# **Offender Population Forecasts**

FY 2005 to FY 2010



John W. Marshall Secretary of Public Safety

## **Table of Contents**

LIST OF FIGURES	4
LIST OF TABLES	6
REPORT SUMMARY	8
Authority for this Report	8
Purpose	
Summary of Methodology	
Summary of Each Forecast	
State Responsible Population Forecast	
Local Responsible Population Forecast	
State Responsible Juvenile Population Forecast	
I. OVERVIEW OF THE VIRGINIA FORECASTING PROCESS	10
II. FORECASTING METHODOLOGY	11
Qualitative or Judgmental Input	11
III. GENERAL FACTORS AFFECTING VIRGINIA'S OFFENDER POPULATIONS	12
Crime and Arrest Trends	12
Demographic Trends	
Effects of Crime Trends and Demographics on Adult Offender Populations	
IV. VIRGINIA'S STATE RESPONSIBLE OFFENDER POPULATION	
State Responsible New Court Commitment Background	
State Responsible New Court Commitment Trends	23
New Court Commitment Forecast Background	27
State Responsible Released Population and Parole Grant Rate Trends	
State Responsible Prison Population Trends	
State Responsible Prison Population Forecast: Simulation Model	
Key Forecast Assumptions for Simulation Model	
FY 2005 State Responsible Forecast	
V. VIRGINIA'S LOCAL RESPONSIBLE INMATES POPULATION	32
Jail Population Trends	
FY 2005 Local Responsible Forecast	34
VI. VIRGINIA'S STATE RESPONSIBLE JUVENILE OFFENDER POPULATION	37
Admission Trends	37
Factors Influencing Length of Stay	
Simulation Model	
FY 2005 Juvenile Offender Admissions and Population Forecasts	
VII. VIRGINIA'S JUVENILE DETENTION HOME POPULATION	46
Introduction	46
Trends Impacting the Detention Population	48
The Detention Home Forecast	
VIII. COMPARISON OF ANNUAL FORECASTS PREPARED IN 2003 AND 2004	53

IX. HISTORICAL FORECASTS ACCURACY FOR 2003	55
State Responsible Prison Offender Forecast - Factors that Affected Accuracy	56
Local Responsible Jail Offender Forecast - Factors that Affected Accuracy	57
State Responsible Juvenile Offender Forecast - Factors that Affected Accuracy	57
Local Juvenile Detention Home Forecast - Factors that Affected Accuracy	58
X. ISSUES FOR FUTURE CONSIDERATION	59
Arrest Data	59
Examine the Unsentenced Awaiting Trial Jail Inmate Subgroup	59
Information on Probation Violators	59
Data Lag Time	
Impact of the Risk Assessment Instrument	60
Forensics Case Processing	
Time Series Accuracy	
Review of LIDS Jail Inmate Data	
Forecast Accuracy	60
XI. APPENDICES	62
Appendix A: Correctional Terminology	62
Appendix B: Community Programs	
Appendix C: Forecasting Terminology	
Appendix D: Policy Advisory Committee Members, FY 2005 Forecast	
Appendix E: Technical Advisory Committee Members, FY 2005 Forecast	
Appendix F: Quarterly FY 2004 Forecast Accuracy	67

## **List of Figures**

Figure 1:	Virginia Index Crime Rates CY 1994-2003	12
Figure 2:	Virginia Index Crime Arrest Rates CY 1994-2003	13
Figure 3:	Virginia Drug Crime Arrest Rates CY 1994-2003	13
Figure 4:	Virginia Population Projected Age Distribution CY 2004-2012	14
Figure 5:	Age Distribution for State Responsible New Court Commitments CY 2003	14
Figure 6:	New Court Commitments to State Facilities CY 1994-2003	15
Figure 7:	State Responsible Offender Population FY 1995-2004	15
Figure 8:	Local Responsible Jail Population FY 1998-2004	16
Figure 9:	State Responsible Juvenile Offender Population FY 1994-2004	19
Figure 10:	Historical and Projected State Responsible Offender Population FY 2000-2010	30
Figure 11:	Composition of Confined Population in Local Jail Facilities FY 2004	32
Figure 12:	Average Composition of Forecasted Local Responsible Jail Population FY 1998-2004	33
Figure 13:	Historical and Projected Local Responsible Jail Inmate Population FY 2000-2010	35
Figure 14:	State Responsible Juvenile Offender Admissions FY 1994-2004	38
Figure 15:	Indeterminate Juvenile Commitments by Length of Stay FY 2000-2004	39
Figure 16:	Juvenile Determinate Sentences FY 1995-2004	40
Figure 17:	Historical and Projected State Responsible Juvenile Offender	44
Offender Po	nulation Forecasts 4	40/45/000

## Population FY 2000-2010

Figure 18: Juvenile Detention Home Placements FY 2002-2004	46
Figure 19: Juvenile Detention Home Placements, Pre-d and Post-d FY 2002-2004	47
Figure 20: Detention Eligible Juvenile Intake Cases FY 1998-2004	48
Figure 21: Seasonal Movement of Historical Detention Home Population FY 2000-2004	49
Figure 22: Detention Home Capacity Changes FY 1994-2005	50
Figure 23: Historical and Projected Juvenile Detention Population FY 1998-2010	51

## **List of Tables**

Table 1: Felony and Class 1 Misdemeanor Juvenile Intake Complaints FY 1997-2004	20
Table 2: Virginia Department of Corrections Date Sentenced New Court Commitment Stream	25
Table 3: Total New Court Commitments by Sentencing Structure CY 1996 – 2003	26
Table 4: Total State Responsible Parole Violators CY 1996-2003	27
Table 5: State Responsible New Court Commitment Forecast by CY and FY	27
Table 6: Historical and Projected State Responsible Offender Population FY 2000 - 2010	31
Table 7: Historical and Projected Local Responsible Jail Inmate Population FY 2000 - 2010	36
Table 8: Determinate Commitments to DJJ FY 1998 - 2004	37
Table 9: Sex Offender Admissions FY 2000 - 2004	40
Table 10: Juvenile Admissions and Releases During FY 2004	41
Table 11: State Responsible Juvenile Offender Admissions FY 2000 - 2010	43
Table 12: State Responsible Juvenile Offender Population FY 2000 - 2010	45
Table 13: Comparative Summary of Historical and Forecasted State Responsible Juvenile Population	45
Table 14: Juvenile Detention Home Statistics FY 2003 - 2004	47
Table 15: Historical and Projected Juvenile Detention Home Population FY 2000-2010	52
Table 16: Juvenile Detention Home Maximum, Average, and June Monthly ADP	52
Table 17: State Responsible Offender Population Forecasts FY 2003 and 2004	53
Table 18: Local Responsible Jail Inmate Population Forecasts FY 2003 and 2004	53

Table 19: Juvenile Offender Population Forecasts FY 2003 and 2004	54
Table 20: Juvenile Detention Home Population Forecasts FY 2003 and 2004	54
Table 21: State Responsible Offender Population Historical Forecast Accuracy	55
Table 22: Local Responsible Jail Offender Population Historical Forecast Accuracy	55
Table 23: State Responsible Juvenile Offender Population Historical Forecast Accuracy	56
Table 24: Juvenile Detention Home Population Historical Forecast Accuracy	56
Table 25: CY 2003 Quarterly State Responsible New Court Commitments	57

## **Report Summary**

#### Authority for this Report

This report responds to Item 403, Chapter 4, 2004 Act of Assembly, Special Session I (Appropriations Act) which requires the Secretary of Public Safety to "...present revised state and local juvenile and state and local responsibility adult offender population forecasts to the Governor, the Chairmen of the House Appropriations and Senate Finance Committees, and the Chairmen of the House and Senate Courts of Justice Committees by October 15, 2004, for each fiscal year through FY 2010 and by October 15, 2005, for each fiscal year through FY 2011."

#### **Purpose**

This report documents the annual forecasting process for Virginia's adult and juvenile offender populations. Forecasts of confined correctional populations provide information for budgeting and planning of various criminal justice capital and operational expenditures, and provide data for assessing policy needs. The accuracy of these forecasts can affect the success of planning and resource allocation. Over-projection generally results in needless appropriation of resources to criminal justice institutions, while under-projection can compromise the correctional system's ability to adequately ensure public safety.

#### Summary of Methodology

Since the late 1980s, the Secretary of Public Safety has annually overseen a process that forecasts the number of adult and juvenile offenders for whom either the State or the localities have responsibility. The forecasting process uses two committees to produce the official forecast: a Technical Advisory Committee that uses statistical methods (time series and/or simulation models) to make projections, and a Policy Advisory Committee that reviews the projections and selects a forecast for each population to recommend to the Secretary. The Policy Advisory Committee also considers the effects of any recent trend shifts, and newly adopted legislation on the forecast, making adjustments as it deems appropriate.

#### Summary of Each Forecast

#### **State Responsible Population Forecast**

Between FY 2003 and FY 2004, the SR population grew by 540 offenders, an increase of 1.5%. The SR adult offender population is expected to increase from 35,875 at the end of FY 2004 to 36,971 in FY 2005, a growth of 1,096 or 3.1%. The population is expected to grow to 43,328 in FY 2010, a growth of 6,357, or a 3.2% average yearly increase. The final SR population forecast was produced using the DOC simulation model. No other numerical adjustments or add-ons were made to the population forecast.

#### **Local Responsible Population Forecast**

Between FY 2003 and FY 2004 the local responsible (LR) population increased from 16,600 to 17,478 inmates, a growth of 879 or 5%. The LR jail inmate population is expected to increase to 18,081 in FY 2005, a growth of 603 or 3.4%. From FY 2006 to FY 2010, the population is expected to grow to 22,022, a 4.0% average yearly increase. The final LR forecast was produced using a time series model. No numerical adjustments were made to the statistical forecast.

#### **State Responsible Juvenile Population Forecast**

The SR juvenile offender population decreased from 1,164 at the end of FY 2003 to 1,038 by the end of FY 2004, a decline of 126 or 10.8%. It is expected to decrease from 1,038 to 1,033 by the end of FY 2005, a decline of 5 or 0.5%. The SR juvenile population is expected to decrease from 1,033 in FY 2005 to 1,010 in FY 2010, a decrease of 23 or an average annual forecasted decline of approximately -0.4%. The decline in FY 2005 is mainly due to a projected decrease in admissions. This forecast is based on a simulation model designed by the DJJ that explicitly models the Department's length of stay system.

#### **Juvenile Detention Home Forecast**

The detention home population decreased from 1,214 at the end of FY 2003 to 1,110 in FY 2004, a decrease of 104, or 8.6%. It is expected to decrease to 1,099 by FY 2005, a decrease of 11, or 1.0%. The detention home population is forecasted to decline from 1,099 at the end of FY 2005 to 1,088 in FY 2010. This represents an average decrease of 0.3% per year. The forecast reflects expectations for only marginal changes in detention eligible intake cases and increased use of post-dispositional detention. The final juvenile detention home forecast was produced using a time series model.

## I. Overview of the Virginia Forecasting Process

Annually, the Secretary of Public Safety oversees the development of adult and juvenile offender population forecasts. These forecasts are essential to estimating future capital needs and operating expenses for prisons, jails and juvenile correctional centers. A report prepared by the Fiscal Analysis Section of the Joint Legislative Audit and Review Commission (JLARC) provides an excellent overview of the forecasting process as it relates to the state budget process.<sup>1</sup>

The forecasting process uses two Committees to produce the official forecasts: the Policy Advisory Committee and the Technical Advisory Committee. Barry R. Green, Deputy Secretary of Public Safety, chaired the FY 2004 Policy Advisory Committee. The Policy Advisory Committee tempers statistical projections with policy-based issues. Members of the Policy Advisory Committee include representatives from Virginia's executive, legislative and judicial branches, and local and state law enforcement agencies (see Appendix D for a list of members). These individuals understand or are involved in the criminal justice process, but are not necessarily statisticians or responsible for incarcerated populations. The diverse backgrounds and experiences of Policy Advisory Committee members promote broad discussions of numerous issues in criminal justice. It is the responsibility of the Policy Advisory Committee to discuss issues that they feel may affect incarcerated populations in the future. They are not hindered by the necessity to anchor their assumptions on past trends and are free to consider and explore all possible outcomes. Policy Advisory Committee discussions in 2004 included such subjects as:

- Overview of Policy Advisory Committee Role
- Overview of Technical Advisory Committee Role
- Review of Last Year's Forecast Accuracy Report and Update
- National Crime Trends and Arrest/Crime Rates in Virginia
- Overview of 2004 General Assembly Actions Which May Impact Forecasts
- Parole Release Information

William M. Shobe, Ph.D., Associate Director, Economic and Regulatory Analysis Unit for the Department of Planning and Budget, chaired the FY 2004 Technical Advisory Committee. This Committee comprises technical experts from the Compensation Board, Department of Corrections, Department of Criminal Justice Services, Department of Juvenile Justice, Department of Planning and Budget, Joint Legislative Audit and Review Commission, Virginia Criminal Sentencing Commission, and Virginia State Police (see Appendix E for a list of members).

The Technical Advisory Committee uses statistical methods to make projections. Although statistical forecasts cannot predict the future with absolute precision, a technically accurate forecast reduces short-term (2 to 4 years) uncertainty reflecting unexpected trend shifts and legislated policy changes. Virginia's biennial forecasts have been reasonably accurate while long-term forecasts face greater uncertainty. Historical forecast accuracy for June 2004 is presented in Section IX of this report.

Offender Population Forecasts

<sup>&</sup>lt;sup>1</sup> Technical Status Report Title: <u>An Overview of Expenditure Forecasting in Four Major State Programs</u>, Final Report, dated August, 2000 (House Document 3).

## **II. Forecasting Methodology**

The Technical Advisory Committee meets quarterly throughout the year and as often as needed during the forecast season from June through September. It consists of persons in various state agencies that have expertise in statistical and quantitative methods. Predominantly, they use time series analyses and/or simulation modeling to project future offender populations. The Committee focuses largely on identifying trends and seasonal patterns in Virginia's criminal justice admissions and incarceration databases to estimate how observed trends and seasonal patterns may affect the forecasts. Separate computer models were built for SR prison offender populations, LR jail populations, and juvenile offender populations.

The Department of Corrections (DOC) has direct responsibility for forecasting SR admissions and prison populations. The Department of Criminal Justice Services (DCJS) has direct responsibility for forecasting LR jail populations. The Department of Juvenile Justice (DJJ) has direct responsibility for forecasting SR juvenile correctional center admissions and populations, and local detention home forecasts. To ensure that the Committee has at least two forecasts of each population to select from, the Department of Planning and Budget (DPB) also provides a forecast for each of the four populations. Additionally, any member of the Technical Advisory Committee may present a forecast for any or all of the four populations for consideration by the full Technical Advisory Committee. New methods and approaches are strongly encouraged to take full advantage of recent advances in criminal justice research and forecasting techniques, as well as to have the advantage of comparing forecasts that use different approaches.

The Technical Advisory Committee has a Methods Sub-Committee (see Appendix E) that conducts peer reviews of all forecasts before the full Technical Advisory Committee meets to consider the forecasts. Using strict pre-determined criteria for acceptance, the Methods Sub-Committee closely scrutinizes the methods used to produce each forecast and the resultant diagnostic statistics. The sub-committee's purpose is to determine the statistical validity of each forecast, rather than recommend which forecast should be chosen.

Once validated, each forecast is then presented to the full Technical Advisory Committee. Each forecaster is responsible for presenting and defending the forecast offered to the Committee for consideration. The full Technical Advisory Committee then selects the forecast that has the best in sample and out of sample fit statistics and the best model statistics to recommend to the Policy Advisory Committee.

#### Qualitative or Judgmental Input

The Policy Advisory Committee evaluates and adjusts the recommended forecasts based on their experience and expectations. This is a critical point in the forecast process, since the quantitative methods used to produce baseline forecasts largely model previous trends and patterns. The Technical Advisory Committee is generally limited in its ability to estimate the effect of innovative policies and unique changes in criminal behavioral patterns that are not reflected in the historical data. Based upon input from members of the Policy Advisory Committee, models are re-specified and final baseline forecasts are produced.

If there are any new policy initiatives that will likely increase or decrease confined populations, the Technical Advisory Committee develops statistical estimates of the anticipated impact for each year of the forecast period. The estimates are presented to the Policy Advisory Committee for approval. Once approved, baseline forecasts are adjusted to include any anticipated new policy impact. Final forecasts (baseline and adjustments) are presented and discussed during the last Policy Advisory Committee meeting of each year. The forecasts benefit from rigorous quantitative analysis by the Technical Advisory Committee and qualitative scrutiny by the Policy Advisory Committee (a consensus process).

## III. General Factors Affecting Virginia's Offender Populations

The Technical Advisory Committee reviewed various statistical sources to identify and analyze trends in Virginia's criminal justice data. These statistics are valuable for understanding and explaining Virginia's historical offender populations and are used in the development of the projected populations.

#### Crime and Arrest Trends

Virginia crime and arrest trends influence offender populations because crimes lead to arrests, and arrest is the 'entry point' for many who become part of the offender population. Although the precise relationship between changes in crime and arrest rates and changes in offender populations is unclear, these trends do provide one indicator of potential future offender population trends<sup>2</sup>.

Figure 1 depicts Virginia's index crime rates for CY 1994 through 2003. (Index crimes are murder/non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larcenytheft, and motor vehicle theft.) The figure shows that Virginia's crime rate declined from 1994 to 2000, increased slightly in 2001, but then continued to decline in 2002 and 2003. The national crime rate showed a similar pattern. Following the brief 2001 increase, Virginia's index crime rate declined by 4.2% in 2002, and then declined again by 6.2% from 2002 to 2003.

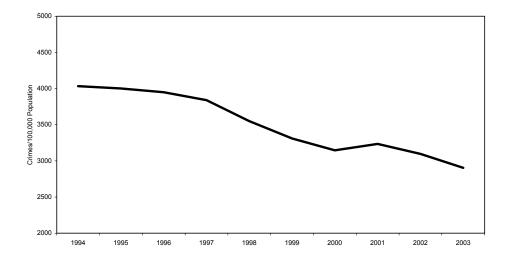


Figure 1: Virginia Index Crime Rates CY 1994 through 2003

The decline in Virginia's overall index crime rate from 2002 to 2003 was reflected in decreases in rates for most individual types of crimes. The violent crime rate declined by 6.3% in 2003, due mainly to decreases in forcible rapes, robberies and aggravated assaults. Only rates for murder increased from 2002 to 2003. Virginia's property crime rate declined by 6.2% from 2002 to 2003. All three crimes comprising the property index crime rate – burglary, larceny and motor vehicle theft - decreased in 2003.

Figure 2 depicts Virginia's index crime arrest rates for CY 1994 - 2003. As with the crime rate, Virginia's index crime arrest rate declined over the last decade. More recently, Virginia's arrest rate declined by 4.3% from 2002 to 2003. Arrest rates for violent crime declined by 4.4%, and

<sup>&</sup>lt;sup>2</sup> Crime and arrest data from Virginia State Police, Uniform Crime Reporting Section. 1999-2003 data adjusted by DCJS Criminal Justice Research Center to adjust for underreporting by some localities during transition from Uniform Crime Reporting (UCR) to Incident Based Reporting System (IBR). All 1999 – 2003 IBR data used are converted to UCR format.

property crime arrest rates declined by 4.3%, from 2002 to 2003. Arrest rates declined for all categories of violent crime except murder. Arrest rates for all property index crimes declined.

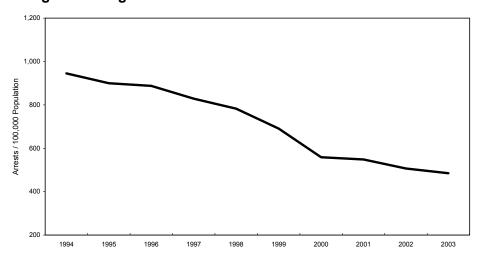


Figure 2: Virginia Index Crime Arrest Rates CY 1994 – 2003

Figure 3 depicts Virginia's overall drug crime arrest rates for CY 1994 - 2003. The overall drug arrest rate is based on arrests for four types of offenses: possession of schedule I/II drugs, sale of schedule I/II drugs, possession of marijuana, and sale of marijuana. Drug arrests are not included in the index crime arrest rates shown in Figure 2 above. However, drug arrests are presented here because drug offenders are a major component of Virginia's inmate populations. Unlike index crime arrest rates, overall drug arrest rates in Virginia increased slightly during the last decade. In more recent years, the rate has fluctuated. Drug arrest rates increased from CY 2000 to 2001, declined from CY 2001 to 2002, and then increased again from CY 2002 to 2003. From CY 2002 to 2003, the arrest rate increased by 2.7%. Arrests for most drug offense types increased in CY 2003; only marijuana possession arrests declined.

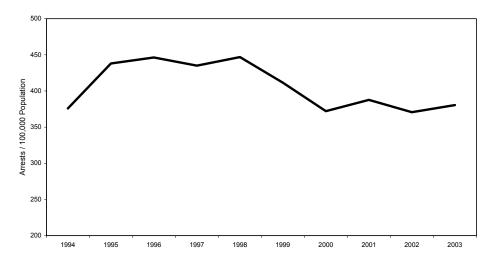


Figure 3: Virginia Drug Crime Arrest Rates CY 1994 – 2003

At this point, it appears that the increase in crime rates seen in CY 2001 was temporary. Following this increase, crime rates (and arrest rates) continued to decline in CY 2002 and 2003. This suggests that the increase seen in 2001 was a temporary upward "blip" in crime, rather than the beginning of an upward trend. Preliminary data from the first five months of CY 2004 indicate that the number of crimes and arrests reported in 2004 were below the levels reported for the same period in 2003, suggesting a continued decline in Virginia's crime and arrest rates.

#### Demographic Trends

Another factor that is likely to affect the number of incarcerated offenders is the "graying" of Virginia's population. Virginia's total population is expected to grow by about 5% between 2004 and 2012, with the largest growth in the older population.

Figure 4 shows Virginia's projected population growth for specific age groups for 2004 - 2012.<sup>3</sup> It is projected the number of persons in the 25 to 39 age group will decline by almost 10% from 2004 to 2012. However, those in the 40 and over group are projected to increase by more than 12% during this period. The increase in the 40 and over population is likely to exert some downward influence on admissions to adult offender facilities, because older adults are less likely to be involved in crime. However, the "crime prone age group" of 15 to 24 year-olds is projected to increase by almost 9% from 2004 to 2012. Possible increases in crime due to the growth of this age group probably will offset some of the expected downward effect attributed to the aging population.

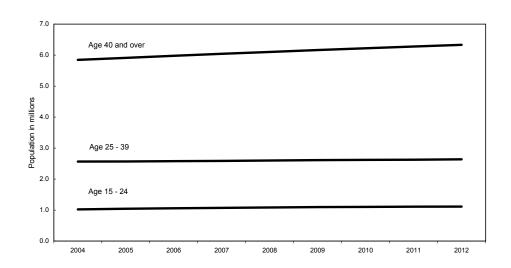
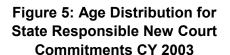
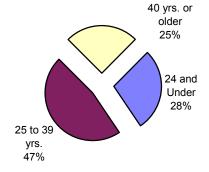


Figure 4: Virginia Population Projected Age Distribution CY 2004 - 2012





# Effects of Crime Trends and Demographics on Adult Offender Populations

As discussed above, one might expect changes in the flow of adult offenders entering state facilities to be related to the changes in the number of total arrests. This effect is not instantaneous, since there is a significant lag between an offender's arrest and, if convicted, subsequent commitment to a prison facility.

Furthermore, as noted above, age affects the offender population. As depicted in *Figure 5* individuals aged 25 to 39 comprise 47% while those 24 and under, represent 28% of new court commitments to state facilities in CY 2003.

10/15/2004

Population data source: U.S. Census Bureau, State Population Projections, Series A.
 Offender Population Forecasts

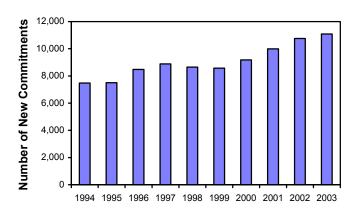
According to U.S. Census forecasts, Virginia will see an increase in the 15 to 24 year olds. In fact, in CY 2002 15 to 24 year olds represented 25% of new commitments and in CY 2003 they increased to 28% of the commitments to prison. While the U.S. Census data has the 25 to 39 age group declining, they are the largest group representing almost one-half of SR new court commitments. Consequently, any reduction in the overall number of individuals in this larger, older age group is likely to place some downward pressure on new commitments to state facilities. However, the projected population increases for the younger crime prone age group may offset any reduction in commitments for age group 25 to 39.

Figure 6 shows that annual commitments to state prison facilities remained stable from 1994 to 1995. This trend reversed in 1996, however, when commitments to state facilities abruptly increased by 13% and then another 5% in 1997. In 1998 and 1999, the number of new commitments decreased modestly by 2.5% in 1998 and 1.0% in 1999. However, for the last four

vears, the number of new commitments has continued to increase. Commitments to state facilities in 2000 were 7.2% higher than in 1999. New commitments continued to increase in 2001 with an 8.8% growth over 2000 and from 2001 to 2002 there was an increase of 756 or 7.6%. In 2003, the growth was modest with more 339 additional offenders or 3.2%.

Figure 7 shows that the total SR population (in prison and jails) has increased each year since FY 1995. The SR offender population has increased by 31.1%, from 27,364 in FY 1995 to 35,875 at the end of FY 2004. This represents an increase of 8,511 offenders and an annual growth rate of 946 offenders or 3.1% per year. This growth can be

Figure 6: New Court Commitments to State Facilities CY 1994-2003



attributed to increases in new court commitments to the system and fewer discretionary releases due to basically declining parole grant rates. With truth-in-sentencing, more "new law" offenders (those whose date of offense is on or after January 1, 1995) are being held in prison with longer sentences. This, along with longer lengths of stay, contributes to a "stacking effect" in correctional facilities.

Figure 7: State Responsible Offender Population FY 1995-2004

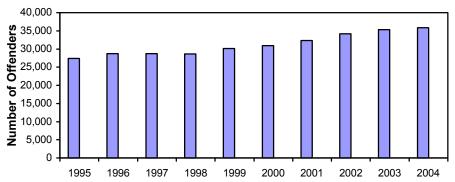


Figure 8 shows the growth in the local responsible (LR) historical average daily population (ADP) for FY 1998 to FY 2004. Beginning with the 2001 forecast report, jail populations were calculated based on ADP rather than the previous method of using the Tuesday Report. Adding the number of inmates reported in jails on each day of the month, then dividing by the number of days in the month, calculates the ADP.

This measure is considered more accurate than the previously used Tuesday Report method, which produced a monthly count based on data from only two Tuesdays of the month. ADP is based on data from the Local Inmate Data System (LIDS), maintained by the Compensation Board. Although LIDS data provides more detail than the former Tuesday report, it did not begin until 1997; therefore historical ADP data is available only back to FY 1998.

Figure 8 shows that the average daily LR jail population grew from 11,911 inmates in FY 1998 to 17,478 in FY 2004, an increase of 47%. Overall, there have been no abrupt changes in the LR population from FY 1998 to FY 2004. The trend has been a steady growth averaging about 7% annually. In the past, increases in the total LR population over time appear to be driven by

increases in the three smaller subgroups (i.e., misdemeanants. LR felons and sentenced awaiting trial) comprising the LR population, rather than the largest subgroup unsentenced (i.e., awaiting trial). However. in FY 2004 increases in the total LR population resulted from the two largest subgroups (i.e., unsentenced awaiting trial and sentenced awaiting trial).

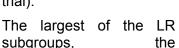


Figure 8: Local Responsible Jail Population FY 1998-2004 20,000 17,500 15,000 of Inmates 12,500 10,000 Number 7,500 5,000 2,500 0 1998 1999 2000 2001 2003 2004

unsentenced awaiting trial population, grew from 6,128 inmates in FY 1998 to 7,422 in FY 2004, an increase of 11%.

Although the LR jail population increased annually since FY 1998, programs that provide alternatives to incarceration may have moderated this increase. The DCJS funds two programs that provide alternatives to incarceration for LR inmates. These programs are authorized under the Pretrial Services Act and the Comprehensive Community Corrections Act. From FY 1998 to FY 2003, these two programs received 192,475 placements<sup>4</sup> that contributed to reductions in the unsentenced awaiting trial jail population and/or the sentenced jail population. Pretrial services programs expedite bail for unsentenced awaiting trial inmates. During this period, magistrates and judges released a total of 73,520 defendants to pretrial supervision, and sentenced 183,312 offenders to community-based probation programs.

<sup>&</sup>lt;sup>4</sup> A placement is not equivalent to an individual because an individual can have more than one placement.

Offender Population Forecasts

16

10/15/2004

#### **Additional Factors Contributing to Offender Population Increases**

In addition to the crime, arrest, and demographic trends discussed earlier in this section, the Technical Advisory Committee identified several other factors that help explain the increase in offender populations. Among the factors identified were:

#### **Court Case Trends**

Numbers of court cases and convictions provide another potential indicator of offender trends that may influence inmate populations. Data for the period CY 1994 through 2003 show increases in new circuit court criminal cases and in new juvenile cases in juvenile courts, and a decrease in the number of new criminal cases in general district courts from CY 1994 to 2003.

- The number of new criminal cases commenced in Virginia's circuit courts grew from 115,788 in CY 1994 to 170,299 in CY 2003, an increase of 47%. More recently, the number of these cases increased by about 2% from 166,389 in CY 2002 to 170,299 in CY 2003.
- The number of new criminal cases commenced in Virginia's general district courts decreased from 419,568 in CY 1994 to 376,664 in CY 2003, a decrease of 10%. More recently, the number of these cases decreased by 2% from 384,171 in CY 2002 to 376,664 in CY 2003.
- Reasons for the increases in circuit court criminal cases and simultaneous decreases in general district court criminal cases are unclear. Some factors that may be influencing these changes include:
  - A decrease in arrests for misdemeanor crimes. This decrease mirrors the decrease in general district court criminal cases. However, there has been no increase in felony arrests that corresponds to the increase in circuit court criminal cases.
  - An increase in reinstatements for felony offenses in circuit court, primarily for probation/parole violators. These cases may be "double counted" in circuit court case counts, artificially inflating the number of new circuit court criminal cases.
  - Anecdotal reports from Commonwealth's Attorneys indicate that they are charging fewer misdemeanor cases in general district court than in the past.
  - Efforts to increase the seriousness of offenses. For example, simple assault of a law enforcement officer and 3<sup>rd</sup> and 4<sup>th</sup> DWI offenses have been increased from misdemeanor to felony offenses.
- The number of new juvenile cases (excluding domestic relations cases) in Virginia's juvenile and domestic relations courts increased by 15% from 238,565 in CY 1994 to 275,191 in CY 2003. More recently, the number of cases decreased by 8.5% from 300,705 in CY 2002 to 275,191 in CY 2003.

The number of felony convictions in Virginia (represented by the number of felony sentencing events reported to the Virginia Criminal Sentencing Commission) increased by 25% from FY 2000 to FY 2002. Some of this substantial increase may be due to an increase in DUI felony convictions in both FY 2001 and FY 2002, when felony DUI convictions became reportable to the Sentencing Commission. However, the number of reported felony convictions (as sentencing events) increased by only 1% from FY 2002 to FY 2003. The number of felony sentencing events serves

as a proxy for the number of felony convictions. A felony sentencing event includes all offenses for which an offender is sentenced on the same day and the same time<sup>5</sup>.

#### Technical probation and parole violators not included in arrest statistics

Arrest and crime rates for 2003 were lower than the rates for 2002. These statistics do not have to increase to have high prison and jail admissions. There are various ways in which persons may be admitted to jail or prison without an arrest being included in state arrest statistics. For example:

Probationers who violate the conditions of their probation without committing a new crime (technical violators) may be admitted to jail and eventually to prison, but are not counted in state arrest statistics. Between June of 1994 and 2003, the DOC probation population increased from 23,343 to 41,106 or by 76%. Furthermore, out of 10,751 new court commitments in CY 2002, there were 4,597 (42.8%) technical and new crime probation violators. The total number of probation violators increased in CY 2003 to 4,712 (42.5%) out of 11,090 new court commitments. There is interest in reporting the number of technical from new crime probation violators; however, since court orders do not currently contain the reason for violation, the Department of Correction's database cannot currently separate these violators by type. The Virginia Criminal Sentencing Commission (VCSC) is reviewing the number of probation technical vs. new crime events (note that a person may have more than one event) on their Sentencing Revocation Report (SRR) system. The number of technical crime events reported from SRR indicate a slight decrease from 2002 to 2003 of 4,998 to 4,791; however, new crime violation events showed a slight increase for the same time period from 2,976 to 3,166. Of the technical violation events, fewer were sentenced to prison than in the past year (31.2% in CY 2002 to 30.4% in CY 2003). Nonetheless, while technical violators are committed to prison, they are not counted in state arrest statistics.

Parolees who violate the conditions of their parole without committing a new crime (technical violators) may be admitted to jail and eventually prison, but are not counted in state arrest statistics. The overall number of SR parole population and the parole violator population decreased during the 1990s. However, the percent of violators that were technical violators increased from CY 1996 to 1999 but steadily began to decrease in CY 2000. By CY 2003, the number of technical violators (201) comprised 33% of the total parole violator population of 610.

While persons who are arrested on local ordinance warrants, and those arrested for traffic misdemeanor or traffic felony offenses, are not included in state arrest statistics, they could become a new court commitment.

# Increased lengths of stay and stacking effects due to parole abolition and sentencing reforms

From CY 2001 to CY 2003, the SR prison population increased from 32,944 to 35,515 or by 7.8%, and the number of new court SR commitments increased by 11%, from 9,995 to 11,090. This suggests that part of the growth in prison populations during this period may be due to the beginning of the predicted 'stacking effect' produced by the parole abolition and truth-in-sentencing reforms enacted in 1994. Under these reforms, offenders sentenced for crimes committed on or after January 1, 1995, are no longer eligible for parole and other early-release mechanisms, and sentences for certain offenders were lengthened. The 'stacking effect' results as the offenders serving these longer sentences begin to accumulate (or 'stack') in the DOC population.

There is some evidence for this effect in the length of stay figures for SR offenders. In FY 1999, the average length of stay for these offenders was 38 months. By FY 2003, the average length of stay had increased to 44 months. The population is increasing due to both average lengths of stay increasing and higher numbers of new court commitments. It also appears that the average length

<sup>&</sup>lt;sup>5</sup> Data Sources: <u>Court case numbers</u>: Virginia State of the Judiciary Annual Reports for 1994 - 2003, Supreme Court of Virginia. <u>Sentencing events numbers</u>: Virginia Criminal Sentencing Commission.

of stay has been increasing for LR jail offenders. However, uncertainties concerning local jail offender data make it impossible to confirm this at the present time.

#### **Factors Influencing Juvenile Offender Population**

Figure 9 shows the June population figures for each fiscal year. It indicates that the SR juvenile population experienced its largest growth (22%) from FY 1994 to 1995. After peaking in October 1999, the juvenile population has steadily declined through the end of FY 2004. Much of the decline is due to declining admissions. Juvenile admissions trends are summarized in Section VI.

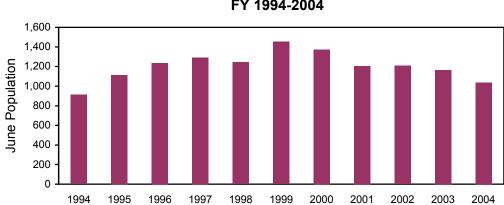


Figure 9: State Responsible Juvenile Offender Population FY 1994-2004

The following discussion provides a brief description of other factors that may influence changes in the SR juvenile population:

#### The impact of funding cuts to community-based programs

The period of declining juvenile admissions occurred when annual funding for the Virginia Juvenile Community Crime Control Act (VJCCCA) was increasing. VJCCCA provides funding to support community-based programs. From FY 1995 to FY 2002 VJCCCA funds increased from \$11.1 million to \$29.5 million.<sup>6</sup> The FY 2003 VJCCCA budget was cut by nearly 51%.

Resources have not been available to provide a systematic review of changes in programming at the local level before and after VJCCCA funding cuts. While it is known that some programs have been dropped, that is an incomplete picture. For example, it is also known that there was a lot of enthusiasm for many of the programs created and financed with the assistance of VJCCCA funds. Many localities have been successful in finding other funding sources to continue these efforts, but in some cases, the programs were continued at reduced levels. FY 2005 will represent the third full year of the cuts.

#### **Committable Intake Complaints**

Juvenile intake complaints are DJJ's preferred measure for tracking Virginia's juvenile delinquency trends. Committable intake complaints (mainly felony or Class 1 misdemeanor) have changed only marginally since FY 1997 (see *Table 1* below). While admissions declined approximately 42% from FY 1997 to FY 2004, the sum of felony and Class 1 misdemeanor intake complaints declined by about 2% over the same period. Felonies have declined steadily since FY 1998 while Class 1 misdemeanors increased from FY 2003 to FY 2004. DJJ continues to believe that the decline in

<sup>&</sup>lt;sup>6</sup> The VJCCCA replaced the Juvenile Non-Secure Block Grant Program in January 1996.

<sup>&</sup>lt;sup>7</sup> DJJ has found that tracking juvenile intake complaints is a much more reliable and complete method for summarizing juvenile "arrest" and crime trends when compared to data provided in the U.S. Justice Department's Uniform Crime Report (UCR).

Virginia's juvenile commitments cannot be explained as resulting mainly from a general decline in juvenile crime.

Table 1: Felony and Class 1 Misdemeanor Juvenile Intake Complaints FY 1997-2004<sup>8,9</sup>

	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004
Felony Intake Complaints	18,853	19,608	18,415	17,971	17,790	17,527	16,981	16,643
Year to Year Percent change		4.0%	-6.1%	-2.4%	-1.0%	-1.5%	-3.1%	-2.0%
Class 1 Misdemeanor Intake Complaints	34,920	36,582	37,279	36,348	36,016	36,122	34,617	36,130
Year to Year Percent change		4.8%	1.9%	-2.5%	-0.9%	0.3%	-4.2%	4.4%
Sum of Felony and Class 1 Misdemeanor Intake								
Complaints	53,773	56,190	55,694	54,319	53,806	53,649	51,598	52,773
Year to Year Percent change		4.5%	-0.9%	-2.5%	-0.9%	-0.3%	-3.8%	2.3%

# Availability of Alternatives to Correctional Center Incarceration for Juveniles with Less Serious Offenses

In FY 2004, post-dispositional detention capacity decreased by one bed, from 123 to 122 beds. The current number of post-dispositional beds represents an increase over available post-dispositional capacity from FY 1997 to FY 2001. As new detention homes become operational, this capacity is projected to expand. The increase in capacity gives judges an option other than state correctional centers for sentencing juvenile offenders with less serious offenses. See Section VII. Virginia's Juvenile Detention Home Population for a summary of historical and projected pre-and post-disposition detention home capacity.

#### The Youth Industries Program (YI)

YI is not a new initiative, having been in place for seven years. The program provides training in career and technical fields and teaches employability skills. Operating within the JCCs, YI sponsors programs such as the Sign Making Enterprise, the Computer Repair Enterprise, the Food Service Apprenticeship and an Offset Printing Apprenticeship and Enterprise. Research shows that wards who participated in YI were less likely to recidivate than their non-YI counterparts. In addition, juvenile participants have found that YI improved their ability to better integrate into the community once released from DJJ. Those factors along with the enthusiasm shown by the juvenile YI participants have led to a renewed focus, expanded YI services, and additional funding.

<sup>&</sup>lt;sup>8</sup> FY 2004 data is preliminary and could show a modest change.

<sup>&</sup>lt;sup>9</sup> Fairfax intake cases were not included on the JTS until December 2000; for comparability purposes, Fairfax intake data are not included in the above table.

<sup>&</sup>lt;sup>10</sup> Terrance Gray and Susan Nicely, DJJ Research Quarterly, Vol. II, Virginia Department of Juvenile Justice, July 2004, p7.

A recent cost/benefit study concluded that in terms of reduced recidivism the benefits of the program well justified its expense. Indeed, most of the direct costs were recuperated through the services offered. (YI is prohibited by legislation from generating a profit.) Program enhancement and expansion efforts are ongoing, the most recent of which was funded through a grant awarded to DJJ and DCE by the U.S. Department of Labor.

#### Efforts to Address Disproportionate Minority Contact (DMC)

As defined by the Office of Juvenile Justice and Delinquency Prevention (OJJDP), Disproportionate Minority Contact (DMC) exists when the proportion of youth detained or confined in secure detention facilities, secure correctional centers, jails, and lockups exceeds that group's proportion in the general population. Minority overrepresentation in the Virginia Juvenile Justice System exists at every decision making point in the juvenile justice system process. The Virginia Department of Juvenile Justice (DJJ – and formally the Department of Youth and Family Services) has been researching this issue since 1992. That research led to the implementation of various gender and race neutral risk assessment tools, instruments and strategies to remove possible bias in our decision making processes. However, on July 1, 2003 DJJ decided to give full attention to the issue of DMC by assigning a full time staff person to the position of Coordinator. The Coordinator has priority access to DJJ's research resources as it relates to race and gender data collection and analysis. Data is an integral part of the Coordinator's work and is frequently used in meetings and presentations within DJJ as well as with other agencies that systematically study the issue of DMC.

#### **Legislative Changes**

Effective July 2000, the *minimum* offense criteria for committing a juvenile to DJJ increased from one Class 1 misdemeanor with a prior adjudication for at least one felony or *one* misdemeanor, to one Class 1 misdemeanor with a prior adjudication for at least one felony or *three* Class 1 misdemeanors (§16.1-278.8 *Code of Virginia*). This change resulted in a decrease in misdemeanant admissions to the Department during FY 2001. DJJ believes additional declines in admissions levels that are directly related to this legislation are unlikely. Analyses of admissions in FY 2002 and FY 2003 support this conclusion. It is important to note that the legislation did not impact the court's authority to commit a juvenile for a felony offense, regardless of prior adjudications.

In July 2001, an amendment to §16.1-285.1(a) Code of Virginia became effective and the amendment has implications for the number of determinant commitments that DJJ may receive from Circuit Court cases. In FY 2002 and FY 2003 the number of commitments from Circuit Courts grew at a faster rate than commitments coming from Juvenile and Domestic Relations District Courts. In FY 2004 Circuit Court commitments declined by 8%, about half the rate of decline for commitments, overall. Circuit Court Commitments continue to represent a significant percentage of all commitments, rising from 10% of all FY 2001 commitments to 16% of all FY 2004 commitments.

Effective July 1, 2002, an amendment to §16.1-272.1 *Code of Virginia* provides the Circuit Court the authority to sentence a juvenile to serve a portion of his sentence with DJJ as a serious offender (§16.1-285.1 *Code of Virginia*), and the remainder at the Department of Corrections. In FY 2003, six juveniles were committed under this statute. In FY 2004 that number increased to thirteen, but the longer-term effects on juvenile admissions and population are unclear.

#### The FY 2004 Legislative Session

During the FY 2004 legislative session, there were several important changes to the law pertaining to juvenile crime, but most are anticipated to have minimal impacts on the state responsible and local responsible juvenile populations. The DJJ believes that the two law changes summarized below have a greater chance of impacting those populations.

## HB 600 Appointment of Counsel for Detention Hearings

(Takes effect July 1, 2005)

This law requires that counsel be appointed for a child prior to an initial detention hearing unless an attorney has been retained and appears on behalf of the child. Also, if a child is not detained but is alleged to have committed an offense that could lead to commitment to a juvenile correctional center, that child may waive his right to an attorney only after he consults with an attorney.

The DJJ believes that the impact on the detention population will likely be minimal. It could lead to either fewer or more detention admissions. Nonetheless, it is an important change that was designed to correct findings such as the discovery that many juveniles were waiving counsel without fully understanding the gravity or consequences of their actions.

#### HB1062 Enhancing Informal Diversion by Juvenile Intake Officers

Before this law was passed an intake officer was only allowed to use informal diversion once for a juvenile brought in for a non-violent felony, any misdemeanor or status offense. The change continues to restrict the use of informal diversion only once for a non-violent felony but gives the intake officer discretion to use informal diversion for any misdemeanor or status complaint even if the juvenile had been informally diverted on prior occasions.

Informal diversion is not an option at all for violent felony complaints.

This change may decrease detention admissions.

#### **Population Management**

In 1999, per the recommendation of the Policy Advisory Committee, the process of population data management for SR juveniles was made more efficient and systematic. The population of SR juvenile offenders is managed according to the Department's length of stay system. Section VI of this report explains the length of stay and how the DJJ manages the system.

## IV. Virginia's State Responsible Offender Population

#### State Responsible New Court Commitment Background

Since SR offenders may be admitted and held in local jails, the production of an admissions stream that counts the number of offenders for whom the DOC has responsibility has become increasingly complicated over time. In 1996, the Technical Advisory Committee adopted an admissions stream generated by establishing the final sentence date as the point of admission. Utilizing this admissions stream facilitates the projection of the SR offender population, regardless of housing location. The new court commitment forecast adopted and presented in this report is based on this final sentencing based stream.

Normally, it takes up to six months to receive, process and verify an offender's sentence and jail credit information and compute time calculations; thus, new court commitment (final sentence) data for the six months ending June 2004 were not considered complete. Data through December 2003 is considered complete.

#### State Responsible New Court Commitment Trends

*Table 2* shows the historical trends concerning SR new court commitments from CY 1996 through CY 2003 by drugs, non-violent and violent offense groupings and by male and female offenders.

From CY 1996 to CY 2003, new court commitments increased by 2,616 or 30.9%. Furthermore, over the last eight years, the increase in female commitments was substantially larger than that for males (43.4% vs. 29.3%). Overall, from 1996 to 2003, new court commitments increased by an average of 4.0% per year; however, female commitments increased at a greater average proportion than that of males (5.4% per year compared to 3.8%). The overall eight-year increase in the number of new commitments averaged 374 offenders per year since 1996.

From CY 2002 to CY 2003, new court commitments grew by 339 or 3.2%. Over half (175 of 339 or 51.6%) of this increase was in total drug commitments. Total non-violent commitments accounted for (133 of 339) another 39.2% of this increase. New court commitments include probation violators. Probation violators can be categorized into new law vs. old law violators. The proportion of new law probation violators within the new court commitments has increased over the last several years.

Female offenders comprised 11.2% of the commitments in CY 1996. In 2003, 12.3% of the offenders admitted were female.

For the last four years, the number of new court commitments has increased substantially. In CY 2000 the number of new commitments increased by 7.2% from 8,569 to 9,183. In CY 2001, new commitments increased to 9,995 or by 812 which is a 8.8% increase over 2000 and the largest one-year increase in the last eight-year period. The 10,751 new court commitments in CY 2002 is a 756 or 7.6% increase over 2001. New court commitments continued to increase, although more modestly, in 2003 with 339 additional offenders or a 3.2% growth.

From CY 1996 to CY 2003, there has been an increase of 1,049 or 51.3% in total violent offender new court commitments. During this period, two offense categories, assault and robbery, accounted for well over half of all violent commitments. Interestingly, however, since the implementation of sentencing guidelines, the proportion of total new court commitments for robberies has decreased while the percentage of assaults has increased. In 1996, robberies made up 27.6% and assaults 28.2% of total new court commitments. In 2003, the percentage of robberies decreased to 21.6%, while assaults increased to 33.4% of violent new court commitments.

There were 1,695 serious violent commitments (capital murder, homicide, manslaughter, abduction, rape/sexual assault and robbery) recorded in CY 2003. This is 409 or 31.8% more than the 1,286 serious violent commitments reported by the end of 1996—two years after truth-insentencing guidelines became effective.

Although the eight-year trend shows an overall increase in drug-related new court commitments, in comparison to the other categories i.e., violent (51.3% increase) and non-violent (29.6% increase), drug offender commitments experienced the smallest change (15.2% increase) from 1996 to 2003. Broadly, the period between CY 1997 and 1998 was one of decreasing counts in total drug commitments. This trend began to reverse in 1999, with increases evidenced every year through 2003. From CY 2002 to CY 2003, there was an increase from 2,524 to 2,699 or 175 in drug offenders committed to DOC.

Table 2: Department of Corrections Date Sentenced New Court Commitment Stream

	DRUGS			١	ION-VIOLE	NT	VIOLENT			Total	Total	Total	Yearly
CY	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	NCC	Change
CY 1996	2,041	302	2,343	3,553	534	4,087	1,930	114	2,044	7,524	950	8,474	
CY 1997	2,021	296	2,317	3,613	551	4,164	2,280	124	2,404	7,914	971	8,885	4.9%
CY 1998	1,849	295	2,144	3,485	547	4,032	2,344	139	2,483	7,678	981	8,659	-2.5%
CY 1999	1,901	310	2,211	3,508	509	4,017	2,212	129	2,341	7,621	948	8,569	-1.0%
CY 2000	2,098	292	2,390	3,582	588	4,170	2,453	170	2,623	8,133	1,050	9,183	7.2%
CY 2001	2,098	327	2,425	3,871	675	4,546	2,852	172	3,024	8,821	1,174	9,995	8.8%
CY 2002	2,232	292	2,524	4,395	770	5,165	2,875	187	3,062	9,502	1,249	10,751	7.6%
CY 2003	2,343	356	2,699	4,479	819	5,298	2,906	187	3,093	9,728	1,362	11,090	3.2%
Change	111	64	175	84	49	133	31	0	31	226	113	339	
2002-2003	5.0%	21.9%	6.9%	1.9%	6.4%	2.6%	1.1%	0.0%	1.0%	2.4%	9.0%	3.2%	
Change	302	54	356	926	285	1,211	976	73	1,049	2,204	412	2,616	
1996-2003	14.8%	17.9%	15.2%	26.1%	53.4%	29.6%	50.5%	64.0%	51.3%	29.3%	43.4%	30.9%	

10/15/2004

*Table 3* shows the historical trends concerning SR new court commitments according to sentencing structure. With the implementation of truth-in-sentencing in January 1995, the composition of the admissions cohort shifted from the parole system to truth-in-sentencing. By December 2003, 98.4% of all admissions were governed by truth-in-sentencing (this includes pure "new law"; not parole eligible) and combination (sentenced under both "old" and "new law" conditions). Only 1.6% of all admissions were pure "old law" (parole eligible) admissions.

Table 3: Total New Court Commitments by Sentencing Structure CY 1996 – 2003

	Total	Truth-	in-Sent	Parole System		Combination	
	#	#	%	#	%	#	%
CY 1996	8,474	4,097	48.3	1,495	17.6	2,882	34.0
CY 1997	8,885	5,019	56.5	898	10.1	2,968	33.4
CY 1998	8,659	5,181	59.8	633	7.3	2,845	32.9
CY 1999	8,569	5,161	60.2	426	5.0	2,982	34.8
CY 2000	9,183	5,966	65.0	323	3.5	2,894	31.5
CY 2001	9,995	6,702	67.1	279	2.8	3,014	30.2
CY 2002	10,751	7,287	67.8	197	1.8	3,267	30.4
CY 2003	11,090	7,654	69.0	173	1.6	3,263	29.4

*Table 4* presents a summary of historical parole violator returns to prison from CY 1996 to CY 2003. As a result of parole abolition in January 1995, parole violator admissions began to decline in 1996. This trend continued in 1997. However, the trend was reversed in 1998, when an additional 157 parole violators were returned, a growth of 12%.

In CY 1999, the number of parole violators returned to prison decreased dramatically. In CY 1999, there was a decrease of 103 or 21% in technical parole violators and a more dramatic decrease of 474 offenders or 47% for parole violations with a new charge. However, in CY 2000, the parole violation trend somewhat stabilized with an increase of 47 offenders or 5%. In CY 2001, the number of parole violators decreased by 212 or 22%. In 2002, the number of parole violators continued to decrease by 110 or 15%. This decrease also occurred in 2003 with 31 fewer parole violators or a 4.8% decrease. The number of technical parole violators decreased by 6, or 2.9%, and the number of parole violations with a new charge decreased by 25 offenders, or 5.8% in 2003.

Table 4: Total State Responsible Parole Violators
CY 1996-2003

	31.1000 2000											
	Te	chnical Violators PV's w/ New Charge(s) Total Parole Violators										
			Cha	nge			Cha	ange		Ch	ange	
CY	#	% of Total	#	%	#	% of Total	#	%	#	#	%	# of Parolees*
1996	410	25.9			1,171	74.1			1,581			8,676
1997	401	30.0	-9	-2.2	935	70.0	-236	-20.2	1,336	-245	-15.5	8,066
1998	483	32.4	82	20.4	1,010	67.6	75	8.0	1,493	157	11.8	6,700
1999	380	41.5	-103	-21.3	536	58.5	-474	-46.9	916	-577	-38.6	5,860
2000	373	38.7	-7	-1.8	590	61.3	54	10.1	963	47	5.1	5,148
2001	255	34.0	-118	-31.6	496	66.0	94	-15.9	751	-212	-22.0	4,873
2002	207	32.3	-48	-18.8	434	67.7	-62	-12.5	641	-110	-14.6	4,530
2003	201	33.0	-6	-2.9	409	67.0	-25	-5.8	610	-31	-4.8	4,834

<sup>\*</sup> Total # of Parolees on 12/31

#### New Court Commitment Forecast Background

The new court commitment forecast adopted and presented in this report is based on the final sentence date as the point of admission. DPB and DOC used a final sentencing-based stream of monthly data from January 1996 through December 2003 to generate various statistical models for six subgroups (by gender and offense) of new court commitments. Forecasts are selected primarily based on the best fit statistics. Some forecasts, however, are an average of two or more competing forecasts with comparable fit statistics; this year, five forecasts were based on averaging.

Table 5 shows the CY 2004 through CY 2010 new court commitment forecast. The number of commitments is anticipated to increase each year. The one year increase from CY 2003 of 11,090 actual new commitments to the projected number in CY 2004 is 594 or 5.4%. The average change for CY 2004 to CY 2010 is 536 new court commitments, or 4.1%.

Table 5: State Responsible New Court Commitment Forecast by CY

New Commitment Last Sentence Date	Total SR Cases	% Change
CY 2004	11,684	
CY 2005	12,257	4.9%
CY 2006	12,784	4.3%
CY 2007	13,314	4.1%
CY 2008	13,844	4.0%
CY 2009	14,374	3.8%
CY 2010	14,899	3.7%
Average Growth	536	4.1%

<sup>\*</sup>hybrid year with half actual and half forecasted values.

#### State Responsible Released Population and Parole Grant Rate Trends

In addition to reviewing the new court commitments and parole violators that make up the new admission stream, DOC in conjunction with the Virginia Parole Board tracks SR releases to discretionary and mandatory parole. In addition to parole releases, the DOC also compiles the number of direct discharges to the community. Such data is needed for the simulation model that DOC uses to produce the SR forecast.

Preliminary FY 2004 data indicate that 11,409 offenders were released from state responsibility. Of those released, 17% were released to parole supervision (12% mandatory and 5% discretionary) while 83% of those released were offenders sentenced under truth-in-sentencing and not subject to parole.

 The overall average length of stay for releases has increased from 38 months in FY 1996 to 44 months in FY 2003.

The highest overall parole grant rate including LR and SR offenders reported was for FY 1990 at 47%. In June 1994, a new parole board was appointed and the overall grant rate dropped to 25%. The grant rate decreased again in FY 1995 to 14%. These last two fiscal years followed the abolition of parole. In FY 1996 and FY 1997, grant rates increased slightly to 18% and 20%, respectively. In May 1998, the existing parole board was replaced and the overall grant rate decreased to 16% for FY 1998. Under this new board, the grant rate stabilized between 7% and 8% for FY 1999 and FY 2000. During FY 2002, the existing parole board was again replaced but the overall grant rate stayed approximately the same, at 8.0%. The overall grant rate remained at 8.0% for FY 2003 but increased to 10% in FY 2004. The SR only grant rates for FY 2002 to FY 2004 are: 8.0%, 8.0%, and 10.0% respectively. The SR parole grant rates for FY 2004 for hearings 1 through 5 were as follows: 13.0% for hearing 1; 11.0% for hearing 2; 8.6% for hearing 3; 12.9% for hearing 4 and 9.0% for hearing 5.

In FY 2004, average grant rates for violent offenses were extremely low, with an overall grant rate of 3.7%. However, the grant rates for non-violent and drug offenses were significantly higher, with an overall grant rate of 21.3% for non-violent offenses and 29.7% for drug offenses. The FY 2004 total grant rate for parole eligible offenders generally decreases as more high-risk offenders move through their subsequent hearings.

#### State Responsible Prison Population Trends

Between FY 1995 and 2004, growth in the offender population averaged an additional 946 offenders per year, or a 3.1% annual growth rate. The growth observed was the result of increased admissions and longer lengths of stay in recent years and more offenders with long sentences causing a stacking effect in correction facilities.

The offender population growth between FY 1993 and 1995 can be attributed in large part to declining parole grant rates. During this period, the SR population increased by 6,604 offenders (32% growth) or 2,201 offenders per year.

Between FY 1995 and 1996, the SR population grew by 1,379 offenders, an increase of 5%. However, between FY 1996 and 1997, the SR population remained flat. Between 1997 and 1998, there a slight decrease of 86 in population or a decrease of 0.3%. In FY 1999, the SR population grew by 1,455 or 5.1%.

In FY 2000, the SR population grew by 770 offenders, an increase of 2.6%. In FY 2001, the SR population grew by 1,465 offenders or 4.7%. The largest population increase over the last 9-years was in FY 2001 and 2002, when the SR population grew by 1,817 or 5.6%. Between FY 2002 and 2003, the SR population grew by 1,171 offenders, an increase of 3.4%. Between FY 2003 and 2004, the SR population grew by 540 or 1.5%.

#### State Responsible Prison Population Forecast: Simulation Model

The SR offender population forecast was produced using the Prophet simulation model. DOC has used this software since 1986 to produce offender population forecasts. This computerized simulation model mimics the flow of offenders through the correctional system based on known and assumed policies affecting both the volume and the lengths of stay of admissions into the system. The model is run over a six-year forecast horizon and produces separate monthly forecasts for 75 individual offender groups (54 male, 21 female). The number of offenders projected to be in each group, their sentences, length of stay, credits, and other elements that govern how long offenders remain in prison, are different for each group.

To accurately simulate the movement of offenders through the system, data which describe "who" is admitted to prison and "how long" admitted offenders remain confined must be compiled, analyzed, and used as an input to the simulation model. The resulting simulation replicates or mimics how the system performed during the time period represented in the data. Current projections are based on data describing offenders confined at the end of CY 2003 and those admitted and released during CY 2003. The simulation period begins January 1, 2004. The simulation model incorporates certain assumptions described in the next section. This ability to explicitly incorporate assumptions also allows for the assessment of changes to policy and law, and their expected impact on the SR population.

The simulation model is loaded with the frequencies, sentences, and numerous characteristics of CY 2003 new court commitments; releases and the stock population confined December 31, 2003. FY 2004 Parole Board discretionary grant rate and parole hearing information is also used in the simulation model. The simulation model assigns probabilities and simulates the flow of the new court commitments through the forecast horizon to achieve monthly numbers by various identification groups and characteristics. The Technical Advisory Committee arrived at the recommended population forecast by selecting the simulation model for FY 2005 to FY 2010.

#### Key Forecast Assumptions for Simulation Model

The sentence group composition of future annual admissions is assumed to be the same as the composition of admissions reported in CY 2003 in terms of admitting charges, sentences received, jail credit days, and good time earning potential.

The SR population forecast is based on an average discretionary parole grant rate of 10%. The overall discretionary parole grant rate is assumed to average 10% over the next six years: 13.0% for hearing 1; 11.0% for hearing 2; 8.6% for hearing 3; 12.9% for hearing 4; and 9.0% for hearing 5.

New admissions governed by truth-in-sentencing are assumed to continue to phase-in over time. By January 2005, it is assumed that parole eligible admissions will be phased out and all admissions will be governed by truth-in-sentencing.

Offenders governed by truth-in-sentencing are projected to serve 86% of imposed sentences. Data through the end of CY 2003 indicate that violent offenders received good time credits totaling 13.6% of their sentence, while nonviolent received good time credits totaling 14.6% and drug offenders received credits totaling 14.5%. Therefore, future violent admissions are projected to serve 86.4% of imposed sentences less jail credits, non-violent are projected to serve 85.4% and drug offenders are projected to serve 85.5% of imposed sentences.

The number of parole violators returned to prison is projected to decline over the forecast horizon from 632 in CY 2004 to 165 in CY 2010. Technical violators are assumed to serve 20 months (females=12.9 months, males=20.2 months) upon returning to prison, which is five months longer than technical violators released in CY 2002 served. Violators returned to prison with new charges are assumed to receive sentences consistent with new admissions from court.

#### FY 2005 State Responsible Forecast

Figure 10 and Table 6 show the FY 2000 to FY 2004 historical SR offender population and the offender population forecast for FY 2005 to FY 2010.

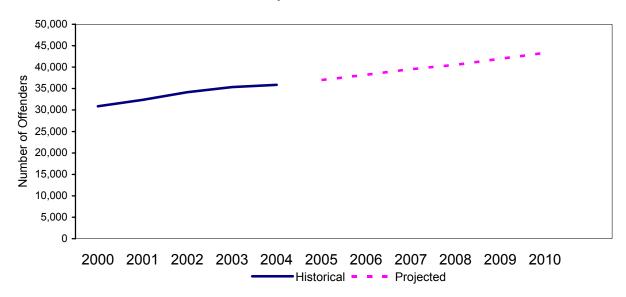


Figure 10: Historical and Projected State Responsible Offender Population FY 2000-2010

Data Source: Historical figures were supplied by the Virginia Department of Corrections.

Projected forecast was developed by the Technical Advisory Committee for Offender Population Forecasting and approved by the Policy Advisory Committee for Offender Population Forecasting.

Table 6: Historical and Projected State Responsible Offender Population FY 2000-2010

		Annual Change				
Historical <sup>11</sup>	Offenders	Difference	Percent			
FY2000	30,882					
FY2001	32,347	1,465	4.7%			
FY2002	34,164	1,817	5.6%			
FY2003	35,335	1,171	3.4%			
FY2004	35,875	540	1.5%			
Projected <sup>12</sup>						
FY2005	36,971	1,096	3.1%			
FY2006	38,222	1,251	3.4%			
FY2007	39,527	1,305	3.4%			
FY2008	40,512	985	2.5%			
FY2009	41,933	1,421	3.5%			
FY2010	43,328	1,395	3.3%			
Average Percentage						
Change per Year						
2000-2004	1,248		3.8%			
2005-2010	1,242		3.2%			

Data Source: Historical data were supplied by the Virginia Department of Corrections.

FY 2000 to FY 2004 revised because of historical rebuild of LIDS database.

Projected forecast was developed by the Technical Advisory Committee for Offender Population Forecasting and approved by the Policy Advisory Committee for Offender Population Forecasting.

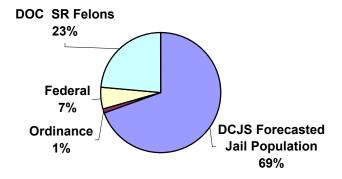
## V. Virginia's Local Responsible Inmate Population

#### Jail Population Trends

Following a recommendation from the Technical Advisory Committee, projections for the total LR inmate population have been aggregated based on four inmate sub-populations: sentenced awaiting trial for other charges, LR felons, misdemeanants, and unsentenced awaiting trial. Furthermore, the Policy Advisory Committee adopted average daily population (ADP) projections for the total LR population. ADP is calculated by dividing monthly inmate totals by the number of days in the month. ADP is likely to be the most accurate measure of the overall monthly population in jail. This is the fourth year that the forecast departs from tradition because it excludes ordinance offenses for which per diems are not paid. The source of the historical jail data is the Compensation Board's Local Inmate Data System (LIDS) for the period July 1997 to May 2004<sup>13</sup>.

Figure 11 shows the composition of the total confined population in local jail facilities for FY 2004. The monthly average of the total confined local jail population for FY 2004 was 25,203 inmates. This represents a 6% increase over the FY 2003 annual population of 23,762. The LR confined local jail population forecasted by DCJS is that part of the population for which jails receive reimbursement from the Compensation Board. The LR forecasted population comprised about 69% of the total inmate population confined in local jails. The remaining 7,725 of the 25,203 are SR offenders housed in jails (23%), federal offenders (7%) and ordinance inmates (1%).

Figure 11: Composition of Confined Population in Local Jail Facilities FY 2004



\_

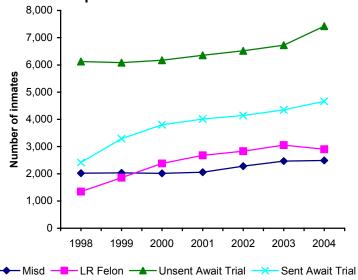
<sup>&</sup>lt;sup>13</sup> June 2004 is removed from FY2004 counts due to missing data.

In FY 2004, the average LR jail population was 17,478 inmates. This represents a 5% increase over the FY 2003 average annual population of 16,600. The LR forecasted population grew by about 47% from FY 1998 to FY 2004. Overall, there have been no abrupt changes in the LR population from FY 1998 to FY 2004. The trend has been a steady growth averaging about 7% annually.

Figure 12 shows the average FY 1998 to 2004 composition for the four subgroups of the LR population. As has been the case historically, the average FY 2004 unsentenced awaiting trial category was the largest component of the total LR forecasted population (7,422 or 42%).

Unsentenced awaiting trial are defendants who are incarcerated but have not been convicted and/or sentenced, nor are they currently serving time on other charges. The largest part of the LR forecasted population, the unsentenced awaiting trial subgroup grew from 6,128 inmates in FY 1998 to 7,422 inmates in FY 2004, an increase of 21%. Although this population had shown a modest growth averaging 2% between FY 1998 and FY 2003, the largest increase of

Figure 12: Average Composition of Forecasted Local Responsible Jail Population FY 1998-2004



10% occurred between 2003 and 2004. Although it is difficult to determine quantitatively, some of this increase may be due to delays in court processing due to backlogs in having forensic evidence processed. Any change in the overall number of individuals in this confinement group is likely to have more impact on the population than any other confined LR group.

Sentenced awaiting trial inmates are convicted inmates who have other charges pending. This subgroup, which is the second largest part of the LR forecasted population, comprised 27% (4,662 inmates) of the FY 2004 LR forecasting population. This group's share of the total forecasted LR population has grown from 18% in FY 1998 to its current 27%. The average for sentenced inmates awaiting trial grew from 2,413 inmates in FY 1998 to 4,662 inmates in FY 2004, an increase of 93%. This group showed the second largest percentage increase among the four groups that comprise the LR forecasted inmate population between FY 1998 and FY 2004. This increase occurred mainly between FY 1998 and FY 2000. One possible contributing factor to the increase in this population is an overall increase in jail capacity, including new and expanded facilities. However, from FY 2002 to FY 2004, sentenced awaiting trial offenders showed a relatively slower growth of about 5%. A possible explanation for the slight increase relative to the past three years is that the processing time for this group has been faster in recent years that it has been in the past.

<u>Local responsible felons</u> are convicted felons with sentences within a certain defined sentence time range. Currently, local jails have responsibility for housing three groups of felons:

1) Individuals convicted of a felony offense and having a sentence length less than one year, if the offense was committed on or after January 1, 1995.

- 2) Individuals convicted of a felony offense and having a sentence length less than or equal to two years, if the offense was committed prior to January 1, 1995.
- 3) Individuals convicted of a felony and having a sentence length worded as "12 months" or less as of July 1999.

LR felons comprised 17% (2,902) of the LR population in FY 2004, compared to only 11% of the total in FY 1998. LR felon inmates increased from 1,348 in FY 1998 to 2,902 in FY 2004, an increase of 115%. This group showed the largest percentage increase among the four groups that comprise the LR forecasted inmate population between FY 1998 and FY 2004. Most of this increase occurred between FY 1999 and FY 2001, with only a 6 and 8% increase between FY 2002 and 2003 and negative growth rate of 5% between FY 2003 and 2004. Historically, there have been shifts in the definition of LR felons. These changes in definition are a device for adjusting the number of felons that are "state responsible." By adjusting the required sentence length for classification as "state responsible," the number of LR felons is either increased or decreased proportionately. Almost all of the changes in FY 1998 and 2001 in this subgroup are consistent with changes in the definition of state responsible felons. LR felons showed a negative growth rate of 5% between FY 2003 and 2004. There are two known possible explanations for the recent decrease in LR felons. First, the statewide risk assessment instrument that went into effect in FY 2003. The risk assessment programs divert nonviolent felons, which are likely to be local felons, to community correctional programs. Second, the percentage of LR felons placed on local probation has increased, due to circuit courts' greater utilization of local community based programs. However, at this time we were unable to quantify their effect on LR felons.

Misdemeanants are inmates convicted and sentenced on only misdemeanors and who do not have other charges pending. In FY 2004, misdemeanants comprised 14% of the total LR forecasted inmate population. Between FY 1998 and FY 2004, this group made up 17% to 14% of the LR population. Misdemeanant inmates increased from 2,022 in FY 1998 to 2,493 in FY 2004, an increase of 23%. The largest increases in the group (11% to 8%) occurred in FY 2002 and FY 2003. However, from FY 2003 to 2004 the misdemeanant inmate population grew by about 1%. Recent slower growth in this group has been attributed in part to the implementation of consistent, statewide misdemeanant good time polices in jails.

#### FY 2005 Local Responsible Forecast

Figure 13 and Table 7 depict the FY 2000 to FY 2004 historical LR jail inmate population and the LR inmate population forecast for FY 2005 to FY 2010. The LR average daily jail inmate population is expected to increase from 17,478 in FY 2004 to 18,081 in FY 2005, a growth of 603 or 3.4%. The population is expected to grow from 18,933 in FY 2006 to 22,002 in FY 2010, a 3.9% average yearly increase. No numerical adjustments were made to the statistical forecast.

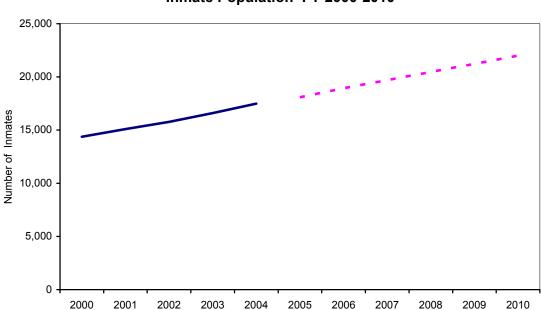


Figure 13: Historical and Projected Local Responsible Jail Inmate Population FY 2000-2010

Data Source: Historical figures come from the State Compensation Board's Local Inmate Data System.

Historical -

Forecast

Projected forecast developed by the Technical Advisory Committee for inmate Population Forecasting and approved by the Policy Advisory Committee for Offender Population Forecasting.

Table 7: Historical and Projected Local Responsible Jail Inmate Population FY 2000-2010

		Annual Change	
Historical <sup>14</sup>	Inmates	Difference	Percent
FY2000	14,365		
FY2001	15,100	735	5.1%
FY2002	15,773	673	4.5%
FY2003	16,600	827	5.2%
FY2004	17,478	879	5.3%
Projected <sup>15</sup>			
FY 2005	18,081	603	3.4%
FY 2006	18,933	852	4.7%
FY 2007	19,692	759	4.0%
FY 2008	20,461	770	3.9%
FY 2009	21,231	770	3.8%
FY 2010	22,022	770	3.6%
Average Percentage Change per Year			
FY 2000-2004			5.0%
FY 2005-2010			3.9%

Data Source: Historical data are based on the Local Inmate Data System. Historical counts shown in this Inmate Population Forecast report differ from historical counts shown in previous reports due to yearly LIDS revisions.

Projected forecast developed by the Technical Advisory Committee for Inmate Population Forecasting and

approved by the Policy Advisory Committee for Inmate Population Forecasting.

# VI. Virginia's State Responsible Juvenile Offender Population

Virginia's juvenile justice system differs from its adult system because the Commonwealth recognizes that young offenders are more responsive to rehabilitative treatment than adult criminals. The juvenile justice system has the dual objective of promoting accountability and reform. It addresses reform by providing educational services and treatment programming designed to reduce the chance that a juvenile will commit further offenses upon release.

Because reform is a major focus of the juvenile justice system, the structure of committing a juvenile offender to the state is different from that of the adult system. In contrast to the adult correctional system, the Juvenile and Domestic Relations District Courts commit only a small percentage of juvenile offenders with a determinate, or fixed length, sentence. Over 90% of the juveniles committed to the DJJ receive an indeterminate sentence. This means that the DJJ, rather than a judge, determines the length of the juvenile's commitment to the state. The projected length of stay is dependent upon the youth's committing offenses, prior offenses, and length of prior record. However, the actual length of stay will also depend upon the youth's completion of mandatory treatment objectives (such as substance abuse or sex offender treatment) and upon the youth's behavior within the institution.

## Admission Trends

• In last year's report, Offender Population Forecasts FY 2004 to FY 2013 it was noted that the recent rise in sex offender admissions and admissions with determinate sentences may have begun to stabilize. Data for FY 2004 support this conclusion. Even though admissions declined in FY 2004, the percentages of sex offenders (see Table 9) and determinate commitments showed little or no change when compared to FY 2002 and FY 2003.

Table 8. Determinate Commitments to DJJ FY1998-2004

	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004
Determinately Sentenced	116	92	99	88	112	112	94
Blended Sentence						6	13
Determinate as % of							
Total Admissions	6.90%	5.80%	6.80%	7.10%	9.20%	9.50%	9.50%

- Admissions to juvenile correctional centers have decreased 46% since FY 1995 (see *Figure 14*). DJJ cites several possibilities for the general trend.
  - 1) Providing alternatives to commitment for offenders with less serious offenses continues to be a focus for the DJJ even after the cuts to VJCCCA program funds. Anecdotally, the DJJ is aware that many judges are reluctant to commit a juvenile if there is an appropriate alternative.
  - 2) Use of post-dispositional detention is another factor.
  - 3) A wider use of graduated sanctions has contributed to the decline.
  - 4) More systematic use by the courts of the results from the Risk Assessment Instrument (RAI). The RAI is a tool developed by the DJJ that is used to measure a juvenile's risk for reoffending. It is given at intake and provides the

courts an objective measure of the need to remove the juvenile from the community due to public safety concerns.

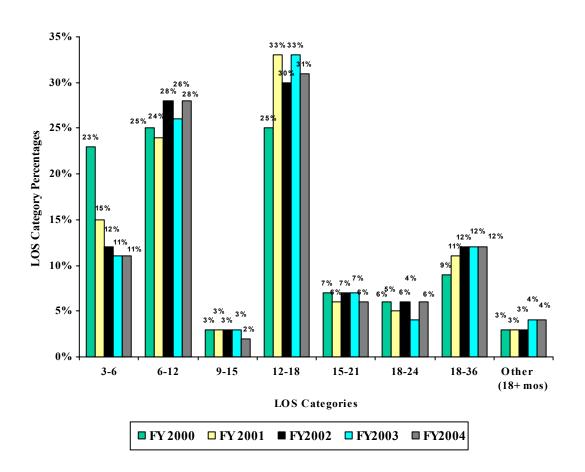
• Admissions declined by 14% between FY 2000 and FY 2001 and 16 % between FY 2003 and FY 2004. Analyses suggest that the magnitude of the 2000 to 2001 decline was due to the change in the minimum commitment criteria. The impact of that change was felt much more quickly than anticipated. Further declines that are directly attributable to that change in legislation are unlikely. The rather dramatic one year decrease in FY 2004 may have been an anomaly. The DJJ is unable to relate the FY 2004 decrease to a change in policy.

2,000 1,600 1,200 800 400 0 FY04 FY94 FY95 FY96 FY97 FY98 FY99 FY00 FY01 FY02 FY03

Figure 14: State Responsible Juvenile Offender Admissions FY 1994-2004

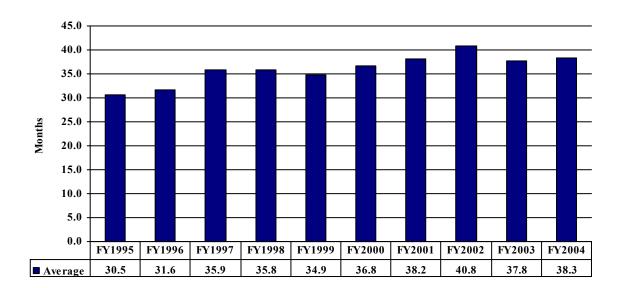
• After a period of increase, it appears that the proportion of committed juveniles who will be with DJJ for longer periods of time has stabilized. For example, from FY 2000 to FY 2002, the percentage of juveniles given a 3 to 6 month length of stay declined from 23% to 12%. Over the same period there was a general increase in the percentage of juveniles placed with higher indeterminate sentences. Committed juveniles given an 18 to 36 month length of stay grew from 9% to 12 % between 2000 and 2002. DJJ believes that these changes were mainly due to the change in the commitment criteria. There were only very marginal changes in these percentages in FY 2003 and FY 2004.

Figure 15: Indeterminate Juvenile Commitments by Length of Stay FY 2000-2004



- On average, the actual lengths of stay for indeterminate commitments have also grown.
   Actual length of stay is calculated as the number of days between the date of commitment and the date of release. The median actual length of stay for indeterminate commitments released in FY 1998 was 195 days. For wards released in FY 2003, the median actual length of stay had risen to 297 days. For wards released in FY 2004 that value was 271 days.
- The proportion of determinately sentenced offenders continues to be low, but it has grown. Between FY 1997 and FY 2003, the percentage of wards admitted with a determinate sentence increased from 5% to 9.5%. Another significant trend is the increase in the average determinate sentence, from 36 months to almost 38 months over the same period. Both of these trends may be stabilizing. There was little or no change in FY 2004.

Figure 16: Juvenile Determinate Sentences
FY 1995–2004



- When compared to commitments coming from Juvenile and Domestic Relations District Court cases, the DJJ has noticed a marked upward trend over the past two FYs in the proportion of committed juveniles coming from Circuit Court cases. The DJJ believes that this trend could continue and that it is a direct result of an amendment to §16.1-285.1(a) Code of Virginia which specifies Circuit Court authority over juvenile cases, specifically, serious offenders. That change became effective in July 2001 (see Section III, subsection Factors Influencing Juvenile Offender Population, for more detail). These juveniles will, on average, receive longer sentences and stay with the DJJ for longer periods.
- As a percentage of admissions, wards identified with a need for mandatory sex offender treatment (sex offenders) increased from approximately 5% (79 admissions) during FY 2000 to over 9% (114 admissions) in FY 2002. In FY 2004 the percentage continues to be in the 9% range even though the count has declined.

Table 9. Sex Offender Admissions FY2000-2004<sup>16</sup>

	FY2000	FY2001	FY2002	FY2003	FY2004
Count	79	100	114	92	84
Proportion of					
Fiscal Year					
Admissions	5.40%	8.10%	9.40%	9.00%	9.10%

 Based on projections from the 2000 census data, there is a projected increase of 4% for persons aged 10 to 17 years old for the years 2002 to 2006. Beginning in 2007, however, that growth trend is expected to reverse, resulting in an approximate overall 2% decrease for this age group between the years 2007 to 2011.

<sup>&</sup>lt;sup>16</sup> FY 2004 data is preliminary and may change.

 A juvenile's first exposure to DJJ occurs when a complaint is given to an intake officer. Between FY 1998 and FY 2000, the number of juvenile criminal intake cases increased by 20.3%; between FY 2000 and FY 2004, these intake cases declined by 10.7% (see Section VII. Virginia's Juvenile Detention Home Population for more detail).

## Release/Length of Stay Trends

*Table 10* summarizes juvenile admissions and releases for FY 2004. Releases exceeded admissions by 114.

Table 10: Juvenile Admissions and Releases During FY 2004

	Admissions	Releases
1 <sup>st</sup> Quarter	228	300
2 <sup>nd</sup> Quarter	260	312
3 <sup>rd</sup> Quarter	249	228
4 <sup>th</sup> Quarter	257	268
Total	994	1,108

Sex offenders serve time according to the treatment program length. According to the program facilitator, lengths of stay within the program can be between 24 and 36 months. Based on historical actual lengths of stay (release date minus commitment date), the simulation model assumes that approximately 64% of the wards who are placed in this treatment program will remain with DJJ for a period greater than 24 months.

## Factors Influencing Length of Stay

## **Length of Stay Policy**

All indeterminately committed wards are assigned a length of stay range by DJJ staff using guidelines that consider the offender's committing offenses, prior offenses, and length of prior record. The length of stay range includes an early release date and late release date (for example, a 3-6 month length of stay is assigned to misdemeanants). Typically, wards will not be released before the early release date without the express approval of the Director. Reasons such as not completing mandatory treatment needs and/or committing institutional offenses could prolong the actual length of stay beyond the assigned range.

Wards serving an indeterminate commitment can experience different actual lengths of stay due to the variety of length of stay categories, treatment needs, or behavior.

## **Treatment Programs**

The DJJ administers three treatment programs (anger management, substance abuse treatment, and sex offender treatment) to meet the individual needs of the wards committed to the Department. Any of these could affect a juvenile's length of stay, but, historically, the most influential has been sex offender treatment because it measures treatment progress by the ward's application of learned material.

Under the Department's current length of stay procedures, any of these three treatments, including sex offender treatment, may be assigned as a mandatory treatment if it is related to the ward's committing offense, is reflected in self-reported behavior, or is related to the ward's

offense history. A mandatory treatment assignment would mandate a ward remain at the facility until he completes his treatment or reaches his statutory release date (36 month maximum). Wards committed as "serious offenders" may also be assigned a mandatory treatment, but the committing judge determines their LOS and approves release.

## **Institutional Offenses**

As noted above, a ward's release may be delayed if the ward is serving a sanction for an institutional offense. Under current policy, a ward will not be released if the ward has committed a moderate institutional offense within the previous 30 days or a major institutional offense within the previous 90 days.

## Simulation Model

- The 1999 Secretary of Public Safety's Report on Offender Population Forecasts FY 2000 to 2009 requested that DJJ develop a simulation model that would project the SR juvenile population for use in the 2000 forecast cycle.
- In addition to providing forecasts of the juvenile population, the simulation model provides two benefits that previous models could not provide. First, the model provides a more informative discussion of expectations within the juvenile system versus actual events. These discussions are necessary for understanding the fluctuations in the population and provide an explanation that is included in the quarterly accuracy reports to the Secretary of Public Safety. Second, legislative proposals need to be evaluated to determine their impact on the juvenile offender population. The simulation model provides the benefit of allowing for "what if" scenarios for legislative decision-making. Because of its enhanced sophistication and flexibility with technical analysis, the simulation model is an improvement over previously used models.

#### **Model Assumptions**

The following assumptions used in this forecast will be evaluated during FY 2005:

- The proportion of new admissions falling into each length of stay category will not change.
- 7.0% of wards admitted will be identified as needing a mandatory sex offender treatment program.
- 9.5% of wards admitted are assumed to receive determinate sentences.
- The forecasted release rates remain unchanged.
- Actual future admissions are "reasonably" close to the admissions forecast.

## FY 2005 Juvenile Offender Admissions and Population Forecasts

#### **Admissions Forecast**

Table 11 presents the historical and forecasted juvenile offender admissions. The SR juvenile offender admissions forecast is one of the key inputs into the population simulation model. It is based on historical admissions and produced using statistical time series models. The forecast also incorporates the judgment and experience of the Policy Advisory Committee and the Technical Advisory Committee.

The month-to-month movements in historical admissions are highly variable and exhibit a varying trend even though the fiscal year annual totals have exhibited a steady decline since FY

1996. The forecast reflects expectations of continued marginal declines. DJJ does not believe that a decrease of the magnitude of the admissions decline in FY 2004 will continue. Admissions are forecasted to decline by 4.4% in FY 2005. On average, it is projected to decline around 1.6% per year from FY 2005 through FY 2010.

Table 11: State Responsible Juvenile Offender Admissions FY2000-2010

		Annual Change	
Historical <sup>17</sup>	Admissions	Difference	Percent
FY2000	1,450	-144	-9.0%
FY2001	1,241	-209	-14.4%
FY2002	1,220	-21	-1.7%
FY2003	1,182	-38	-3.1%
Fy2004	994	-188	-15.9%
Projected <sup>18</sup>			
FY 2005	950	-44	-4.4%
FY 2006	930	-20	-2.1%
FY 2007	902	-28	-3.0%
FY 2008	902	0	0%
FY 2009	902	0	0%
FY 2010	902	0	0%
Average Percentage			
Change per Year			
FY 2000-2004			-8.8%
FY 2005-2010			-1.6%

## **Population Forecast**

Figure 17 and Table 12 present the FY 2000 to FY 2004 historical juvenile ADP and the forecast for FY 2005 to FY 2014. Table 13 shows comparisons for the largest monthly ADP, the average monthly ADP, and the June ADP for FYs 2003, 2004 and the forecast for FY 2005.

The June population declined 10.8% from FY 2003 to FY 2004. This was mainly due to the dramatic decline in admissions. The June forecast for FY 2005 is approximately 0.5% lower than FY 2004.

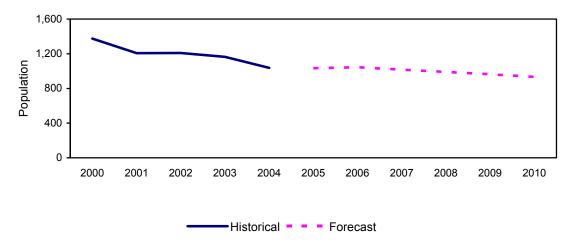
The modest annual declines in the first three years of the population forecast are mainly due to forecasted modest decreases in admissions. The effect on the population from the declines in annual admissions is partially offset by the stacking of juveniles due to the significant percentage of forecasted commitments with longer lengths of stay. The commitment trends that lead to the stacking effect were discussed in the section above titled Admission Trends. Those influences are captured in the structure of the simulation model.

<sup>&</sup>lt;sup>17</sup> Data Source: Historical data was supplied by the Juvenile Tracking System. Total Admissions represent the sum for each FY.

<sup>&</sup>lt;sup>18</sup> Projected forecast was developed by the Technical Advisory Committee for Offender Population Forecasting and approved by the Policy Advisory Committee for Offender Population Forecasting.

Longer term annual admissions are forecasted to remain flat, leading to a flat population forecast from FY 2008 to FY 2010.

Figure 17: Historical and Projected State Responsible Juvenile Offender Population FY 2000-2010\*



<sup>\*</sup>June values are shown for each fiscal year.

**Table 12: State Responsible Juvenile Offender Population** FY2000-2010

		Annual Change	
Historical <sup>19</sup>	Population	Difference	Percent
FY2000	1,373	-81	-5.6%
FY2001	1,206	-167	-12.2%
FY2002	1,208	2	0.2%
FY2003	1,164	-44	-3.6%
FY2004	1,038	-126	-10.8%
Projected <sup>20</sup>			
FY2005	1,033	-5	-0.5%
FY2006	1,045	12	1.2%
FY2007	1,016	-29	-2.8%
FY2008	1,011	-5	-0.5%
FY2009	1,010	0	0%
FY2010	1,010	0	0%
Average Percentage			
Change per Year			
FY 2000-2004			-6.4%
FY 2005-2010			-0.4%

Table 13: Comparative Summary of Historical and Forecasted SR Juvenile Population

	Largest Monthly ADP During the Year	Average Monthly ADP During the Fiscal Year	June ADP
FY 2003	1,214	1,174	1,164
FY 2004	1,168	1,077	1,038
FY 2005 Forecast	1,047	1,009	1,033

<sup>&</sup>lt;sup>19</sup>Data Source: Historical data supplied by the Juvenile Tracking System. Population data represent June values for

each FY.

Projected forecast was developed by the Technical Advisory Committee for Offender Population Forecasting and approved by the Policy Advisory Committee for Offender Population Forecasting.

## VII. Virginia's Juvenile Detention Home Population

#### Introduction

Local government or multi-jurisdictional commissions operate all but one of the secure detention home programs in the Commonwealth. The programs provide safe and secure housing for youth accused of felonies or Class 1 misdemeanors. DJJ acts as the regulatory agency responsible for licensure of these facilities and also provides partial funding for construction and operations.

Historically, the vast majority of detention home capacity has been utilized for pre-dispositional detention. Juveniles are detained pending adjudication, disposition or placement. Post-dispositional detention may serve as an alternative to state commitment and is used by the courts primarily for offenders with less serious offenses who require treatment in a secure setting. Post-dispositional confinement cannot exceed 180 days. Post-dispositional utilization typically represents less than 5% of detention home utilization.

Total detention placements in FY 2004 were lower by 19% when compared to total placements in FY 2002, but the change in post-dispositional placements does not follow that trend. At 3,595, post-dispositional placements declined in FY 2004 when compared to FY 2003 but were still higher than FY 2002 post-dispositional placements.

The methods, model, and process used to produce the detention home population forecast parallels those used for other forecasts reported in this document (see Section I, Overview of the Virginia Forecasting Process). This year's forecast was generated using a time-series model, and there were no numerical adjustments to the forecast.

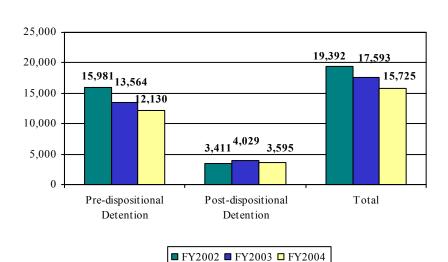


Figure 18: Juvenile Detention Home Placements FY 2002-2004

Figure 19: Juvenile Detention Home Placements

Pre-dispositional and Post-dispositional FY 2002-2004

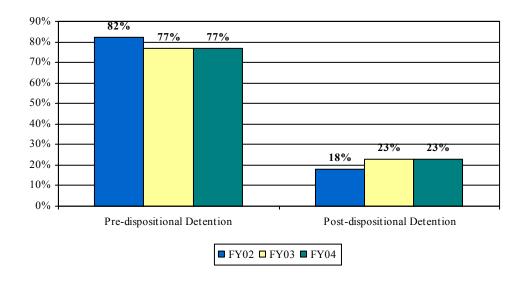


Table 14 provides a summary of key Virginia juvenile detention home statistics.

Table 14: Juvenile Detention Home Statistics FY 2003-2004

	FY	FY	Percent
	2003	2004	Change
Number of Admissions to Secure Detention	19,286	17,778	-7.8%
June Average Daily Population (ADP)	1,214	1,110	-8.6%
Average Length of Stay (LOS) in Detention [days]	22	23	4.3%
Percent of Juveniles Detained 3 Days or Less	24%	23%	-4.2%
Percent of Juveniles Detained 21 Days or Less	67%	65%	-3.0%
Percent of Juveniles Detained 51 Days or Less	91%	90%	-1.1%
Total Detention Home Capacity	1,258	1,361	8.2%
Pre-Dispositional Capacity	1,135	1,239	9.2%
Post-Dispositional Capacity	123	122	-1.0%
Detention Home Fiscal Year Utilization Rate	84%	77%	-8.3%
Percentage of Post-Dispositional Detention Beds	11%	9%	-18.2%

## Trends Impacting the Detention Population

• For an intake case to be eligible for detention home placement, it must be based on a felony or Class 1 misdemeanor (see *Figure 20*). There are also two status offenses that can lead to a maximum of 10 days detention, but those types of cases have resulted in only a very small fraction of detention home placements. From FY 1998 to FY 2000, detention eligible intake cases increased by 20.3%; between FY 2000 and FY 2004, these intake cases declined by 10.7%.

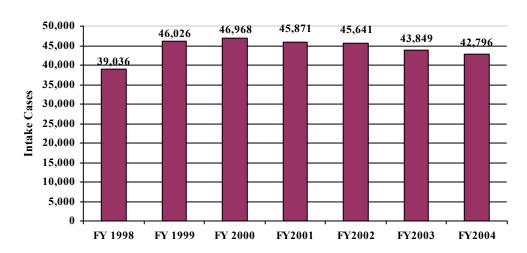


Figure 20: Detention Eligible Juvenile Intake Cases<sup>21</sup> FY 1998–2004

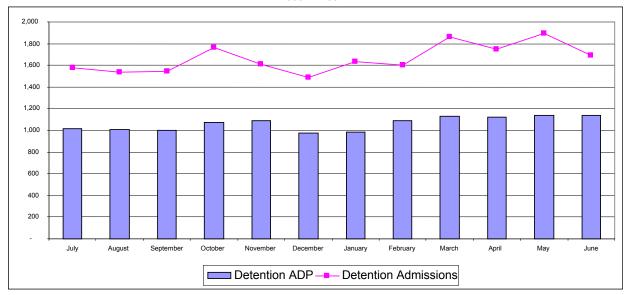
- Detention admissions are very seasonal. Peaks generally occur during the fall and spring. Troughs generally occur during summer and winter.
- The seasonal admissions pattern and the short lengths of stay give rise to a prominent seasonal pattern in the population movement. *Figure 21* shows the FY 2000 through FY 2004 monthly averages for both detention home admissions and the detention home population. Here, it is easy to see the fall and spring seasonal peaks.

<sup>&</sup>lt;sup>21</sup> Fairfax intake cases were not included on the JTS until December 2000; for comparability purposes, Fairfax intake data are not included in the above graph.

Figure 21: Seasonal Movement of Historical Detention Home Population

Average Monthly Admissions and Average Monthly ADP

FY 2000-FY2004



- The average length of stay in FY 2004 was 23 days. Approximately 90% of detainees were in detention for 51 days or less. Statutory requirements are responsible for much of detention home length of stay characteristics. For example, detainees are required to appear before a judge within 72 hours. Also, if an adjudicatory or transfer hearing is not completed within 21 days, the juvenile must be released. Similarly, if a disposition hearing is not completed within 30 days after adjudication, the juvenile must be released. However, detention facilities cannot release juveniles without a court order. Extensions may be granted for a reasonable period of time if good cause can be shown.
- It should also be noted that legislation passed during the 2004 General Assembly (HB1146 Expediting Circuit Court Appeals, effective July 1, 2004) requires, when practicable, that circuit court hold a hearing on the merits of any appeal of a finding of delinquency or the deposition within 45 days of its filing if the juvenile is in a secure facility pending appeal. This law was not reviewed in Section III, subsection "Additional Factors Contributing to Offender Population Increases." The DJJ anticipates this law change will have a minimal impact on the detention home population.

## **Detention Home Capacity**

Detention capacity has expanded over the years to address chronic over utilization. In FY 2003 and FY 2004 utilization was under 100%.

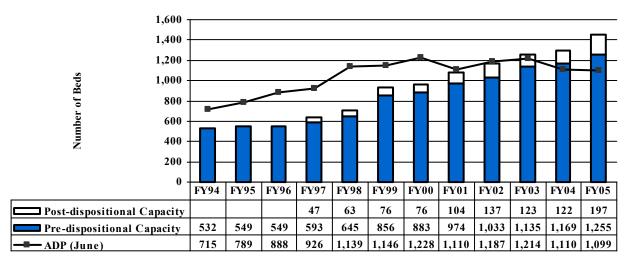


Figure 22: Detention Home Capacity Changes FY 1994 to FY 2005

#### The Detention Home Forecast

Figure 23 and Table 15 show the historical and projected juvenile detention home forecast. The detention home population is forecasted to decline, on average, at the very marginal rate of 0.3% per year from FY 2005 to FY 2010. This rather modest projected decline can be explained as the result of modest declines in detainable intake cases coupled with the increased use of post-dispositional detention (post-dispositional lengths of stay are typically longer than pre-dispositional). Detainable juvenile intake cases are not formally forecasted, but from FY 2000 to FY 2004 they declined, on average, by 2.3% per year. (See Figure 20) DJJ does not anticipate a significant change in that trend. Table 16 shows comparisons for the largest monthly ADP, the average monthly ADP, and the June ADP for FYs 2003, 2004 and the forecast for FY 2005.

Figure 23: Historical and Projected Juvenile Detention Home Population FY 1998–2010

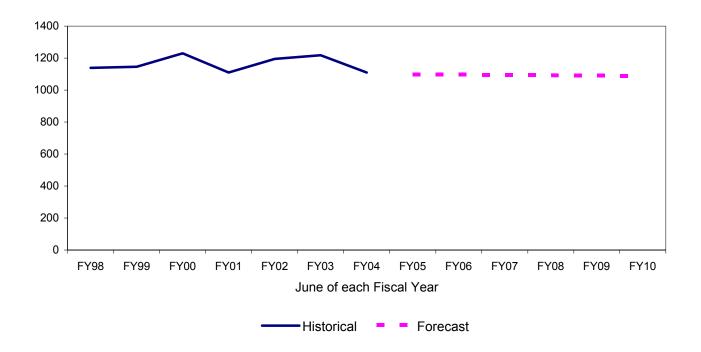


Table 15: Juvenile Historical and Projected Detention Home Population FY 2000-2010

		Annual Change	
Historical <sup>22</sup>	Population	Difference	Percent
FY2000	1,228	82	7.2%
FY2001	1,110	-118	-9.6%
FY2002	1,187	77	6.9%
FY2003	1,214	27	2.3%
FY2004	1,110	-104	-8.6%
Projected <sup>23</sup>			
FY 2005	1,099	-11	-1.0%
FY 2006	1,097	-2	-0.2%
FY 2007	1,095	-2	-0.2%
FY 2008	1,093	-2	-0.2%
FY 2009	1,090	-3	-0.2%
FY 2010	1,088	-2	-0.2%
Average Percentage			
Change per Year			
FY 2000-2004			-0.4%
FY 2005-2010			-0.3%

Table 16: Juvenile Detention Home Maximum, Average and June Monthly ADP

	Maximum Monthly ADP	Average Monthly ADP	June ADP
FY 2003	1,218	1,055	1,218
FY 2004	1,134	1,051	1,110
FY 2005 Forecast	1,100	1,057	1,099

<sup>&</sup>lt;sup>22</sup> Data Source: Historical data was supplied by the Juvenile Tracking System. Population data represent June

values for each FY.

<sup>23</sup>Projected forecast was developed by the Technical Advisory Committee for Offender Population Forecasting and approved by the Policy Advisory Committee for Offender Population Forecasting.

## VIII. Comparison of Annual Forecasts Prepared in 2003 and 2004

*Table 17* compares the SR population forecast completed in 2003 with the current forecast. The current SR forecast is lower than the projected forecast for each year of the comparison.

Table 17: State Responsible Offender Population Forecasts
FY 2003 and 2004

1 1 2000 drid 2007					
Fiscal Year	2004 Forecast	2003 Forecast	Difference		
2004	35,869	36,350	-481		
2005	36,971	37,772	-801		
2006	38,222	39,184	-962		
2007	39,527	40,870	-1,343		
2008	40,512	42,575	-2,063		
2009	41,933	44,464	-2,531		
2010	43,328	46,287	-2,959		

*Table 18* compares the LR population forecast completed in 2003 with the current forecast. The current LR forecast is lower than the projected forecast for each year of the comparison.

Table 18: Local Responsible Inmate Population Forecasts FY 2003 and 2004

Fiscal Year	2004 Forecast	2003 Forecast	Difference
2004	17,478	17,521	-43
2005	18,081	18,297	-216
2006	18,933	19,192	-260
2007	19,692	20,080	-388
2008	20,461	20,967	-506
2009	21,231	21,855	-623
2010	22,002	22,842	-841

Table 19 compares the juvenile offender population forecast completed last year with the current forecast. The current juvenile offender forecast is lower than the projected forecast for each year of the comparison.

Table 19: Juvenile Offender Population Forecasts FY 2003 and 2004

	=	····· — · · ·	
Fiscal Year	2004 Forecast	2003 Forecast	Difference
2004	1,038*	1,160	
2005	1,033	1,229	-196
2006	1,045	1,244	-199
2007	1,016	1,253	-237
2008	1,011	1,255	-244
2009	1,010	1,257	-247
2010	1,010	1,278	-268

<sup>\* =</sup> actual June 2004 figure

Table 20 compares the juvenile detention home population forecast completed last year with the current forecast. The current detention population forecast is lower than the projected forecast for each year of the comparison.

Table 20: Juvenile Detention Home Population Forecasts FY 2003 and 2004

Fiscal Year	2004 Forecast	2003 Forecast	Difference
2004	1,110*	1,220	
2005	1,099	1,237	-138
2006	1,097	1,253	-156
2007	1,095	1,269	-174
2008	1,093	1,285	-192
2009	1,090	1,301	-211
2010	1,088	1,318	-230

<sup>\* =</sup> actual June 2004 figure

## IX. Historical Forecasts Accuracy for 2003

*Tables 21, 22, 23,* and *24* show the current and historical forecast accuracy of 2004 projections for prisons, jails, and juvenile confinement populations, respectively. Long-term (3 or more years) forecasts are inherently less accurate than short-term projections as is evident in these tables. The one-year projection of the prison, local jail and juvenile offender populations for June 2004 were higher than actual populations.<sup>24</sup> Both the one and two-year projections of the juvenile detention home population for June 2004 were higher than the actual population. Factors that diminished the accuracy are discussed below.

**Table 21: State Responsible Offender Population Historical Forecast Accuracy** 

Year Forecast Prepared	Years Projected	Projected Population for June 2004	Actual June 2004 Population	Accuracy
2003	1 year	36,350	35,875	1.3%
2002	2 years	37,070	35,875	3.3%
2001	3 years	34,203	35,875	-4.7%
2000	4 years	33,538	35,875	-6.5%

Table 22: Local Responsible Jail Inmate Population Historical Forecast Accuracy

Year Forecast Prepared	Years Projected	Projected Population for Average 2004	Actual Annual Average 2004 Population	Accuracy
2003	1 year	17,521	17,478	0.2%
2002	2 years	17,648	17,478	1.0%
2001	3 years	17,932	17,478	2.6%
2000	4 years	17,607	17,478	0.7%

<sup>&</sup>lt;sup>24</sup> Accuracy was calculated as follows: ([projected population - actual population] / actual population)\*100

Table 23: State Responsible Juvenile Offender Population Historical Forecast Accuracy

Year Forecast Prepared	Years Projected	Projected Population for June 2004	Actual June 2004Population	Accuracy
2003	1 year	1,160	1,038	11.8%
2002	2 years	1,361	1,038	31.1%
2001	3 years	1,299	1,038	25.1%
2000	4 years	1,415	1,038	36.3%

**Table 24: Juvenile Detention Home Population Historical Forecast Accuracy** 

Year Forecast Prepared	Years Projected	Projected Population for June 2004	Actual June 2004 Population	Accuracy
2003	1 year	1,220	1,110	9.9%
2002	2 year	1,202	1,110	8.3%

## State Responsible Prison Offender Forecast - Factors that Affected Accuracy

The SR prison population was consistently lower than the official forecast by an average of 317 offenders per month, or 0.89% during FY 2004 (see Appendix F for the quarterly FY 2004 SR population forecast accuracy report). The actual new court commitments (see Table 25) were a quarterly average of 69 fewer or a yearly total of 275 or 2.4% lower than the new court commitment forecast. This slower than expected new commitment growth accounts for most of the discrepancy between the actual and forecasted SR population. With fewer offenders being committed, there is a slower stacking of offenders in the SR population. An additional factor, however, that contributed to the variation of the forecast being higher than actual was the unexpected increase in the Virginia Parole Board's grant rate of discretionary eligible offenders. The grant rate increased from 8% to 10% and hence there were fewer inmates in the actual stock population because they had released two percent more than had been expected. This increase in grant rate was expected to approximately lower the SR forecast in FY 2008 by 200 to 300 offenders. Another factor is the lowering by an end-of-month average of 300 the number of SR in jails when LIDS was rebuilt in June 2004. In this historical rebuild, the actual number of SR in jails decreased by 203 for the pertinent month of December 31, 2002. Had the SR forecast been produced in 2002 with a starting SR population (in prison and jail) that was 203 lower, it would have lowered the FY 2008 forecast by approximately 200 to 300 offenders. This LIDS rebuild had a one time, level-shift and not a cumulative effect.

10/15/2004

Table 25: CY 2003 Quarterly State Responsible New Court Commitments						
	Official Quarterly					
	SR New	Actual SR				
	Commitment	New				
	Forecast	Commitments	Difference	Percent		
1 <sup>st</sup> Quarter	2,794	2,809	-15	-0.5%		
2 <sup>nd</sup> Quarter	2,873	2,883	-10	-0.3%		
3 <sup>rd</sup> Quarter	2,865	2,761	104	3.6%		
4 <sup>th</sup> Quarter	2,833	2,637	196	6.9%		
Total	11,365	11,090	69	2.4%		

## Local Responsible Jail Offender Forecast - Factors that Affected Accuracy

The official forecast for the LR jail population is tracking the actual LR population very well (see Appendix F for the quarterly FY 2004 LR population forecast accuracy report). On average for FY 2004, the official forecast has been higher than the actual by 0.13% or an average of 20 inmates. The 0.13% average forecast accuracy in FY 2004 is within the accepted accuracy range. Although the LR jail inmate population forecast is tracking the actual population very well, a few factors regarding the nature of the LR forecast are worth noting.

First, the current LR forecast is an aggregate number based on four different subgroups of jail inmates: unsentenced awaiting trial, sentenced awaiting trial, local responsible felons, and misdemeanants. These categories of inmates may or may not reflect changes in crime trends. Data based on categorizing inmates by conviction offense type categories (i.e., violent, non-violent, and drugs) may also reflect changes in crime trends and jail inmates, and this possibility is being explored.

Second, although the LR population increased annually since FY 1998, programs that provide alternatives to incarceration may have moderated this increase. For example, jail diversions due to local community corrections and pre-trial services programs increased by 48% from FY 1998 to FY 2002. But, between FY 2003 and FY 2004, these programs have experience a 2.5% decrease in diversions, which is likely due to budget cuts that reduced the availability of these alternative sanctions. Furthermore, the Virginia Criminal Sentencing Commission's Nonviolent Offender Risk Assessment instrument, which went into effect statewide in July 2002, is designed to divert certain low risk offenders from incarceration to non-incarceration sanctions. This instrument may have the effect of diverting persons who would have been sentenced to time in jail to a non-jail alternative, which would serve to moderate increases in jail populations. However, the instrument may also have the effect of diverting persons who would have been sentenced to a prison term to a less serious jail term, which may tend to increase jail populations. How the use of this instrument effects sentences to both jail and prison will have to be determined as the instrument is used over time.

## State Responsible Juvenile Offender Forecast - Factors that Affected Accuracy

On average during FY 2004 the monthly SR juvenile population forecast was 7.7% higher than the actual (see Appendix F for the quarterly FY 2004 SR juvenile population forecast accuracy report). The largest single month variance occurred in June 2004. The June forecast was 11.8% higher than the actual. The variance is mainly due to admissions that were lower than forecasted (and assumed in the simulation model).

In the simulation model, the short-term forecasts are largely dominated by new admissions, releases from those admissions, and releases from the population of SR juveniles at the beginning of the forecast horizon (the "stock" population). FY 2004 releases from the June 30, 2003 stock population were approximately 7% less than what was forecasted by the simulation model.

Error in the admissions forecast explains most of the population forecast error. At 994, actual admissions in FY 2004 were about 13% lower than the forecast of 1,148.

## Local Juvenile Detention Home Forecast - Factors that Affected Accuracy

See Appendix F for the quarterly FY 2004 local juvenile detention home population forecast accuracy report. Factors that may have influenced the accuracy of the detention home forecast include:

- <u>Intake Cases</u>: Detention eligible intake cases fell but at a very modest rate in FY 2004.
   The DJJ believes that the change in detainable intake cases accounts for a small part of the error in the forecast.
- <u>Detention Assessment Instrument (DAI)</u>: The Detention Assessment Instrument was implemented in November 2002. This instrument was created to improve consistency in detention decisions and reduce the number of inappropriate detention admissions. The evidence is mixed on the DAI's impact on forecast accuracy. In concert with its implementation the DJJ has implemented a systematic process of review and training on the use of the DAI. Even though reduction of the detention population was not the purpose of DAI it probably has contributed to the lower population.
- <u>Technical Violators</u>: In recent years the DJJ has focused on reducing the number of probation and parole and contempt of court intake cases that result in detention. Using preliminary FY 2004 data, technical violator detention placements fell by approximately 25% from FY 2002 to FY 2004. In FY 2003 these placements made up nearly a third of all pre-dispositional detention placements.

## X. Issues for Future Consideration

The Policy Advisory Committee identified various issues for future consideration in offender forecasting work, and directed the Technical Advisory Committee to examine these issues.

#### Arrest Data

The Departments of Criminal Justice Services and State Police compared arrest trends as reported by the IBR (Incident Based Reporting) and CCRE (Central Criminal Records Exchange) systems, to determine if data from one system or the other is more useful for arrest trend tracking to inform inmate population forecasting. Preliminary examination revealed that when similar arrest types are counted in both systems, both systems show similar numbers of arrests. Arrest trends in the two systems were slightly different, with IBR arrests showing a decrease in arrests and CCRE showing an increase in arrests reported over the past four years. However, differences in the two reporting systems need to be examined further to determine how comparable counts are in the two systems. Criminal Justice Services and State Police will continue to examine these systems to determine if one system or the other will provide better arrest data to inform forecasting.

## Examine the Unsentenced Awaiting Trial Jail Inmate Subgroup

The Technical Advisory Committee will examine the unsentenced awaiting trial jail inmate subgroup to determine more about the characteristics of this subgroup. This subgroup constitutes the largest subgroup of jail inmates, and a better understanding of the characteristics of this subgroup will help in understanding how changes in this subgroup affect the entire jail population.

#### Information on Probation Violators

It is of interest to know the number of technical violators being sentenced to the Department of Corrections. The Virginia Criminal Sentencing Commission will provide data on the number of probation violators by disposition to determine whether they were revoked for a technical violation or new crime and if they received prison or jail time or not. The Virginia Department of Corrections will assist the VCSC with identifying state responsible probation violators. Until DOC's Time Computation System can get the correct violation information from the courts, store and report whether an offender is being revoked for technical or new crime reasons, DOC will only be able to report on the total number of probation violators that are new court commitments. It is recommended that a legislative initiative regarding "requiring complete and accurate violator information be reported uniformly and readily available in court orders or on CAIS," be endorsed and submitted for the next General Assembly session.

## Data Lag Time

The Technical Advisory Committee will continue work already done to examine lags in data reporting that affect forecasting. The Committee will provide the Secretary of Public Safety with recommendations for reducing data lag time in the forecasting process. The single most useful recommendation thus far identified to lessen lag time is the implementation of a uniform court order format and the best plan is a unified system to allow courts to input data electronically and for criminal justice agencies to extract data electronically. Until standardized court order information is available in an easy to read, consistent, accurate format and directly linked to sentence calculations, the processing will continue to involve an expected six-month or more lag time.

## Impact of the Risk Assessment Instrument

The Virginia Criminal Sentencing Commission will assess the impact of statewide implementation of the Risk Assessment Instrument for felons and will work with the Department of Corrections to assess the impact on the state responsible forecast. The Department of Criminal Justice Services will continue work with community corrections groups to assess the impact of its risk assessment instrument on misdemeanants and the local responsible population. An examination conducted in 2003-2004 indicated that the instrument is not yet fully implemented, and therefore it has not yet had an opportunity to potentially effect these populations. In addition, Department of Juvenile Justice will also evaluate the Detention Assessment Instrument on the Department of Juvenile Justice detention home population. Since the Detention Assessment Instrument was implemented starting November 2002, future analyses will determine the impact, if any, on the detention home population.

## Forensics Case Processing

The Department of Criminal Justice Services will examine Division of Forensic Science data to help determine if increases in the time spent processing forensic evidence are contributing to increases in the amount of time defendants are spending in jails. The Policy Committee has heard anecdotal reports from jails and courts that defendants are backing up in jails due to cases being delayed by slower forensics case processing.

## Time Series Accuracy

The Technical Advisory Committee shall look into the accuracy of time series models and evaluate how to avoid over-fitting statistical models.

#### Review of LIDS Jail Inmate Data

A subgroup of the Technical Advisory Committee will meet periodically to review the LIDS data, identify issues with the data that may affect the inmate forecasting process, and attempt to resolve these issues.

## Forecast Accuracy

The Technical Advisory Committee will submit quarterly accuracy reports to the Secretary of Public Safety. The Department of Corrections will report on the state responsible offender population forecast, the Department of Criminal Justice Services on the local responsible offender population forecast, and the Department of Juvenile Justice on the juvenile offender population forecast. The Department of Planning and Budget will collect the quarterly reports and submit an aggregate report to the Secretary of Public Safety.

## Legislative Impacts

The Department of Planning and Budget or the Virginia Criminal Sentencing Commission will report on any changes in legislative or budget issues that impact adult or juvenile populations and community or prison programs.

## Information on Local Jail Offender Subpopulations

The current forecast was developed using data on the total jail offender population. However, forecasting might be improved if the local responsible population is categorized by type of crime (violent, nonviolent, drugs) for which inmates are incarcerated. The Department of Criminal Justice Services and Compensation Board will examine whether developing a local responsible forecast based on crime type would improve the forecasting. Additionally, it may be necessary

to refine and construct the Local build and sustain a jail simulation populations.	Inmate Data model will be	System so that available for fore	the case-based of ecasting future loo	data needed to cal responsible

## XI. Appendices

## **Appendix A: Correctional Terminology**

**Average Daily Population** - daily population calculated by dividing the monthly population total by the number of days in the month.

**Baseline Admissions** - the number of new commitments exclusive of parole violators and any adjustments decided upon by the Policy Advisory Committee.

**CCRE** – Central Criminal Records Exchange is a finger print identification based system to track offenders who are arrested in Virginia.

**Confined/Stock Population** - refers to state responsible offenders currently incarcerated in DOC facilities and local jails.

**Correctional Center** - refers to a secure facility operated by, or under contract with, the Department of Juvenile Justice to house and treat persons committed to the Department.

**DAI** – refers to the Detention Assessment Instrument implemented in November 2002.

**Discretionary Parole** - a type of supervised release granted by the Parole Board subsequent to a parole hearing. Only offenders with parole eligible sentences can be released on discretionary parole.

**GCA** (Good Time Conduct Allowance) - old law (offense date prior to January 1, 1995) sentenced offenders who are eligible for parole under good time conduct allowance.

**IBR** – Incident Based Reporting System is the newest arrest reporting system used by Virginia localities and has replaced the original UCR or Uniform Crime Reporting System.

**Last Sentence Date** - in the new commitment forecast, the date of final sentencing is used in establishing the point of admission.

**Local Responsible Felons** - convicted felons who serve their sentence in a local jail. The following conditions for local responsibility apply:

As of July 1, 1997, a new law offender (offense date on or after January 1, 1995) with a sentence of less than one year is local responsible and an old law offender (offense date prior to 1/1/95) with a sentence less than or equal to two years is considered local responsible. As of September 1998, all felons with sentences worded as "12 months" are local responsible.

**Local Responsible Population (LR)** - individuals incarcerated in jails and counted as being in one of the following categories: unsentenced awaiting trial, sentenced awaiting trial, all sentenced misdemeanants, and local responsible felons.

**Mandatory Parole** - a type of supervised release to the community for old law sentenced offenders whose crime(s) date was/were before January 1, 1995. Mandatory parole cases are released within four to six months of their final discharge date.

**New Court Commitment** - an offender who is received from the community after committing a crime and sentenced to serve a state responsible sentence under the jurisdiction of the Virginia Department of Corrections.

**Offenses** - categorized as violent (capital murder, homicide, manslaughter, abduction, rape, robbery, assault and weapons), nonviolent (arson, burglary, fraud, larceny/fraud, conspiracy, less serious sex offenses, DUI, habitual traffic offenses) or drug (sales or possession) violations.

Population Survey of Local Correctional Facilities - see Tuesday Report.

**Post-Disposition** - refers to a secure juvenile detention facility operated by localities or commissions and housing sentenced juveniles for a period up to six months.

**Recidivist** - offender with more than one prior incarceration. In general, the definition of a recidivist or a repeat offender can be broadly defined based on various indicators such as rearrest, re-conviction or re-incarceration.

**Sentenced Awaiting Trial** - convicted local responsible offenders housed in local jails who have other charges pending.

**Sentenced Misdemeanants** - offenders convicted and sentenced on only misdemeanors and who do not have other charges pending.

**State Responsible Population (SR)** - state responsible felon offenders for whom the Department of Corrections has received the complete and final court order. The following conditions for state responsibility apply:

As of July 1, 1997, a new law offender (offense date on or after 1/1/95) with a net felon sentence of greater than or equal to one year is state responsible and an old law offender (offense date prior to 1/1/95) with a sentence greater than two years is considered state responsible.

**Tuesday Report** - a report that was maintained by the Department of Corrections from the late 1970's to September 1998 and as of October 1998 was transferred to and is now maintained by the Compensation Board. It includes information regarding offender populations of the local jail correctional system.

**Unsentenced Awaiting Trial** - individuals who are incarcerated but have not been convicted and/or sentenced, nor is the individual currently serving time on other charges.

## **Appendix B: Community Programs Terminology**

**Comprehensive Community Corrections Act for Local Responsible Offenders (CCCA)** § 53.1-180-185.3 - enables any city, county or combination thereof to develop, establish and maintain community-based corrections programs to provide the judicial system with sentencing alternatives for certain misdemeanants or persons convicted of nonviolent felonies, as defined in § 19.2-316.1 and sentenced pursuant to § 19.2-303.3, for whom the court may impose a jail sentence and who may require less than institutional custody.

**Boot Camp (Shock Probation)** - condition of probation in lieu of incarceration; 90-day voluntary military style residential program geared for offenders who are 24 years old or younger with no prior felony incarceration.

**Day Reporting Center** - non-residential community program geared for probationers/parolees with a history of substance abuse who require maximum daily supervision, treatment and services.

**Detention Center** - 4 to 6 month military style residential program geared for nonviolent felons who require more supervision than the diversion center and whose age and physical condition disqualifies the offender from the boot camp program; condition of probation in lieu of incarceration.

**Diversion Center** - 4 to 6 month residential work program geared for nonviolent felons focusing on job readiness with employment in the private sector; geared for offenders otherwise sentenced to incarceration who require more than intensive supervision or whose sentence would otherwise be revoked after a finding that the offender has violated conditions of probation.

**Parole** - upon release from prison, offenders are supervised in the community either as discretionary or mandatory parole releases.

**Pretrial Services Act (PSA) § 19.2-152.2-7** - the Court may use information obtained from a pretrial investigation to assist in bail decisions. Defendants are supervised and accountable to special conditions imposed by the Court pending trial outcome.

**Probation** - professional supervision of the offender in the community under conditions of probation and special conditions set by the court. Probation is considered a less restrictive form of punishment than incarceration in prison or jail.

Virginia Juvenile Community Crime Control Act (VJCCCA)- replaced the Juvenile Non-Secure Block Grant in January 1996.

## **Appendix C: Forecasting Terminology**

**ARIMA** - a statistical forecasting technique that analyzes time series data and produces future values based on known historical values. ARIMA captures the historic correlations of the data and extrapolates them forward. Formal name for ARIMA is "<u>Autoregressive Integrated Moving Average.</u>"

**Box-Jenkins** - the same as ARIMA.

**Exponential Smoothing** - a statistical forecasting technique that analyzes time series data and produces future values based on known historical values. Exponential Smoothing methods identify trend and seasonality components, and extrapolate them forward.

**Simulation Model** - an analytical tool designed to mimic the flow of offenders through the correctional system by allowing the entry of offender profile information relative to sentencing, length of stay, earned credits and parole grant rates. The model then generates hypothetical cases and traces the progress of each of these cases along the established flows and through each status change until they exit from the system.

**Time Series Data** - a distribution of values based on a regular interval (day, month, quarter, year, etc.).

## Appendix D: Policy Advisory Committee Members, FY 2005 Forecast

Mr. Lawrence D. Black Chief Magistrate

Twentieth Judicial District

Mr. Richard D. Brown

Director

Department of Planning and Budget

Mr. Craig Burns

Legislative Fiscal Analyst

House Appropriations Committee

Chief Robert Carlisle Vienna Police Department

Mr. Leonard G. Cooke

Director

Department of Criminal Justice Services

Mr. James R. Ennis Commonwealth's Attorney Prince Edward County

Ms. Helen Fahey Chairman

Virgina Parole Board

Sheriff George M. McMillan Roanoke City Sheriff's Office

Judge Kathleen H. McKay Fairfax County Circuit Court

Ms. Joanne Smith Superintendent Merrimac Detention Center

\* Chair, Policy Advisory Committee

Colonel W. Steve Flaherty Superintendent

Virginia State Police

The Honorable Barry R. Green\*

Deputy Secretary

Office of the Secretary of Public Safety

Mr. Richard Goeman Executive Director

**Indigent Defense Commission** 

Mr. Bruce W. Haynes Executive Secretary Compensation Board

Mr. Richard Hickman, Jr., Deputy Staff

Director

Senate Finance Committee

Mr. Gene M. Johnson

Director

Virginia Department of Corrections

Mr. Jerrauld C. Jones

Director

Department of Juvenile Justice

Richard P. Kern, Ph.D.

Director

Virginia Criminal Sentencing Commission

## Appendix E: Technical Advisory Committee Members, FY 2005 Forecast

Deborah M. Anchors Research Analyst

Research and Evaluation Unit Department of Juvenile Justice

John T. Britton Administrator

Research and Management Services Unit

**Department of Corrections** 

Alex Chobotov

Research and Evaluation Unit Department of Juvenile Justice

James C. Creech, Ph.D. \*\* Manager, Research Unit

Virginia Criminal Sentencing Commission

Laura D. Cross, M.A. Senior Research Analyst

Research and Management Services Unit

**Department of Corrections** 

Michael Garrett, M.A., M.S. Research Economist

Research and Evaluation Unit Department of Juvenile Justice

Lynette B. Greenfield, Manager

Research and Evaluation Unit Department

of Juvenile Justice

Helen S. Hinshaw, M.S.

Research and Forecast Unit Manager Research and Management Services Unit

**Department of Corrections** 

Mallika Ishwaran, Ph.D.

**Economist** 

Economic and Regulatory Analysis Unit Department of Planning and Budget

Hodan S. Isse, Ph.D.

Economist, Research and Statistical Unit, Department of Criminal Justice Services

\*Chair, Technical Advisory Committee

James J. McDonough, Ph.D.

Director

Criminal Justice Research Center Department of

**Criminal Justice Services** 

Warren B. McGehee, M.P.A. Senior Research Analyst

Research and Management Services Unit

**Department of Corrections** 

Cyril W. Miller, Ph.D.

Senior Management Information Analyst

Judicial Planning Department Supreme Court of Virginia

Wendy P. Naro-Ware

Vice-President, JFA Associates, LLC

The Institute Washington, DC

Deanna M. Pérez, M.A. Senior Research Analyst

Research and Management Services Unit

**Department of Corrections** 

Norma D. Poole

Statistical Analyst Senior Virginia State Police

Gregory J. Rest, Ph.D. \*\*
Chief Methodologist

This is the state of the state

Joint Legislative Audit and Review Commission

William M. Shobe, Ph.D.\*, \*\*

Associate Director

Economic and Regulatory Analysis Unit Department of Planning and Budget

Anne Wilmoth

Information Technology Manager

**Compensation Board** 

\*\* Methods Sub-Committee Member

Appendix F: Quarterly FY 2004 Forecast Accuracy

# State Responsible Prison Population

Accuracy Statistics		FY 2004	FY 2004 Official Forecas		
			Асси	racy	
	Actual*	Forecast	Difference	Percent	
FY 2004					
Jul-03	35,363	35,527	164	0.46%	
Aug-03	35,454	35,572	118	0.33%	
Sep-03	35,369	35,646	277	0.78%	
1st Quarter			186	0.53%	
Oct-03	35,581	35,734	153	0.43%	
Nov-03	35,671	35,778	107	0.30%	
Dec-03	35,515	35,905	390	1.10%	
2nd Quarter			217	0.61%	
Jan-04	35,374	35,931	557	1.57%	
Feb-04	35,503	35,958	455	1.28%	
Mar-04	35,740	36,065	325	0.91%	
3rd Quarter			446	1.26%	
Apr-04	35,824	36,196	372	1.04%	
May-04	35,855	36,265	410	1.14%	
Jun-04	35,875	36,350	475	1.32%	
4th Quarter			419	1.17%	
FY2004 Forecast			317	0.89%	
Accuracy (Average)			317	0.03/0	

# Local Responsible Jail Population

Accuracy Statistics		2004 Official Forecast			
<u> </u>				ıracy	
	Actual*	Forecast	Difference	Percent	
FY 2004					
Jul-03	17,286	17,129	-157	-0.91%	
Aug-03	17,640	17,392	-248	-1.41%	
Sep-03	17,956	17,584	-372	-2.07%	
1st Quarter			-259	-1.46%	
_					
Oct-03	17,782	17,620	-162	-0.91%	
Nov-03	17,811	17,617	-194	-1.09%	
Dec-03	17,008	16,940	-68	-0.40%	
2nd Quarter			-141	-0.80%	
Jan-04	17,118	17,216	98	0.57%	
Feb-04	17,287	17,670	383	2.22%	
Mar-04	17,450	17,771	321	1.84%	
3rd Quarter			267	1.54%	
Apr-04	17,502	17,782	280	1.60%	
May-04	17,423	17,764	341	1.96%	
Jun-04		17,763			
4th Quarter			311	1.78%	
FY2004 Forecast			20	0.13%	
Accuracy (Average)			20	0.1070	

# State Responsible Juvenile Correctional Center Population

Accuracy Statistics		FY 2004 Official Forecast			
		1 1 200	Accu		
	Actual*	Forecast			
EV 000 4	Actual	Forecast	Difference	Percent	
FY 2004					
Jul-03	1,168	1,185	17	1.46%	
Aug-03	1,156	1,195	39	3.37%	
Sep-03	1,114	1,165	51	4.58%	
1st Quarter			36	3.14%	
Oct-03	1,075	1,172	97	9.02%	
Nov-03	1,067	1,167	100	9.37%	
Dec-03	1,047	1,152	105	10.03%	
2nd Quarter			101	9.47%	
Jan-04	1,047	1,141	94	8.98%	
Feb-04	1,047	1,134	87	8.31%	
Mar-04	1,061	1,147	86	8.11%	
3rd Quarter			89	8.46%	
Apr-04	1,056	1,158	102	9.66%	
May-04	1,042	1,161	119	11.42%	
Jun-04	1,038	1,160	122	11.75%	
4th Quarter			114	10.94%	
FY2004 Forecast			85	8.00%	
Accuracy (Average)			05	0.00 /0	

# Local Responsible Juvenile Detention Home Population

<b>Accuracy Statistic</b>	CS	FY 2004	Official F	orecast
			Accu	ıracy
	Actual*	Forecast	Difference	Percent
FY 2004				
Jul-03	1,087	1,067	-20	-1.84%
Aug-03	982	1,078	96	9.78%
Sep-03	984	1,075	91	9.25%
1st Quarter			56	5.73%
Oct-03	1,055	1,170	115	10.90%
Nov-03	1,100	1,196	96	8.73%
Dec-03	961	1,078	117	12.17%
2nd Quarter			109	10.60%
Jan-04	973	1,096	123	12.64%
Feb-04	1,051	1,213	162	15.41%
Mar-04	1,131	1,249	118	10.43%
3rd Quarter			134	12.83%
Apr-04	1,081	1,237	156	14.43%
May-04	1,090	1,235	145	13.30%
Jun-04	1,110	1,220	110	9.91%
4th Quarter			137	12.55%
FY2004 Forecast			109	10.43%
Accuracy (Average)			103	10.40/0