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Maryland Department of Juvenile Services Committed Population:

Population Analysis and Projections

Submitted to:
Maryland Department of Juvenile Services

by
Meredith Farrar-Owens

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Executive Summary

The Maryland Department of Juvenile Services (DJS) is responsible for selecting the most appropriate out-of-home placement for youth who have been committed to the custody of DJS by the juvenile court.[1] Program placements vary based on the treatment services provided and by security level. DJS operates seven (7) committed programs. In addition, there are numerous private programs with whom DJS contracts both within Maryland and out-of-state for the placement of committed juveniles.

This report presents a detailed examination of Maryland's committed juvenile population and describes relevant trends that have contributed to changes in the population in recent years. Projections of the committed population, disaggregated by key operational factors, are provided through FY2029. Designed to be a tool for policymakers and practitioners, the information contained in this report can be useful for discussions pertaining to budgeting, operations, capacity planning, and development of services for Maryland's committed youth.

Overall, Maryland's committed population declined between FY2005 and FY2009. Admissions to committed programs have been relatively stable since FY2009, and the population leveled off at 925 to 933 juveniles through FY2011. An increase in length-of-stay during FY2011 resulted in a higher population level beginning in the latter half of the fiscal year. The average population reached 960 in FY2012. The population dropped to 950 in FY2013, due to slightly shorter lengths-of-stay, on average, during the year. Many factors have an impact on the number of juveniles admitted to programs for committed youth and, thus, on the size of the committed population. Demographic shifts, trends in crime rates, the volume and patterns of arrests, the number and types of incidents referred to the juvenile justice system and, ultimately, the decisions of the court to commit juveniles to the custody of DJS, each contribute to changes in the committed population.

Key Trends

- Following decades of decline, the population of 10 to 17 year olds living in Maryland has been growing since 1990 and is now larger than at any time since 1970.
- Overall, Maryland's violent and property crimes rates are significantly lower today than in the mid-1990s. Led by the steep drop in Baltimore City, the State's crime rates have declined by roughly 50% since 1995.
- Statewide, arrests for drug offenses were lower in 2010 and 2011 than in prior years, attributable in part to significant decreases in Baltimore City. Since 2011, drug arrests have increased, but they remain well below peak figures.

[1] Maryland Department of Juvenile Services, *Data Resource Guide Fiscal Year 2012*, p. 117.

- Juvenile arrests have fallen sharply, decreasing by 41% between 2005 and 2012.
- Intake referrals, the point of entry into the juvenile justice system, have decreased each year since 2006. The decline has been greater in Baltimore City than elsewhere. The rate at which intakes have declined has been steeper for males than for females.
- The number of intakes resulting in formal petitions has decreased, but the percentage of intakes formally petitioned has increased since FY2010. In FY2013, over half of all intake decisions resulted in formal petitions.
- In addition, the proportion of formal petitions resulting in a commitment has been gradually increasing since FY2008. The increase in the rate of commitment has occurred for both males and females.
- Overall, admissions to committed care have been relatively stable since FY2009, ranging between 1,757 and 1,830 per year (excluding transfers within/between programs).
- After declining from FY2006 to FY2010, average length-of-stay for committed juveniles increased from 5.4 to 6.0 months in FY2011. Since FY2011, average length-of-stay has decreased to 5.7 months.
- Unlike males, the female committed population increased between FY2006 to FY2010. In FY2011, the male population increased while the female population decreased, resulting in little net change overall. In FY2012, the female committed population grew by nearly 14% and accounted for two-thirds of the growth in the overall population that year. While the male population decreased in FY2013, the female population continued to rise.
- Overall, the committed population in Residential Treatment Centers (RTCs) and Community-Based (Level I) programs has declined since FY2006, while the population in Staff Secure (Level II) and Hardware Secure (Level III) programs has increased. However, the trend specific to females has been quite different. For females, the percentage of the population in Community-Based programs is higher today compared to FY2006 and the percentage of females in Staff Secure programs has declined.

Population Projections

Projections of Maryland's total committed youth population were developed using a set of statistical techniques known as time-series forecasting. For a baseline forecast, such models implicitly assume that current policies and practices will continue into the future. The projections were developed using all of the statistical and trend information known at the time that they were produced. Two (2) projections were generated, providing both a low and high scenario. These projections are shown below. In Section 5 of this report, the projections are disaggregated by gender and security level.

Maryland Department of Juvenile Services
Average Daily Population (ADP) of Committed Juveniles
Historical (FY2006-FY2013) and Projected (FY2014-FY2019)

Year	Actual	Low Projection	High Projection	
FY2006	**1,056**			
FY2007	**1,018**			
FY2008	**979**			
FY2009	**925**			
FY2010	**928**			
FY2011	**933**			
FY2012	**960**			
FY2013	**950**			
FY2014		**921**	**936**	
FY2015		**922**	**938**	
FY2016		**922**	**941**	
FY2017		**922**	**941**	The projections shown here do not include a peaking factor or other inflation factors.[2]
FY2018		**922**	**941**	
FY2019		**922**	**940**	

[2] As with most criminal justice populations, there are months in which Maryland's committed population has a higher number of juveniles than the average population for the entire fiscal year. The projections contained in this report do not include a peaking factor to account for these short-term population swings. A peaking factor can be applied a later date, however. Similarly, other inflation factors (for example, a classification inflation factor to account for movement between general population beds and other beds designed for special purposes like disciplinary sanctions or health services) are not included in this report, but can be applied at a later date.

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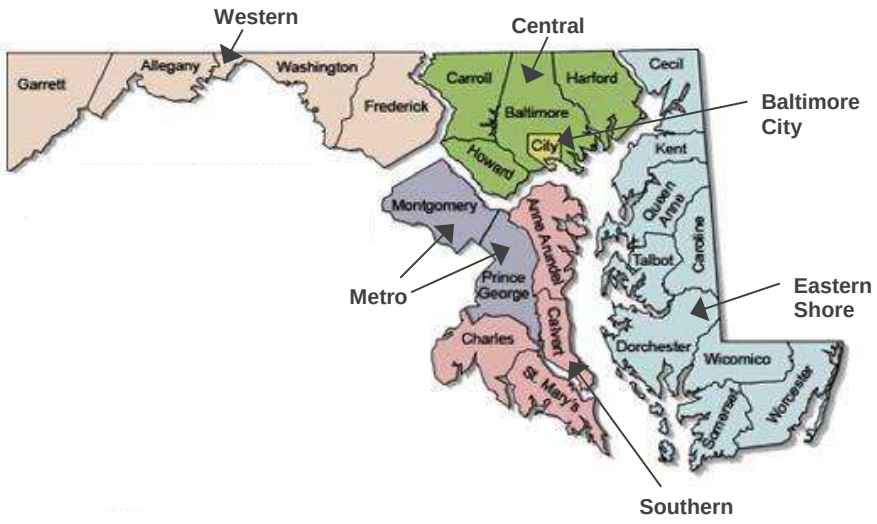
Introduction

In this report, Maryland's committed juvenile population and the factors contributing to changes in the population are examined in detail. In Section 1, Maryland's demographic, crime and arrest trends are described. In Section 2, trends in juvenile intake are identified. Section 3 discusses trends in the key determinants of population size: admissions and length-of-stay. Section 4 provides an analysis of Maryland's committed juvenile population. Finally, in Section 5, projections of the future committed population are presented. In order to increase their utility, the projections are disaggregated by key operational factors of interest to DJS.

DJS regions, which are referenced throughout this report, are shown on the map below.

Maryland Department of Juvenile Services (DJS) Regional Map



Region I - Baltimore City
Baltimore City

Region II - Central Maryland
Baltimore County
Carroll County
Harford County
Howard County

Region III - Western Maryland
Allegany County
Frederick County
Garrett County
Washington County

Region IV - Eastern Shore
Caroline County
Cecil County
Dorchester County
Kent County
Queen Anne's County
Somerset County
Talbot County
Wicomico County
Worcester County

Region V - Southern Maryland
Anne Arundel County
Calvert County
Charles County
St. Mary's County

Region VI - Metro
Montgomery County
Prince George's County

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Section 1 Demographic, Crime and Arrest Trends in Maryland

Overview

Numerous factors affect the number of youth who are ultimately committed to the custody of Maryland's DJS. At the broadest levels, these include demographic shifts, trends in crime rates, and changes in the number andf types of arrests. The major trends are summarized below and are described in further detail in this section.

- Although the population of 10 to 17 year olds living in Maryland shrank between 1970 and 1990, this subset of the population has since rebounded and, statewide, is now larger than at any time in the last 40 years. In Baltimore City, however, the number of 10 to 17 year olds declined significantly between 2000 and 2010.

- According to the Maryland Department of Planning, the State's population of 10 to 19 year olds will decrease slightly through 2015, when it is expected to enter a period of steady growth through 2030.

- Overall, Maryland's violent and property crimes rates are significantly lower today than in the mid-1990s. Crime rates in the State, led by the steep drop in Baltimore City, have declined by roughly 50% since 1995.

- Statewide, arrests for drug offenses were lower in 2010 and 2011 than in prior years. Drug arrests in Baltimore City, which accounted for more than half of the State's total during the early 2000s, now make up 41% of Maryland's drug arrests. Since 2011, drug arrests have increased statewide, but they remain well below peak levels.

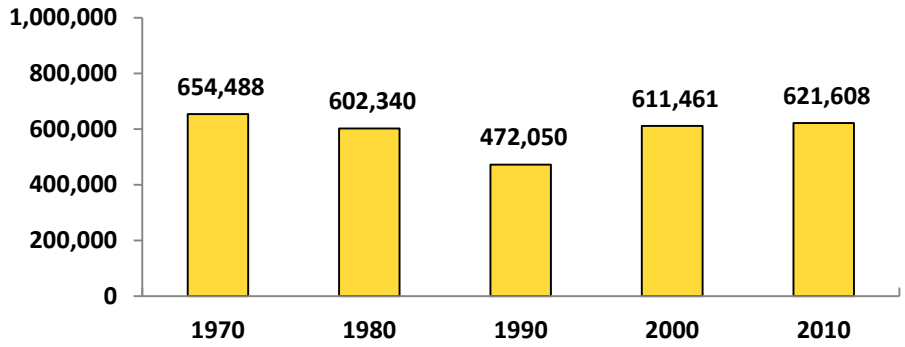
- There was a significant decline in cocaine/opium-related arrests in Maryland between 2005 and 2012. In contrast, arrests for marijuana offenses increased by 34% during the last eight (8) years.

- Juvenile arrests have fallen dramatically, decreasing by 41% between 2005 and 2012.

Shifting Demographics

Between 1970 and 1990, the population of 10 to 17 year olds living in Maryland shrank nearly 28%, with most of the decline taking place during the decade between 1980 and 1990 (Figure 1.1). From 1990 to 2000, however, the trend reversed. By the 2000 census, the population in this age range exceeded 1980 levels. According to the most recent census, this subset of Maryland's population continued to grow, although marginally, between 2000 and 2010 (up 1.7%). The 10 to 17 year old population in Maryland today is larger than at any time since 1970. In contrast to the State as a whole, the number of 10 to 17 year olds living in Baltimore City declined significantly between 2000 and 2010 (down 22% over the decade).

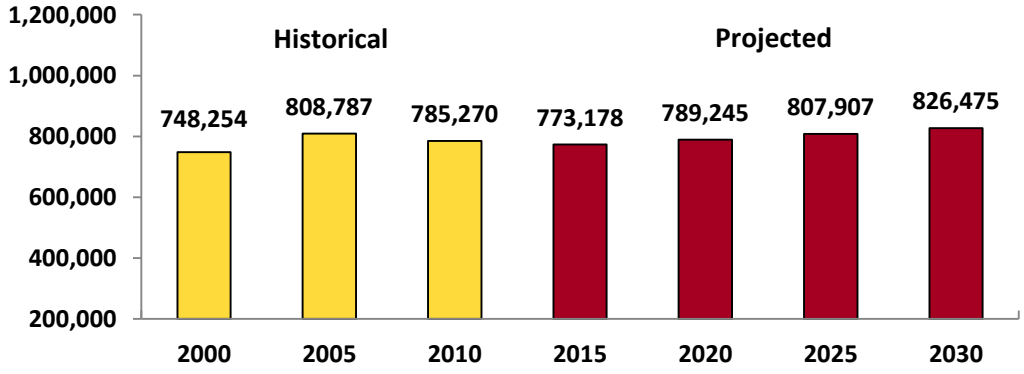
Figure 1.1
Population of Maryland 10 to 17 Years of Age (1970-2010)



Source: U.S. Census Bureau

The Maryland Department of Planning generates population projections for the State and its localities. Projections are developed based on five-year age ranges (for example, ages 5 to 9, 10 to 15, 15 to 19, etc.). To most closely approximate the ages of interest, projections for the 10 to 14 and 15 to 19 year old age groups were examined. According to Department of Planning projections, the number of Maryland residents ranging in age from 10 to 19 is expected to decline between 2010 and 2015 (Figure 1.2). After 2015, however, this subset of the population is projected to grow steadily through 2030.

Figure 1.2
Population of Maryland 10 to 19 Years of Age
Historical (2000-2010) and Projected (2015-2030)

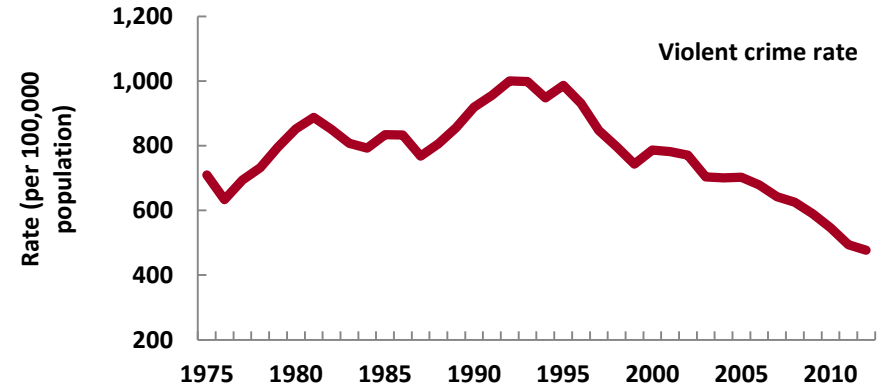


Sources:
U.S. Census Bureau;
Maryland Department of Planning

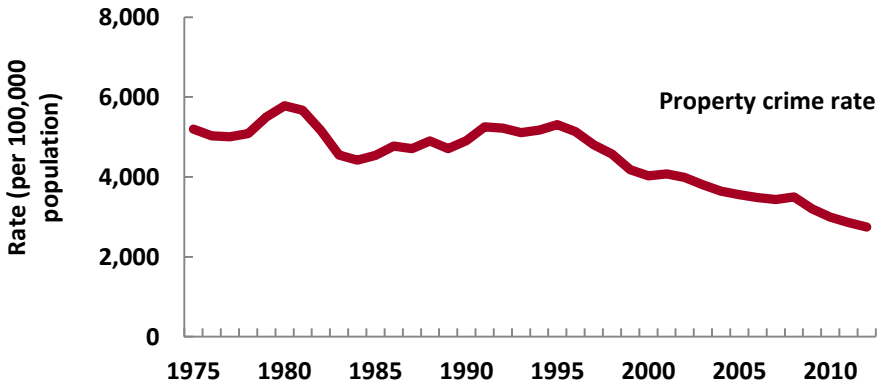
Declining Crime Rates

Crime rates in Maryland, as in much of the nation, have declined over the past 15 to 20 years. Maryland's violent index crime rate has decreased by 52% since its peak in 1992 and, in 2012, it was the lowest recorded in last 40 years (Figure 1.3 upper panel). Maryland's property index crime rate has also decreased significantly. Between 1995 and 2012, the property crime rate fell by 48%, reaching its lowest level of any in the last 40 years (Figure 1.3 lower panel). Crime rates in Baltimore City, which are substantially higher than the statewide average, dropped steeply after 1995.

Figure 1.3
Index Crime Rates in Maryland, 1975-2012



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



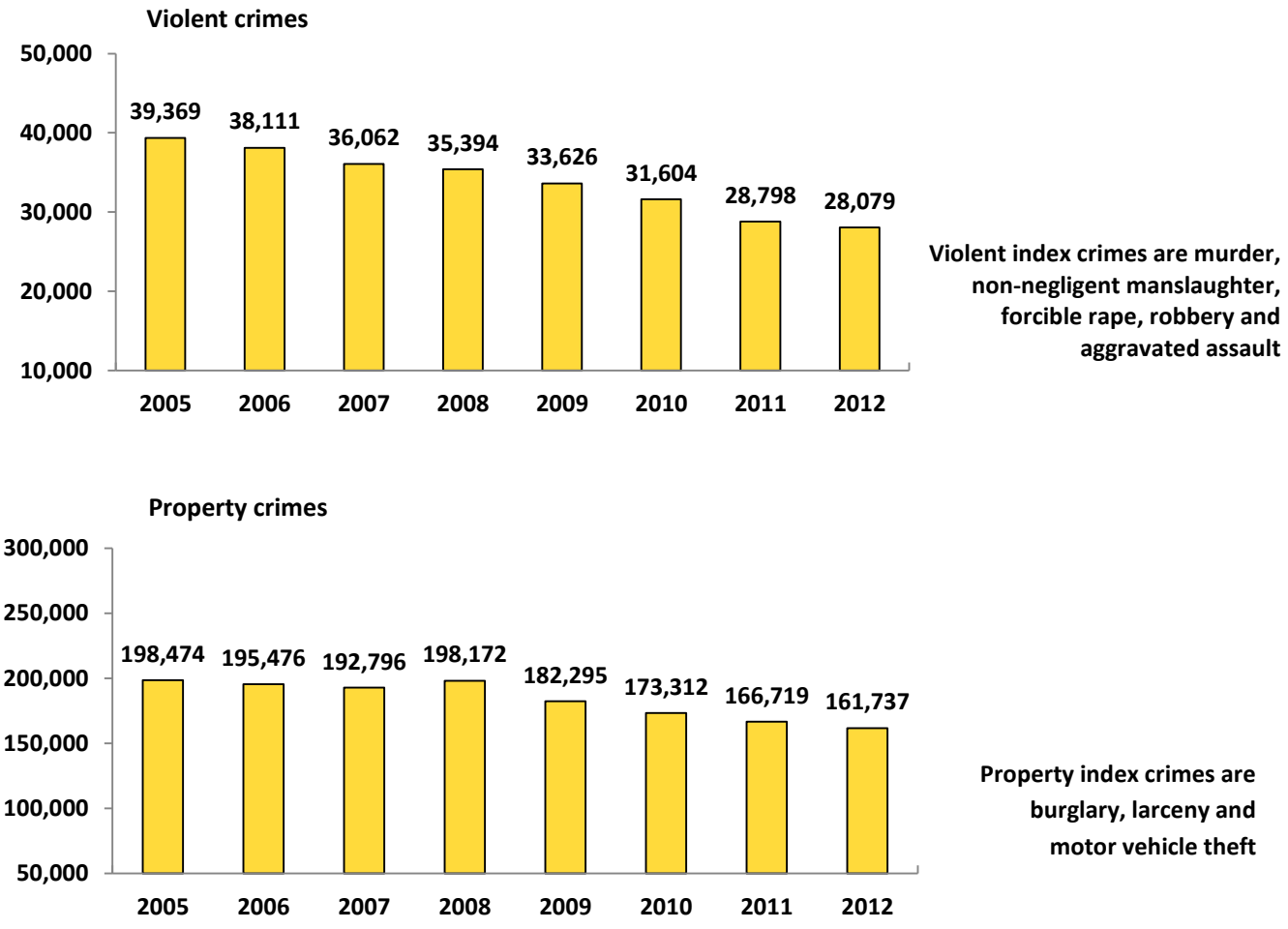
Property index crimes are burglary, larceny and motor vehicle theft

Source: Maryland State Police – Crime in Maryland UCR Reports

Fewer Crimes Reported to Law Enforcement

Because crime rates are affected by increases or decreases in the population, the number of crimes reported to law enforcement was also examined. Mirroring the decrease in the violent crime rate, the number of violent index crimes reported to police has shown a marked decline. Since 2005, the number of violent index crimes has decreased each year (Figure 1.4 upper panel). While the number of property index crimes reported has generally decreased since 2004, an increase was recorded from 2007 to 2008 (Figure 1.4 lower panel). After 2008, the number of reported property crimes resumed its downward trend.

Figure 1.4
Number of Index Crimes Reported in Maryland

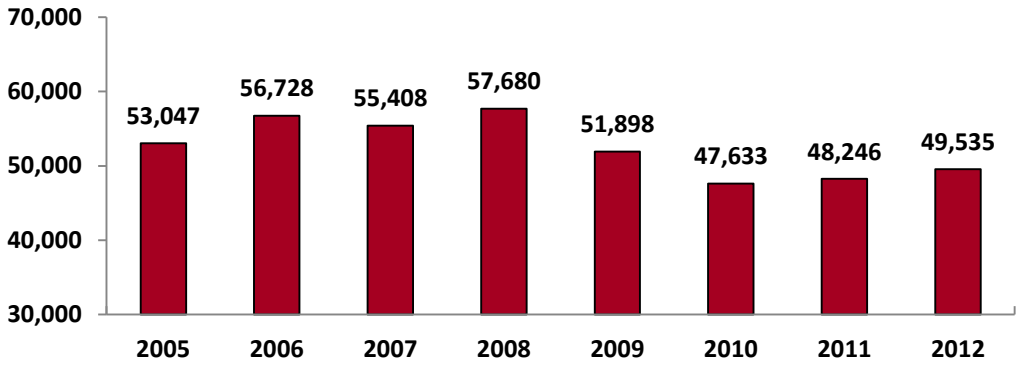


Source: Maryland State Police – Crime in Maryland UCR Reports

Fewer Drug Arrests

Index crime measures do not include drug offenses, as these crimes are not reliably reported to law enforcement. Drug crime, therefore, is often measured by examining arrests for drug offenses. In Maryland, the number of drug arrests increased overall between 2004 and 2008 (Figure 1.5). After peaking in 2008, drug arrests dropped significantly in 2009 and again in 2010. Since 2010, drug arrests have increased, but they remain well below peak figures. For example, there were 14% fewer drug arrests statewide in 2012 than in 2008. In Baltimore City, drug arrests dropped at an even steeper pace (down 27% from 2008 to 2012). Whereas drug arrests in Baltimore City accounted for more than half of the State's total in the early 2000s, the City contributed approximately 41% of Maryland's 2012 drug arrests.

Figure 1.5
Number of Drug Arrests in Maryland



Source:
Maryland State Police - Crime in Maryland UCR Reports

Percentage of State's Drug Arrests Accounted for by Baltimore City

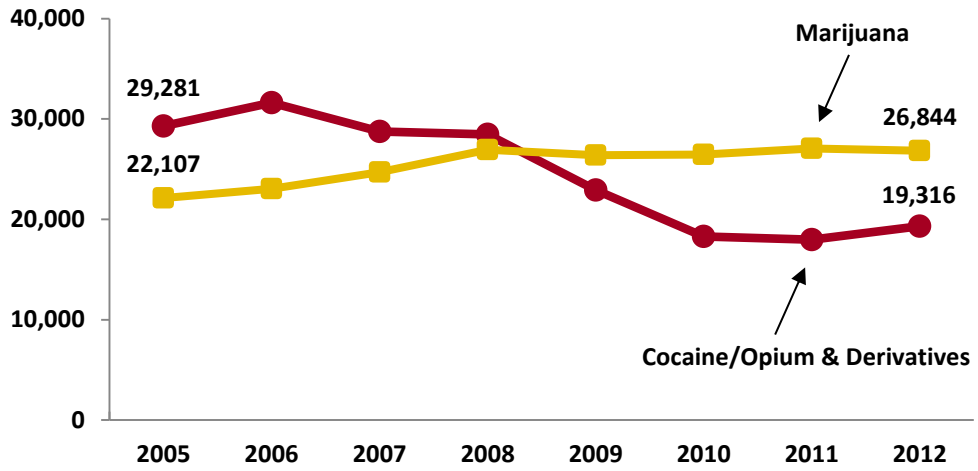
2005	2006	2007	2008	2009	2010	2011	2012
52.7%	50.9%	49.2%	48.3%	46.1%	42.2%	41.6%	41.1%

In the last eight (8) years, there has been a dramatic shift in the types of drugs cited at arrest. The decline in cocaine/opium-related arrests has been significant (Figure 1.6). Statewide arrests for cocaine and opiates (possession and sales/manufacturing) decreased from 29,281 in 2005 to 17,974 in 2011, a decrease of nearly 39%. This trend is similar to what has been occurring in Virginia, Maryland's neighbor to the south. In 2012, an increase in cocaine and opiate arrests was observed in Maryland, with the uptick attributable solely to additional sales-related offenses.

In contrast, arrests for marijuana offenses increased by 34% between 2005 and 2011. In 2012, a small increase in marijuana arrests (less than 1%) was recorded. Since 2009, marijuana arrests have outnumbered cocaine/opiate arrests in Maryland.

Although much smaller in numbers (and not shown in Figure 1.6), arrests related to synthetic narcotics, such as "bath salts," have increased during this time, growing from 924 in 2004 to 2,335 in 2012.

Figure 1.6
Drug Arrests in Maryland by Type of Drug

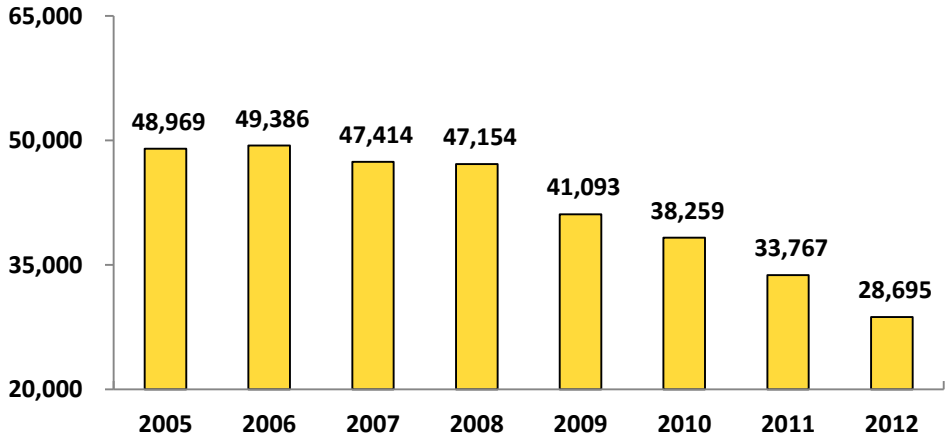


Source: Maryland State Police - Crime in Maryland UCR Reports

Declines in Juvenile Arrests

Arrests of juveniles by law enforcement are the primary source for intakes by DJS. According to available data, the number of juvenile arrests in Maryland was significantly lower in 2012 than in 2005. Juvenile arrests (excluding arrests recorded as curfew violations, loitering or runaways) fell 41% overall during this time period, with most of the decline occurring after 2008 (Figure 1.7).

Figure 1.7
Number of Juvenile Arrests



Juvenile arrests reported here exclude arrests recorded as curfew violations, loitering and runaways.

Sources: Maryland State Police - Crime in Maryland UCR Reports

Section 2 Juvenile Intake Trends in Maryland

Overview

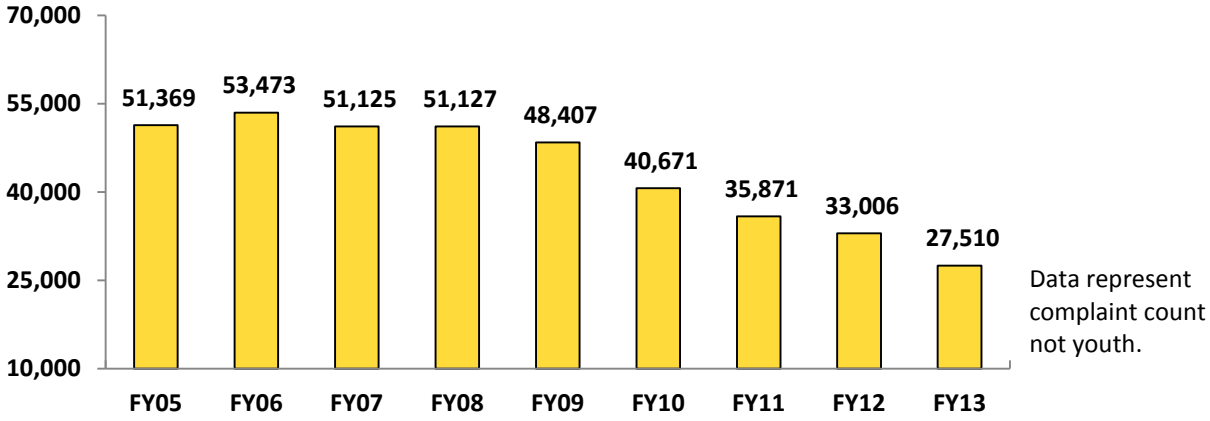
Because intake is the point of entry into the juvenile justice system, intake trends can have a significant impact on the number juveniles who come before the court for adjudication. The volume and patterns of intakes and the number and types of incidents formally referred to the juvenile justice system will shape the pool of juveniles who can potentially be committed to DJS custody. The major intake trends are summarized below while detailed analysis is provided throughout this section of the report.

- The number of intake referrals in Maryland has declined significantly and, in FY2013, were roughly half of the number reported in FY2006.
- The decline in intakes has been greater for males than for females.
- Comparing the six (6) DJS Regions, Baltimore City has recorded the steepest drop in intake cases since FY2006.
- The number of intake decisions resulting in formal petitions, and therefore proceeding into the criminal justice system, has declined since FY2008. Formal petitions for females have not declined as much as those for males.
- Although the number of formal petitions has decreased, the percentage of intakes formally petitioned has increased since FY2010. More than half of all intake decisions now result in formal petitions.
- The percentage of intakes formally petitioned increased across many types of offenses. The largest increases were seen in the person-to-person misdemeanor and property misdemeanor categories.
- The proportion of formal petitions resulting in a DJS commitment (e.g., the commitment rate) has been gradually increasing since FY2008 for both males and females.

Downward Trend in Intake Referrals

Overall, DJS intake cases (the vast majority of which are based on arrests by law enforcement) have declined during the last several years. Although intake numbers began to fall after FY2006, the downward trend became steeper after FY2009 (Figure 2.1). By FY2013, intake cases were approximately half of the number reported in FY2006.

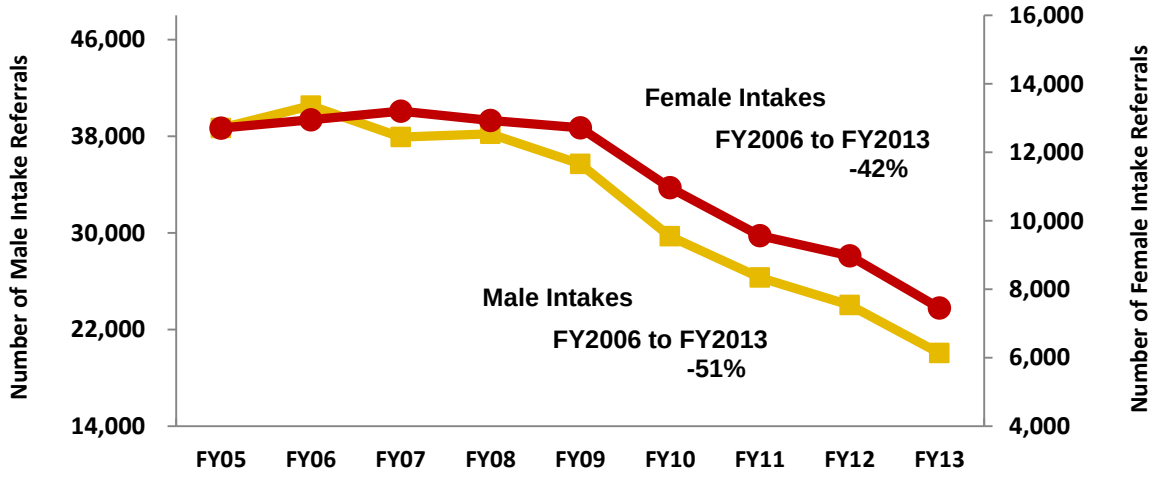
Figure 2.1
Number of Intake Referrals in Maryland



Source: Maryland Department of Juvenile Services Intake Data (provided December 13, 2013)

Male and female intakes both declined between FY2006 and FY2013, although not at the same rate. Between FY2006 to FY2013, male intakes fell by 51%. Female intakes decreased by 42% during the same period (Figure 2.1).

Figure 2.2
Intake Referrals by Gender



Note: Data represents complaint count not youth.
Source: Maryland Department of Juvenile Services Intake Data (provided December 13, 2013)

Regional Shifts in Intakes

Examining the intakes by the six (6) DJS Regions (see page 5 for a map of DJS Regions), the steepest drop in intake cases since FY2006 has been in Baltimore City (Figure 2.3). There were 7,037 fewer intakes in Baltimore City in FY2013 compared to FY2006, a drop of nearly 64%. Intakes in other Regions have also declined significantly, with decreases ranging from 42% to 48% during the eight-year period.

Figure 2.3
Juvenile Intake Cases in FY2006 and FY2013
By Region

Year	Baltimore City	Central Region	Eastern Region	Metro Region	Southern Region	Western Region
FY2006	11,021	12,468	6,914	10,142	8,408	4,581
FY2013	3,984	7,215	3,584	5,500	4,722	2,471
Change FY2006-FY2013	-7,037	-5,253	-3,330	-4,642	-3,686	-2,110
	-63.9%	-42.1%	-48.2%	-45.8%	-43.8%	-46.1%

Note: Data represents complaint count not youth.
Source: Maryland Department of Juvenile Services Intake Data (provided March 22, 2013) and StateStat (accessed October 24, 2013)

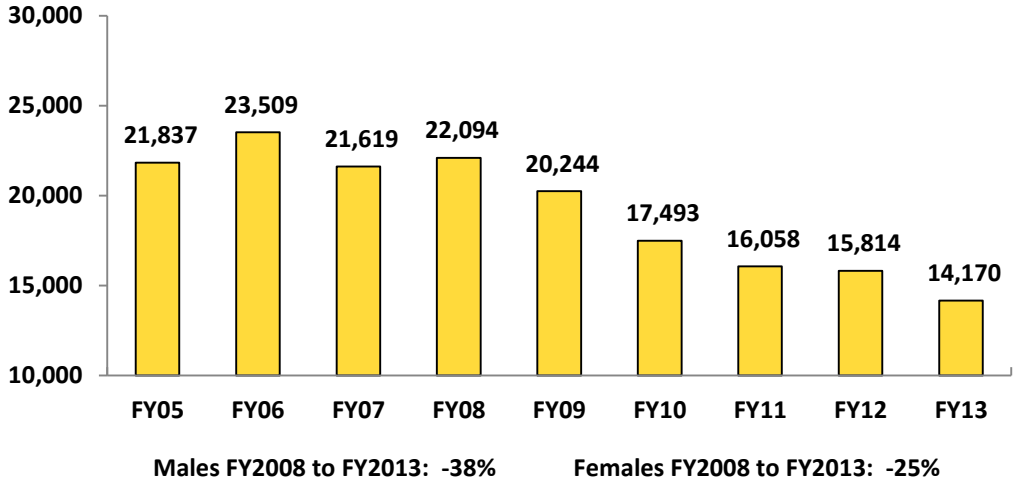
Changes in Formal Petitions

Each intake complaint is assessed by an intake officer, who has statutory authority to determine how the case should be handled. The options are:

- Close at intake - It is determined that furthering the case would be disadvantageous to the interests of the youth and to public safety.
- Informal adjustment - The family signs a 90-day agreement to certain conditions without court involvement.
- Formally petition - A formal written request is filed with the juvenile court alleging that a child is delinquent, in need of supervision (CINS) or in need of assistance (CINA).

Since FY2008, the number of intake decision resulting in formal petitions, and therefore proceeding into the criminal justice system, has declined (Figure 2.4). As with the trend in intakes overall, the decrease in formal petitions has been greater for males than females. From FY2008 to FY2013, formal petitions decreased by 38% for males, but only 25% for females. In FY2013, female juveniles accounted for one in five formal petitions.

Figure 2.4
Number of Intake Decisions Resulting in Formal Petitions



Source: Maryland Department of Juvenile Services Intake Data (provided December 13, 2013)

Among cases with formal petitions filed, the mix of offenses has changed somewhat since FY2008. Drug felonies made up 13.4% of formal petitions in FY2008 compared to 5.7% in FY2013 (Figure 2.5). Property felonies have also declined as a percent of formal petitions (from 12.0% in FY2008 to 6.5% in FY2013). While all misdemeanor categories increased, person-to-person misdemeanors and property misdemeanors have grown significantly as a percentage of all formal petitions. Collectively, misdemeanor offenses accounted for 60% of formal petitions in FY2013.

Figure 2.5
Intake Cases with Formal Petitions Filed by Offense Category

Offense Category	FY2008	FY2013	Change
Crime of Violence*	18.8%	18.9%	↑
Person-to-Person Felony	1.4%	1.3%	
Property Felony	12.0%	6.5%	
Drug Felony	13.4%	5.7%	
Unspecified Felony	0.9%	0.7%	
Person-to-Person Misdemeanor	20.1%	26.8%	↑
Property Misdemeanor	17.0%	23.2%	↑
Drug Misdemeanor	7.4%	8.6%	↑
Unspecified Misdemeanor	0.7%	1.4%	↑
Ordinance Offenses	0.6%	0.9%	↑
Status Offenses	1.6%	1.0%	
Traffic Offenses	5.9%	5.1%	
	100.0%	100.0%	

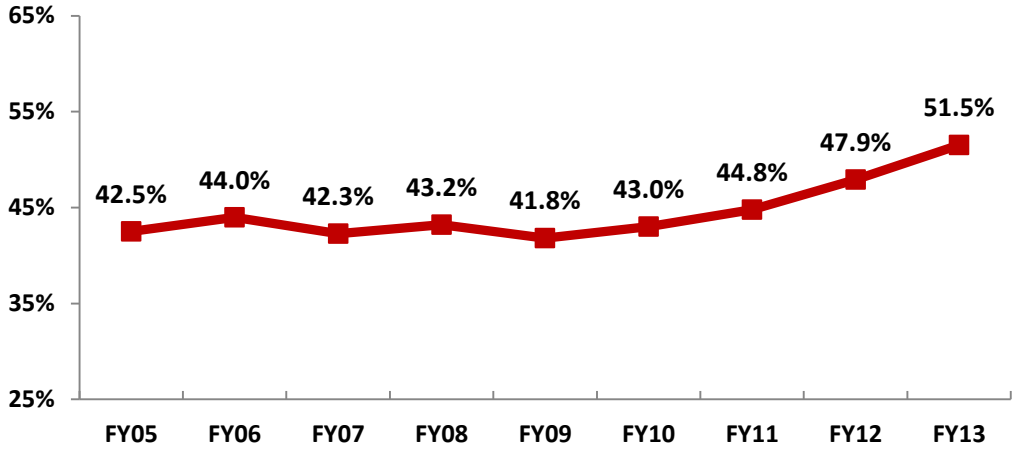
* Crime of violence is based on the definition of found in Md. Code, Correctional Services Article, Sect. 7-101(m): a crime of violence specified in section 14-101 of the Criminal Law Article, or burglary in the 1st, 2nd, or 3rd degree.

Source: Maryland Department of Juvenile Services Intake Data (provided December 13, 2013)

Formal Petitions Filed at Higher Rates

Although the number of formal petitions has decreased, the percentage of intakes formally petitioned has increased since FY2010 (Figure 2.6). In FY2013, 51.5% of all intake decisions resulted in formal petitions, compared to 43% in FY2010.

Figure 2.6
Percent of Intake Decisions Resulting in Formal Petitions



Source: Maryland Department of Juvenile Services Intake Data (provided December 13, 2013)

This shift has taken place across most offense categories (Figure 2.7). The most dramatic increases have been in the misdemeanor offense categories (shown highlighted in Figure 2.7). For example, the rate at which formal petitions are filed for property misdemeanors has risen 16 percentage points between FY2008 and FY2013. Similarly, the rate for person-to-person misdemeanors has increased by nearly 15 percentage points.

Figure 2.7
Percent of Intakes Resulting in Formal Petitions

Offense	FY2008	FY2013	Change
Crime of Violence*	92.5%	95.0%	↑
Person-to-Person Felony	82.4%	83.3%	↑
Property Felony	88.7%	94.9%	↑
Drug Felony	95.8%	91.0%	
Unspecified Felony	91.2%	91.5%	↑
Person-to-Person Misdemeanor	32.0%	46.7%	↑
Property Misdemeanor	28.6%	44.5%	↑
Drug Misdemeanor	34.1%	40.5%	↑
Unspecified Misdemeanor	24.5%	38.0%	↑
Traffic Offenses	84.9%	87.5%	↑

* Crime of violence is based on the definition of found in Md. Code, Correctional Services Article, Sect. 7-101(m): a crime of violence specified in section 14-101 of the Criminal Law Article, or burglary in the 1st, 2nd, or 3rd degree.

Source: Maryland Department of Juvenile Services Intake Data (provided December 13, 2013)

Higher Rates of Commitment

Once a formal petition has been filed, a case will proceed into the court system. An interesting trend has emerged with regard to the rate at which adjudicated juveniles are committed to DJS. Since FY2008, the proportion of formal petitions resulting in a commitment to DJS has been gradually increasing (Figure 2.8). This upward trend in the commitment rate has occurred for both males and females.

Figure 2.8
Rate of Commitment (of All Formal Petitions)

Year	Males	Females	Overall
FY2008	9.3%	5.6%	8.7%
FY2009	10.0%	6.6%	9.4%
FY2010	12.0%	7.2%	11.1%
FY2011	11.9%	7.5%	11.1%
FY2012	12.4%	7.6%	11.4%
FY2013	12.6%	9.2%	11.9%

Rate was calculated as:
Number of Committed Dispositions
÷
Number of Intake Cases Formally Petitioned

Source: Maryland Department of Juvenile Services - Intake Data (provided March 22, 2013) and StateStat (accessed October 24, 2013)

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Section 3 Admissions to Maryland's Committed Juvenile Population and Length-of-Stay

Overview

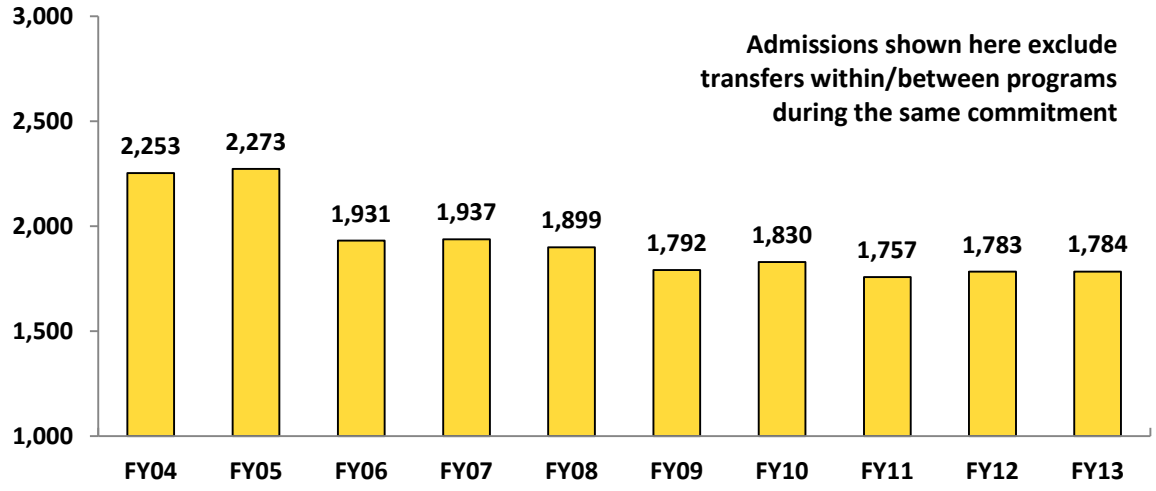
As with any criminal justice population, admissions and length-of-stay are the two (2) key determinants of population size. Examination of these two factors is critical to assessing the population. Admissions and length-of-stay are described in detail in this section, with the major findings are described below.

- Since FY2009, admissions to committed care have been relatively stable overall.
- The female admissions have increased slightly as a percent of the total number of admissions, reaching 15.9% in FY2013.
- Baltimore City and the Metro Region have historically produced the highest numbers of admissions to committed programs, but admissions from Baltimore City fell sharply after FY2010. Admissions from the Central, Eastern, and Western Regions have also decreased, while admissions from the Metro and Southern Regions have increased over the last four years.
- Since FY2008, crimes of violence have increased slightly as a percentage of total committed admissions (from 14.9% to 16.9%). The largest increase in admissions has been in the person-to-person misdemeanor category, which now comprises 29.7% of all admissions to committed programs.
- After declining from FY2006 to FY2010, average length-of-stay for committed juveniles increased from 5.4 to 6.0 months in FY2011. Since FY2011, average length-of-stay has decreased to 5.7 months.
- Length-of-stay for juveniles released from Residential Treatment Centers (RTCs) has been declining over the last five years. Length-of-stay in Community-Based (Level I) programs has increased since FY2009. For juveniles released from Hardware Secure (Level III) programs, length-of-stay increased significantly from FY2010 and FY2011, which was the major driver of the change in overall length-of-stay that year.

Stabilizing Admissions

Overall, admissions to committed care have been relatively stable since FY2009, ranging between 1,757 and 1,830 per year (Figure 3.1). These admissions figures exclude transfers within/between programs during the same commitment.

Figure 3.1
Admissions to Committed Care



Source: Maryland Department of Juvenile Services Committed Juvenile Data (provided November 4, 2013)

Admissions by Gender

Similar to overall admissions, the number of admissions for male and female juveniles have not exhibited a consistent trend since FY2009 (Figure 3.2). Nevertheless, females have been increasing as a percent of total admissions. Between FY2004 and FY2008, females comprised 13.5% of admissions, on average. From FY2009 through FY2011, females accounted for 14% to 15% of all admissions. The percent of female admissions increased to 15.9% in FY2013.

Figure 3.2
Admissions to Committed Care by Gender

	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Males	1,946	1,959	1,659	1,669	1,667	1,524	1,556	1,502	1,531	1,500
	86.4%	86.2%	85.9%	86.2%	87.8%	85.0%	85.0%	85.5%	85.9%	84.1%
Females	307	314	272	268	232	268	274	255	252	284
	13.6%	13.8%	14.1%	13.8%	12.2%	15.0%	15.0%	14.5%	14.1%	15.9%

Source: Maryland Department of Juvenile Services Committed Juvenile Data (provided November 4, 2013)

Shifting Admissions by Region

From a regional perspective, Baltimore City and the Metro Region have historically produced the highest numbers of admissions to committed programs (region, here, is based on case jurisdiction; see page 5 for map of DJS Regions). In FY2010, Baltimore City and the Metro Region each accounted for 27% of committed admissions. Committed admissions from Baltimore City fell sharply after the peak in FY2010. Central, Eastern, and Western Region admissions have decreased since FY2008, while admissions in the Metro and Southern Regions have increased overall during the last six years (Figure 3.3).

Figure 3.3
Admissions to Committed Care by Region of Jurisdiction

Year	Baltimore City	Central Region	Eastern Region	Metro Region	Southern Region	Western Region
FY2008	452	278	224	467	278	194
FY2009	417	285	205	436	285	158
FY2010	490	227	166	495	284	160
FY2011	448	218	199	486	250	149
FY2012	424	248	181	484	283	157
FY2013	374	242	206	500	314	146
Change FY2008-FY2013	-78	-36	-18	33	36	-48
	-17.3%	-12.9%	-8.0%	7.1%	12.9%	-24.7%

Admissions shown here exclude transfers within/between programs during the same commitment.

Source: Maryland Department of Juvenile Services Committed Juvenile Data (provided November 4, 2013)

Changing Mix of Offenses at Admission

Since FY2008, crimes of violence have increased slightly as a percentage of total committed admissions, from 14.9% to 16.9%. The most significant increase has been in the person-to-person misdemeanor category. Person-to-person misdemeanors accounted for 29.7% of committed admissions in FY2013, compared to 21.9% in FY2008. Property misdemeanors have increased from 20.7% to 22.4% of admissions. All felony categories, other than crimes of violence, have decreased as a percent of admissions during the six-year period.

Figure 3.4
Admissions to Committed Care by Offense Category

Offense Category	FY2008	FY2013	Change
Crime of Violence*	**14.9%**	**16.9%**	↑
Person-to-Person Felony	**2.2%**	**1.7%**	
Property Felony	**8.8%**	**4.1%**	
Drug Felony	**6.7%**	**3.2%**	
Unspecified Felony	**3.5%**	**2.8%**	
Person-to-Person Misdemeanor	**21.9%**	**29.7%**	↑
Property Misdemeanor	**20.7%**	**22.4%**	↑
Drug Misdemeanor	**13.5%**	**11.5%**	
Unspecified Misdemeanor	**3.5%**	**3.1%**	
Ordinance Offenses	**1.3%**	**2.6%**	↑
Status Offenses	**0.8%**	**0.1%**	
Traffic Offenses	**2.3%**	**1.6%**	

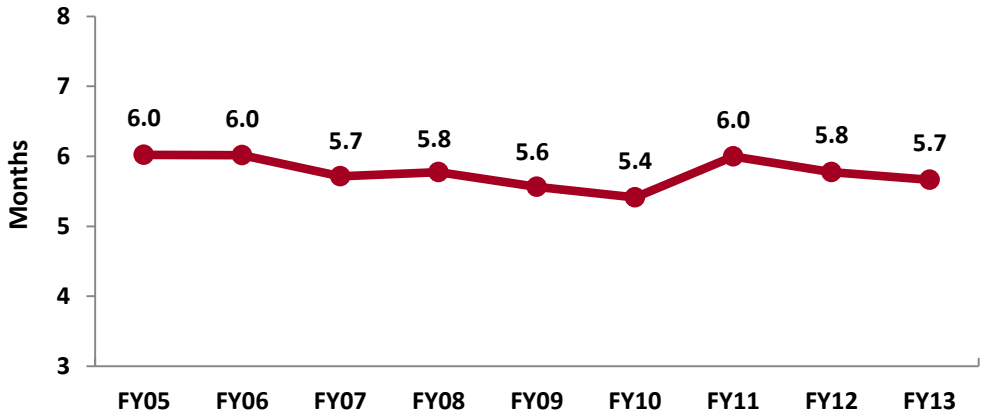
* Crime of violence is based on the definition of found in Md. Code, Correctional Services Article, Sect. 7-101(m): a crime of violence specified in section 14-101 of the Criminal Law Article, or burglary in the 1st, 2nd, or 3rd degree.

Source: Maryland Department of Juvenile Services Admission Data by Offense Type (provided December 5, 2013)

Fluctuating Length-of-Stay

While the number of admissions is a critical factor with a direct impact on the detention population, length-of-stay is also an important factor affecting the size of the population. After declining from FY2006 to FY2010, average length-of-stay for committed juveniles increased from 5.4 to 6.0 months in FY2011. Since FY2011, average length-of-stay has dropped to 5.7 months.

Figure 3.5
Average Length-of-Stay for Juveniles Released from Committed Care (in Months)



Source: Maryland Department of Juvenile Services Released Juvenile Data (provided December 5, 2013)

Length-of-stay varies by type of offense, with violent and felony person-to-person offenses carrying the longest stays in the committed population. Between FY2010 and FY2013, juveniles committed for person-to-person felonies had the longest lengths-of-stay, ranging from 9.1 months to 14.9 months, on average (Figure 3.6). However, offenders in this category accounted for only about 2% of the admissions during this period. Juveniles admitted for crimes of violence[3] have had the second longest length-of-stay. For this offense category, length-of-stay ranged from six to seven months. This was followed by the lengths-of-stay for person-to-person misdemeanors. Property felonies and property misdemeanors had approximately the same lengths-of-stay in most years; however, in FY2013, average length-of-stay for the property misdemeanors was 0.6 months longer than for the felony-level property offenses. Juveniles admitted for drug misdemeanors had the shortest length-of-stay over the last four years, ranging from 4.2 to 5.0 months. The information presented here reflects the juvenile's most serious offense. Each juvenile's record of adjudications may also affect length-of-stay.

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[3] Crime of violence is based on the definition of found in Md. Code, Correctional Services Article, Sect. 7-101(m): a crime of violence specified in section 14-101 of the Criminal Law Article, or burglary in the 1st, 2nd, or 3rd degree.

Figure 3.6
Average Length-of-Stay by Offense Category (in Months)

Offense Category	FY2010	FY2011	FY2012	FY2013
Crime of Violence*	6.0	7.0	6.8	6.4
Person-to-Person Felony	12.7	14.2	9.1	14.9
Property Felony	5.3	5.8	5.4	4.7
Drug Felony	4.6	5.3	4.5	4.7
Unspecified Felony	4.6	6.3	6.0	5.6
Person-to-Person Misdemeanor	5.7	6.1	6.6	5.9
Property Misdemeanor	5.1	5.5	5.2	5.3
Drug Misdemeanor	4.5	5.0	4.5	4.2
Unspecified Misdemeanor	5.8	6.2	4.8	4.8

* Crime of violence is based on the definition of found in Md. Code, Correctional Services Article, Sect. 7-101(m): a crime of violence specified in section 14-101 of the Criminal Law Article, or burglary in the 1st, 2nd, or 3rd degree.

Source: Maryland Department of Juvenile Services Release Data by Offense Type (provided December 5, 2013)

Length-of-stay was also analyzed by the security level/type of program from which juveniles were released. Programs were categorized by security level based on criteria provided by DJS. At the request of DJS, Residential Treatment Centers (RTCs) were examined as a separate category. Figures include both in-state and out-of-state programs. Until FY2010, length-of-stay in RTCs had the longest lengths-of-stay compared to other program categories (Figure 3.7). Length-of-stay in RTCs has since declined. Between FY2005 and FY2009, length-of-stay in Community-Based (Level I) programs gradually decreased. This trend reversed after FY2009 and, by FY2013, length-of-stay in Community-Based programs was approximately the same as it was in FY2006. Length-of-stay for juveniles released from Hardware Secure (Level III) programs increased significantly from FY2010 and FY2011, and this was the major driver of changes in the overall length-of-stay that year.

Figure 3.7
Average Length-of-Stay by Security Level (in Months)

	Residential Treatment Centers (RTCs)	Community-Based Programs LEVEL I	Staff Secure Programs LEVEL II	Hardware Secure Programs LEVEL III
FY05	9.7	7.4	4.5	2.9
FY06	8.5	7.1	4.1	4.4
FY07	8.8	6.7	3.5	5.7
FY08	9.1	6.2	4.0	6.2
FY09	8.5	6.2	4.0	5.2
FY10	8.0	6.4	3.9	4.8
FY11	7.5	6.8	4.4	7.6
FY12	6.9	6.6	4.4	7.0
FY13	6.9	7.1	4.0	7.1

Section 4 Analysis of Maryland's Committed Juvenile Population

Overview

The Maryland Department of Juvenile Services (DJS) is responsible for selecting the most appropriate out-of-home placement for youth who have been committed by the court to the custody of DJS. DJS operates seven (7) committed programs. In addition, there are numerous private programs with whom DJS contracts both within Maryland and out-of-state for the placement of committed juveniles. Programs for committed juveniles range from foster care, group homes, independent living programs, Intermediate Care Facilities for Addictions (ICFAs), Residential Treatment Centers (RTCs), Staff Secure centers and Hardware Secure facilities. Programs vary based on the treatment services provided and by security level. DJS assesses risks and needs of committed juveniles; however, program capacity and availability can affect where some juveniles are placed.

The committed population is examined in detail in this section. The major findings of the analysis are summarized below.

- Maryland's committed population grew smaller between FY2005 and FY2009, after which the population stabilized at 925-933 juveniles through FY2011. The average population increased to 960 in FY2012, due to an increase in average length-of-stay beginning in the latter half of FY2011. The population dropped to 950 in FY2013, as length-of-stays were slightly shorter during that year.

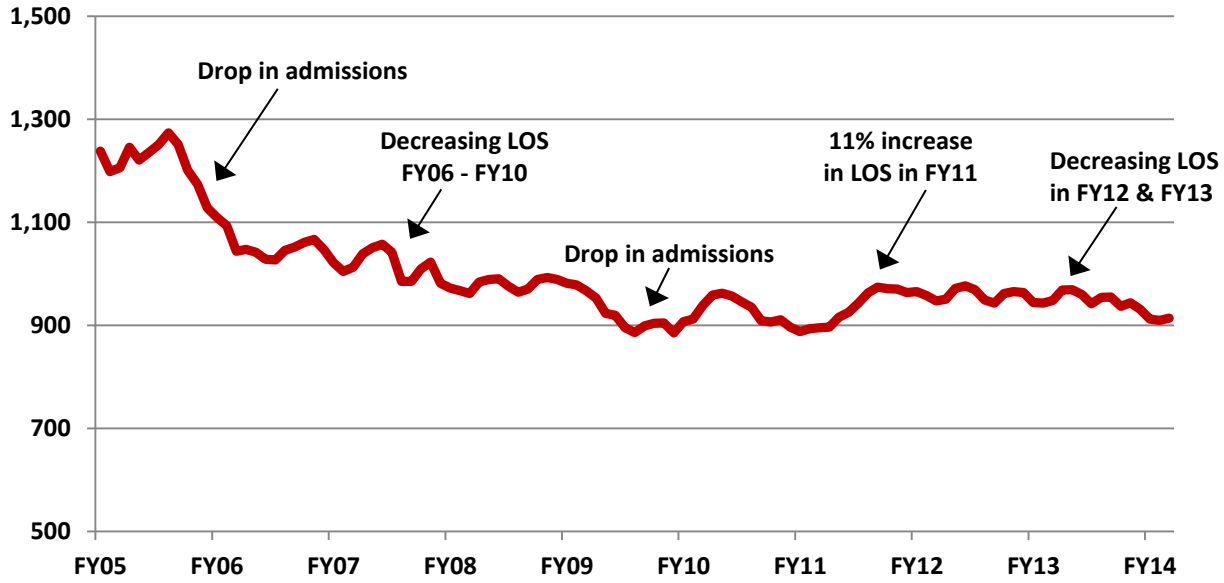
- Unlike males, the female committed population increased overall between FY2006 to FY2010. In FY2012, the female committed population grew by nearly 14% and accounted for two-thirds of the growth in the overall population that year. While the male population decreased in FY2013, the female population continued to rise.

- Overall, the committed population in Community-Based (Level I) programs and Residential Treatment Centers (RTCs) has declined since FY2007, while the population in Staff Secure (Level II) and Hardware Secure (Level III) programs has increased. However, the trend specific to females has been quite different. For females, the percentage of the population in Community-Based programs is higher today compared to FY2006 and the percentage of females in Staff Secure programs has decreased.

Total Committed Population

Overall, Maryland's committed population declined between FY2005 and FY2009 (Figure 4.1). The decrease in the population between FY2005 and FY2006 was due to a drop in the number of admissions to committed programs. Between FY2006 and FY2008, admissions remained flat and the downward trend in the population was attributable to declining lengths-of-stay during the period. A drop in admissions in FY2009 and continued decreases in the length-of-stay resulted in a lower population in FY2009 and FY2010 than in previous years. Admissions have stabilized since FY2009, as noted in the previous section. A significant increase in length-of-stay during FY2011 resulted in a higher population level beginning in the latter half of the fiscal year. The average daily population (ADP) reached 960 in FY2012. With slightly shorter length-of-stay in FY2013, the average population dropped to 950 for the fiscal year.

Figure 4.1
Average Daily Population (ADP) of Committed Juveniles
July 2004 – September 2013



Average Daily Population (ADP) by Fiscal Year

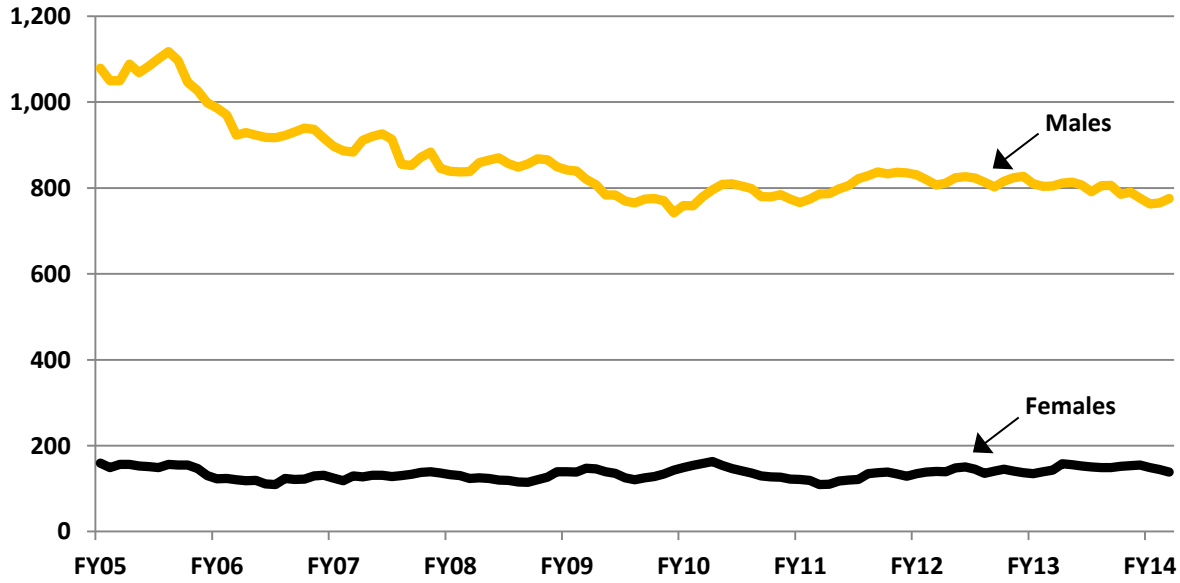
FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
1,219	1,056	1,018	979	925	928	933	960	950

Source: Maryland Department of Juvenile Services Committed Juvenile Data
(provided November 4, 2013)

Committed Population by Gender

The majority of Maryland's committed juvenile population is male. Unlike the male population, however, the female committed population increased overall between FY2006 to FY2010. In FY2011, the male population increased while the female population decreased, resulting in little net change overall. In FY2012, the female committed population grew by nearly 14%. This accounted for two-thirds of the growth in the overall population in FY2012. While the male population decreased in FY2013, the female population continued to grow, increasing by nearly 6%.

Figure 4.2
Committed Population by Gender



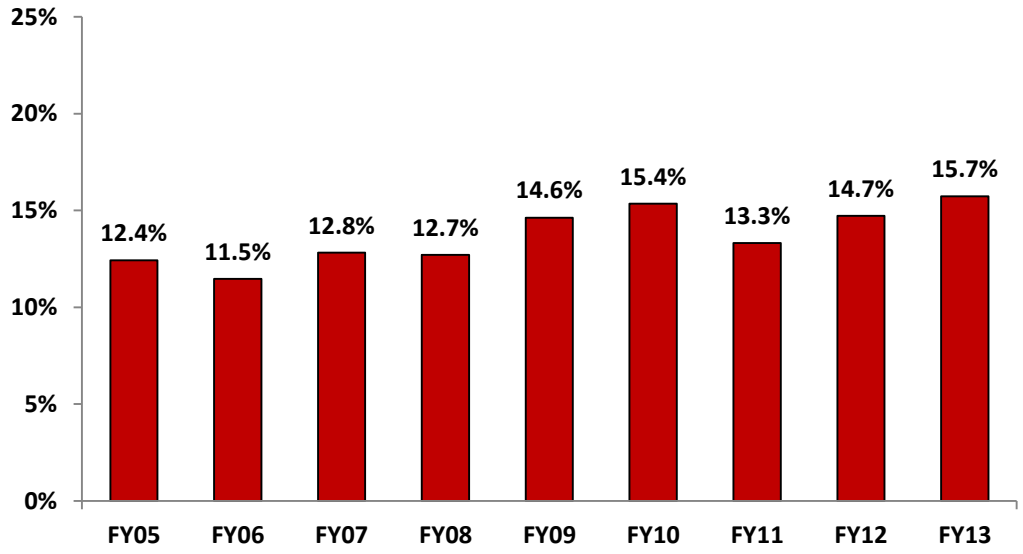
Average Daily Population (ADP) by Fiscal Year

	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Males	1,067	935	888	855	790	786	809	819	800
Females	151	121	131	124	135	143	124	141	149

ADP by gender may not add to the total population shown in Figure 4.1 due to rounding.

As a result of these changes, the proportion of the committed population that is female has increased since FY2006. From FY2005 through FY2008, females made up 11.5% to 12.8% of the committed population (Figure 4.3). The percentage of females was generally higher from FY2009 to FY2012 (except for FY2011, females represented 14.6% to 15.4% of the overall population during that period). In FY2013, the females comprised 15.7% of Maryland's committed population, the largest percentage during the entire period examined.

Figure 4.3
Females as Percent of Total Committed Population



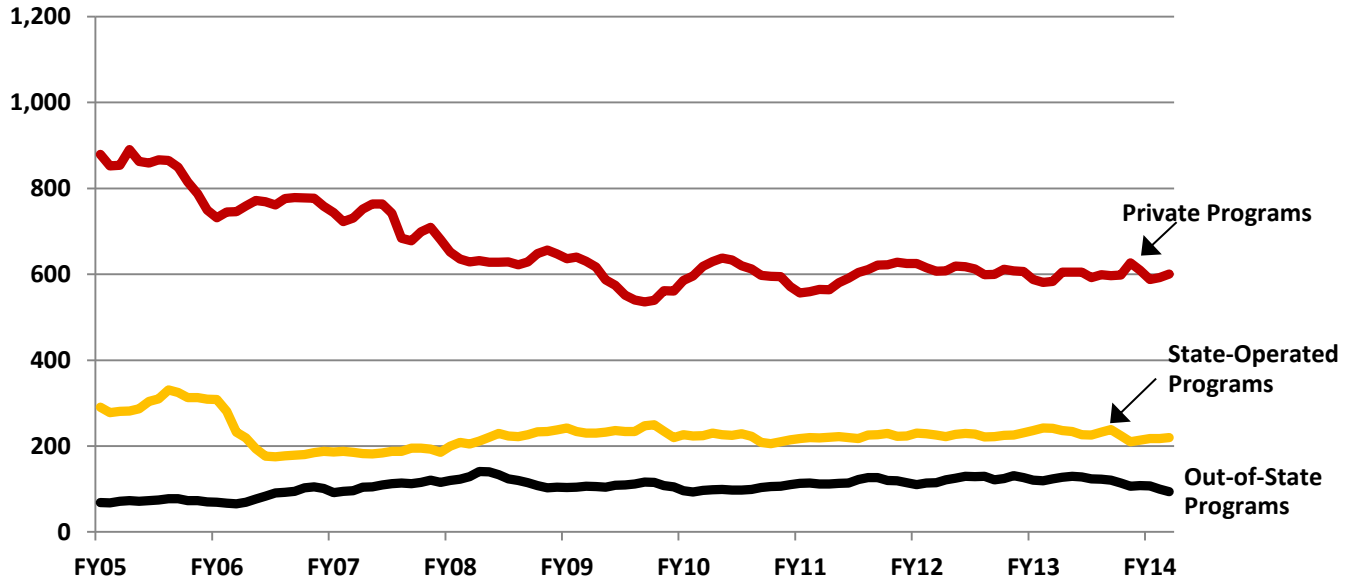
Source: Maryland Department of Juvenile Services - Committed Juvenile Data (provided November 4, 2013)

Committed Population by Program Type

The decline in the overall population from FY2005 to FY2006 was associated with decreases in both private and state-operated programs. The continued downward trend in the total population through FY2009 is attributable almost entirely to the number of juveniles in privately-operated programs.

In FY2013, roughly two-thirds of the committed population was in privately-operated programs. Another one-fourth was in state-operated programs. Nearly 13% of the committed juveniles were in programs out-of-state. This distribution of the population across types of programs (private, state-operated and out-of-state) has been relatively stable since FY2008.

Figure 4.4
Committed Population by Program Type



Average Daily Population (ADP) by Fiscal Year

	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Private Programs	844	763	723	636	582	608	594	611	599
State-Operated	302	208	188	221	235	221	222	226	230
Out-of-State	72	85	108	122	108	100	117	123	120

ADP by program type may not add to the total population shown in Figure 4.1 due to rounding.

Source: Maryland Department of Juvenile Services Committed Juvenile Data (provided November 4, 2013)

Committed Population by Security Level

The committed population was examined by security level of the programs where juveniles were housed. Programs were categorized based on criteria provided by DJS. At the request of DJS, Residential Treatment Centers (RTCs) were examined as a separate category. Figures include both in-state and out-of-state programs. Non-RTC programs were categorized as Security Level I, II or III based on DJS criteria. Level I programs are considered the least secure. These are Community-Based programs, such as foster care, some group homes, and independent living programs. Level II programs are referred to as Staff Secure programs, because youth movement within the facility is managed through staff supervision. Level III programs are the most secure. Known as Hardware Secure programs, the movement of youth within Level III facilities is managed by both staff supervision and the hardware of the facility such as locks, bars and fences.

Programs were categorized by security level based on criteria provided by DJS. The proportion of the committed population in RTCs and Community-Based (Level I) programs has declined since FY2006 (Figure 4.5). During the same period, the percentage of the population in Staff Secure (Level II) and Hardware Secure (Level III) programs has increased. By FY2013, Staff Secure and Hardware Secure programs held nearly half (47%) of the committed population.

Figure 4.5
Committed Population by Security Level

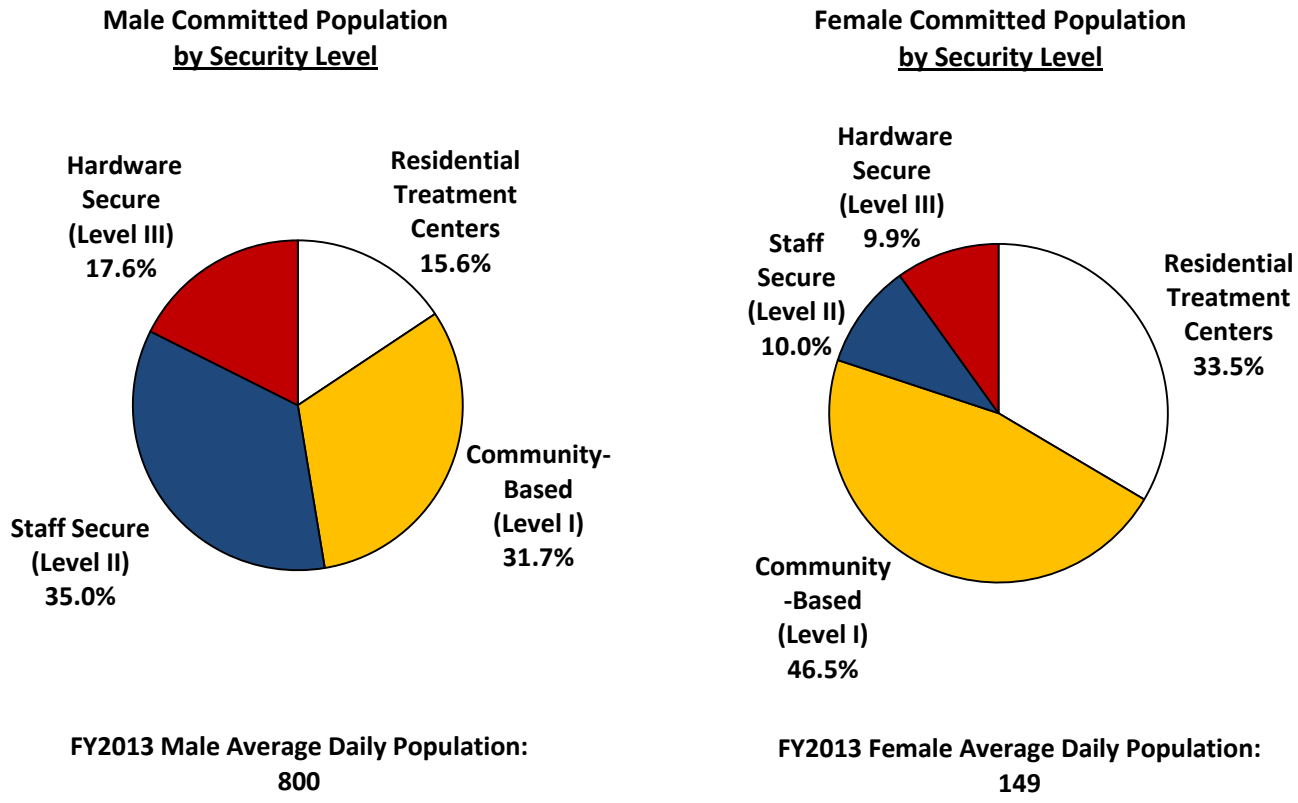
	Residential Treatment Centers (RTCs)		Community-Based Programs (Level I)		Staff Secure Programs (Level II)		Hardware Secure Programs (Level III)	
FY2006	232	22%	502	48%	250	24%	71	7%
FY2007	208		469		246		95	
FY2008	193		404		245		137	
FY2009	163		391		233		138	
FY2010	165		368		267		128	
FY2011	179		320		292		143	
FY2012	177		340		295		149	
FY2013	175	18%	323	34%	295	31%	156	16%

Source: Maryland Department of Juvenile Services Committed Juvenile Data (provided November 4, 2013)

Examining the population by security level and gender reveals that males and females have a different profile (Figure 4.6). In FY2013, the largest share of the male population (35%) was in Staff Secure (Level II) programs. This was followed by Community-Based (Level I) programs (31.7%). Less than 16% of the male population was in Residential Treatment Centers during FY2013. Hardware Secure (Level III) programs housed the smallest percentage of the male population at 17.6%.

Females were much more likely to be in Community-Based (Level I) programs or Residential Treatment Centers than were males. Nearly half of the female committed population (46.5%) was in Community-Based programs in FY2013, while another 33.5% were in Residential Treatment Centers. Together, these two types of programs accounted for 80% of the female committed population. Only 10% of the female committed population was housed in Staff Secure (Level II) programs, with about the same (9.9%) housed in Hardware Secure (Level III) programs.

Figure 4.6
FY2013 Committed Population by Gender and Security Level



FY2013 Male Average Daily Population: 800

FY2013 Female Average Daily Population: 149

ADP by gender may not add to the total population shown in Figure 4.1 due to rounding.
Source: Maryland Department of Juvenile Services Committed Juvenile Data (provided November 4, 2013)

Trends by security level have differed for the male and female population. Because males make up the majority of the committed population, males drive the overall population trends. When females are analyzed separately, a very different trend is revealed. Unlike males, the percentage of the female population in Community-Based (Level I) programs is higher today compared to FY2006, while the percentage of females in Residential Treatment Centers has remain relatively unchanged (Figure 4.7). In contrast to males, the percentage of females in Staff Secure (Level II) programs has declined. Moreover, the proportion of females in Hardware Secure (Level III) programs has not increased, as it has for the male committed population.

Figure 4.7
Committed Population by Gender and Security Level
FY2005 - FY2013

MALES

	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff Secure Programs (Level II)	Hardware Secure Programs (Level III)	Total Males
FY2006	20.7%	48.8%	24.1%	6.5%	100.0%
FY2007	18.2%	47.3%	25.0%	9.4%	100.0%
FY2008	17.3%	41.7%	26.0%	15.0%	100.0%
FY2009	15.6%	41.7%	26.7%	16.0%	100.0%
FY2010	15.7%	38.2%	31.2%	14.9%	100.0%
FY2011	16.9%	32.4%	34.0%	16.6%	100.0%
FY2012	15.8%	33.4%	33.8%	16.9%	100.0%
FY2013	15.6%	31.7%	35.0%	17.6%	100.0%

FEMALES

	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff Secure Programs (Level II)	Hardware Secure Programs (Level III)	Total Females
FY2006	32.4%	38.2%	20.5%	9.0%	100.0%
FY2007	35.6%	37.3%	18.3%	8.7%	100.0%
FY2008	35.9%	38.4%	18.8%	6.9%	100.0%
FY2009	29.8%	45.8%	16.1%	8.3%	100.0%
FY2010	29.4%	47.6%	15.1%	7.8%	100.0%
FY2011	33.4%	46.1%	13.9%	6.5%	100.0%
FY2012	33.4%	46.6%	12.4%	7.6%	100.0%
FY2013	33.5%	46.5%	10.0%	9.9%	100.0%

Source: Maryland Department of Juvenile Services - Committed Juvenile Data (provided November 4, 2013)

Committed Population by Race

The majority of Maryland's committed population, about two out of every three juveniles, is African-American. However, the percentage of African-Americans reached as high as 72.1% in FY2011 (Figure 4.8). The percentage of African-American juveniles in the committed population has since returned to previous levels. White youth typically make up 25% to 30% of the committed population, while other groups (including those who are Hispanic, Indian, or Asian) account for 5.5% or less.

Figure 4.8
Committed Population by Race

Year	African-American	White	Hispanic Other	Unknown
FY2006	63.3%	31.4%	3.8%	1.4%
FY2007	64.6%	30.1%	4.7%	0.7%
FY2008	65.4%	28.8%	5.3%	0.6%
FY2009	66.4%	29.0%	4.2%	0.3%
FY2010	70.0%	24.7%	4.7%	0.6%
FY2011	72.1%	22.5%	4.8%	0.6%
FY2012	70.4%	25.0%	4.4%	0.2%
FY2013	68.6%	25.4%	5.5%	0.4%

Source: Maryland Department of Juvenile Services - Committed Juvenile Data (provided November 4, 2013)

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Section 5 Projections of Maryland's Committed Juvenile Population

Methodology and Assumptions

Projections of Maryland's committed juvenile population were developed using a set of statistical techniques known as time-series forecasting. 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. Time parameters are tested in a times-series model and the statistically significant parameters are retained. Projection models were selected based on rigorous statistical testing and comparing each model's fit to the historical data (see Appendix B for a discussion of goodness of fit measures for statistical models). For a baseline forecast, these models implicitly assume that current policies and practices will continue into the future.

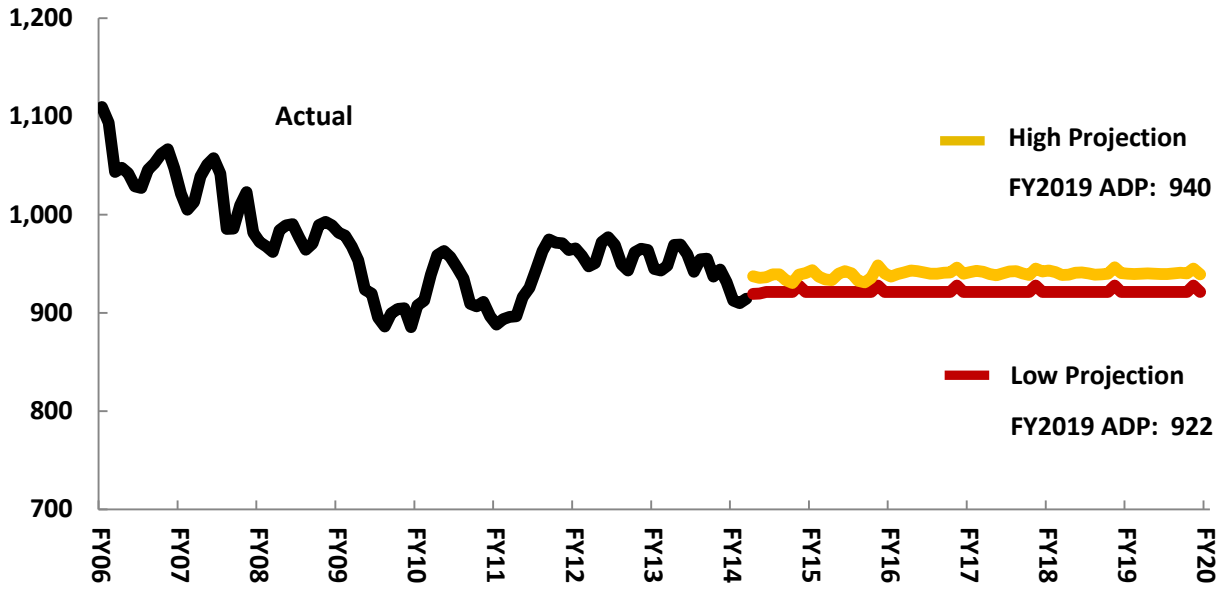
The projections were generated from data provided by Maryland's DJS for the period of July 2004 through September 2013 and were based on all of the statistical and trend information known at the time that they were produced. Two (2) projections were developed, providing a low and high scenario. Projections were then disaggregated by gender and security level. Programs were categorized as Security Level I, II or III based on DJS criteria. At the request of DJS, the population in Residential Treatment Centers was treated as a separate category. To disaggregate the projections, the characteristics of the population in FY2012 and FY2013 were averaged and the resulting percentages were applied to the projections.

In this section, projections of the average population for each fiscal year through FY2019 are presented. In Appendix A, the projections are shown by month through June 2015 and by year through FY2029.

Projections of the Total Committed Population

The low and high projections for the total committed population are shown in Figure 5.1. The projections presented in the table reflect the expected average population for each fiscal year.

Figure 5.1
Maryland Department of Juvenile Services
Committed Juvenile Average Daily Population (ADP)
Historical (FY2006-FY2013) and Projected (FY2014-FY2019)



Year	Actual	Low Projection	High Projection
FY2006	1,056		
FY2007	1,018		
FY2008	979		
FY2009	925		
FY2010	928		
FY2011	933		
FY2012	960		
FY2013	950		
FY2014		921	936
FY2015		922	938
FY2016		922	941
FY2017		922	941
FY2018		922	941
FY2019		922	940

The projections shown here do not include a peaking factor or other inflation factors.

As described in the previous section, the percentage of the committed population that is female has increased overall since FY2006. Given current trend data, it is expected that females will continue to account for roughly the same percentage of the total committed population as they did during FY2012-FY2013. It is assumed that, during the forecast horizon, females will represent 15.2% of the committed population (Figure 5.2).

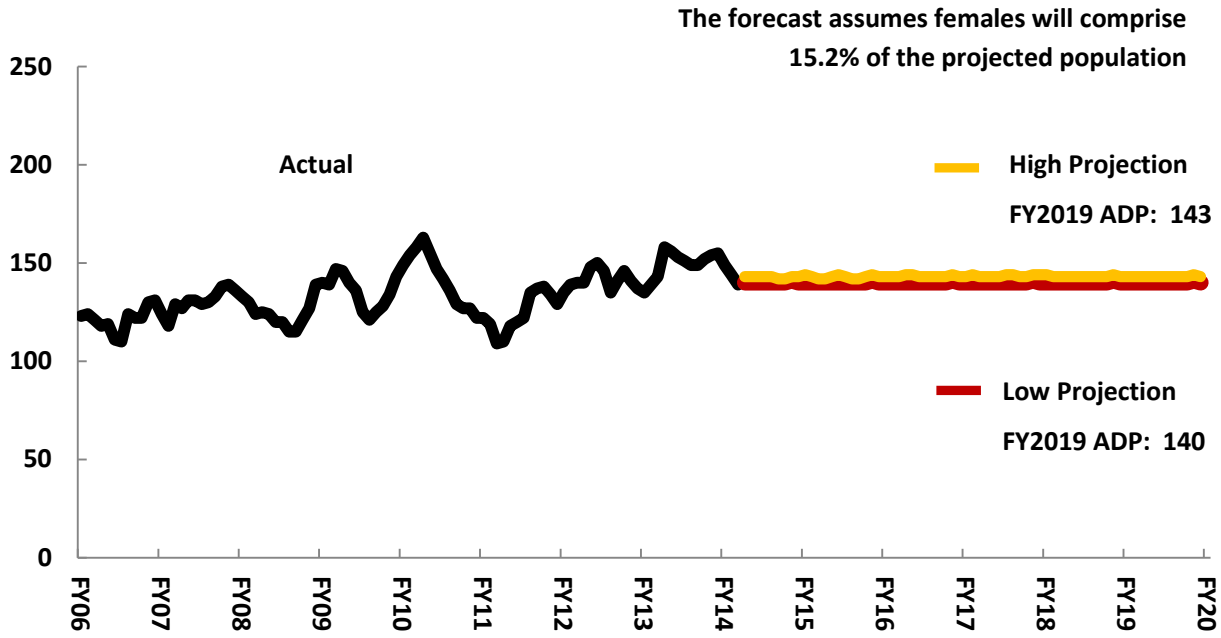
Figure 5.2
Females as a Percent of Total Committed Population

Year	Committed Female ADP	Committed Total ADP	Percent Female
FY2006	121	1,056	11.5%
FY2007	131	1,018	12.8%
FY2008	124	979	12.7%
FY2009	135	925	14.6%
FY2010	143	928	15.4%
FY2011	124	933	13.3%
FY2012	141	960	14.7%
FY2013	149	950	15.7%
		FY2012-FY2013 average	15.2%

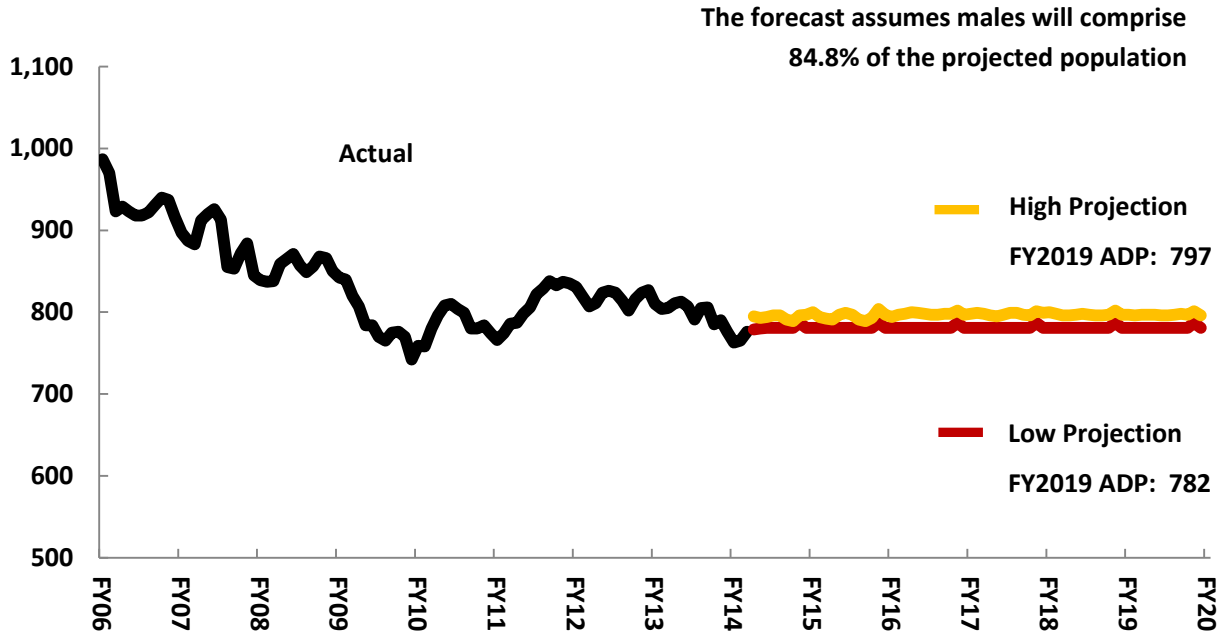
Applying the 15.2% to the low and high projections produces the female committed population forecast shown in Figure 5.3 (upper panel). The range of projections for this population is very narrow. It is assumed that males will comprise 84.8% of the projected population. This forecast is also shown in Figure 5.3 (lower panel).

Figure 5.3
Committed Juvenile Average Daily Population (ADP) by Gender
Historical (FY2006-FY2013) and Projected (FY2014-FY2019)

FEMALES



MALES



The projections were also disaggregated by security level, with Residential Treatment Centers shown as a separate category, as requested by DJS. Once again, a two-year average was used to estimate the percentage of the population for each security level and the Residential Treatment Centers (Figure 5.4)

Figure 5.4
Security Levels as a Percent of the Total Committed Population

Year	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff Secure Programs (Level II)	Hardware Secure Programs (Level III)
FY2009	17.6%	42.3%	25.2%	14.9%
FY2010	17.8%	39.7%	28.8%	13.8%
FY2011	19.1%	34.3%	31.3%	15.3%
FY2012	18.4%	35.4%	30.7%	15.5%
FY2013	18.5%	34.1%	31.1%	16.4%
FY2012-FY2013 average	18.4%	34.7%	30.9%	16.0%

Applying the percentages from Figure 5.4 to the low and high projections produces the forecasts shown in Figure 5.5. In Appendix A, projections by security level are provided by gender.

Figure 5.5
Committed Juvenile Average Daily Population (ADP)
Historical (FY2006-FY2013) and Projected (FY2014-FY2019)

	Community-Based Programs (Level I)			Residential Treatment Centers (RTCs)		
	Actual	Low Projection	High Projection	Actual	Low Projection	High Projection
FY2006	502			232		
FY2007	469			208		
FY2008	404			193		
FY2009	391			163		
FY2010	368			165		
FY2011	320			179		
FY2012	340			177		
FY2013	323			175		
FY2014		320	325		169	172
FY2015		320	326		170	173
FY2016		320	327		170	174
FY2017		320	327		170	174
FY2018		320	327		170	173
FY2019		320	326		170	173

	Staff-Secure Programs (Level II)			Hardware-Secure Programs (Level III)		
	Actual	Low Projection	High Projection	Actual	Low Projection	High Projection
FY2006	250			71		
FY2007	246			95		
FY2008	245			137		
FY2009	233			138		
FY2010	267			128		
FY2011	292			143		
FY2012	295			149		
FY2013	295			156		
FY2014		285	289		147	150
FY2015		285	290		148	150
FY2016		285	291		148	151
FY2017		285	291		148	151
FY2018		285	291		148	151
FY2019		285	290		148	150

Peaking Factors

As with most criminal justice populations, there are months in which Maryland's committed population has a higher number of juveniles than the average population for the entire fiscal year. The projections contained in this report do not include a peaking factor to account for these short-term population swings. A peaking factor can be applied a later date, however. Similarly, other inflation factors (for example, a classification inflation factor to account for movement between general population beds and other beds designed for special purposes such as disciplinary sanctions or health services) are not included in this report, but can be applied at a later date.

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Appendix A:

Maryland's Committed Population Projections by Gender and Security Type

Presented by Month through June 2015 and by Year through FY2029

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Maryland Department of Juvenile Services
Committed Juvenile Population Projections

The projections shown here do not include a a peaking factor or other inflation factors

LOW PROJECTION

		By Gender		By Security Level				By Gender & Security Level							
	Low Projection	Males	Females	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff-Secure Programs (Level II)	Hardware Secure Programs (Level III)	MALES Residential Treatment Centers (RTCs)	MALES Community-Based Programs (Level I)	MALES Staff-Secure Programs (Level II)	MALES Hardware Secure Programs (Level III)	FEMALES Residential Treatment Centers (RTCs)	FEMALES Community-Based Programs (Level I)	FEMALES Staff-Secure Programs (Level II)	FEMALES Hardware Secure Programs (Level III)
		84.8%	15.2%	18.4%	34.7%	30.9%	16.0%	13.3%	27.6%	29.2%	14.6%	5.1%	7.1%	1.7%	1.3%
Jul-13	932	790	142	172	324	288	149	124	257	272	136	47	66	16	12
Aug-13	908	770	138	167	315	280	145	121	251	265	133	46	64	15	12
Sep-13	919	780	140	170	319	284	147	123	254	268	134	47	65	16	12
Oct-13	919	780	140	170	319	284	147	123	254	268	134	47	65	16	12
Nov-13	920	780	140	170	319	284	147	123	254	268	134	47	65	16	12
Dec-13	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Jan-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Feb-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Mar-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Apr-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
May-14	928	787	141	171	322	287	148	124	256	271	136	47	66	16	12
Jun-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Jul-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Aug-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Sep-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Oct-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Nov-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Dec-14	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Jan-15	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Feb-15	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Mar-15	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
Apr-15	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12
May-15	928	787	141	171	322	287	148	124	256	271	136	47	66	16	12
Jun-15	921	781	140	170	320	285	147	123	254	269	135	47	65	16	12

Maryland Department of Juvenile Services
Committed Juvenile Population Projections

The projections shown here do not include a a peaking factor or other inflation factors

LOW PROJECTION

		By Gender		By Security Level				By Gender & Security Level							
	Low Projection	Males	Females	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff-Secure Programs (Level II)	Hardware Secure Programs (Level III)	MALES Residential Treatment Centers (RTCs)	MALES Community-Based Programs (Level I)	MALES Staff-Secure Programs (Level II)	MALES Hardware Secure Programs (Level III)	FEMALES Residential Treatment Centers (RTCs)	FEMALES Community-Based Programs (Level I)	FEMALES Staff-Secure Programs (Level II)	FEMALES Hardware Secure Programs (Level III)
		84.8%	15.2%	18.4%	34.7%	30.9%	16.0%	13.3%	27.6%	29.2%	14.6%	5.1%	7.1%	1.7%	1.3%
FY2014	921	781	140	169	320	285	147	123	254	269	135	47	65	16	12
FY2015	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2016	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2017	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2018	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2019	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2020	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2021	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2022	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2023	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2024	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2025	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2026	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2027	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2028	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12
FY2029	922	782	140	170	320	285	148	123	255	269	135	47	65	16	12

To disaggregate the projections, the characteristics of the population in FY2012 and FY2013 were averaged and the resulting percentages were applied to the projections.

Projections by categories may not sum to the total population projection due to rounding.

Maryland Department of Juvenile Services
Committed Juvenile Population Projections

The projections shown here do not include a a peaking factor or other inflation factors

HIGH PROJECTION

		By Gender		By Security Level				By Gender & Security Level							
	High Projection	Males	Females	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff-Secure Programs (Level II)	Hardware Secure Programs (Level III)	MALES Residential Treatment Centers (RTCs)	MALES Community-Based Programs (Level I)	MALES Staff-Secure Programs (Level II)	MALES Hardware Secure Programs (Level III)	FEMALES Residential Treatment Centers (RTCs)	FEMALES Community-Based Programs (Level I)	FEMALES Staff-Secure Programs (Level II)	FEMALES Hardware Secure Programs (Level III)
		84.8%	15.2%	18.4%	34.7%	30.9%	16.0%	13.3%	27.6%	29.2%	14.6%	5.1%	7.1%	1.7%	1.3%
Jul-13	931	790	142	172	323	288	149	124	257	272	136	47	66	16	12
Aug-13	934	792	142	172	324	288	149	125	258	272	136	48	66	16	13
Sep-13	937	795	142	173	325	289	150	125	259	273	137	48	66	16	13
Oct-13	937	795	142	173	325	290	150	125	259	274	137	48	67	16	13
Nov-13	936	794	142	173	325	289	149	125	258	273	137	48	66	16	13
Dec-13	936	794	142	173	325	289	149	125	259	273	137	48	66	16	13
Jan-14	939	797	143	173	326	290	150	125	259	274	137	48	67	16	13
Feb-14	939	797	143	173	326	290	150	125	259	274	137	48	67	16	13
Mar-14	933	791	142	172	324	288	149	125	258	272	136	48	66	16	13
Apr-14	930	789	141	172	323	287	149	124	257	272	136	47	66	16	12
May-14	939	796	143	173	326	290	150	125	259	274	137	48	67	16	13
Jun-14	941	798	143	173	327	290	150	126	260	274	138	48	67	16	13
Jul-14	943	800	143	174	327	291	151	126	261	275	138	48	67	16	13
Aug-14	937	795	142	173	325	289	150	125	259	273	137	48	66	16	13
Sep-14	934	792	142	172	324	288	149	125	258	273	137	48	66	16	13
Oct-14	933	791	142	172	324	288	149	125	258	272	136	48	66	16	13
Nov-14	940	797	143	173	326	290	150	125	260	274	137	48	67	16	13
Dec-14	942	799	143	174	327	291	150	126	260	275	138	48	67	16	13
Jan-15	940	797	143	173	326	290	150	126	260	274	137	48	67	16	13
Feb-15	933	791	142	172	324	288	149	124	258	272	136	47	66	16	13
Mar-15	931	790	142	172	323	288	149	124	257	272	136	47	66	16	12
Apr-15	936	793	142	173	325	289	149	125	258	273	137	48	66	16	13
May-15	948	804	144	175	329	293	151	127	262	277	139	48	67	16	13
Jun-15	940	797	143	173	326	290	150	126	260	274	137	48	67	16	13

Maryland Department of Juvenile Services
Committed Juvenile Population Projections

The projections shown here do not include a a peaking factor or other inflation factors

HIGH PROJECTION

		By Gender		By Security Level				By Gender & Security Level							
	High Projection	Males	Females	Residential Treatment Centers (RTCs)	Community-Based Programs (Level I)	Staff-Secure Programs (Level II)	Hardware Secure Programs (Level III)	MALES Residential Treatment Centers (RTCs)	MALES Community-Based Programs (Level I)	MALES Staff-Secure Programs (Level II)	MALES Hardware Secure Programs (Level III)	FEMALES Residential Treatment Centers (RTCs)	FEMALES Community-Based Programs (Level I)	FEMALES Staff-Secure Programs (Level II)	FEMALES Hardware Secure Programs (Level III)
		84.8%	15.2%	18.4%	34.7%	30.9%	16.0%	13.3%	27.6%	29.2%	14.6%	5.1%	7.1%	1.7%	1.3%
FY2014	936	794	142	172	325	289	150	125	259	273	137	48	66	16	13
FY2015	938	795	143	173	325	290	150	125	259	274	137	48	67	16	13
FY2016	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2017	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2018	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2019	940	797	143	173	326	290	150	125	260	274	137	48	67	16	13
FY2020	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2021	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2022	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2023	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2024	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2025	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2026	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2027	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2028	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13
FY2029	941	798	143	173	327	291	151	126	260	275	138	48	67	16	13

To disaggregate the projections, the characteristics of the population in FY2012 and FY2013 were averaged and the resulting percentages were applied to the projections.

Projections by categories may not sum to the total population projection due to rounding.

Appendix B:
Goodness-of-Fit Measures for the Committed Juvenile Population Projection Models

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Goodness-of-Fit Measures for Committed Population Projection Models

Goodness-of-fit measures for a statistical model describe how well the model fits a set of observations. These measures summarize the difference between observed values (i.e., actual historical values) and the predicted values generated by the model. Such measures can be used to compare results across projection models. Definitions for commonly-used measures are below.

Error: the numerical difference between the actual value and the predicted value.

Mean error: the average of the errors (note: because actual rather than absolute values of the projection errors are used, positive and negative forecast errors can offset each other).

Mean absolute error: the average of the absolute values of the errors.

Mean percent error: the average of errors as a percentage of the actual values (positive and negative forecast errors can offset each other).

Mean absolute percent error: the average of absolute errors as a percentage of the actual values.

Root mean squared error: the difference between actual values and the predicted values, which are then squared before the average is computed; finally, the square root of the average is taken (note: since the errors are squared before they are averaged, the root mean squared error gives a relatively high weight to large errors).

Projection models for the committed juvenile population were selected based on rigorous statistical testing and each model's fit to the historical data. Goodness-of-fit measures for the low and high population projection models are shown below.

Goodness-of-Fit Measures for Committed Population Projection Models

	Number of monthly observations	Degrees of freedom	Mean Error	Mean Absolute Error	Mean Percent Error	Mean Absolute Percent Error	Root Mean Squared Error
Low Projection Model	**110**	**103**	**-.02**	**9.760**	**0.00%**	**0.97%**	**13.74**
High Projection Model	**107**	**99**	**.53**	**9.648**	**0.05%**	**0.95%**	**13.67**