

***NORTH CAROLINA SENTENCING AND POLICY ADVISORY COMMISSION***

**JUVENILE DELINQUENT POPULATION PROJECTIONS  
*FISCAL YEAR 2004/05 to FISCAL YEAR 2008/09***

**Prepared in Conjunction with  
The Department of Juvenile Justice and Delinquency Prevention**

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**INTRODUCTION**

North Carolina General Statutes 164-40(b) and 164-42.1(b) direct the North Carolina Sentencing and Policy Advisory Commission to prepare annual projections of the juvenile delinquent population and help assess North Carolina's long-term resource needs for juvenile dispositions. The following analysis is based on 8,006 CY 2004 juvenile delinquent dispositions extracted from NC-JOIN, the management information system of the Department of Juvenile Justice and Delinquency Prevention (DJJDP).

**ASSUMPTIONS**

- The projections assume a one-percent annual growth in the rate of delinquent adjudications over the five-year projection period. This estimate is based on projections for North Carolina's youth population and several juvenile justice indicators. Population projections prepared by the State of North Carolina's Demographics unit show that the juvenile population (age 6 – 15) in North Carolina is expected to increase at an average annual rate of 1.4% over the next five-year period.<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 and delinquent complaints.<sup>2</sup>
- The five-year projections assume no change in judicial or prosecutorial behavior.
- 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 CY 2004 (69.6%, 26.6%, and 3.8%, respectively).
- Youth development center (YDC) length of stay is assumed to match the average length of stay by offense level for juveniles released during CY 2004. All juveniles released in this period were adjudicated delinquent under the "new law." The average length of stay

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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 and delinquent juveniles since the late 1990s. In FY 1996/97 the rate of delinquent complaints was 54 per 1,000 juveniles compared to a rate of 42.9 in FY 2002/03. Similarly, in FY 1996/97, the rate of delinquent juveniles was 32.8 per 1,000 juveniles compared to a rate of 27.3 in FY 2002/03. In FY 1997/98, the rate of non-divertible complaints was 2.2 per 1,000 juveniles and has declined to 1.6 per 1,000 juveniles in FY 2002/03. (Source: [www.juvjus.state.nc.us/statistics/countybook.xls](http://www.juvjus.state.nc.us/statistics/countybook.xls)) In addition, the State Bureau of Investigation reports that from 1999 to 2003, there was a 3% drop in arrests for all index crimes with a 10% drop in arrests for violent crime committed by juveniles under the age of 16. (Source: *Crime in North Carolina-2003 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))

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was 21 months for juveniles adjudicated delinquent for a violent offense, 10 months for juveniles adjudicated delinquent for a serious offense, and 7 months for juveniles adjudicated delinquent for a minor offense. The average length of stay for juveniles committed to a YDC due to a technical violation of post-release supervision was 6 months.

- Over the projection period, the proportion of admissions to YDCs resulting from technical violations of probation will match the proportion found during CY 2004 (27.3%).

### **PROJECTED JUVENILE DELINQUENT POPULATIONS**

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 (*e.g.*, commitment rates, revocation rates, length of stay, etc.) is tested using the model to produce the current admissions to YDCs. In essence, the model is used to reproduce today’s reality. Once the model successfully approximates current YDC admissions, the second stage of the process begins. In the second stage, growth rates in the number of juvenile delinquent adjudications are added to the model, producing the five-year projection (*see* Table 1).<sup>3</sup> The projections show slow growth in the need for Level 1 and Level 2 resources. Level 3 resource needs are expected to remain steady over the projection period, with an annual need for YDC beds of about 450. YDC population as of January 1, 2005 was 449. As of June 3, 2005, the population was 500.<sup>4</sup>

#### *Changes from Previous Projections*

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. Changes in the 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. While current data indicate that there continue to be fluctuations in these three factors, leading to the revision of last year’s projections, there are early indications that the system is reaching a post-reform point of stabilization. It is important to note, however, 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.

The following section highlights YDC statistics from the past five years showing the year-to-year variations in several key components used in the simulation model.

- ***YDC Admissions*** – Since CY 2000, there has been a 51% decrease in the number of YDC admissions. (*See* Figure 1.) The largest annual decrease in YDC admissions (30%) occurred between CY 2000 and CY 2001. There was only a 1% decrease in admissions between CY 2003 and CY 2004, the smallest decrease since CY 2000. As intended by

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<sup>3</sup> Table 1 does not present available capacity for these dispositional resources.

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

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the Juvenile Justice Reform Act of 1998, much of the 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, can not be committed to a YDC. Pre-reform, misdemeanor offenders accounted for about 40% of annual admissions to YDCs. In CY 2004, they accounted for about 11% of annual admissions.

- ***YDC Terminations*** – Over the last four years terminations have exceeded admissions. (See Figure 2.) In CY 2000, YDCs averaged about the same number of monthly admissions as terminations. However, in CY 2001, there was an average of 73 terminations per month compared to an average of 55 admissions per month. In CY 2002 there was an average of 57 terminations per month compared to an average of 50 admissions per month. In CY 2003 there was an average of 46 terminations per month compared to an average of 40 admissions per month. And most recently, in CY 2004 there was an average of 44 terminations per month compared to an average of 39 admissions per month. While CY 2003 and CY 2004 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. These trends will continue to be monitored to help assess the accuracy of the resource projections.
- ***YDC Length of Stay*** – While there has been little consistency in average length of stay in the recent past, there are early indications that length of stay may be stabilizing for the largest group entering YDCs. The average length of stay for juveniles adjudicated delinquent for a violent offense was 22.7 months in FY 1999/00; 26.8 months in CY 2001; 24.9 months in FY 2001/02; 23.3 months in FY 2002/03; and, 21 months in CY 2004. For juveniles adjudicated delinquent for a serious offense, who represent 65% of YDC admissions, the average length of stay in FY 1999/00 was 9.1 months, increasing to 12.5 months in CY 2001, decreasing slightly to 12.1 months in FY 2001/02, further decreasing in FY 2002/03 to 10.4 months but held steady in CY 2004 at 10 months. For juveniles adjudicated delinquent for a minor offense, average length of stay has been steadily increasing from 4.4 months in FY 1999/00 to 6.5 months in CY 2001 to 7 months in FY 2001/02 to 9.1 months in FY 2002/03. However, in CY 2004, average length of stay for this small group declined to 7 months.
- ***YDC Resident Population*** – The resident population or “stock” is the number of juveniles residing in YDCs at the beginning of the projection period. “Stock” population is an important component of the model as it represents the starting point of the projection. The model simulates releases for the “stock” population while simultaneously processing YDC admissions to ultimately produce the population projections. As a result of the recent trend showing terminations outpacing admissions, the resident population at the beginning of the past five projection periods has declined, resulting in revisions to the projections each year (See Figure 3).

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<b>YDC Resident Population as of:</b>	<b>Population</b>	<b>Projection Period</b>
July 1, 2000	919	FY 2000/01 – FY 2004/05
July 1, 2001	840	Not used
January 1, 2002 <sup>5</sup>	665	FY 2001/02 – FY 2005/06
July 1, 2002	601	FY 2002/03 – FY 2006/07
July 1, 2003	579	Not used
January 1, 2004 <sup>6</sup>	506	FY 2003/04 – FY 2007/08
July 1, 2004	488	Not used
January 1, 2005 <sup>7</sup>	449	FY 2004/05 – FY 2008/09

### **DESCRIPTIVE INFORMATION**

Table 2 shows the distribution of the 8,006 delinquent cases by the offense level of the most serious adjudicated offense and the delinquency history level of the juvenile adjudicated. The majority of cases (n=4,172 or 52%) involved a juvenile with a low delinquency history level adjudicated for a minor offense (Class 1, 2, or 3 misdemeanor).

In applying the dispositional chart, the court imposed commitment to a YDC in 3.8% of the cases, ordered Level 2 (Intermediate) dispositions in 26.6% of the cases, and ordered the remaining 69.6% of the cases to Level 1 (Community) dispositions. (*See* Table 3.) Table 4 summarizes the information contained in Table 2 and Table 3, showing how judges used dispositional resources given each combination of offense level and delinquency history level. These data form the basis of the five-year resource projections. As a special note related to the use of dispositional resources by the chart, and to the accuracy of the projections in general, there were 305 cases (3.8%) involving a disposition not specified by the dispositional chart. In the majority of these cases (n=140), judges ordered a disposition level lower than specified by the chart. In 46 cases, judges ordered a disposition level higher than specified by the chart. For 59 cases, it is not clear from the information available why the disposition was imposed. Certain provisions of the juvenile code allow a judge to impose a disposition other than those specified by the chart. For example, judges found “extraordinary needs” (per G.S. 7B 2508(e)) in 26 cases, resulting in the imposition of a lower level disposition. Under G.S. 7B-2508(g), juveniles

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<sup>5</sup> For the revised projections for FY 2001/02 – FY 2005/06 released in May 2002, it was necessary to depart from the standard process of producing the projections in order to capture changes in policies and practices that occurred in the first year of the projections. Basing the projections on a YDC resident population on July 1, 2001 of 840 yielded projections that were not supported by the “reality” check. As a result, the projections were revised to use the YDC resident population on January 1, 2002 of 665.

<sup>6</sup> For the revised projections for FY 2003/04 – FY 2007/08 released in May 2004, it was necessary to depart from the standard process of producing the projections in order to capture changes in policies and practices that occurred in the first year of the projections. Basing the projections on a YDC resident population on July 1, 2003 of 579 yielded projections that were not supported by the “reality” check. As a result, the projections were revised to use the YDC resident population on January 1, 2004 of 506.

<sup>7</sup> For the revised projections for FY 2004/05 – FY 2008/09, it was necessary to depart from the standard process of producing the projections because disposition data were not available for FY 2003/04. The court component of NC-JOIN was implemented on January 1, 2004; therefore, a full year of disposition data was not available until December 31, 2004. For projection purposes, the resident population on January 1, 2005 marks the beginning of the projection period.

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adjudicated delinquent for a Minor offense with four or more prior adjudications may be committed to a YDC. In CY 2004, 22 juveniles met these criteria and were committed. 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. In CY 2004, 12 juveniles met these criteria and were committed.

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**TABLE 1**

**JUVENILES ADJUDICATED DELINQUENT**

**RESOURCE PROJECTIONS BY DISPOSITION LEVEL: FY 2005 – 2009**

<b>FISCAL YEAR ENDING</b>	<b>LEVEL 1: COMMUNITY</b>	<b>LEVEL 2: INTERMEDIATE</b>	<b>LEVEL 3: COMMITMENT</b>
<b>2005</b>	4,236	1,801	458
<b>2006</b>	4,245	1,820	454
<b>2007</b>	4,384	1,848	442
<b>2008</b>	4,393	1,882	452
<b>2009</b>	4,490	1,910	455

SOURCE: CY 2004 Disposition Simulation Dataset, NC-JOIN/NCSPAC (n=8,006).

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**TABLE 2**

**JUVENILES ADJUDICATED DELINQUENT**

**DISTRIBUTION OF CASES BY THE DISPOSITIONAL CHART**

<b>OFFENSE LEVEL</b>	<b>DELINQUENCY HISTORY LEVEL</b>			<b>TOTAL</b>
	<b>LOW 0 – 1 pt</b>	<b>MEDIUM 2 – 3 pts</b>	<b>HIGH 4+ pts</b>	
<b>VIOLENT</b>	127 (60.8%)	24 (11.5%)	58 (27.7%)	209 (2.6%)
<b>SERIOUS</b>	1,564 (66.2%)	372 (15.7%)	428 (18.1%)	2,364 (29.5%)
<b>MINOR</b>	4,172 (76.8%)	716 (13.2%)	545 (10.0%)	5,433 (67.9%)
<b>TOTAL</b>	5,863 (73.2%)	1,112 (13.9%)	1,031 (12.9%)	8,006 (100.0%)

SOURCE: CY 2004 Disposition Simulation Dataset, NC-JOIN/NCSPAC (n=8,006).

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**TABLE 3**

**JUVENILES ADJUDICATED DELINQUENT**

**DISTRIBUTION OF CASES BY OFFENSE LEVEL AND DISPOSITION LEVEL**

<b>OFFENSE LEVEL</b>	<b>DISPOSITION LEVEL</b>			<b>TOTAL</b>
	<b>Level 1: Community</b>	<b>Level 2: Intermediate</b>	<b>Level 3: Commitment</b>	
<b>VIOLENT</b>	23 (11.0%)	121 (57.9%)	65 (31.1%)	209 (2.6%)
<b>SERIOUS</b>	1,060 (44.8%)	1,104 (46.7%)	200 (8.5%)	2,364 (29.5%)
<b>MINOR</b>	4,488 (82.6%)	905 (16.7%)	40 (0.7%)	5,433 (67.9%)
<b>TOTAL</b>	5,571 (69.6%)	2,130 (26.6%)	305 (3.8%)	8,006 (100.0%)

SOURCE: CY 2004 Disposition Simulation Dataset, NC-JOIN/NCSPAC (n=8,006).



**TABLE 4**

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

<b>OFFENSE LEVEL</b>	<b>DELINQUENCY HISTORY LEVEL</b>			<b>TOTAL</b>
	<b>Low</b> 0 – 1 point	<b>Medium</b> 2 – 3 points	<b>High</b> 4+ points	
<b>Violent</b> (Class A – Class E)	Level 1: 17 (13.4%) Level 2: 92 (72.4%) Level 3: 18 (14.2%) n = 127 <b>L2/L3</b>	Level 1: 3 (12.5%) Level 2: 14 (58.3%) Level 3: 7 (29.2%) n = 24 <b>L3</b>	Level 1: 3 (5.2%) Level 2: 15 (25.8%) Level 3: 40 (69.0%) n = 58 <b>L3</b>	Level 1: 23 (11.0%) Level 2: 121 (57.9%) Level 3: 65 (31.1%) n = 209 (2.6%)
<b>Serious</b> (Class F – Class A1)	Level 1: 984 (62.9%) Level 2: 579 (37.0%) Level 3: 1 (0.1%) n = 1,564 <b>L1/L2</b>	Level 1: 54 (14.5%) Level 2: 312 (83.9%) Level 3: 6 (1.6%) n = 372 <b>L2</b>	Level 1: 22 (5.1%) Level 2: 213 (49.8%) Level 3: 193 (45.1%) n = 428 <b>L2/L3</b>	Level 1: 1,060 (44.8%) Level 2: 1,104 (46.7%) Level 3: 200 (8.5%) n = 2,364 (29.5%)
<b>Minor</b> (Class 1 – Class 3)	Level 1: 4,103 (98.3%) Level 2: 66 (1.6%) Level 3: 3 (0.1%) n = 4,172 <b>L1</b>	Level 1: 321 (44.8%) Level 2: 390 (54.5%) Level 3: 5 (0.7%) n = 716 <b>L1/L2</b>	Level 1: 64 (11.7%) Level 2: 449 (82.4%) Level 3: 32 (5.9%) n = 545 <b>L2</b>	Level 1: 4,488 (82.6%) Level 2: 905 (16.7%) Level 3: 40 (0.7%) n = 5,433 (67.9%)
<b>TOTAL</b>	Level 1: 5,104 (87.0%) Level 2: 737 (12.6%) Level 3: 22 (0.4%) n = 5,863 (73.2%)	Level 1: 378 (34.0%) Level 2: 716 (64.4%) Level 3: 18 (1.6%) n = 1,112 (13.9%)	Level 1: 89 (8.6%) Level 2: 677 (65.7%) Level 3: 265 (25.7%) n = 1,031 (12.9%)	Level 1: 5,571 (69.6%) Level 2: 2,130 (26.6%) Level 3: 305 (3.8%) n = 8,006 (100.0%)

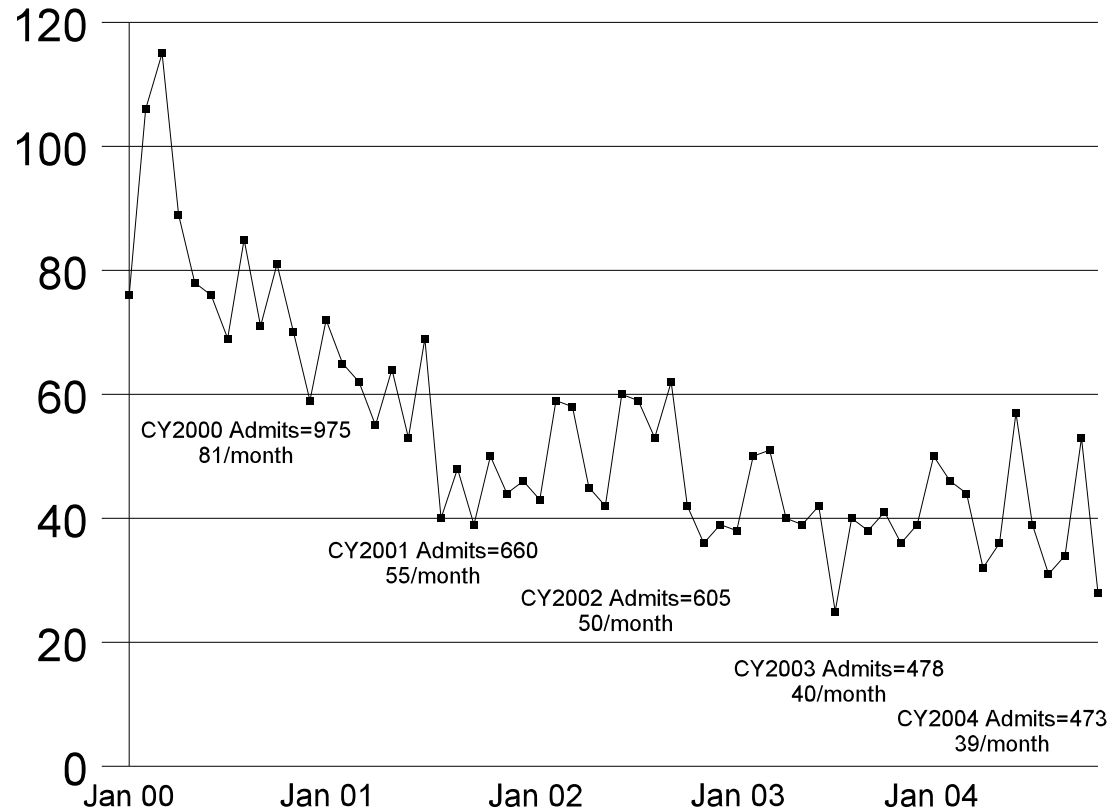
SOURCE: CY 2004 Disposition Simulation Data, NC-JOIN/NCSPAC

**NOTES**

In CY 2004, there were 305 cases (3.8%) involving a disposition not specified by the dispositional chart. In the majority of these cases (n=140), judges ordered a disposition level lower than specified by the chart. In 46 cases, judges ordered a disposition level higher than specified by the chart. For 59 cases, it is not clear from the information available why the disposition was imposed. Certain provisions of the juvenile code allow a judge to impose a disposition other than those specified by the chart. For example, judges found “extraordinary needs” (per G.S. 7B 2508(e)) in 26 cases, resulting in the imposition of 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. In CY 2004, 22 juveniles met these criteria and were committed. 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. In CY 2004, 12 juveniles met these criteria and were committed.

# Figure 1

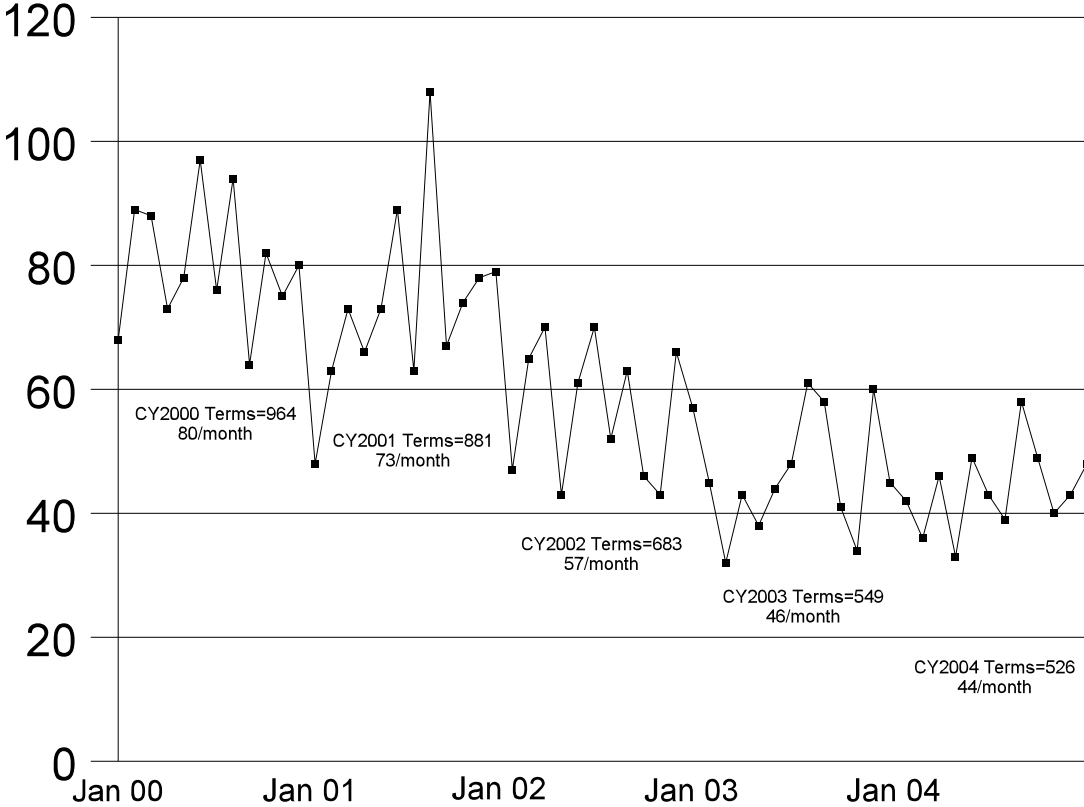
## YDC Admissions CY2000 - CY2004



Source: Department of Juvenile Justice and Delinquency Prevention, NC-JOIN/Juvenile Tracking

# Figure 2

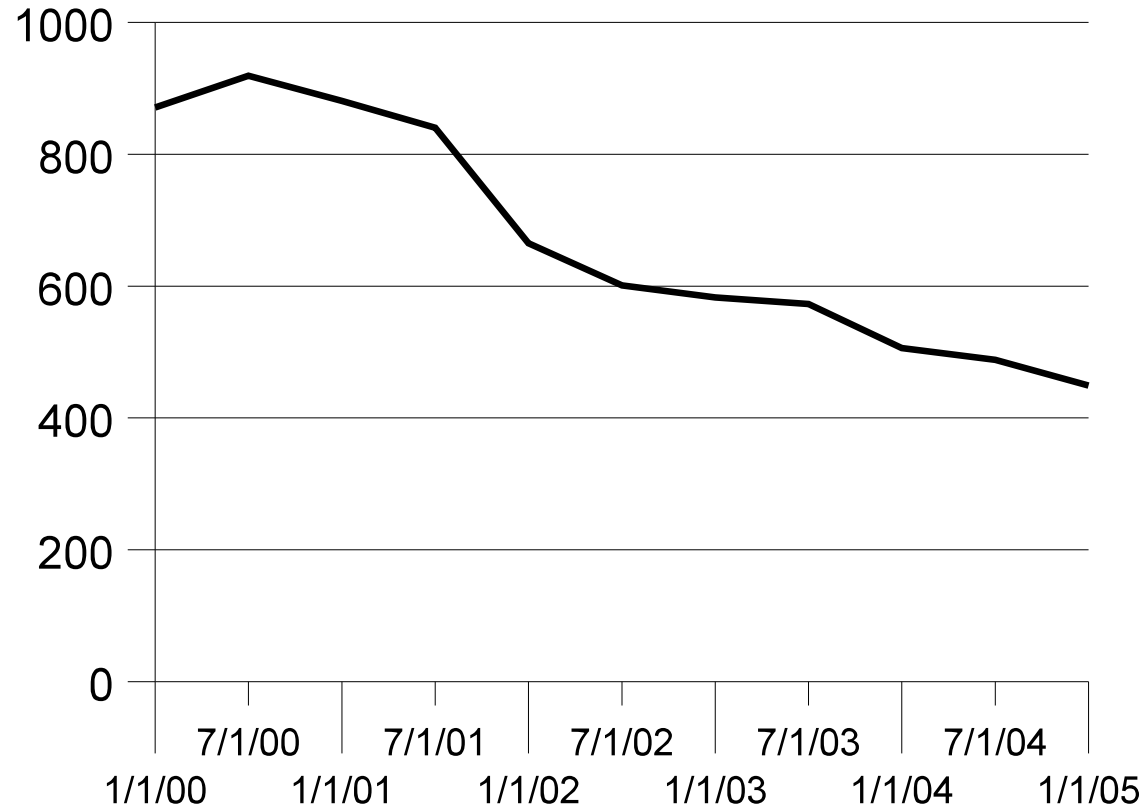
## YDC Terminations CY2000 - CY2004



Source: Department of Juvenile Justice and Delinquency Prevention, NC-JOIN/Juvenile Tracking

**Figure 3**

**YDC Population Trends**  
January 2000 - January 2005



Source: Department of Juvenile Justice and Delinquency Prevention, NC-JOIN/Juvenile Tracking