

Office of the
Secretary of Public Safety and Homeland Security

**REPORT ON THE OFFENDER POPULATION
FORECASTS (FY2018 TO FY2023)**

To The Governor and General Assembly



Commonwealth of Virginia

Richmond, October 15, 2017

This page intentionally left blank.

HON. BRIAN J. MORAN
SECRETARY

1111 EAST BROAD STREET
RICHMOND, VIRGINIA 23219
TEL (804) 786-5351
FAX (804) 371-6381

Commonwealth of Virginia



VICTORIA H. COCHRAN
DEPUTY SECRETARY

CURTIS BROWN
DEPUTY SECRETARY

Office of the Secretary of Public Safety and Homeland Security

October 15, 2017

TO: The Honorable Terence R. McAuliffe
Governor

The Honorable S. Chris Jones
Chairman, House Appropriations Committee

The Honorable Emmitt W. Hanger, Jr.
Co-Chairman, Senate Finance Committee

The Honorable Thomas K. Norment, Jr.
Co-Chairman, Senate Finance Committee

The Honorable David B. Albo
Chairman, House Courts of Justice Committee

The Honorable Mark D. Obenshain
Chairman, Senate Courts of Justice Committee

Each year, the Secretary of Public Safety and Homeland Security is required to present revised 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.

To revise the forecasts, my office brought together policy makers, administrators, and technical experts from all branches of state government for a series of meetings over the course of the summer and early fall. Using a consensus approach, with input from all those who participated in the process, a forecast for each of the four offender populations was adopted.

The 2017 forecasting process is complete and, as required by the Appropriation Act, this report is respectfully submitted for your consideration. Please contact my office should you have questions regarding any aspect of the offender forecasts.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian J. Moran", written over a horizontal line.

Brian J. Moran

Authority

This report has been prepared and submitted to fulfill the requirements of Item 383 of Chapter 836 of the 2017 Acts of Assembly. This provision requires the Secretary of Public Safety and Homeland Security to present revised 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, 2017. Specifically, the Secretary must present updated forecasts for the adult state-responsible confined population, adult local-responsible jail population, juvenile state-responsible population, and juvenile local-responsible population. In addition, the Secretary must ensure that the adult state-responsible population forecast includes an estimate of the number of probation violators in the overall population who may be appropriate for punishment via alternative sanctions. This document contains the Secretary's report for 2017.

Table of Contents

Executive Summary	v
Virginia’s Offender Forecasting Process	1
Forecasting Methodologies	2
Adult State-Responsible Confined Population	3
Adult Local-Responsible Jail Population	14
Juvenile Direct Care Population	18
Juvenile Detention Home Population	25
Appendices	
Appendix A: Legislative Directive	30
Appendix B: Committee and Work Group Members	32

This page intentionally left blank.

Executive Summary

Forecasts of persons confined in state and local correctional facilities are essential for criminal justice budgeting and planning in Virginia. The forecasts are used to estimate operating expenses and future capital needs and to assess the impact of current and proposed criminal justice policies. The Secretary of Public Safety and Homeland Security oversees the forecasting process and, as required by the Appropriation Act, presents updated forecasts annually 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.

To produce the offender forecasts, the Secretary's Office utilizes an approach known as "consensus forecasting." This process brings together policy makers, administrators, and technical experts from all branches of state government. The Technical Advisory Committee is composed of experts in statistical and quantitative methods from several agencies. While individual members of this Committee generate the offender forecasts, the Committee as a whole carefully scrutinizes each forecast according to the highest statistical standards. Selected forecasts are presented to the Secretary's Work Group. The Work Group evaluates the forecasts and provides guidance to the Technical Advisory Committee. The Work Group includes deputy directors and senior managers of criminal justice and budget agencies, as well as staff of the House Appropriations and Senate Finance Committees. Forecasts accepted by the Work Group then are presented to the Secretary's Policy Committee. Led by the Secretary, the Policy Committee reviews the various forecasts, making any adjustments deemed necessary to account for emerging trends or recent policy changes, and selects the official forecast for each offender population. The Policy Committee is made up of lawmakers, agency directors, and other top officials. Representatives of Virginia's prosecutor, police, sheriff, and jail associations are invited to participate. Through the consensus process, a forecast is produced for each of the four major offender populations.

The forecasts, approved in October 2017, were based on the statistical and trend information known at the time that they were produced. A new jail data system, known as LIDS-CORIS, was implemented in June 2013. Challenges encountered after the launch of LIDS-CORIS were addressed by the developer and resulted in a series of revisions to the data used to produce the adult state-responsible and local-responsible forecasts. Improvements in the LIDS-CORIS system and support programming, led to subsequent updates of the data in June 2015 and September 2016. In order to ensure the utmost accuracy of the forecasting data, the Technical Advisory Committee, in 2016 and 2017, closely examined the time lag needed for LIDS-CORIS data to mature and stabilize. Based on that review, only data through December 2016 were selected to generate the adult state-responsible and local-responsible population forecasts presented in this report. The Technical Committee encountered another data lag affecting development of the adult state-responsible population forecast. Data on new commitments entering the state-responsible population has become increasingly backlogged. The typical one-year lag for complete new commitment data now has extended to two years. Thus, the most recent new commitment information available for analysis is data from fiscal year (FY) 2015. These data lags increase the degree of uncertainty surrounding the adult offender forecasts. Moreover, the most recent trends in felony arrests and court filings suggest a possible change in

felony court caseload trends that are not yet fully captured in the historical data on which the adult offender forecasts are based. While completed felony cases declined from 2014 through 2016, new felony charges filed in circuit court increased in 2016 and during the first half of 2017, suggesting that the number of completed felony cases may begin to rise once these charges proceed through the court system and reach disposition. This possibility adds to the uncertainty surrounding the adult offender forecasts this year.

Adult State-Responsible Confined Population The largest of the forecasted populations, the state-responsible (SR) confined population includes offenders incarcerated in state prisons, as well as SR offenders housed in local and regional jails around the Commonwealth. After peaking at 39,158 in June 2008, the SR population averaged an annual decline of 327 (0.8%) through June 2012. Much of the decline during that period can be attributed to a decrease in the annual number of SR new court commitments, which dropped by an average of 372 (3.0%) per year during this time. This shift was consistent with observed changes in arrest patterns, a decline in felony sentencing events in circuit court, and a return to pre-2004 levels in the backlog of drug cases awaiting analysis at the Department of Forensic Science. Between June 2012 and June 2015, the SR population grew by an annual average of 434 (1.1%), reaching 39,152 offenders. However, in FY2016, the population declined by 888, or 2.3%. A decline in the population of roughly 1% is expected for FY2017, based on data available at the time of this report. According to the approved forecast, the total SR population is projected to increase by an average of 0.6% annually during the next six years to 39,278 offenders by the end of FY2023 (see table on following page). This forecast is extremely close to the forecast presented to the Governor and General Assembly last year. As required by Appropriation language, the forecast has been disaggregated to identify the number of probation violators within the overall population who may be appropriate for punishment via alternative sanctions. By the end of FY2023, it is projected that the state-responsible population will include 1,752 technical probation violators (i.e., offenders who violated the rules of probation but have not been convicted of a new crime).

Adult Local-Responsible Jail Population. The local-responsible jail population is defined as the number of persons confined in local and regional jails across the Commonwealth, excluding state and federal inmates and ordinance violators. Following substantial growth in FY2006 and FY2007, the average local-responsible jail population declined each succeeding year through FY2010. In FY2011, the local-responsible jail population began to rise, with growth averaging 1.2% annually through FY2014. This period of growth did not continue, as the local-responsible jail population decreased by 1.3% in FY2015 and then 4.2% in FY2016. Although data for the most recent fiscal year are not yet finalized, the population is expected to grow by nearly 3% for FY2017, consistent with the recent uptick in felony arrests for violent offenses and drug crimes. Under the approved forecast, the local-responsible jail population is projected to return to an average annual growth of 1.4% through FY2023 (see table below). This would bring the average local-responsible population to 20,522 in FY2023, a projection that is more than 1,000 higher than the forecast submitted to the Governor and General Assembly last year.

Juvenile Direct Care Population. Juvenile offenders committed to the state are held in facilities operated by the Department of Juvenile Justice (DJJ) or they are placed in re-entry, community placement, or other programs; collectively, these make up DJJ's total direct care population. The number of juveniles in the direct care population has been falling overall since

FY2000. Some of the early decline may be attributed to a change in the minimum criteria for a juvenile to be committed to DJJ (from a felony or two Class 1 misdemeanor adjudications to a felony or four Class 1 misdemeanor adjudications) beginning July 1, 2000, as well as subsequent statutory changes discussed later in this report. These policy changes alone cannot explain the persistent downward trend in commitments. At court services units, the point of entry into the juvenile justice system, the total number of juvenile intake cases has declined for the twelfth consecutive year. In addition, DJJ has implemented procedures that include the use of validated risk assessment instruments in numerous aspects of community and facility operations in order to reserve juvenile correctional beds for those who represent the greatest risk to public safety. In FY2017, the total direct care population averaged 338, a decrease of 68 (16.7%) from the previous year. The forecast for the direct care population anticipates a continued decline through FY2019. Beginning in FY2020, this population is expected to level off and then increase slightly. For FY2023, the average population is projected to be 333 juveniles (see table below).

Juvenile Detention Home Population. Juveniles held in local or commission-operated juvenile detention homes around the Commonwealth make up the juvenile local-responsible population. The juvenile detention home population declined from an average of 1,058 in FY2007 to an average of 727 in FY2013. Lower numbers of intakes at court services units and procedures to reduce detention of low-risk juveniles have contributed to the downward trend. The population increased slightly to 735 in FY2014 due to longer lengths-of-stay, but decreased to 643 in FY2016 due to drop in detainments (admissions). The average detention home population increased to 644 in FY2017, despite fewer detainments, due to slightly longer lengths-of-stay for some categories of juveniles. The average detention home population is projected to drop to 568 juveniles by FY2023 (see table below).

**Offender Population Forecasts
FY2017 – FY2023**

Fiscal Year	Adult State-Responsible Offender Population (June 30)	Technical Probation Violators within the Adult State-Responsible Offender Population (June 30)*	Adult Local-Responsible Jail Population (FY Average)	Juvenile Direct Care Population (FY Average)	Juvenile Detention Home Population (FY Average)
FY2017	37,909 (Projected)	1,715 (Projected)	18,337** (Projected)	338 (Actual)	644 (Actual)
FY2018	38,276	1,736	19,195	335	629
FY2019	38,907	1,767	19,487	311	618
FY2020	38,777	1,754	19,739	316	607
FY2021	38,854	1,745	19,993	326	591
FY2022	39,063	1,749	20,256	331	580
FY2023	39,278	1,752	20,522	333	568

* The Technical Probation Violator forecast is a subgroup of, and not in addition to, the Adult State-Responsible Offender Forecast.

Since the proportion of violators identified as technical violators declines as criminal histories are updated with new conviction information, this forecast should be considered a maximum.

Based on previous study, the Department of Corrections has estimated that 53% of technical violators sentenced to a state-responsible term may be suitable for alternative sanctions.

**** The FY2017 average local-responsible jail population is an average of six months of historical data (July-December 2016) and six months of forecasted data (January-June 2017).**

This page intentionally left blank.

Virginia's Offender Forecasting Process

Each year, the Secretary of Public Safety and Homeland Security oversees the offender forecasting process. These forecasts are essential for criminal justice budgeting and planning in the Commonwealth. They are used to estimate operating expenses and future capital needs for state prisons, local and regional jails, and juvenile correctional facilities. In addition, the forecasts provide critical information for assessing the impact of current and proposed criminal justice policies. The Secretary's Office utilizes an approach known as "consensus forecasting." First implemented in Virginia in the late 1980s, consensus forecasting is an open, participative approach that brings together policy makers, administrators, and technical experts from many state agencies across all branches of state government. The objective is to ensure that key policy makers and administrators in the criminal justice system have input into the forecast. Moreover, the process is intended to promote general understanding of the forecast and the assumptions that drive it.

The process is structured through committees. The Technical Advisory Committee is composed of experts in statistical and quantitative methods from several agencies. Analysts from particular agencies are tasked with developing offender forecasts. Typically, two forecast models are developed for each of the adult and juvenile populations by two analysts from separate agencies working independently of one another. Confidence in the forecast can be bolstered if different methods used by multiple agencies converge on the same future population levels. While individual members generate the various prisoner forecasts, the Technical Advisory Committee as a whole carefully scrutinizes each forecast according to the highest statistical standards. Select forecasts are recommended by the Technical Advisory Committee for consideration by the Secretary's Work Group. Work Group members include deputy directors and senior managers of criminal justice and budget agencies, as well as staff of the House Appropriations and Senate Finance Committees. Meeting throughout the development of the forecasts, the Work Group provides guidance to the Technical Advisory Committee, discusses detailed aspects of the projections, and directs technical staff to provide additional data needed for decision making. The diverse backgrounds and expertise of Work Group members promote in-depth discussions of numerous issues and trends in Virginia's criminal justice system. After thorough evaluation of each forecast, the Work Group makes recommendations to the Secretary's Policy Committee. Led by the Secretary, the Policy Committee reviews the various forecasts and selects the official forecast for each population. This Committee also considers the effects of emerging trends or recent policy changes, making adjustments to the forecasts as it deems appropriate. The Policy Committee is made up of agency directors, members of the General Assembly, and top-level officials from Virginia's executive, legislative, and judicial branches. Each year, at least one prosecutor, sheriff, police chief, and jail administrator are invited to serve on the Policy Committee to represent their respective associations.

The forecasting process benefits from rigorous quantitative analysis by the Technical Advisory Committee, detailed scrutiny by the Work Group, and high-level review by the Policy Committee. Through the consensus process, a separate forecast is produced for each of the four major correctional populations.

Forecasting Methodologies

Members of the Technical Advisory Committee utilize two types of methodologies to develop offender forecasts: time-series forecasting and computer simulation modeling. Time series forecasting is a set of statistical techniques that apply specifically to the analysis of data points that occur over time. Time-series forecasting assumes that there is a pattern in the historical values that can be identified. The goal is to define the pattern, understand the short-term and long-term trends, and pinpoint any seasonal fluctuations. Significant policy changes made in past years can be included in the statistical model and the impacts quantified. Time-series models then utilizes the pattern, trend, and seasonal variation identified in the historical data to project future values. Models developed from the same data can differ based on the statistical parameters included, external factors tested (factors that may be correlated with population changes), how many years of historical data are included in the analysis, etc. To develop time series models, analysts often withhold the most recent data points (e.g., the last 12 months). When a particular model is identified, the model is used to project population values for the period of data withheld from the model development. The projected values are compared to the actual values during the holdout period to assess the model's accuracy. Models can then be compared based on a variety of accuracy statistics so that the model with the best set of statistical properties can be selected. Analysts then re-run the selected model using all of the historical data, including data originally withheld during the model development stage. This is done to ensure that the most recent available data are included when generating the actual forecast. Analysts on the Technical Advisory Committee follow this process when developing offender forecasts using time series techniques.

The Department of Corrections (DOC) and the Department of Juvenile Justice (DJJ) use computer simulation modeling to forecast the adult state-responsible inmate population and the state's juvenile direct care population, respectively. Computer simulation models are designed to mimic the flow of offenders through a system over the forecast horizon. Both DOC and DJJ use Simul8 forecasting software for this purpose. Simul8 is a standard software package made specifically for creating simulation models. It is flexible in that users can structure a simulation model to accurately portray their particular system and it can be easily modified to capture policy changes. Simul8 models can also be adapted to produce forecasts of important subpopulations. To accurately simulate the movement of offenders through a system, data describing the offenders admitted to, confined in, and released from the population are compiled and programmed into the simulation model. Use of simulation forecasting often requires assumptions to be made, for example, regarding the characteristics of future commitments/admissions to the system.

Members of the Technical Advisory Committee from particular agencies are assigned the task of generating the offender forecasts. Typically, models are developed by two analysts from different agencies working independently of one another. Each analyst presents his/her forecast model to the Committee, and Committee members carefully scrutinize each forecast. The forecasts selected by the Technical Advisory Committee are recommended to the Secretary's Work Group.

Adult State-Responsible Confined Population

The largest of the forecasted populations, the adult state-responsible (SR) confined population includes offenders incarcerated in state prisons, as well as SR offenders housed in local and regional jails around the Commonwealth. For forecasting purposes, state-responsibility begins on the day an offender receives an SR sentence (i.e., a sentence of one year or more for a felony offense). If the offender has multiple court cases, state-responsibility starts on the most recent sentencing date that occurs prior to the offender's classification by the Department of Corrections (DOC).

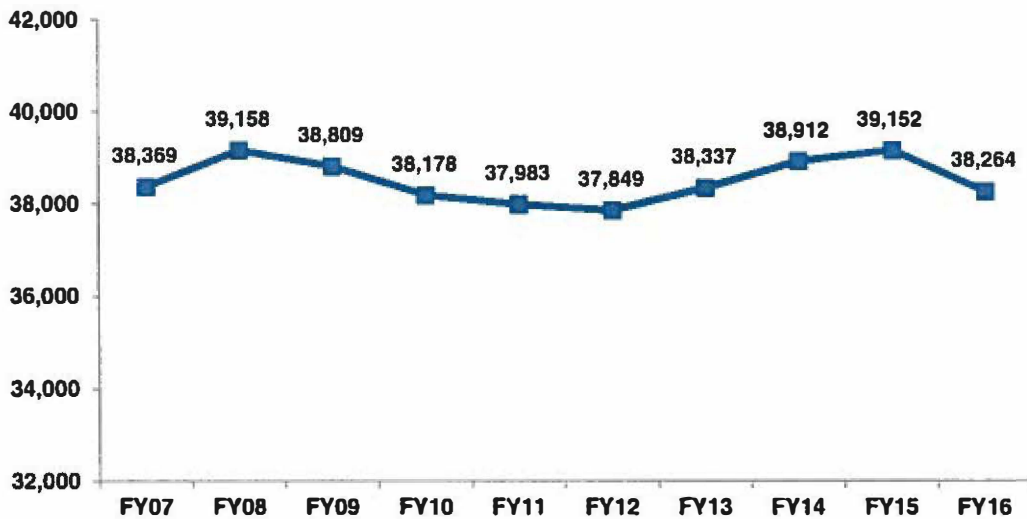
The SR confined population is a combination of the number of SR offenders in DOC facilities as listed in the DOC Facility Population Summary Report for the last day of each month plus the number of SR offenders in local and regional jails reported to the State Compensation Board (SCB). Jail data that is reported to the SCB is complex as offenders in jails can proceed through many statuses such as awaiting trial, awaiting sentencing, serving a local-responsible or local ordinance sentence, or serving a state-responsible sentence. Thus, for individuals held in the jails, it is not just a matter of reporting head count figures, but also determining the legal status of the offender on the last day of the month. This process can be complicated as offenders may have multiple legal actions occurring and court records need to be received and interpreted to enter in the final statuses. Due to the dynamic nature of this jail data, it takes some time for it to stabilize. Based on a review by the Technical Advisory Committee regarding the time lag needed for LIDS-CORIS data to mature and stabilize, only data through December 2016 were used to generate the adult state-responsible confined population forecast presented in this section.

Population Change

After peaking at 39,158 in June 2008, the SR population averaged an annual decline of 327 (0.8%) through June 2012 (Figure 1). Much of the decline between June 2008 and June 2012 can be attributed to a decrease in the annual number of SR New Court Commitments (NCC) which dropped by an average of 372 (3.0%) per year during this time. This shift was consistent with observed changes in arrest patterns, a decline in felony sentencing events in circuit court, and a return to pre-2004 levels in the backlog of drug cases awaiting analysis at the Department of Forensic Science. After June 2012, the SR population increased by annual average of 434 (1.1%) through June 2015. During this same time period, the female SR population grew by an annual average of 173 (5.8%). By June 2016, the overall SR population had decreased by 888 (2.3%), reaching 38,264. The female SR population decreased by 199 (6.0%), falling to 3,144 in June 2016.

Population figures for June 2017 are not shown in this section, as data for that time period are not considered mature.

Figure 1
Adult State-Responsible Confined Population (on June 30 of each year)



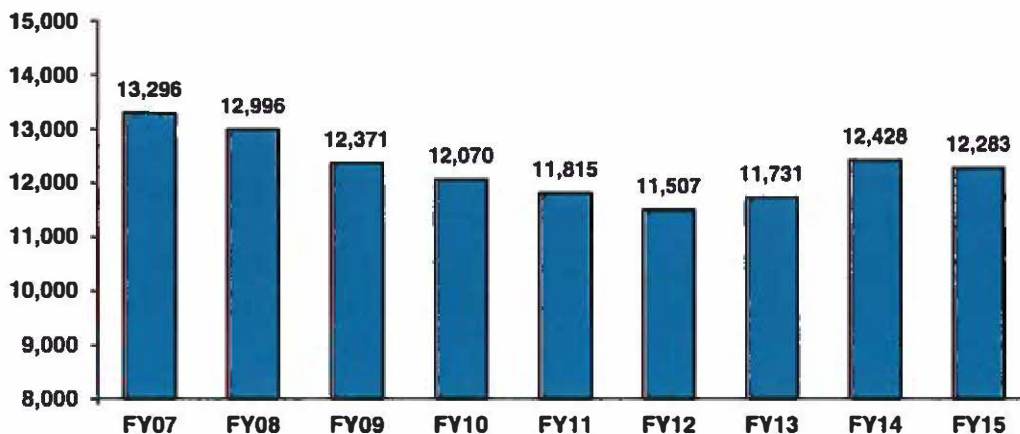
Based on improvements in the LIDS-CORIS data system and associated computer programming, along with corrections and updates entered into the system by jail staff, the Compensation Board has released revised figures for the number of state-responsible confined offenders held in jails. Figures for the state-responsible confined population have been revised accordingly and, therefore, are not comparable to those provided in previous offender forecasting reports. All Compensation Board data were updated through October 2, 2017

Factors Affecting the Population

The number of offenders entering the SR confined population each year is a critical factor affecting population growth. After peaking in FY2007, the number of SR NCC fell each year through FY2012 (Figure 2). The drop in commitments during those years is the principal reason for the downward trend in the overall population during that time period. Likewise, the growth in the SR population in FY2013 and FY2014 is due, in large part, to increases in the number of SR NCC which grew by 1.9% and 5.9% in FY2013 and FY2014, respectively. SR NCC declined by 1.2% in FY2015.

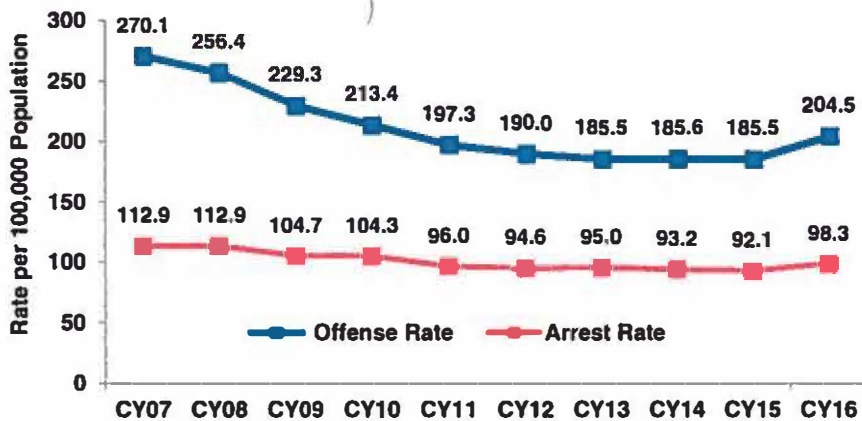
The Technical Committee encountered a data lag affecting development of the forecast. Data on new commitments entering the state-responsible population have become increasingly backlogged. The typical one-year lag for complete new commitment data now has extended to two years. Thus, the most recent new commitment information available for analysis is data from fiscal year FY2015. These data lags increase the degree of uncertainty surrounding the adult offender forecasts.

Figure 2
State-Responsible New Court Commitments



There are numerous factors that may have an impact on the number and types of offenders sentenced to an SR term of incarceration. Both the offense rate and arrest rate (per 100,000 population) for violent index crimes (murder/non-negligent manslaughter, forcible rape, robbery and aggravated assault) declined from CY2007 through CY2013. The offense rate remained stable through CY2015, while the decline in the arrest rate has slowed; however, both rates increased in CY2016 (Figure 3).

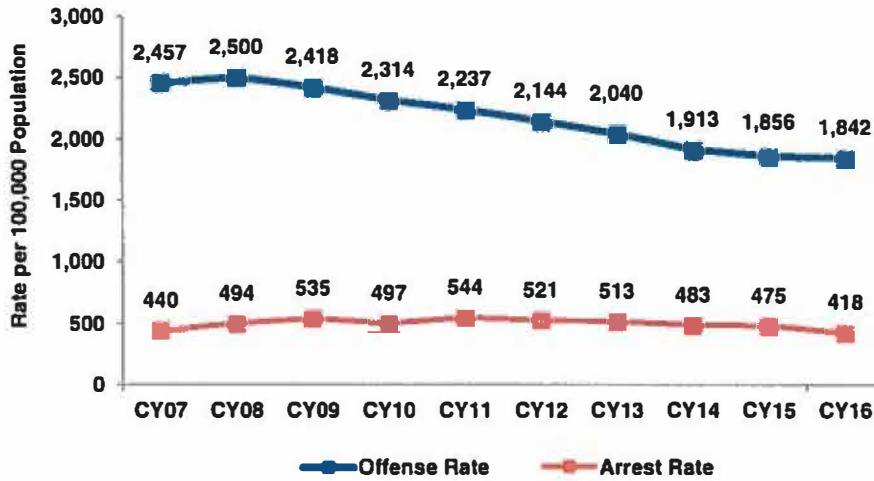
Figure 3
Violent Index Crime Offense Rates & Arrest Rates in Virginia



Violent index crimes are murder/non-negligent manslaughter, forcible rape, robbery and aggravated assault.

The offense rate (per 100,000 population) for property index crimes (burglary, larceny and motor vehicle theft) has declined by more than one quarter (26%) since CY2008 (Figure 4). The arrest rate (per 100,000 population) for property index crimes increased by 22% from CY2007 through CY2009 and declined by 13% from CY2011 through CY2015. Larceny arrests account for the vast majority of arrests for property offenses.

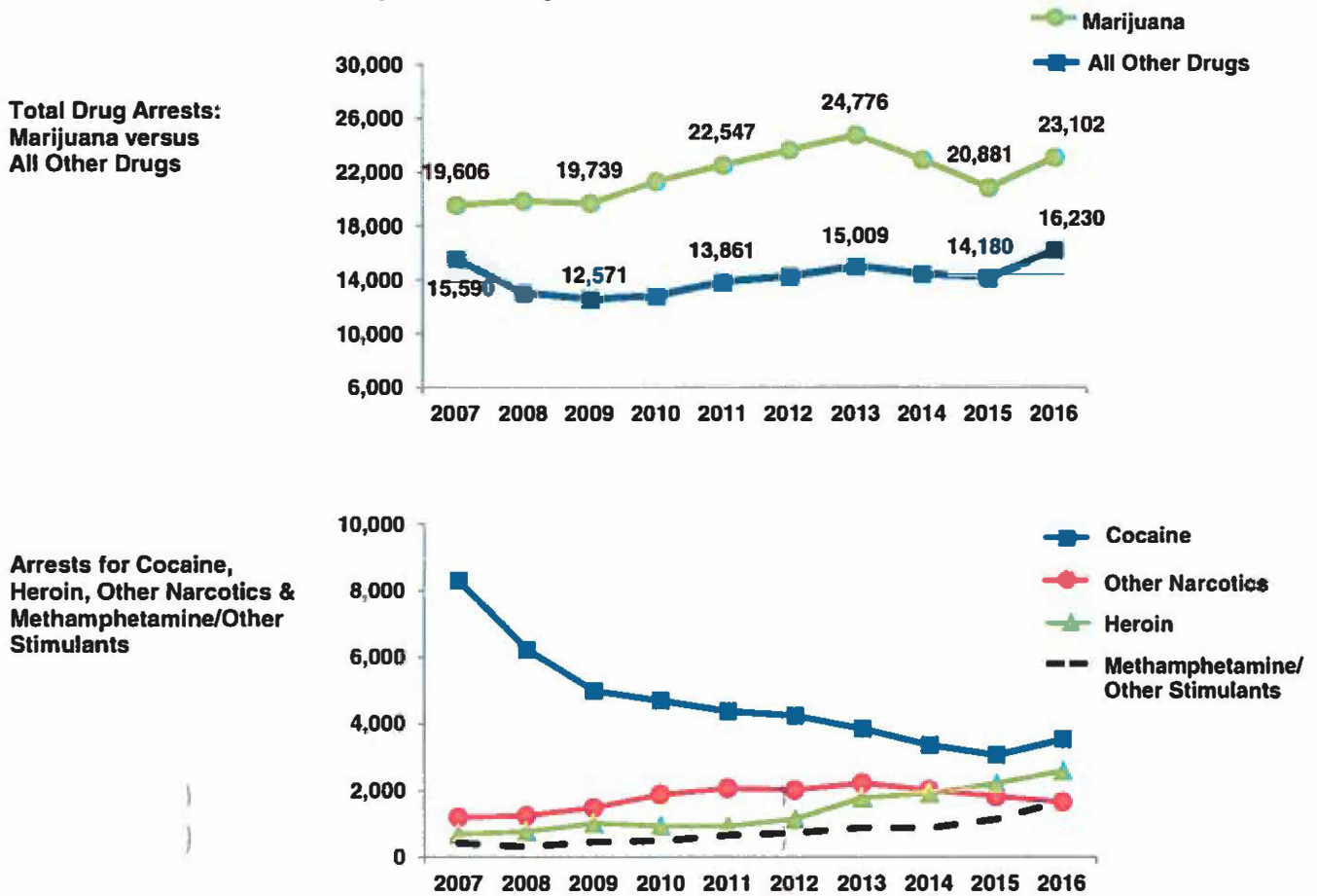
Figure 4
Property Index Crime Offense Rates & Arrest Rates in Virginia



Property index crimes are burglary, larceny, and motor vehicle theft.

Overall, the number of adults arrested for drug offenses grew from the early 2000s through 2007. In 2008 and 2009, Virginia experienced a decline in the number of drug arrests. These decreases were largely attributable to substantial reductions in persons arrested for cocaine offenses. Federal data suggest reduced availability of cocaine in the United States during that time. Law enforcement efforts (e.g., seizures, crop eradication, and border security) and the drug war in Mexico appear to have impacted the ability of traffickers to deliver drugs to the U.S. During 2010 through 2013, however, the rate of decline in cocaine arrests slowed and the total number of drug arrests rose. Much of the increase during this period was associated with larger numbers of marijuana arrests (Figure 5 upper panel). The vast majority of marijuana arrests are for misdemeanor-level offenses for which an offender could not receive a prison sentence unless also convicted of a felony. In contrast, many of the arrests involving drugs other than marijuana are for felony-level offenses. For example, possession of cocaine, heroin, methamphetamine or other Schedule I or II drug is a Class 5 felony in Virginia. While cocaine arrests continued to fall, arrests for other Schedule I or II drugs increased during 2010-2013 (Figure 5 lower panel). Since 2013, drug arrests have decreased for many drug types, while heroin arrests continue to rise steadily. In 2016, arrests increased for all drugs except the other narcotics category.

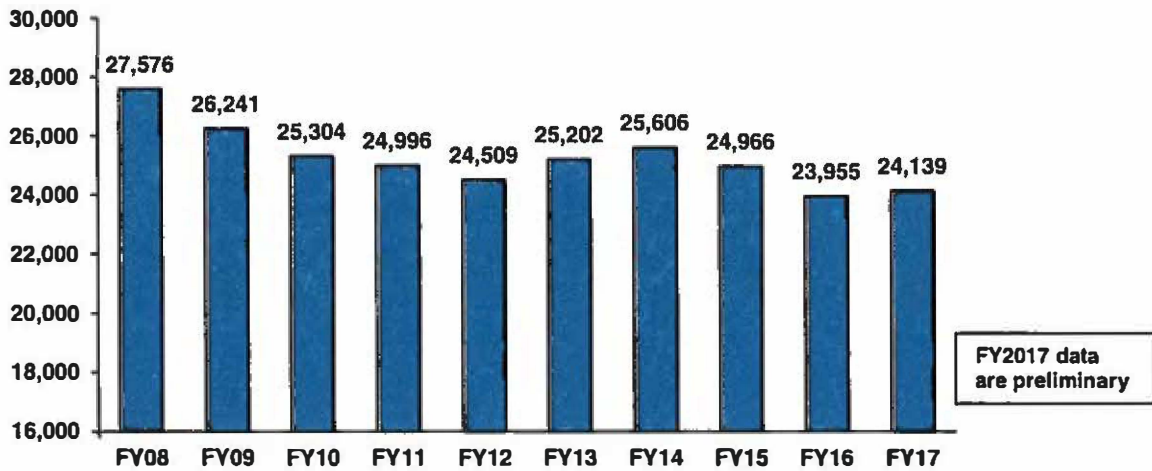
Figure 5
Number of Adult Arrests for Drug Crimes in Virginia (by Calendar Year)



Other Narcotics include opiates other than heroin, along with morphine and other drugs that dull the senses and may become addictive after prolonged use.

Offenders convicted of felonies are sentenced in Virginia’s circuit courts. According to the Virginia Criminal Sentencing Commission, the number of felony sentencing events declined after FY2008, which contributed to the downturn observed in commitments to DOC. After peaking in FY2008, the number of felony sentencing events fell each year through FY2012 (Figure 6). In contrast, felony sentencing events increased by 2.8% in FY2013, which was followed by a 1.6% increase in FY2014. These increases in felony sentencing events correspond with the higher number of SR NCCs recorded during those years. Felony sentencing events fell in FY2015, as did SR NCCs to DOC. While FY2016 new commitment data are not available from DOC, felony sentencing events from the Virginia Criminal Sentencing Commissions show a decline of 4.0% for FY2016 (reflecting the decrease in adult arrests recorded in 2014 and 2015). Preliminary data for FY2017 suggests an increase in felony sentencing events, which is consistent with the most recent uptick in felony filings in circuit court.

**Figure 6
Felony Sentencing Events in Circuit Court**

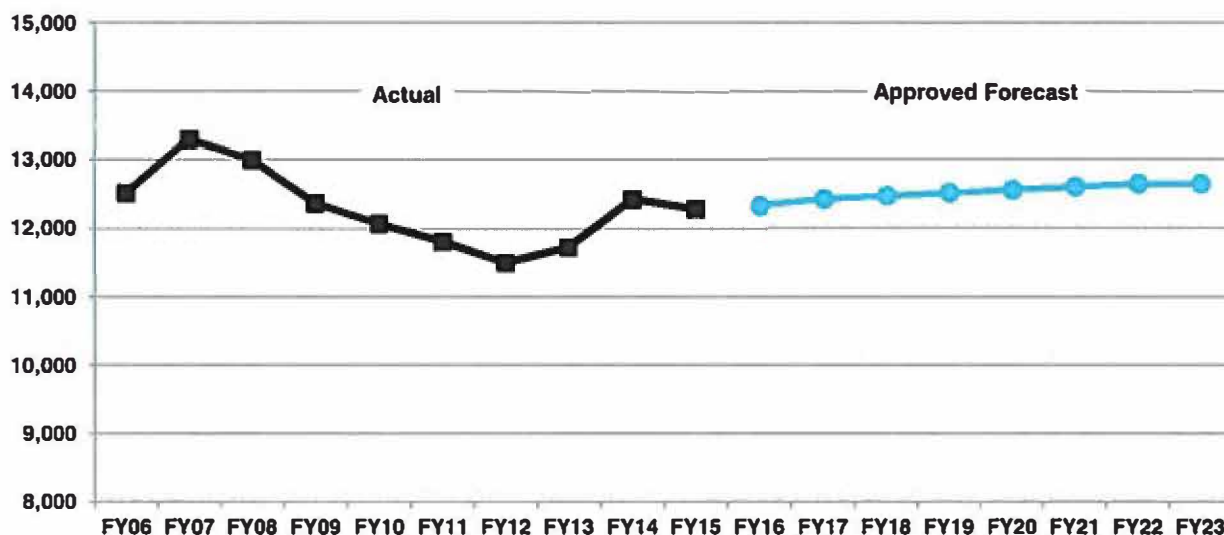


New Commitment Forecast

As noted previously, the number of SR NCC sentenced each year is a critical factor affecting population growth. To aid in the development of the population forecast, analysts first develop a projection of future SR NCC. This forecast is the total of six separate based on gender and the type of offense for which the offender sentenced. Generating commitment forecasts by gender and offense type can account for differences in short and long-term trends across categories. New commitment forecasts are developed using statistical time-series forecasting techniques. These are described in the *Forecasting Methodologies* section of this report.

The SR NCC forecast approved by the Secretary’s Policy Committee this year anticipates an increase in commitments in FY2016 and FY2017 (once these data are finalized), to be followed by an increase of less than one-half of 1% per year throughout the remainder of the forecast horizon (Figure 7). The 2017 SR NCC forecast is slightly higher than the forecast approved last year. For example, in FY2022, the 2017 NCC forecast is 172 offenders higher than the 2016 forecast.

Figure 7
Forecast of State-Responsible New Commitments



Actual: Year	Commitments	Change	Forecast: Year	Commitments	Change
FY09	12,371	-4.8%	FY16	12,333	0.4%
FY10	12,070	-2.4%	FY17	12,423	0.7%
FY11	11,815	-2.1%	FY18	12,468	0.4%
FY12	11,507	-2.6%	FY19	12,511	0.3%
FY13	11,731	1.9%	FY20	12,556	0.4%
FY14	12,428	5.9%	FY21	12,600	0.4%
FY15	12,286	-1.1%	FY22	12,644	0.3%
			FY23	12,644	0.0%
	Avg. change	-0.7%		Avg. change	
				FY18-FY23	0.3%

Assumptions for Department of Corrections' Simulation Model

DOC utilizes a computer simulation model to develop its forecast of the adult state-responsible confined population. A description of simulation modeling can be found in the *Forecasting Methodologies* section of this report. Use of simulation forecasting requires several assumptions regarding commitments and releases. The important assumptions incorporated into DOC's simulation model include those listed below.

- The number of future commitments is based on the new commitment forecast approved by the Policy Committee (see above);
- Future commitments will have the same characteristics (e.g., gender, offense type, sentence length) as recent commitments to the Department;
 - For male commitments, characteristics of the FY2015 SR NCC were used for the simulation model; this is further back in time than data used for forecasts in prior years due to a change in court order processing time procedures, meaning sentence information for longer sentenced offenders in the FY2015 SR NCC was preliminary and not sufficiently mature to use in the forecast model.

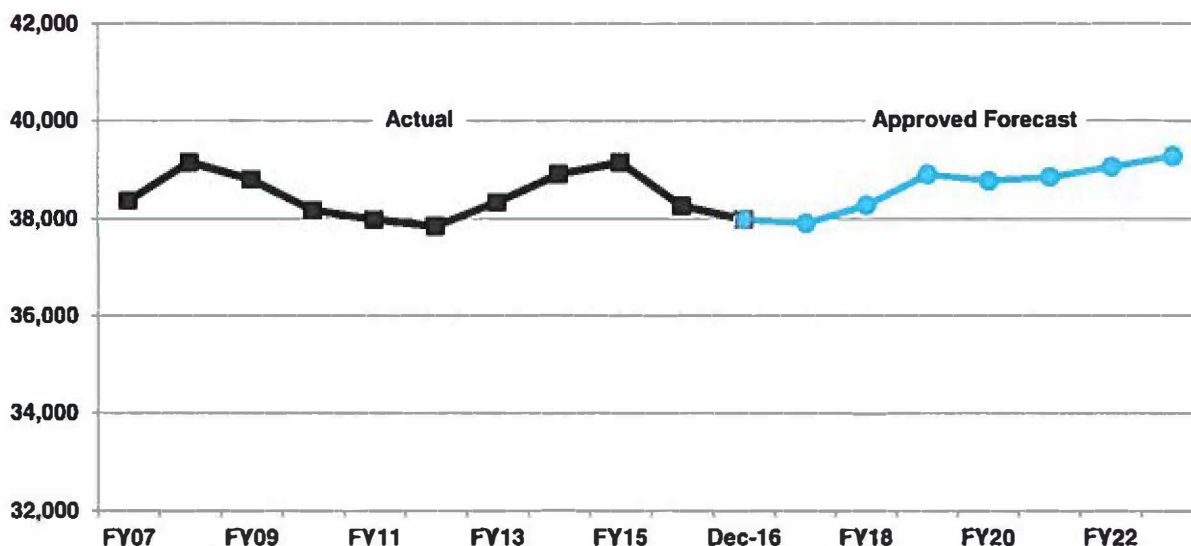
- For female new commitments, two years of data are typically used because of the smaller number of female commitments and the variability of the data. Characteristics of the FY2014-FY2015 female SR NCC were used for the simulation model; this is further back in time than data used for forecasts in prior years due to a change in court order processing time procedures, meaning sentence information for longer sentenced offenders in the FY2015 SR NCC was preliminary and not sufficiently mature to use in the forecast model.
- Future parole violator admissions are projected based on the trend observed during the most recent three years of available data (i.e., the average annual change over the last three fiscal years is applied for each year of the forecast horizon);
- Due to declining numbers, characteristics of parole violators, such as length of stay, are based on analysis of five years of data;
- For truth-in-sentencing/no-parole offenders, release dates are computed based on the sentence and the rate at which offenders earn sentence credits;
- For discretionary parole releases, parole grant rates by gender and crime type are based on the most recent year of available data (since release rates have been declining over time);
- For parole-eligible confined offenders not released by the model to discretionary parole, the release date is assumed to be the offender’s mandatory parole release date;
- For indeterminate sentences to DOC’s youthful offender program, expected length-of-stay is assumed to be 39.1 months (based on releases of these offenders in FY2017);
- To account for offenders who die in custody, three-year average rates are applied (for male confined offenders these rates are disaggregated by race and age groups);
- Offenders with sentences of life or death, and offenders given sentences pursuant to §19.2-297.1 (three-time loser provision) will remain confined throughout forecast horizon and, based on the extremely small numbers sentenced to death since FY2009, no new offenders will enter death row during the six-year forecast period; and
- The proportion of offenders who exit the state-responsible population in other ways (e.g., pardon), and their associated length-of-stay, is based the most recent 12 months of available data.

Forecast of the Adult State-Responsible Confined Population

The Secretary’s Policy Committee examined the SR population forecasts produced by the DOC simulation model and the DPB time series model (see the *Forecasting Methodologies* section of this report for a description of these techniques). In the first few years of the 2017 SR population forecast, the current confined SR population has the largest impact on the future SR population. Approximately two to three years into the forecast horizon, the admissions have a larger impact on the population forecast. As discussed earlier in this report, admissions data information is lagging and the expected length of stay (LOS) for the most recent SR New Court Commitments is lower than previous years. It is not known if this lower LOS is an anomaly or a shift. VCSC sentencing guidelines data do not show a shift toward lower sentences in recent years. There has been an increase in the number violent and drug offenders awaiting trial. There have been increases in arrest rates. Given these factors, the Policy Committee approved a hybrid model combining DOC’s forecast for January 2017 through June 2019 with an average of DOC’s

forecast and DPB's forecast for July 2019 through June 2023. This hybrid model compensates for the data limitations discussed above by applying recently observed population growth rates to the forecast. Based upon the approved male and female forecasts, the total offender population is projected to increase by 643 (1.7%) between the end of FY2016 and the end of FY2019 (Figure 8). After a decline of 0.3% in FY2020, the population is expected to begin growing again at a rate of 0.2% to 0.6% annually. By the end of FY2023, the number of state-responsible confined offenders is expected to reach 39,278.

Figure 8
Adult State-Responsible Confined Population Forecast (for June 30 of each year)



Actual:	Year	Population	Change	Forecast:	Year	Population	Change
	FY10	38,178	-1.6%		FY17	37,909	-0.9%
	FY11	37,983	-0.5%		FY18	38,276	1.0%
	FY12	37,849	-0.4%		FY19	38,907	1.6%
	FY13	38,337	1.3%		FY20	38,777	-0.3%
	FY14	38,912	1.5%		FY21	38,854	0.2%
	FY15	39,152	0.6%		FY22	39,063	0.5%
	FY16	38,264	-2.3%		FY23	39,278	0.6%
	Avg. change -0.2%				Avg. change 0.6%		

The 2017 SR population forecast is lower than the forecast presented to the Governor and General Assembly last year during the early years of the six-year projection (through FY2018). For the remainder of the projection period (through FY2023), the 2017 SR population forecast is slightly higher than the forecast submitted last year (Figure 9).

Figure 9
Comparison of 2016 and 2017 Forecasts of the
Adult State-Responsible Confined Population

Year	2016 Forecast	2017 Forecast
FY2016	38,224	
FY2017	38,529	37,909
FY2018	38,804	38,276
FY2019	38,619	38,907
FY2020	38,615	38,777
FY2021	38,817	38,854
FY2022	38,977	39,063
FY2023		39,278

Figures represent the population on June 30 of each year.

The SR population forecast is disaggregated by gender below (Figure 10). Between FY2011 and FY2016, the number of females in the SR population grew by 10.5%, compared to a 0.1% decrease in the number of SR males during that same time period. Based on the approved forecast, the females will continue to grow faster than their male counterparts. For FY2017 through FY2023, the male population is expected to grow at an average rate of 0.6% annually, compared to the 1.8% average annual growth for the female population.

Figure 10
Adult State-Responsible Confined Population by Gender
(for June 30 of each year)

Year	Males	Change
FY17	34,768	
FY18	34,980	0.9%
FY19	35,505	1.7%
FY20	35,407	-0.3%
FY21	35,452	0.2%
FY22	35,606	0.5%
FY23	35,782	0.6%

Projected average growth
FY2017 – FY2023: 0.6%

Year	Females	Change
FY17	3,141	
FY18	3,296	4.9%
FY19	3,402	3.2%
FY20	3,370	-0.9%
FY21	3,402	0.9%
FY22	3,457	1.6%
FY23	3,497	1.2%

Projected average growth
FY2017 – FY2023: 1.8%

As required by Item 383 of Chapter 780 of the 2016 Acts of Assembly, the forecast has been disaggregated to identify the number of probation violators within the overall population who may be appropriate for punishment via alternative sanctions. By the end of FY2023, it is projected that the state-responsible population will include 1,752 technical probation violators (Figure 11 below). Technical violators are offenders who violated the rules of probation but have not been convicted of a new crime. This forecast is similar to the forecast presented last year. However, the forecast should be considered a maximum, as DOC will continue to analyze this subpopulation. As the criminal history repository is updated with new conviction information, the proportion of violators identified as technical violators (i.e., those with no new convictions) may decrease.

Based on a previous study, DOC has estimated that 53% of technical violators with a state-responsible sentence may be suitable for alternative sanctions such as its Detention and Diversion Center Programs. DOC concluded that approximately 47% of technical violators entering DOC are likely not good candidates for such alternatives due to convictions for violent offenses (22%), mental health issues (15%), or medical conditions (10%).

**Figure 11
Technical Probation Violator Population Forecast**

Year	Forecast
FY18	1,736
FY19	1,767
FY20	1,754
FY21	1,745
FY22	1,749
FY23	1,752

The Technical Probation Violator forecast is a subgroup of, and not in addition to, the State-Responsible Confined Offender Forecast.

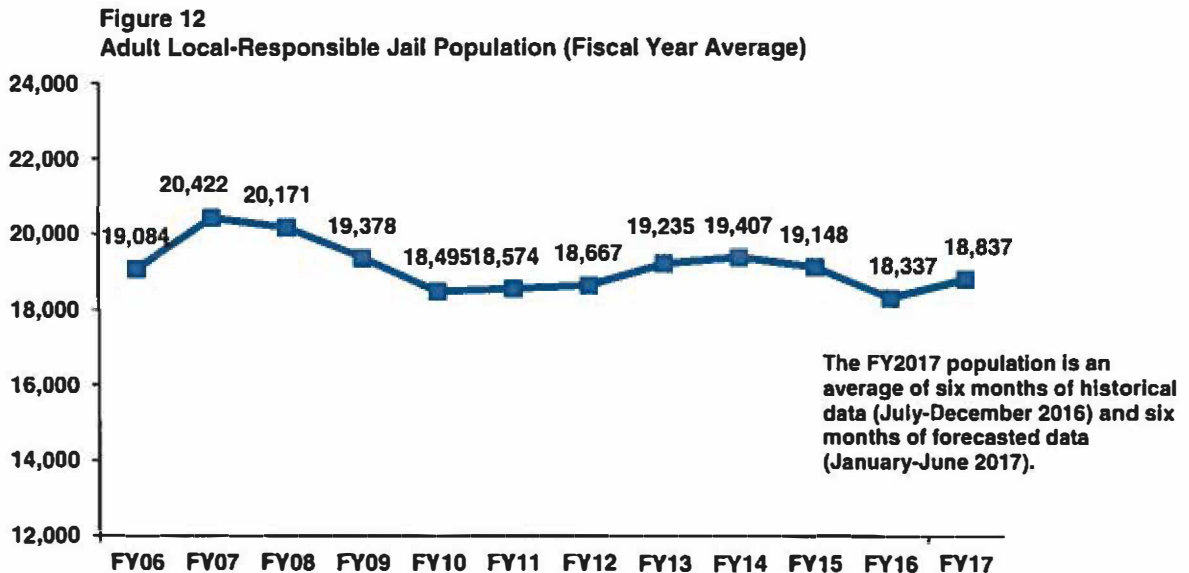
Adult Local-Responsible Jail Population

The adult local-responsible jail population is defined as the number of persons confined in local and regional jails across the Commonwealth, excluding state and federal inmates and ordinance violators. Because jail populations fluctuate daily (with higher numbers on weekends) and seasonally (with peaks during late summer and early fall and lows during the winter months), the average daily population traditionally is used for reporting and forecasting purposes.

A new jail data system, known as LIDS-CORIS, was implemented in June 2013. Improvements in the LIDS-CORIS system and support programming, along with corrections and updates entered into the system by jail staff, led to subsequent updates of the data. Thus, the figures in this report are not directly comparable to those provided in previous offender forecasting reports.

Population Change

Following substantial growth in FY2006 and FY2007, the average local-responsible jail population declined each succeeding year through FY2010 (Figure 12). The population grew slowly from FY2011 through FY2014. This was followed by decreases in FY2015 (1.3%) and FY2016 (4.2%). Complete data are not available for FY2017, due to a lag in the data that was identified in last year’s forecasting process. As jails receive new information, changes are entered into the system and population figures are updated. For this year’s forecast, analysts determined that data for the most recent six months are not sufficiently mature. Therefore, the FY2017 population data in Figure 12 includes six months of historical data (July to December 2016) and six months of forecasted data (January to June 2017). The combined historical-projected FY2017 population of 18,837 represents an increase of 2.7% above the FY2016 population average.



Based on improvements in the LIDS-CORIS data system and associated computer programming, along with corrections and updates entered into the system by jail staff, the Compensation Board has released revised figures for the number of local-responsible offenders held in jails. Figures have been updated accordingly and, therefore, are not comparable to those provided in previous offender forecasting reports.

Factors Affecting the Population

Numerous factors have an impact on the local-responsible jail population, such as arrests, bail release decisions, case processing time in the courts (which affects the time served awaiting trial), and lengths-of-stay for convicted offenders serving a sentence.

Despite reductions in the crime rate (crimes per 100,000 population) since the early 1990s, the total number of adult arrests in Virginia (based on arrests reported to the Federal Bureau of Investigation) had been climbing from 2007 through 2013. In 2014 and 2015, the number of adults arrested declined across all three offense categories (violent, property and drug). In 2016, arrests for violent and drug offenses increased, while arrests for property offenses continued to decrease. Shifts in arrest patterns, both in number and types of arrests, can have a significant impact on the local-responsible population, including individuals in the awaiting trial and the number of sentenced offenders in jail.

The number of adults arrested for violent index crimes (murder/non-negligent manslaughter, forcible rape, robbery and aggravated assault) has fluctuated from year to year but has not exhibited an overall trend. Most recently, the number of adults arrested for violent offenses increased by 7.3% from 2015 to 2016. The number of adults arrested for property offenses (burglary, larceny and motor vehicle theft) grew between 2006 and 2011, before leveling off during 2012 and 2013. The number of these arrests declined by 4.9% in 2014, by 0.3% in 2015, and by 12.9% in 2016. The number of arrests for drug offenses increased more than 43% between 2002 and 2007. In 2008 and 2009, Virginia experienced a decline in drug arrests. Data reveal that this dramatic shift was driven by a steep drop in arrests for cocaine offenses, which have fallen by 62% between 2006 and 2014. This is consistent with trends across the country. However, that trend shifted in 2016, with arrests for cocaine offenses increasing by 15.7%. The total number of drug arrests has been rising since 2010 due to increases in arrests for marijuana, heroin and other drugs. For example, between 2009 and 2013, arrests for heroin grew by 76%, while arrests for methamphetamine and other stimulants drugs together increased by 83%. Marijuana arrests significantly increased between 2006 and 2013, decreased in 2014 and 2015, and then increased again in 2016. Total adult drug arrests increased 9.6% in 2016.

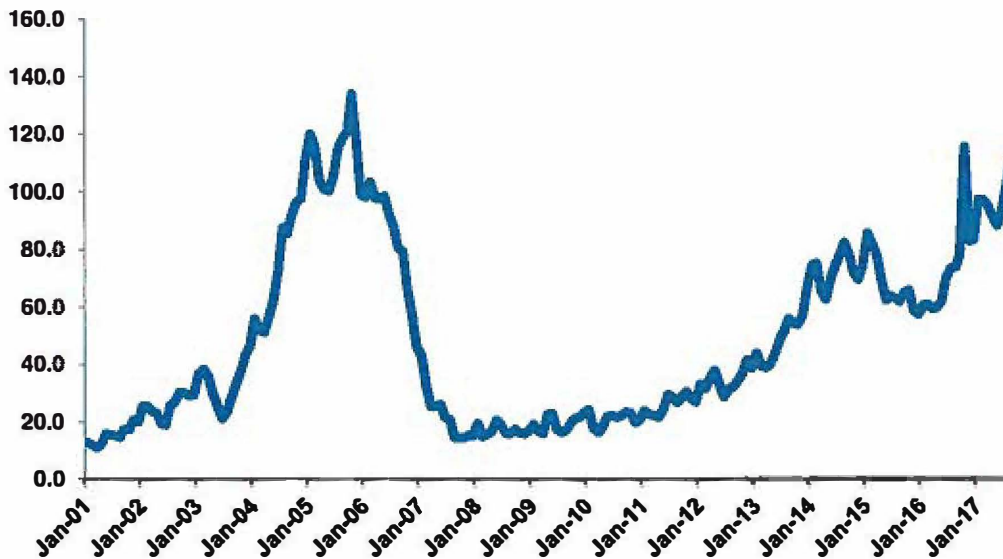
Another drug-related issue that could impact the local-responsible offender population is the ongoing crisis of opioid overdose fatalities. Anecdotally there are unofficial reports that some judges are becoming more likely to incarcerate opioid addicts, in an effort to prevent them from having a fatal overdose. If this happens in large numbers, it could contribute to a rise in the awaiting-trial population. However, at this time, there is no official confirmation of this practice.

One factor that almost certainly has had an impact on the awaiting trial population in the last ten years is the backlog of drug cases awaiting analysis at the Department of Forensic Science (DFS). Beginning in 2003, the average number of days to complete a drug analysis rose sharply (Figure 13). The backlog is suspected to have resulted in delays in criminal case processing for those offenders charged with drug crimes. The effect of these delays could be seen in the dramatic rise from FY2004 through FY2007 in the number of persons in jail awaiting trial and those in jail with additional charges pending. Once given additional resources, DFS was able to swiftly reduce the backlog of drug cases. With analysis for thousands of drug cases completed, a large number of open court cases could be concluded and the offenders convicted and

sentenced. Consequently, the number of offenders in jail awaiting trial declined and several categories of sentenced offenders increased through FY2008.

Since FY2013, the average number of days to complete a drug analysis has been increasing and the drug case backlog has been rising once again. DFS has indicated that there are several reasons for this. The number of non-marijuana drug samples submitted to the Department has been increasing recently and many of the samples involve chemically complex drugs that take longer to analyze. Moreover, the 2009 U.S. Supreme Court decision in *Melendez-Diaz* has had a long-term impact on the agency. In the *Melendez-Diaz* case, the Supreme Court ruled that a forensic analyst generally must testify in person, unless waived by the defendant. This has required DFS analysts to spend additional time in court, decreasing time spent in the lab. Finally, when DFS hires new analysts, the training and certification process takes many months; thus, new analysts are not available to take on the more complex types of cases for quite some time.

Figure 13
Department of Forensic Science
Average Days to Complete Drug Analysis



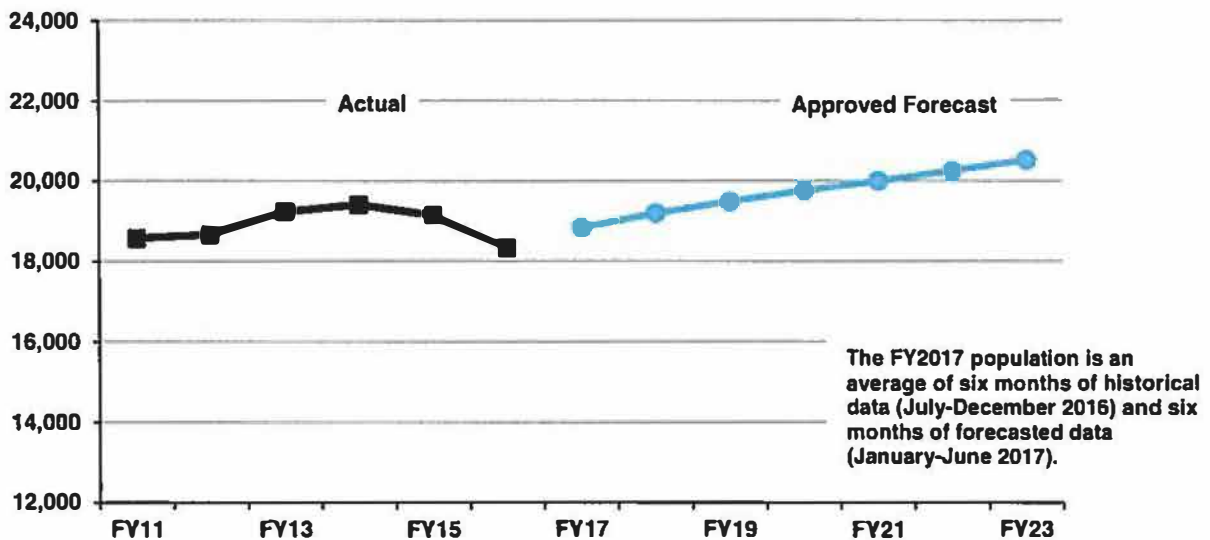
Forecast of the Adult Local-Responsible Jail Population

Forecasts of the local-responsible jail population were produced by the Department of Criminal Justice Services (DCJS) and DPB. Both agencies used time series techniques to forecast this population (time series forecasting techniques are described in the *Forecasting Methodologies* section of this report). Both agencies used December 2016 as the last month of historical population data, to account for time needed for the LIDS-CORIS data to mature. Both models fit the historical data well, although the DCJS model yielded better statistical accuracy. This year, however, there is a great deal of uncertainty surrounding the local-responsible population forecast. In addition to the data lag described above, the most recent trends in felony arrests and court filings suggest a possible change in trend for the local-responsible population that is not yet fully captured in the historical data available for the development of the forecast.

For example, while completed felony cases declined from 2014 through 2016, new felony charges filed in circuit court increased in 2016 and during the first half of 2017.

Given the prevailing uncertainty, the Policy Committee approved the average of the DCJS and DPB models as the official forecast. The local-responsible jail population is expected to increase by 2.7% from an average of 18,337 in FY2016 (the last complete fiscal year of historical data) to an average of 18,837 in FY2017 (using six months of historical data and six months of forecasted data). In FY2018, the population is projected to increase by 1.9%, followed by growth of 1.5% in FY2019. During the remaining years of the forecast (through FY2023), the population is projected to grow by 1.3% annually. Based on the approved forecast, the average local-responsible jail population is expected to reach 22,522 in FY2023 (Figure 14). This projection is more than 1,000 higher than the forecast submitted to the Governor and General Assembly last year.

Figure 14
Local-Responsible Jail Population Forecast (Fiscal Year Average)



Actual:	Year	Population	Change	Forecast:	Year	Population	Change
	FY11	18,574	0.4%		FY17	18,837	2.7%
	FY12	18,667	0.5%		FY18	19,195	1.9%
	FY13	19,235	3.0%		FY19	19,487	1.5%
	FY14	19,407	0.9%		FY20	19,739	1.3%
	FY15	19,148	-1.3%		FY21	19,993	1.3%
	FY16	18,337	-4.2%		FY22	20,256	1.3%
					FY23	20,522	1.3%
	Avg. change		-0.1%		Avg. change		1.4%

Figures represent the average population for each fiscal year.

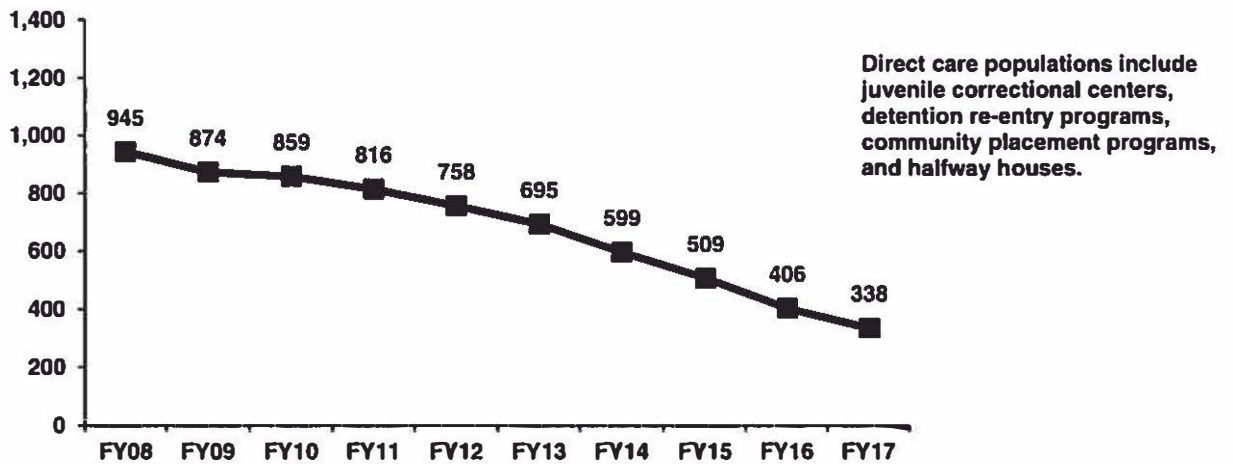
Juvenile Direct Care Population

Juvenile state-responsible offenders are committed by a court to Virginia’s Department of Juvenile Justice (DJJ). They are housed in juvenile correctional facilities around the state or they are placed in re-entry, community placement, or halfway house programs¹; collectively, these make up DJJ’s direct care population. Virginia’s juvenile justice system differs substantially from the adult system. While Virginia has moved to a more determinate sentencing system for its adult offenders, dispositions involving commitment in the juvenile justice system remain largely indeterminate. Approximately 78% of commitment orders to DJJ in FY2017 were for an indeterminate period of confinement.² This means that DJJ, rather than a judge, determines the length of the juvenile’s commitment which is governed by guidelines approved by the Board of Juvenile Justice. The courts commit a smaller percentage of juvenile offenders to DJJ with a determinate, or fixed length, sentence; a juvenile given a determinate commitment may be reviewed by the judge at a later date and may be released at the judge’s discretion prior to serving the entire term. In Virginia, juveniles tried and convicted as adults in circuit court may also be committed to DJJ, at the judge’s discretion.

Population Change

The juvenile direct care population has been declining since FY2000. The population fell from an average of 758 juveniles in FY2012 to an average of 695 juveniles in FY2013, a decrease of 8.3% (Figure 15). From FY2015 to FY2017, the downward trend accelerated and the population decreased by 15.0%, 20.2% and 16.7%, respectively. For FY2017, the average daily population was 338 juveniles.

Figure 15
Juvenile Direct Care Population (Fiscal Year Average)



¹ DJJ operated halfway houses for the direct care population beginning in July 2012. Due to budget reductions, the halfway houses were closed in January 2014.

² In FY2017, 78% of the commitment orders for DJJ received indeterminate commitments. However, juvenile may have more than one commitment order. In FY2017, 76% of juveniles committed to the DJJ received indeterminate commitments only (this excludes any juveniles that had indeterminate and determinate sentences or indeterminate and blended sentences; it is strictly an indeterminate commitment orders).

Accuracy of the Forecast Adopted in 2016

The juvenile direct care population forecast adopted in 2016 was lower than the actual population during FY2017 (Figure 16). The previous forecast had projected a decline in the population; however, the population decreased less than had been anticipated based on the forecast. For FY2017, the average daily population was 13 juveniles (or 3.8%) higher than the forecast.

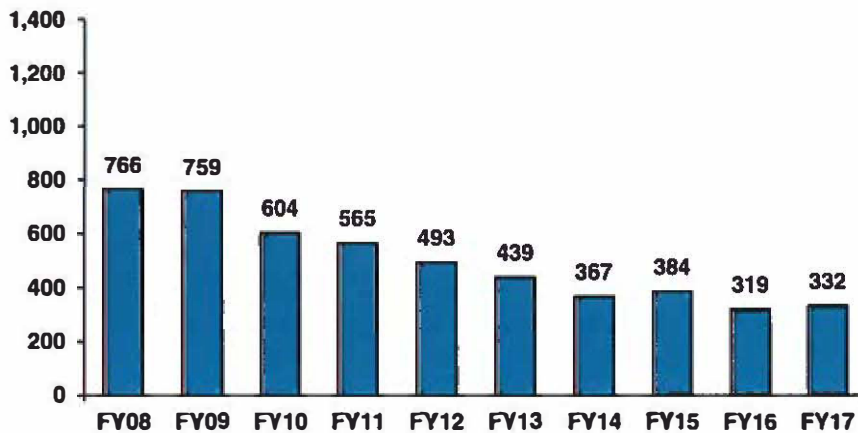
Figure 16
Accuracy of the Juvenile Correctional Center/Direct Care Population Forecast
Adopted in 2016

	Actual	Projected	Difference	Percent
FY2017 Average Population	338	325	13	3.8%

Factors Affecting the Population

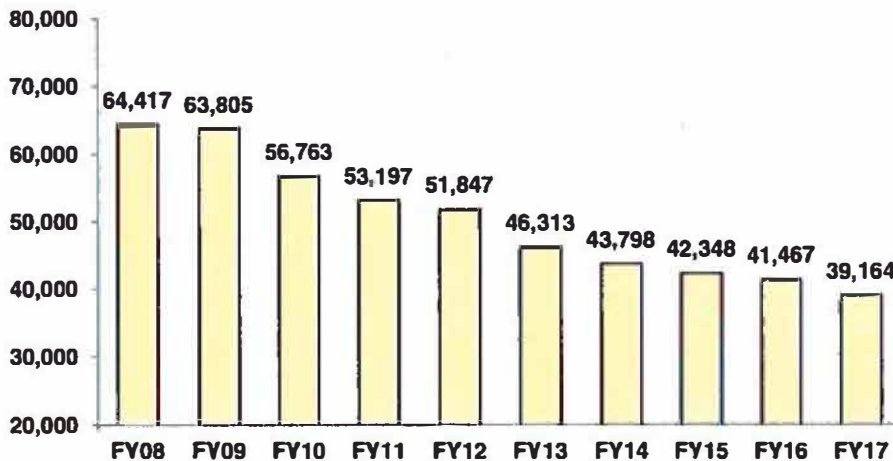
The number of juveniles in direct care population has been declining. The decline has largely been driven by a decrease in the number of admissions (Figure 17). There have been several statutory and policy changes related to juvenile offenders. The General Assembly changed the minimum criteria for a juvenile to be committed to DJJ (from a felony or two Class 1 misdemeanor adjudications to a felony or four Class 1 misdemeanor adjudications) beginning July 1, 2000. In 2002, the General Assembly required DJJ to establish objective guidelines for use by intake officers when deciding whether to place a juvenile in a juvenile detention home at intake. In 2004, DJJ successfully implemented, statewide, the use of the Detention Assessment Instrument (DAI), a validated detention screening tool. In 2004, the General Assembly afforded juveniles the right to counsel in their initial detention hearing. The legislation also provided that, when a juvenile is not detained, but is alleged to have committed an offense that would be a felony if committed by an adult, that juvenile may waive his right to an attorney only after he or she consults with an attorney. Additionally, in 2004 and 2009, the *Code of Virginia* was amended to expand the use of diversion by intake officers by allowing intake officers greater discretion to divert lesser offenses such as any misdemeanors, child in need of services, and child in need of supervision offenses from going to court. These policy changes, alone, however, cannot explain the trend in admissions that persisted through FY2014. Between FY2008 and FY2014, yearly admissions to DJJ dropped by 52%. In FY2015, the number of admissions increased for the first time in 15 years. The number of admissions dropped again in FY 2016 from 384 to 319, a 17% decrease. In FY 2017, the number of admissions increased by 4.1% from 319 to 332.

Figure 17
Admissions to the Department of Juvenile Justice



The state’s court services units serve as the point of entry into the juvenile justice system. A “juvenile intake” occurs when a juvenile is brought before a court services unit officer for one or more alleged law violations. DJJ data reveal that the total number of juvenile intake cases has been falling over the last decade (Figure 18). Between FY2008 and FY2017, juvenile intake cases at court services units declined by nearly 39%.

Figure 18
Juvenile Intake Cases at Court Services Units



DJJ procedures and practices may have affected intakes and admissions. DJJ has implemented approaches that include the use of validated, structured decision making tools in numerous aspects of community and facility operations. Critical decision points include the initial decision to detain, the assignment to various levels of community probation or parole supervision, and the classification of committed juveniles within the facility setting. Tools include the DAI, described above, a court services unit risk assessment instrument, and the juvenile correction center classification instrument. The DAI is designed to enhance consistency and equity in the detention decisions and to ensure that only those juveniles who represent a serious threat to public safety and those most at risk for failing to appear in court are held in

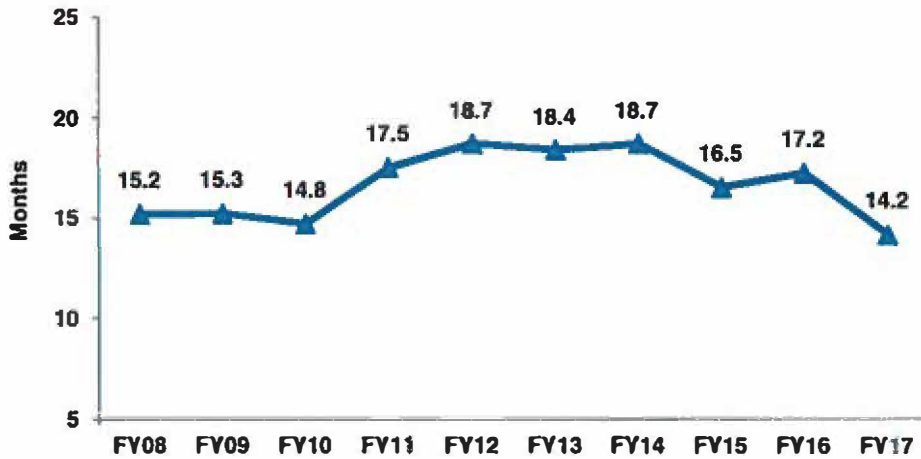
secure pre-trial detention. In 2008, DJJ began the process of implementing an enhanced risk/needs assessment tool, called the Youth Assessment & Screening Instrument (YASI), in the court services units. Finally, DJJ has implemented procedures and practices to address juvenile probation and parole violators. The goal is to enhance consistency and equity in the handling of violators and to ensure that only those juveniles who represent a serious threat to public safety are confined.

The composition of commitments to DJJ has continued to change as well. Many less serious juvenile offenders are no longer committed to DJJ. Thus, juveniles with longer commitment lengths of stay now make up a larger share of those received by DJJ. There are three categories of juvenile commitments: indeterminate commitments, determinate commitments, and blended sentences. For a juvenile with an indeterminate commitment, DJJ determines how long the juvenile will remain in direct care, up to his or her statutory release date which is 36 continuous months or the juvenile's 21st birthday, whichever occurs first, for most offenses. These juveniles are assigned a length-of-stay range based on the Board of Juvenile Justice's guidelines. The guidelines in use through October 2015 considered the juvenile's current committing offenses, prior offenses, and chronicity of prior delinquency or criminal offense record to project the estimated length of stay. In FY2015, the most common assigned length-of-stay categories for court-ordered indeterminate commitments were 12-18 months. Failure to complete a mandatory or recommended treatment program, such as substance abuse or sex offender treatment, or the commission of institutional offenses, could prolong the actual length of stay beyond the assigned range. The guidelines used since October 2015 consider the juvenile's current committing offenses and risk for reoffending, as determined by a YASI assessment, to project the estimated stay. The YASI includes information on the juvenile's contacts with the criminal justice system. The highest range of the new length-of-stay guidelines is 9 to 15 months, compared to a high-end range of 24 to 36 months under the previous length-of-stay guidelines. It is expected that the new length-of-stay guidelines will result in shorter lengths-of-stay for most juveniles committed to DJJ. In FY2017, the most common assigned length-of-stay category for court-ordered indeterminate commitments was 6-9 months. However, a juvenile may remain in direct care after the projected range and until his or her statutory release date through a series of case-specific reviews of progress in treatment and behavior in the facilities.

For a juvenile given a determinate commitment to DJJ, the judge sets the commitment period to be served (up to age 21), although the juvenile can be released at the judge's discretion prior to serving the entire term. Nonetheless, determinately-committed juveniles remain in DJJ facilities longer, on average, than juveniles with indeterminate commitments to DJJ. The average assigned-of-stay for a court-ordered determinate sentence to DJJ is approximately 37 to 42 months. Finally, a juvenile given a blended sentence from a circuit court after transfer from juvenile court for trial as an adult can serve up to age 21 at a DJJ facility before being transferred to DOC to serve the remainder of his term in an adult facility. One juvenile may be subject to more than one commitment order and type of commitment order. Compared to FY2004, the percentage of commitment orders for determinate commitments and blended sentences now make up a larger share of admissions. Together, orders for these two commitment types increased from roughly 10% of the total in FY2004 to as high as 22% in FY2017.

Along with admissions, the actual lengths-of-stay are a critical factor affecting the direct care population. In FY2014, the average length-of-stay was 18.7 months, compared to 15.2 months in FY2008 (Figure 19). Average length-of-stay decreased to 14.2 months in FY2017. The drop in length-of-stay in FY2017 was the primary driver of the population decline during the year.

Figure 19
Average Length-of-Stay In the Juvenile Direct Care Population (in months)

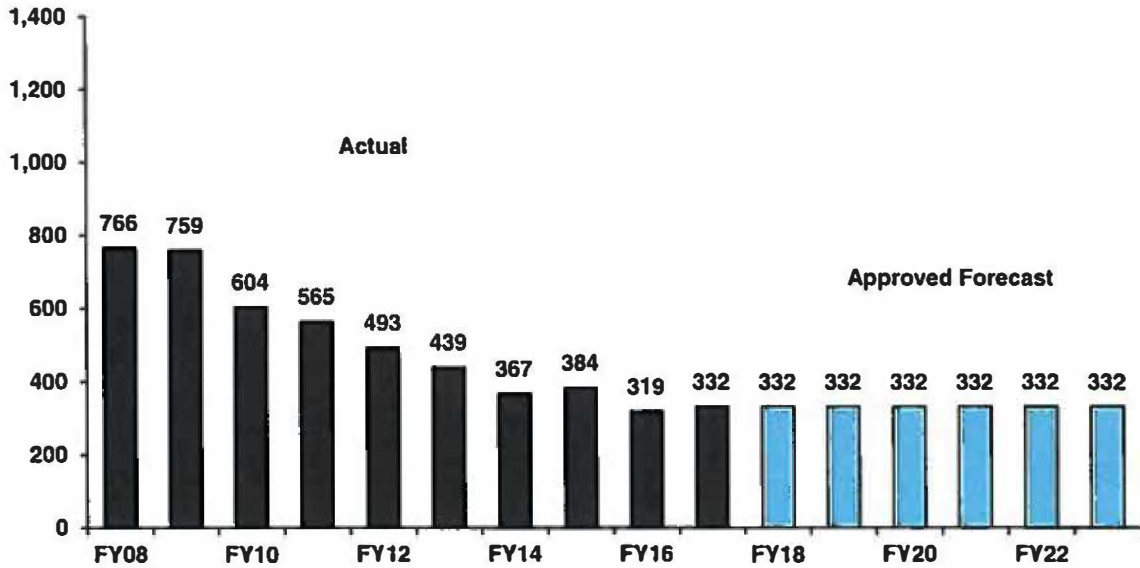


New Admissions Forecast

The admission forecast is one of the key inputs into DJJ’s simulation model. Given the long-term downward trend in juvenile admissions, statistical models based on historical data are not useful tools in projecting future admissions because the models will continue the downward trend to zero, which is not a realistic assumption for future admissions to DJJ. As in previous years, the Policy Committee concluded that the decrease in admissions will not continue indefinitely. In one of the last eight years, the Policy Committee elected not to use the statistical forecast of juvenile admissions and instead set a level admissions forecast equal to the number of actual admissions during the most recent fiscal year. In the other years, the Policy Committee utilized the statistical projection for the early years of the forecast horizon and then assumed a flat admissions forecast for the remaining years of the forecast period.

For this year’s forecast, the Policy Committee approved the use of the DJJ admissions for FY2017 and set a flat admissions forecast from FY2018 through FY2023 (Figure 20). Under this forecast, it is assumed that admissions will remain level from FY2018 through FY2023.

**Figure 20
Juvenile Direct Care Admissions Forecast**



Assumptions for Department of Juvenile Justice’s Simulation Model

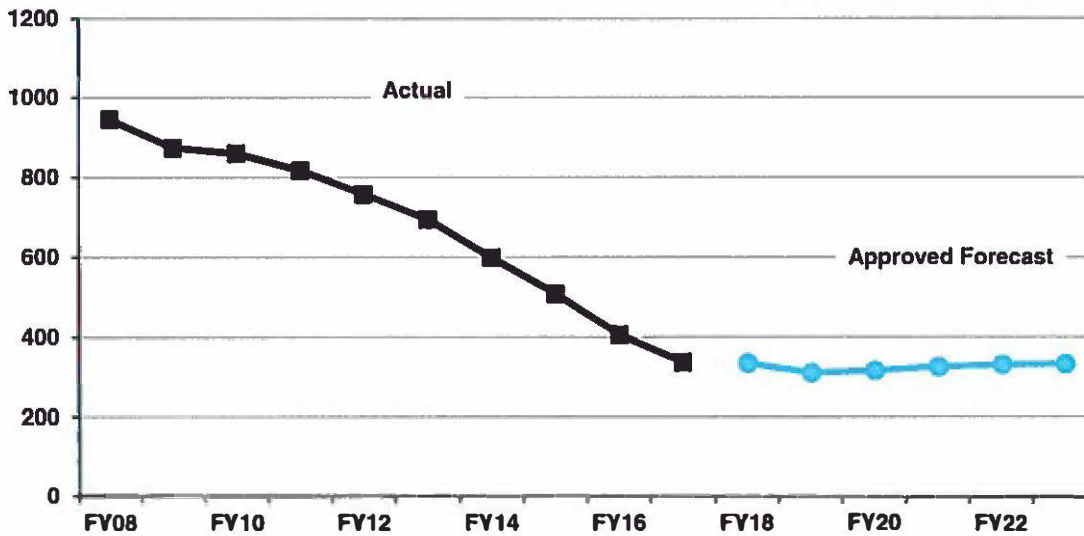
DJJ utilizes a computer simulation model to develop its forecast of the juvenile direct care population. A description of simulation modeling can be found in the *Forecasting Methodologies* section of this report. Use of simulation forecasting requires several assumptions regarding commitments and releases. The following are the important assumptions incorporated into DJJ’s simulation model:

- The number of future admissions will reflect the admissions forecast approved by the Policy Committee (see above);
- Future admissions will have the same characteristics (e.g., offenses, prior record adjudications, treatment assignment, institutional offenses, etc.) as admissions during FY2017;
- Juveniles given a determinate commitment or blended sentence will comprise the same percentage of admissions as they did during FY2017;
- Juveniles with indeterminate commitments will be assigned length-of-stay categories according to DJJ’s new length-of-stay guidelines; based on FY2017 admissions characteristics, future admissions will be assigned to one of the new length-of-stay categories; and
- Because it is not known how long juveniles will actually serve under the new guidelines, DJJ examined historical data to determine how long juveniles in each length-of-stay category actually served under the previous guidelines, and applied that proportion to the juveniles assigned to the new length-of-stay categories.

Juvenile Direct Care Population Forecast

The Policy Committee examined the juvenile direct care population forecasts produced by the DJJ simulation model and the DPB time series model (see the *Forecasting Methodologies* section of this report for a description of these techniques). After reviewing both the DJJ and DPB population projections in detail, the Policy Committee approved the DJJ simulation model forecast. The approved forecast suggests that the population will continue to decline in the short term (Figure 21). The forecast projects a decrease through FY2019, when the population is expected to reach 311 juveniles. Beginning in FY2020, however, the population is expected to increase slightly. By FY2023, the total juvenile direct care population is projected to be 333.

Figure 21
Juvenile Direct Care Population Forecast (Fiscal Year Average)



Actual:	Year	Population	Change	Forecast:	Year	Population	Change
	FY12	758	-7.1%		FY18	335	-1.0%
	FY13	695	-8.3%		FY19	311	-7.3%
	FY14	599	-13.9%		FY20	316	1.9%
	FY15	509	-15.0%		FY21	326	3.0%
	FY16	406	-20.2%		FY22	331	1.5%
	FY17	338	-16.7%		FY23	333	0.7%
	Avg. change		-13.5%		Avg. change		-0.2%

Figures represent the average population for each fiscal year.

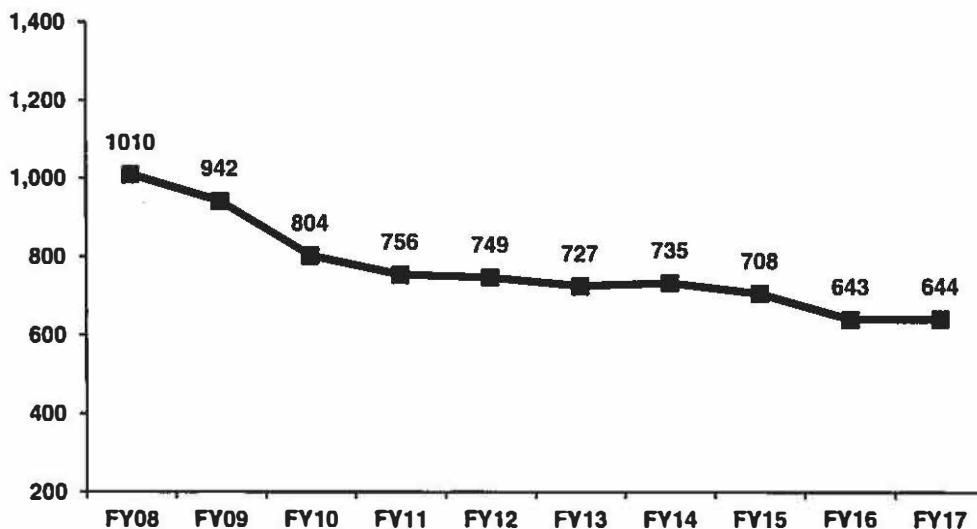
Juvenile Detention Home Population

Local governments or multi-jurisdictional commissions operate secure juvenile detention homes throughout the Commonwealth. The Board of Juvenile Justice promulgates regulations and the Director of the Department of Juvenile Justice is responsible for the certification of these facilities. To be eligible for pre-dispositional detention, there must be probable cause to establish that the juvenile committed a Class 1 misdemeanor or a felony offense. A judge may order a juvenile charged with a felony-level offense or a Class 1 misdemeanor to be held in detention pending adjudication, disposition, or placement. To be eligible for post-dispositional detention, the juvenile must be 14 years or older and been found to have committed a non-violent juvenile felony or Class 1 or Class 2 misdemeanor offense. A judge may order an adjudicated juvenile to be held in post-dispositional detention up to 30 days or, if the juvenile detention home operates a post-dispositional detention program, up to 6 months. Historically, the majority of the juvenile detention home population has been comprised of juveniles in pre-dispositional status.

Population Change

Overall, the juvenile detention home population declined by 36% between FY2008 and FY2017. The rate of decline slowed after FY2011 until FY 2015 but accelerated in FY2016 (Figure 22). The detention home population leveled off in FY2017 and averaged 644 juveniles statewide. While individual facilities may be experiencing crowding, juvenile detention home capacity statewide has not been fully utilized in recent years.

Figure 22
Juvenile Detention Home Population (Fiscal Year Average)



Accuracy of the Forecast Adopted in 2016

The forecast of the juvenile detention home population adopted in 2016 was lower than the actual population in FY2016. On average for the year, the forecast was 41 juvenile (or 6.4%) lower than the actual population (Figure 23). The actual population increased by 0.2% during the fiscal year.

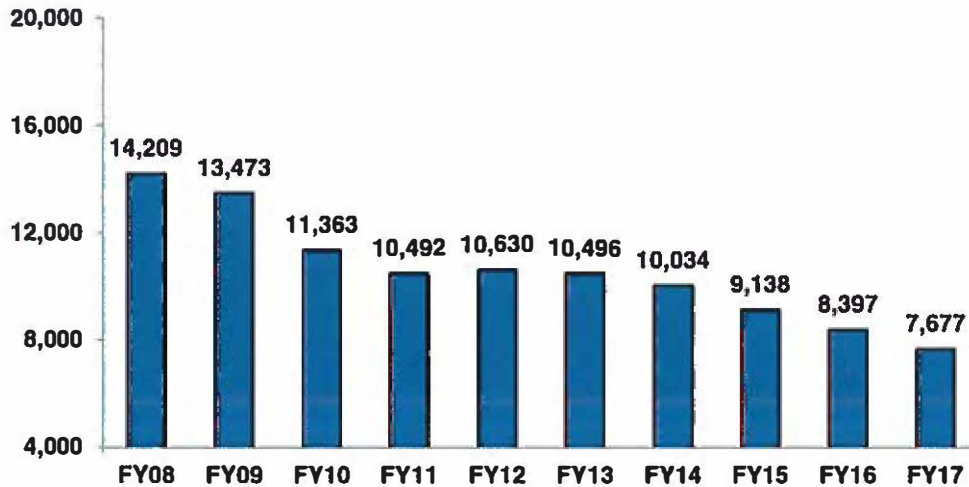
Figure 23
Accuracy of the Juvenile Detention Home Forecast
Adopted in 2016

	Actual	Projected	Difference	Percent
FY2017 Average Population	644	603	41	6.4%

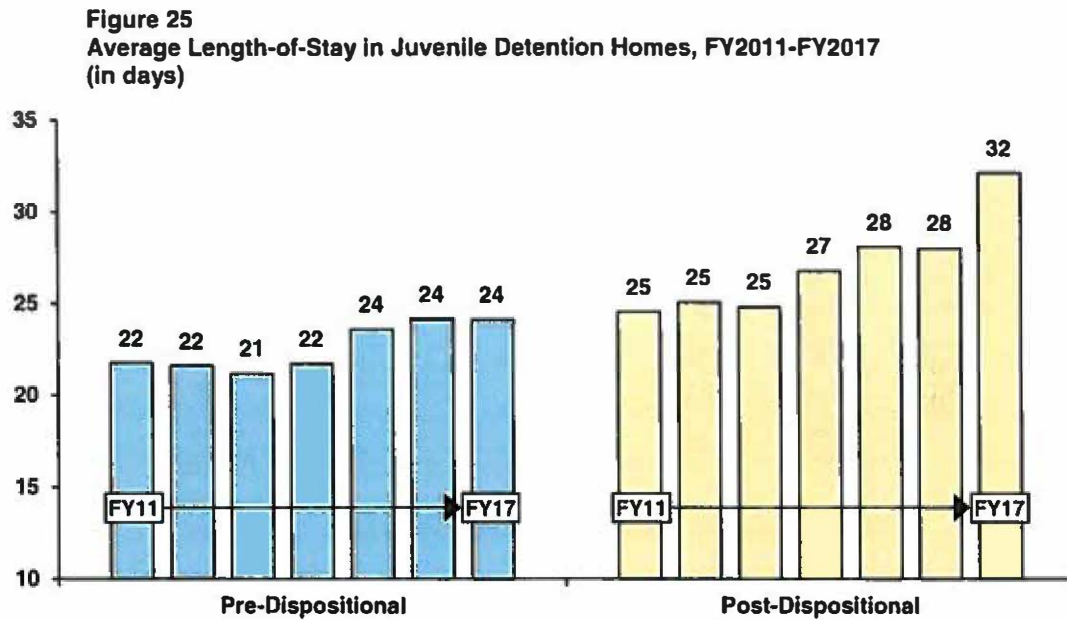
Factors Affecting the Population

As described in the previous chapter, the number of juvenile intake cases at the state's court services units has declined significantly since FY2008. Reflecting this downward trend in intakes, detention home admissions (first-time detainments, excluding transfers) dropped 26.2% between FY2008 and FY2011 (Figure 24). After remaining relatively flat from FY2011 to FY2013, detainments dropped by 4.4%, 8.9%, and 8.1% from FY 2014 to FY 2016. This was followed by an 8.6% decrease in detainments in FY2017.

Figure 24
Juvenile Detention Home Admissions –
First-Time Detainments (excluding Transfers)



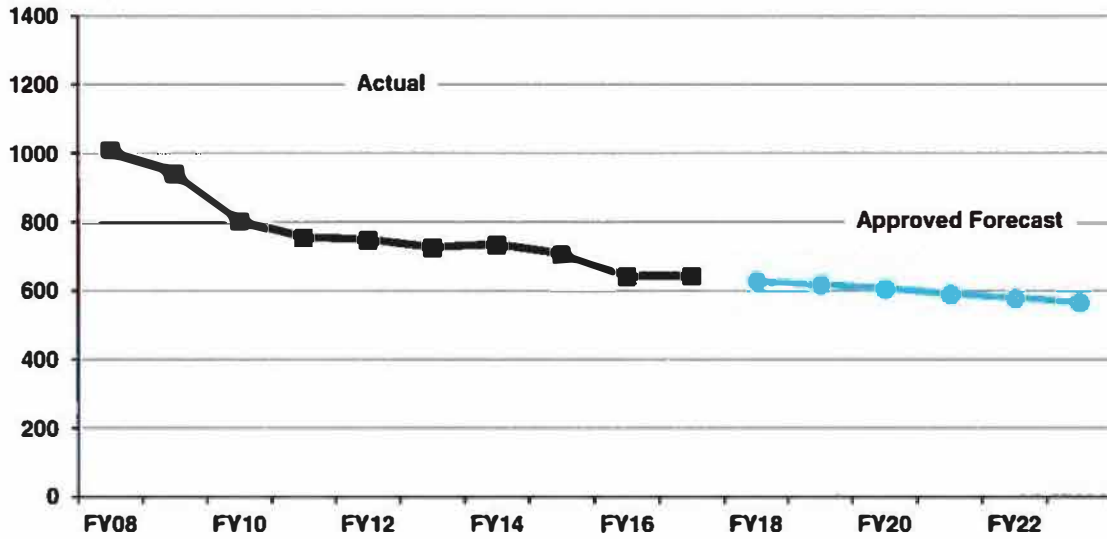
Shorter lengths-of-stay for a large share of those in juvenile detention homes was an important factor in reducing the population between FY2008 and FY2012, during which time the average length-of-stay for the pre-dispositional juveniles fell from 26 to 22 days (Figure 25). The next year, average pre-dispositional length-of-stay decreased to 21 days. Lengths-of-stay for juveniles placed in post-dispositional detention, who account for a smaller share of the population, remained at 24 or 25 days until FY2013. In FY2014, both pre-dispositional and post-dispositional length-of-stay increased. This increase in length-of-stay offset the decrease in admissions and resulted in a small increase in the population, overall, for the FY2014. Lengths-of-stay for pre-dispositional and post-dispositional juveniles continued to increase in FY2015. The increase in the average length-of-stay in FY2015, however, was offset by a significant decrease in admissions to the juvenile detention homes, resulting in decline in the population for the year. The lengths-of-stay for pre-dispositional juveniles remained level in FY2017, but increased for post-dispositional juveniles.



Juvenile Detention Home Population Forecast

Forecasts of the juvenile detention population were produced by DJJ and DPB. Both agencies used time series techniques to forecast this population (time series forecasting techniques are described in the *Forecasting Methodologies* section of this report). After careful evaluation of both the DJJ and DPB projections, the Policy Committee approved the DJJ model as the official forecast of the juvenile detention home population. Under the approved forecast, the detention home population is expected to decline over the next six years by an average of 2.1% annually, reaching an average population of 568 in FY2023 (Figure 26).

Figure 26
Juvenile Detention Home Population Forecast (Fiscal Year Average)



Actual:	Year	Population	Change	Forecast:	Year	Population	Change
	FY12	749	-0.9%		FY17	629	-2.4%
	FY13	727	-2.9%		FY18	618	-1.7%
	FY14	735	1.1%		FY19	607	-1.8%
	FY15	708	-3.7%		FY20	591	-2.6%
	FY16	643	-9.2%		FY21	580	-1.8%
	FY17	644	0.2%		FY22	568	-2.0%
	Avg. change		-2.6%		Avg. change		-2.1%

Figures represent the average population for each fiscal year.

Appendices

Appendix A
Legislative Directive

Item 383 of Chapter 836 of the 2017 Acts of Assembly (Appropriation Act)

Authority: Title 2.2, Chapter 2, Article 8, and § 2.2-201, Code of Virginia.

- A. The Secretary of Public Safety and Homeland Security shall 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, 2016, for each fiscal year through FY 2022 and by October 15, 2017, for each fiscal year through FY 2023. The secretary shall ensure that the revised forecast for state-responsible adult offenders shall include an estimate of the number of probation violators included each year within the overall population forecast who may be appropriate for alternative sanctions.
- B. The secretary shall continue to work with other secretaries to (i) develop services intended to improve the re-entry of offenders from prisons and jails to general society and (ii) enhance the coordination of service delivery to those offenders by all state agencies. The secretary shall provide a status report on actions taken to improve offender transitional and reentry services, as provided in § 2.2-221.1, Code of Virginia, including improvements to the preparation and provision for employment, treatment, and housing opportunities for those being released from incarceration. The report shall be provided to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees no later than November 15 of each year.
- C. The Secretary of Public Safety and Homeland Security and the Secretary of Health and Human Resources shall jointly prepare a report on potential options for continued utilization of the Peumansend Creek Regional Jail as a state, regional, or local correctional mental health facility. This shall include, but not necessarily be limited to, conversion of this facility into a regional mental health facility for inmates from regional or local jails who have been determined to have mental illness and who could be more appropriately housed in a specialized, minimum security facility rather than in a traditional jail setting. The report shall address financing options; governance and accountability; the appropriate mechanisms for administering the facility; security, operational, medical, and mental health treatment standards; and transport procedures. The Secretaries shall consult with the U.S. Department of the Army and leadership at Fort A. P. Hill to assure continuation of a cooperative agreement for the use of the property, as appropriate. Copies of the report shall be provided to the Governor and the Chairmen of the Senate Finance and House Appropriations Committees by October 1, 2017.
- D. Included in the appropriation for this item is \$500,000 the second year from the general fund for the Commonwealth's nonfederal cost match requirement to accomplish the United States Corps of Engineers Regional Reconnaissance Flood Control Study for both the Hampton Roads and Northern Neck regions as authorized by the U.S. Congress.

Appendix B
Committee and Work Group Members

2017 Policy Committee Members

The Honorable Beth Arthur
Sheriff
Arlington County

June Jennings
Deputy Secretary of Finance

Jack Barber
Interim Commissioner
Virginia Department of Behavioral Health and
Developmental Services

John Kuplinski
Superintendent, Virginia Peninsula Regional Jail
Representing the Virginia Association of
Regional Jails

Andrew K. Block, Jr.
Director
Virginia Department of Juvenile Justice

The Honorable L. Scott Lingamfelter
Virginia House of Delegates

Harold W. Clarke
Director
Virginia Department of Corrections

The Honorable Jennifer McClellan
Senate of Virginia

Robyn deSocio
Executive Secretary
Compensation Board

Cyril W. Miller, Jr.
Director, Judicial Planning
Supreme Court of Virginia

Alfred Durham
Chief of Police
City of Richmond Police Department

The Honorable Gabriel Morgan, Sr.
Sheriff
City of Newport News

Francine C. Ecker
Director
Virginia Department of Criminal
Justice Services

The Honorable Bryce E. Reeves
Senate of Virginia

Colonel W. Steven Flaherty
Superintendent
Virginia State Police

Banci Tewolde
Associate Director
Public Safety Division
Department of Planning and Budget

Linda Jackson
Director
Virginia Department of Forensic Science

*Chaired by the Honorable Brian J. Moran,
Secretary of Public Safety and Homeland Security*

2017 Liaison Work Group Members

Robyn M. deSocio
Executive Secretary
Compensation Board

David Reynolds
Legislative Fiscal Analyst
House Appropriations Committee

Tom Fitzpatrick
Acting Division Director - Programs and Services
Virginia Department of Criminal
Justice Services

A. David Robinson
Chief of Corrections Operations
Virginia Department of Corrections

Richard W. Hall-Sizemore
Budget and Policy Analyst
Virginia Department of Planning and Budget

Angela C. Valentine
Chief Deputy Director
Virginia Department of Juvenile Justice

Richard E. Hickman, Jr./Caitlin Kilpatrick
Public Safety Analyst
Senate Finance Committee

*Chaired by Victoria H. Cochran,
Deputy Secretary of Public Safety and Homeland Security*

2017 Technical Advisory Committee Members

Erik Beecroft, Ph.D.
Associate Methodologist
Joint Legislative Audit & Review Commission

Amy Hunter
Economic Analyst
Virginia Department of Planning and Budget

Baron S. Blakley
Research Analyst
Virginia Department of Criminal
Justice Services

Kari B. Jackson
LIDS Analyst
Compensation Board

Tama Celi, Ph. D.
Chief of Research, Policy and Planning
Virginia Department of Corrections

Carlisle E. Moody, Ph.D.
Professor of Economics
College of William & Mary

Huafeng Ding
Research Economist
Virginia Department of Juvenile Justice

Chris Wade
Senior Management Information Analyst
Supreme Court of Virginia

*Chaired by Meredith Farrar-Owens, Director,
Virginia Criminal Sentencing Commission*

The Technical Advisory Committee would like to acknowledge the assistance of **Warren McGehee** and **Yan Jin** of the Virginia Department of Corrections and **Maggie Nopova** of the Office of the Executive Secretary of the Supreme Court of Virginia.

