

# NORTH CAROLINA SENTENCING AND POLICY ADVISORY COMMISSION

## JUVENILE DELINQUENT POPULATION PROJECTIONS FISCAL YEAR 2008/09 to FISCAL YEAR 2012/13

RELEASED: DECEMBER 2008

### INTRODUCTION

North Carolina General Statutes 164-40(b) and 164-42.1(b) direct the North Carolina Sentencing and Policy Advisory Commission (NCSPAC) to prepare annual projections of the juvenile delinquent population and help assess North Carolina's long-term resource needs for juvenile dispositions. The projections are prepared in conjunction with the North Carolina Department of Juvenile Justice and Delinquency Prevention (DJJDP).

The following analysis was completed in two parts. The first part is based on 7,321 FY 2007/08 juvenile delinquent dispositions (the new population) extracted from the North Carolina Juvenile Online Information Network (NC-JOIN), DJJDP's management information system. The second part of the analysis includes juveniles who resided in a Youth Development Center (YDC) on July 1, 2008 – the beginning of the projection period. This is called the "stock" population. The projections take into account the decline of the resident "stock" population and the buildup of the new YDC population (new adjudicated delinquent dispositions, probation revocations, and post-release supervision revocations). The Juvenile Disposition Chart forms the basis of the projections (*see* Table 1).

**TABLE 1  
JUVENILE DISPOSITION CHART**

OFFENSE CLASSIFICATION	DELINQUENCY HISTORY LEVELS		
	LOW 0-1 points	MEDIUM 2-3 points	HIGH 4 or more points
<b>VIOLENT</b> Class A-E felonies	Level 2 or 3	Level 3	Level 3
<b>SERIOUS</b> Class F-I felonies Class A1 misdemeanors	Level 1 or 2	Level 2	Level 2 or 3
<b>MINOR</b> Class 1, 2, 3 misdemeanors	Level 1	Level 1 or 2	Level 2

## METHOD AND ASSUMPTIONS

### Projections Method

The simulation model used to produce resource projections relies on historical data and other empirical information about how juveniles are processed through the juvenile justice system. The model simulates releases for the stock population while simultaneously processing YDC admissions (through Level 3 commitments or revocations of probationary supervision) to produce the population projections.

Producing the final resource projections is a two-stage process: 1) the “reality check” stage and 2) the projection stage. In the “reality check” stage, the reliability of the data assumptions (*e.g.*, commitment rates, revocation rates, length of stay) is tested by using the model to produce the past fiscal year’s admissions to YDCs. In essence, the model is used to reproduce reality. Once the model successfully approximates the past fiscal year’s YDC admissions, the second stage of the process begins. In the second stage, growth rates for the number of juvenile delinquent adjudications and stock population data are added to the model, thereby producing the five-year population projections.

Changes in the juvenile justice system that affect the number of YDC admissions, the number of YDC releases, or the YDC length of stay – all critical factors in projecting YDC population – directly impact the accuracy of the projections. With a system that is largely policy-driven, it is important to note that these changes can also be the result of changes in policy and/or practice with regard to the use of dispositional resources.

### Assumptions for the Projections

The projections are based on the following assumptions:

- The projections assume a one percent annual growth in the rate of delinquent adjudications over the five-year period. This estimate is based on projections for North Carolina’s youth population and several juvenile justice indicators. Population projections prepared by North Carolina’s State Demographics Unit show that the juvenile population (age 6 – 15) in the state is expected to increase at an average annual rate of 1.5% over the next five years.<sup>1</sup> Although the youth population has been growing and is projected to continue to grow, recent data show declining trends in juvenile crime.<sup>2</sup>
- The five-year projections assume no change in judicial or prosecutorial behavior.

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<sup>1</sup> Source: [www.demog.state.nc.us](http://www.demog.state.nc.us)

<sup>2</sup> There has been a decline in the rate of delinquent complaints since the late 1990s. In FY 1996/97 the rate of delinquent complaints was 54 per 1,000 juveniles compared to a rate of 33 in FY 2007/08. (Source: DJJDP.) In addition, the State Bureau of Investigation reports that from 2003 to 2007, there was a 23% drop in overall arrests for index crimes committed by juveniles under the age of 16. (Source: *Crime in North Carolina-2007 Annual Summary Report of Uniform Crime Reporting Data*, NC Department of Justice, State Bureau of Investigation, [www.sbi2.jus.state.nc.us/crp/public/default.htm](http://www.sbi2.jus.state.nc.us/crp/public/default.htm).) Criminal complaints (Class A-I felonies and Class A1-3 misdemeanors) decreased 3.3% from CY 2006 to CY 2007. (Source: DJJDP.)

- Over the projection period, the rates of Level 1, Level 2, and Level 3 dispositions for juveniles adjudicated delinquent are assumed to match the rates during FY 2007/08 (69.5%, 26.8%, and 3.7%, respectively).
- YDC length of stay is assumed to match the average length of stay by offense classification for juveniles released during FY 2007/08. The average length of stay was 14 months for juveniles adjudicated delinquent for a violent offense, 12 months for juveniles adjudicated delinquent for a serious offense, and 8 months for juveniles adjudicated delinquent for a minor offense. The average length of stay for juveniles committed to YDC due to a technical violation of post-release supervision was 10 months.
- Over the projection period, the proportion of admissions to YDCs resulting from technical violations of probation will match the proportion found during FY 2007/08 (31.7%).

### **FY 2007/08 JUVENILE DELINQUENT DISPOSTIONS**

Table 2 shows the distribution of the 7,321 delinquent cases by the offense classification of the most serious adjudicated offense and the delinquency history level of the juvenile adjudicated. Of the juveniles adjudicated delinquent in FY 2007/08, 3.0% were adjudicated for a violent offense, 29.8% were adjudicated for a serious offense, and 67.2% were adjudicated for a minor offense. Seventy-one percent of cases involved a juvenile with a low delinquency history level, 15.3% involved a juvenile with a medium delinquency history level, and 13.7% involved a juvenile with a high delinquency level. Slightly more than half of the cases (n=3,708) involved a juvenile with a low delinquency history level adjudicated for a minor offense (Class 1, 2, or 3 misdemeanor).

**TABLE 2  
DISTRIBUTION OF CASES BY OFFENSE CLASSIFICATION AND  
DELINQUENCY HISTORY LEVEL  
JUVENILES ADJUDICATED DELINQUENT**

<b>OFFENSE CLASSIFICATION</b>	<b>DELINQUENCY HISTORY LEVEL</b>			<b>TOTAL</b>
	<b>Low 0 – 1 point</b>	<b>Medium 2 – 3 points</b>	<b>High 4+ points</b>	
<b>Violent</b>	124 (55.6%)	30 (13.5%)	69 (30.9%)	223 (3.0%)
<b>Serious</b>	1,367 (62.8%)	352 (16.1%)	459 (21.1%)	2,178 (29.8%)
<b>Minor</b>	3,708 (75.4%)	736 (14.9%)	476 (9.7%)	4,920 (67.2%)
<b>TOTAL</b>	5,199 (71.0%)	1,118 (15.3%)	1,004 (13.7%)	7,321 (100.0%)

SOURCE: NC Sentencing and Policy Advisory Commission, FY 2007/08 Disposition Simulation Data

Table 3 summarizes dispositions imposed in FY 2007/08 by offense classification of the most serious adjudicated offense. In applying the dispositional chart, the court imposed a Level 3 disposition (Commitment to a YDC) in 3.7% of the cases, ordered Level 2 (Intermediate) dispositions in 26.8% of the cases, and ordered the remaining 69.5% of the cases to Level 1 (Community) dispositions. Over half of the cases (n=4,040) involved a juvenile adjudicated for a minor offense who received a community level disposition.

**TABLE 3  
DISTRIBUTION OF CASES BY OFFENSE CLASSIFICATION  
AND DISPOSITION LEVEL  
JUVENILES ADJUDICATED DELINQUENT**

OFFENSE CLASSIFICATION	DISPOSITION LEVEL			TOTAL
	Level 1: Community	Level 2: Intermediate	Level 3: Commitment	
<b>Violent</b>	47 (21.1%)	82 (36.8%)	94 (42.1%)	223 (3.0%)
<b>Serious</b>	1,004 (46.1%)	1,020 (46.8%)	154 (7.1%)	2,178 (29.8%)
<b>Minor</b>	4,040 (82.1%)	858 (17.4%)	22 (0.5%)	4,920 (67.2%)
<b>TOTAL</b>	5,091 (69.5%)	1,960 (26.8%)	270 (3.7%)	7,321 (100.0%)

SOURCE: NC Sentencing and Policy Advisory Commission, FY 2007/08 Disposition Simulation Data

Table 4 combines the information contained in Table 2 and Table 3, showing how judges used dispositional resources given each combination of offense classification and delinquency history level. These data form the basis of the five-year resource projections. As indicated by the vertical “Total” column, the imposition of a Level 3 YDC commitment increased as the seriousness of the offense classification increased. Similarly, the imposition of a Level 3 YDC commitment increased as the delinquency history level increased. The largest group of juveniles (n=3,545) was those who had a low delinquency history level, were adjudicated of a minor offense, and received a Level 1 community disposition.

There were 630 cases (8.6%) involving a disposition not specified by the dispositional chart. However, it must be noted that certain provisions of the juvenile code allow a judge to impose dispositions other than those specified by the chart. Under G.S. 7B-2508(e), judges may find “extraordinary needs” and impose a lower level disposition. Under G.S. 7B-2508(g), juveniles adjudicated delinquent for a minor offense with four or more prior adjudications may be committed to a YDC. Finally, under G.S. 7B-2508(d), juveniles adjudicated delinquent for a minor offense with a previous Level 3 disposition may be committed to a YDC. These dispositions were used in the projections, as imposed, to guarantee the accuracy of the projections.

**TABLE 4**  
**DISTRIBUTION OF CASES BY THE DISPOSITIONAL CHART**  
**JUVENILES ADJUDICATED DELINQUENT**

OFFENSE CLASSIFICATION	DELINQUENCY HISTORY LEVEL			TOTAL
	Low 0-1 Point	Medium 2-3 Points	High 4+ Points	
<b>Violent</b> (Class A - Class E)	<u>Level 2/Level 3</u> Level 1: 40 (32.2%) Level 2: 57 (46.0%) Level 3: 27 (21.8%) n = 124	<u>Level 3</u> Level 1: 4 (13.3%) Level 2: 10 (33.4%) Level 3: 16 (53.3%) n = 30	<u>Level 3</u> Level 1: 3 (4.4%) Level 2: 15 (21.7%) Level 3: 51 (73.9%) n = 69	Level 1: 47 (21.1%) Level 2: 82 (36.8%) Level 3: 94 (42.1%) n = 223 (3.0%)
<b>Serious</b> (Class F - Class A1)	<u>Level 1/Level 2</u> Level 1: 799 (58.5%) Level 2: 562 (41.1%) Level 3: 6 (0.4%) n = 1,367	<u>Level 2</u> Level 1: 124 (35.2%) Level 2: 224 (63.7%) Level 3: 4 (1.1%) n = 352	<u>Level 2/Level 3</u> Level 1: 81 (17.6%) Level 2: 234 (51.0%) Level 3: 144 (31.4%) n = 459	Level 1: 1,004 (46.1%) Level 2: 1,020 (46.8%) Level 3: 154 (7.1%) n = 2,178 (29.8%)
<b>Minor</b> (Class 1 - Class 3)	<u>Level 1</u> Level 1: 3,545 (95.6%) Level 2: 163 (4.4%) Level 3: 0 (0.0%) n = 3,708	<u>Level 1/Level 2</u> Level 1: 337 (45.8%) Level 2: 398 (54.1%) Level 3: 1 (0.1%) n = 736	<u>Level 2</u> Level 1: 158 (33.2%) Level 2: 297 (62.4%) Level 3: 21 (4.4%) n = 476	Level 1: 4,040 (82.1%) Level 2: 858 (17.4%) Level 3: 22 (0.5%) n = 4,920 (67.2%)
<b>TOTAL</b>	Level 1: 4,384 (84.3%) Level 2: 782 (15.1%) Level 3: 33 (0.6%) n = 5,199 (71.0%)	Level 1: 465 (41.6%) Level 2: 632 (56.5%) Level 3: 21 (1.9%) n = 1,118 (15.3%)	Level 1: 242 (24.1%) Level 2: 546 (54.4%) Level 3: 216 (21.5%) n = 1,004 (13.7%)	Level 1: 5,091 (69.5%) Level 2: 1,960 (26.8%) Level 3: 270 (3.7%) n = 7,321 (100.0%)

SOURCE: NC Sentencing and Policy Advisory Commission, FY 2007/08 Disposition Simulation Data

**NOTE:** In FY 2007/08, there were 630 cases (or 8.6%) involving a disposition not specified by the dispositional chart. However, it must be noted that certain provisions of the juvenile code allow a judge to impose a disposition other than those specified by the chart. Under G.S. 7B-2508(e), judges may find “extraordinary needs” and impose a lower level disposition. Under G.S. 7B-2508(g), juveniles adjudicated delinquent for a Minor offense with four or more prior adjudications may be committed to a YDC. Finally, under G.S. 7B-2508(d), juveniles adjudicated delinquent for a Minor offense with a previous Level 3 disposition may be committed to a YDC.

## YDC RESIDENT POPULATION

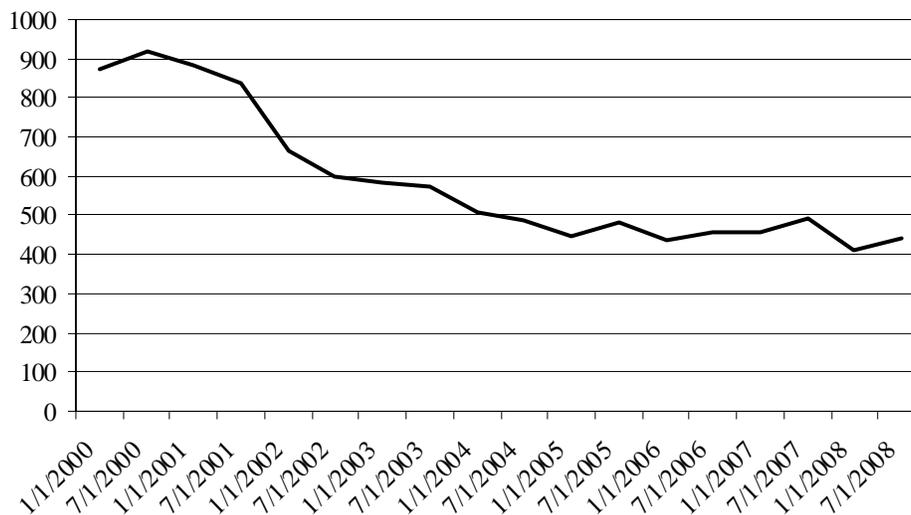
### YDC Population on July 1, 2008

The resident population or “stock” is the number of juveniles residing in YDCs at the beginning of the projection period, which is July 1, 2008, for the current projection. Stock population is an important component of the model as it represents the starting point of the projection. On July 1, 2008, there were 443 juveniles residing in a YDC facility. Almost 76% of the juveniles had a high delinquency history level. The majority (86%) of the incarcerated juveniles were adjudicated with a felony as their most serious offense. Of the juveniles residing in a YDC on July 1, 2008, almost 67% were adjudicated of a serious offense, 28% were adjudicated of a violent offense, and 5% were adjudicated of a minor offense.

### Historical YDC Population Trends

As intended by the Juvenile Justice Reform Act of 1998, the YDC population has generally declined since July 2000 (*see* Figure 1). The next section discusses the factors that contribute to this trend.

**FIGURE 1**  
**YOUTH DEVELOPMENT CENTER (YDC) POPULATION TRENDS**  
**JANUARY 2000 – JULY 2008**



SOURCE: NC Department of Juvenile Justice and Delinquency Prevention

## YDC ADMISSIONS, TERMINATIONS, AND LENGTH OF STAY TRENDS

As previously mentioned, changes in the juvenile justice system that affect the number of YDC admissions, the number of YDC releases, or the YDC length of stay – all critical factors in projecting YDC population – directly impact the accuracy of the projections. The following

section highlights YDC statistics showing the year-to-year variations in several key components used to produce the projections.

### YDC Admissions

From FY 2001/02 to FY 2007/08, there has been a 23% decrease in the number of YDC admissions. (See Table 5.) As intended by the Juvenile Justice Reform Act of 1998, much of the initial decrease in YDC admissions can be attributed to the fact that juveniles adjudicated delinquent for a Class 1, Class 2 or Class 3 misdemeanor, except under certain rare conditions, cannot be committed to a YDC. Pre-reform, misdemeanor offenders accounted for about 40% of annual admissions to YDCs. By FY 2007/08, they accounted for 8% of annual admissions. After a 5% increase in the number of YDC admissions from FY 2005/06 to FY 2006/07, YDC admissions decreased 4% from FY 2006/07 to FY 2007/08. In FY 2007/08, there was an average of 38 admissions per month.

### YDC Terminations

From FY 2001/02 to FY 2007/08, terminations decreased by almost 40%. (See Table 5.) In general, terminations exceeded admissions for each of those years except for FY 2004/05 and FY 2006/07. From FY 2006/07 to FY 2007/08, there was a 19% increase in the number of YDC terminations. In FY 2007/08, the average number of terminations per month was 42.

**TABLE 5  
YOUTH DEVELOPMENT CENTER (YDC) ADMISSIONS AND TERMINATIONS  
JUVENILES ADJUDICATED DELINQUENT**

Fiscal Year	YDC ADMISSIONS			YDC TERMINATIONS		
	Total Number	Percent Change	Average Number Per Month	Total Number	Percent Change	Average Number Per Month
<b>FY 2001/02</b>	583	--	49	825	--	69
<b>FY 2002/03</b>	569	-2.4	47	577	-30.1	48
<b>FY 2003/04</b>	469	-17.6	39	548	-5.0	46
<b>FY 2004/05</b>	473	0.9	39	470	-14.2	39
<b>FY 2005/06</b>	448	-5.3	37	479	1.9	40
<b>FY 2006/07</b>	470	4.9	39	420	-12.3	35
<b>FY 2007/08</b>	450	-4.3	38	499	18.8	42

SOURCE: NC Department of Juvenile Justice and Delinquency Prevention

While recent data appear to show that there may be some stabilization between admissions and terminations, it is important to note that the number of admissions and terminations is extremely sensitive to changes in policies and practices. Looking at the average number of YDC admissions and terminations per month over the past five years, admissions

appear to experience less fluctuations than terminations. These trends will continue to be monitored to help assess the accuracy of the resource projections.

### YDC Length of Stay

Over the past few years, the length of stay for the largest group of juveniles entering YDCs – those adjudicated delinquent for a serious offense – has been fairly stable. (See Table 6.) For juveniles adjudicated delinquent for a serious offense, who represented 59% of YDC admissions in FY 2007/08, the average length of stay was 11.9 months. This average is similar to that of the previous two fiscal years (11.5 months and 11.8 months, respectively). The average length of stay for juveniles adjudicated delinquent for a violent offense has steadily decreased since FY 2004/05 (from 21.4 months in FY 2004/05 to 14.2 months in FY 2007/08), an almost 34% decrease. For juveniles adjudicated delinquent of a minor offense, the average length of stay has fluctuated, with a decrease of almost one month from FY 2006/07 to FY 2007/08.

**TABLE 6  
AVERAGE YOUTH DEVELOPMENT CENTER (YDC)  
LENGTH OF STAY (IN MONTHS)  
FOR RELEASED JUVENILES ADJUDICATED DELINQUENT**

Juveniles Adjudicated of a:	FY 2004/05	FY 2005/06	FY 2006/07	FY 2007/08	% Change	
					FY 2006/07 to FY 2007/08	FY 2004/05 to FY 2007/08
<b>Violent Offense</b>	21.4	17.6	17.2	14.2	-17.4	-33.6
<b>Serious Offense</b>	10.2	11.8	11.5	11.9	0.3	16.7
<b>Minor Offense</b>	8.3	11.2	8.9	8.0	-10.1	-3.6
<b>Overall</b>	12.9	13.2	12.5	12.2	-2.4	-5.4

SOURCE: NC Department of Juvenile Justice and Delinquency Prevention

**PROJECTED JUVENILE DELINQUENT POPULATIONS**

Table 7 shows the projected Level 3 resource needs over the five-year projection period.<sup>3</sup> Level 3 resource needs are projected to increase slightly over the period, with a projected need for 447 YDC beds by June 2009 and 475 YDC beds by June 2013. The YDC population was 443 on July 1, 2008. On December 1, 2008, the YDC population was 461.<sup>4</sup>

**TABLE 7  
LEVEL 3 COMMITMENT RESOURCE PROJECTIONS:  
JUVENILES ADJUDICATED DELINQUENT  
UPDATED DECEMBER 2008**

**PREPARED IN CONJUNCTION WITH  
THE DEPARTMENT OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION**

<b>Fiscal Year</b>	<b>Current Projection as of June 30</b>	<b>Previous Projection as of June 30</b>
<b>2009</b>	447	481
<b>2010</b>	459	491
<b>2011</b>	463	494
<b>2012</b>	466	499
<b>2013</b>	475	N/A

SOURCE: NC Sentencing and Policy Advisory Commission,  
FY 2006/07 and FY 2007/08 Disposition Simulation Data

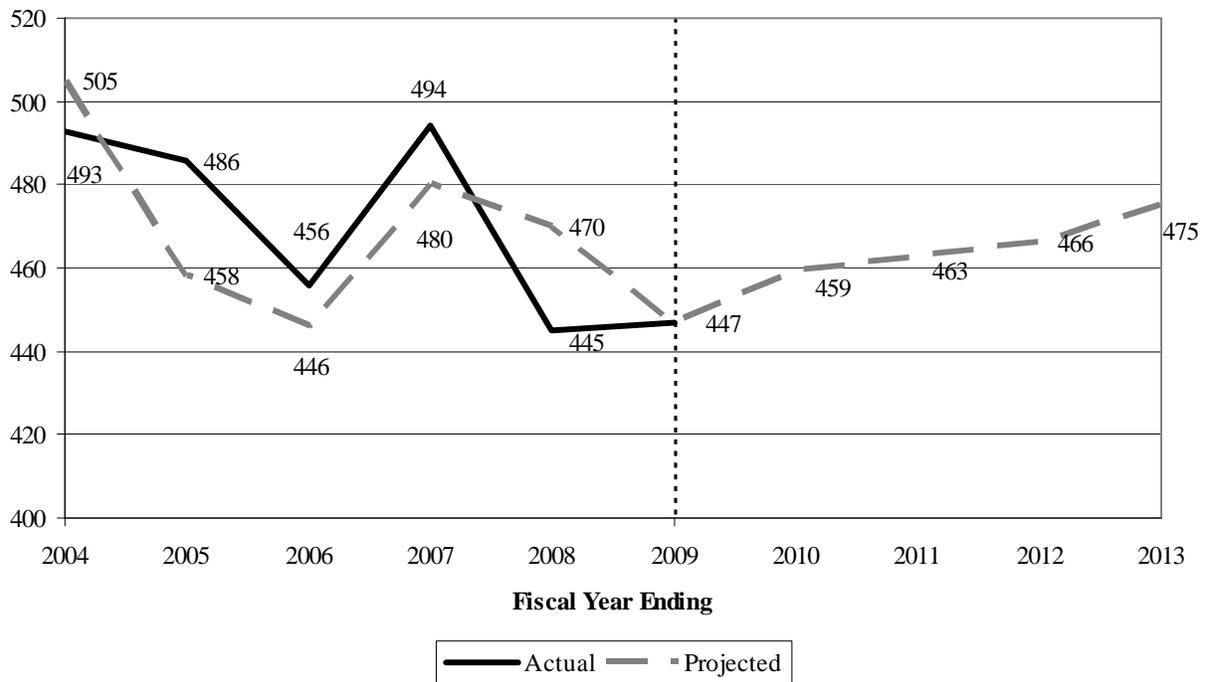
<sup>3</sup> Table 7 does not present available capacity for Level 3 dispositional resources.

<sup>4</sup> YDC population figures include juveniles on-campus and off-campus (e.g., home visit, community commitment, hospitalization, escape).

## Accuracy of the Level 3 Resource Projections

Figure 2 provides a comparison of the previous Level 3 (YDC) resource projections with the actual YDC population. The figure also includes the current five-year projections. The chart shows a graphic representation of the historical accuracy of the projections. The difference between the projected Level 3 (or YDC) population and the actual YDC population ranged between 10 to 28 beds (or between 2% and 6%) for the past five years. Again, it is important to note that the system is largely policy-driven and any change in policy and/or practice with regard to the use of dispositional resources greatly influences the accuracy of the resource projections.

**FIGURE 2  
ACTUAL AND PROJECTED  
LEVEL 3 (YOUTH DEVELOPMENT CENTER) POPULATION**



NOTE: The actual YDC population is based on the number of adjudicated delinquent juveniles located in a YDC (which includes Level 3 community-based commitments) on June 30<sup>th</sup> of each fiscal year provided.

SOURCE: NC Sentencing and Policy Advisory Commission, Disposition Simulation Data and NC Department of Juvenile Justice and Delinquency Prevention