has moved the case to its new status, the process is repeated over and over until the case either reaches the end of the projection period, or enters what is referred to as a terminal. Terminal status signifies a complete exit from the system being modeled.

When a model is loaded with accurate data, it will prove to be quite reliable in forecasting a population, as 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 hearings outcomes, and parole revocations. This information is then entered into the simulation model.

The Wizard 2000 simulation model for West Virginia was used to generate a ten-year prison population forecast. After several preliminary models, one model was produced to model the population accurately. The resulting model forecasts the state sentenced offender population according to their most serious offense. Anthony Correctional Center (ACC), and diagnostic inmates are entered separately into the model. The model is unable to provide forecast projections on specific characteristics of the ACC and diagnostic populations, due to their small

sample size. This can be considered a limitation of the model.

The model requires the formation of offense categories, also referred to as ID groups. It is assumed that offenders within in each of the identified ID groups are handled by the criminal justice system in a similar fashion. In particular, it is assumed that offenders within each offense category are treated similarly in terms of factors related 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. For greater detail on the types of offenses contained in each ID group, see Lester and Haas 2005, Appendices A-C.

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

Forecast Assumptions

The Wizard 2000 simulation model simulates the movements of inmates through the prison system based on known and assumed factors 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 offense category, and projects each separately.

The forecast model assumes that

various factors known to impact trends in admissions and releases of inmates will remain relatively stable over time. It is assumed, for instance, that the sentencing composition for new commitments will remain the same as in the 2003 admissions. In addition, forecast projections assume that decision rates, which result in the granting of parole, will remain somewhat constant. The accuracy of the correctional population projections are contingent upon these assumptions holding true over the forecast period.

Data Sources

National Corrections Reporting Program “NCRP” (1998-2004). NCRP admission and release data describes the inmates who are entering and exiting from DOC facilities.

Automated Inmate Information Tracking System “Tracking” (1995-2004). 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” (2005). This is a new automated system that has replaced the older “tracking” system described above. IMIS became effective in February 2005.

Commitments and Releases Log “CRL” (1998-2006). 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” (1998-2005). 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 (2002-2005). 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 2005 correctional population forecast referred to in this report 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, as 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 enter a DOC facility. Admissions differ from commitments in that they do not include inmates housed in regional jails pending transfer to a DOC facility.

Average Annual Growth Rates. The average annual growth rate is calculated by summing or adding the annual growth rates for each year over a span of time. This number is then divided by the total number of years in the given time frame.

Average Maximum Sentence. This is a conversion of the total maximum sentence given for all offenses into months. Anthony Correctional Center and diagnostic populations are not included in the calculation of the average maximum sentence length. Maximum sentences that exceeded 1,000 months or more were due to methodological considerations and for comparison purposes to previous forecasts.

Mean Time Served. This is the average time served in a DOC facility, converted to months. This 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. This represents the average percent of the maximum sentence served in a DOC facility, converted to 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.

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A Study of the State's Prison Population

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