The Pennsylvania Juvenile Justice Recidivism Report: Juveniles Closed 2007-2018

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Commonwealth of Pennsylvania Tom Wolf Governor



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Prepared By:

Michael Schlossman, Ph.D. Juvenile Court Judges' Commission Research Analyst <u>c-mschloss@pa.gov</u> Rebecca Anderson Center for Juvenile Justice Training & Research Information Technology Generalist <u>c-reanders@pa.gov</u>

Juvenile Court Judges' Commission 601 Commonwealth Ave, Suite 9100 P.O. Box 62425 Harrisburg, PA 17106-2425 717.787.6910 www.jcjc.pa.gov

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Commonwealth of Pennsylvania

Tom Wolf, Governor

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Introduction

The Pennsylvania Juvenile Court Judges' Commission (JCJC) provides leadership, advice, training, and support to enable Pennsylvania's juvenile justice system to achieve its balanced and restorative justice mission. The Commission is legislatively empowered to advise juvenile court judges in all matters pertaining to the proper care and maintenance of delinquent and dependent children, employing evidence-based practices whenever possible, and to compile and publish such statistical data as needed for efficient administration of the juvenile courts.

In November 2010, the JCJC unanimously endorsed a comprehensive strategy, known as the Juvenile Justice System Enhancement Strategy (JJSES), to enhance the capacity of Pennsylvania's juvenile justice system to achieve its mission of balanced and restorative justice. The following is the statement purpose of the JJSES:



We dedicate ourselves to working in partnership to enhance the capacity of Pennsylvania's juvenile justice system to achieve its balanced and restorative justice mission by:

- Employing evidence-based practices, with fidelity, at every stage of the juvenile justice process;
- Collecting and analyzing the data necessary to measure the results of these efforts; and, with this knowledge,
- Striving to continuously improve the quality of our decisions, services and programs.¹

Key stakeholders concluded that one of the most appropriate ways to evaluate the effectiveness of the JJSES was to examine the recidivism rates of juveniles who have been involved in Pennsylvania's juvenile justice system. After all, "recidivism is the key statistic in determining whether or not criminal justice interventions, from diversion through incarceration, are making a difference in keeping offenders from committing more crimes."² At the initiation of the JJSES, however, there was no systematic mechanism available to track the statewide recidivism rates of juvenile offenders in Pennsylvania within both the criminal and juvenile justice systems once their case closed.

Consequently, the JCJC undertook the project and developed the methodology and capacity to monitor the statewide recidivism rates of juvenile offenders. The Center for Juvenile Justice Training and Research (CJJT&R), a division of the JCJC, collects and maintains delinquency data from all 67 counties through the Pennsylvania Juvenile Case Management System (PaJCMS). The JCJC worked closely with the Administrative Office of Pennsylvania Courts (AOPC), which collects court data at both the criminal and magisterial district justice levels, for the project. The task was to integrate these data sources into a useful, continuing measure of recidivism.

¹ For more information on Pennsylvania's Juvenile Justice System Enhancement Strategy, visit: <u>http://www.jcjc.pa.gov</u>

² Virginia Department of Justice. (2005). Juvenile recidivism in Virginia. *DJJ Quarterly*, 3, 1-12.

Discussions were held with Temple University Criminal Justice Professor Phil Harris, JCJC staff, and representatives from the Pennsylvania Council of Chief Juvenile Probation Officers regarding appropriate methods for calculating recidivism. The following definition of recidivism was adopted:

Recidivism:

A subsequent delinquency adjudication in juvenile court or conviction in criminal court for either a misdemeanor or felony offense within two years of case closure.

The two-year tracking period was selected because there was a consensus that recidivism beyond two years from case closure would be less likely to be related to the services and interventions provided during the period of juvenile court supervision. Additionally, only subsequent adjudications of delinquency and findings of guilt in criminal proceedings³ were included in the definition of recidivism since these case outcomes require judicial determinations.

Initial recidivism studies had two overarching goals. First, since the core premise of the JJSES is that recidivism rates can be reduced through the implementation of evidence-based practices, the main goal was to establish an ongoing, consistent recidivism benchmark. The second goal was to examine differences between recidivists and non-recidivists in terms of demographics and other key variables to identify factors associated with recidivism in the Pennsylvania juvenile justice system.

The benchmark was developed with juveniles closed in 2007, 2008, 2009, and 2010 to provide an accurate measure of pre-JJSES recidivism. In April 2013, the JCJC released *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles with a 2007 Case Closure*, which detailed the outcomes of youth with a case closed from a juvenile probation department in 2007. In November 2013, the JCJC released its second statewide report, entitled *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles with Cases Closed in 2007, 2008, or 2009*. In November 2014, the JCJC released its third statewide report, entitled *The Pennsylvania Report: Juveniles with Cases Closed in 2007, 2008, or 2009*. In November 2014, the JCJC released its third statewide report, entitled *The Pennsylvania Report: Juveniles with Cases Closed in 2007, 2008, or 2009*. In November 2014, the JCJC released its third statewide report, entitled *The Pennsylvania Report: Juveniles with Cases Closed in 2007, 2008, or 2009*. In November 2014, the JCJC released its third statewide report, entitled *The Pennsylvania Juvenile Sutce Recidivism Report: Juveniles with Cases Closed in 2007, 2008, 2009, or 2010*. While full implementation of the JJSES may take years, the data obtained from these reports provide a gauge by which to measure the successfulness of the strategy after its implementation in 2010.

In September 2016, the JCJC released *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles with Cases Closed in 2007, 2008, 2009, 2010, 2011, and 2012*. This report examined data from 2007-2012 and analyzed trends over time in recidivism rates and the differences between recidivists and non-recidivists. Finally, a shorter *Research in Brief: Juveniles with Cases Closed between 2007 and 2014* was published in February 2019 that analyzed time trends and recidivism patterns for the full range of years for which recidivism data was available.

In the September 2016 and February 2019 reports, Dr. Edward Mulvey and his colleagues from the Psychiatry Department at the University of Pittsburgh School of Medicine, used a method that compared system performance pre-JJSES and post-JJSES initiation by considering the observed recidivism of the youth in the years post-JJSES initiation (2011, 2012, 2013, 2014) to a calculated expected recidivism for these groups if they had been processed in the years prior to JJSES (2007-2010). Comparing the observed and expected recidivism rate for the newer sample took into account possible differences in background

³ Findings of guilt included: a guilty verdict, a guilty plea, and a nolo contendere plea.

characteristics (e.g., number of prior arrests) between the groups at the different times. In effect, it looked at how many of each newer sample would be projected to have recidivated if that newer sample had been processed in the juvenile system during the pre-JJSES years and compared it to how many actually recidivated.

This approach was valuable for documenting differences in the performance of the system for the four years prior to as compared to after the implementation of JJSES. In consultation with Dr. Mulvey, however, it was decided not to use that approach in the next report entitled *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles with Cases Closed in 2007-2016*, which was published January 2021.⁴ Instead, data on Youth Level of Service/Case Management Inventory (YLS) scores was incorporated to obtain a picture of differential performance of the system on youth at different levels of risk for recidivism.

The current study, *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles Closed in 2007-2018* continues and expands on the last report's approach of analyzing the relationship between juveniles' assigned risk level in regular practice and recidivism. One of the cornerstones of the JJSES has been the successful introduction and use of the Youth Level of Service/Case Management Inventory (YLS), and later the YLS 2.0, within juvenile probation departments across the Commonwealth. The YLS is an actuarial risk assessment tool that measures 42 static and dynamic risk factors, divided into eight domains, that have been identified as most predictive of youthful re-offending. Generally, youth are assessed at the time they enter the juvenile justice system. Upon completion of the YLS assessment, youth are assigned a numeric score and risk level (i.e., low, moderate, high, or very high) and their top criminogenic needs (those things recognized as driving their delinquent behavior) are identified. These results assist juvenile probation officers in targeting a youth's specific needs through treatment, intervention, services, and intensity of supervision. Best practice also dictates that youth be reassessed at regular intervals while under juvenile court supervision and again at the time of case closure.

Analysis of the relationship between YLS risk levels and recidivism is important because it provides validation for the tool's ability to distinguish juveniles who are at greater risk of recidivating from those who are at a lower risk. While prior research has validated the YLS as being a useful predictor of recidivism, it is nonetheless important to continue to confirm that it is working as intended in Pennsylvania, as well as to examine whether the YLS is more predictive for certain demographic groups than others (e.g., males versus females).

⁴ We did not use the comparison of expected and observed recidivism rates for two reasons. First, there is little need to establish that post-JJSES initiation years have shown consistently lower recidivism rates, even when background characteristics are considered; that was done in the previous reports. Moreover, comparing current recidivism rates to projected rates for juveniles closed over a decade ago (2007 – 2010) has limited interpretability for current practice. Second, any alternative, and possibly more timely comparisons of expected and observed rates would not have a clear, consistent demarcation line that could provide a "before" and "after" period with policy implications. The comparisons in the earlier report had the sample of juveniles closed in each year after 2010 compared to the juveniles closed in the years before 2010. This was done because there was the reasonable expectation that implementation of JJSES could conceivably shift the composition of the characteristics of youth involved in the system. Any approach that might compare expected recidivism from a prior period (such as the three prior years) to observed rates, however, would introduce an inconsistent metric for each new year, with no clear policy relevance or comparability across each year. In short, it would produce more confusing, rather than illuminating, findings.

Just as importantly, the YLS provides information that can be used to examine whether trends in recidivism are a product of improvements in the juvenile justice system or changes in the characteristics of juveniles closed. This is the first recidivism report that utilizes YLS data (2015-2018) to help explain recidivism trends. As Figure 1 on p. 13 shows, recidivism rates have seen substantial declines over the last two years, dropping from 18.4% in 2016 to 16.7% in 2017 and 14.6% in 2018. These trends could be a result of changes in the characteristics of juveniles closed. It is also possible—and these explanations are not mutually exclusive—that among youth assessed at the same risk level (e.g., moderate risk youth) fewer recidivated, perhaps as a result of the system's improved performance.

The evidence presented in Section 4: Youth Level of Service/Case Management Inventory (YLS) and Recidivism suggests that both hypotheses are relevant to explaining recent recidivism trends. Over the last four years, there has been a small increase in the percentage of youth assessed as low risk on their final YLS (from 73% in 2015 to 76% in 2017 and 77% in 2018). Having a less "at risk" group of juveniles closed could play a role in why recidivism rates have gone down over the last few years. There have also been notable declines in the recidivism rates of youth assessed as high or very high risk, and more modest declines in the recidivism rates of moderate risk youth (see p. 57). Declining recidivism rates among youth assessed as having the same risk level suggests that something other than the characteristics of those youth measured in the YLS must explain those trends. These latter findings are consistent with the idea that the programming innovations occurring under JJSES are continuing to bear fruit and drive recidivism rates down.

Readers of this report should keep in mind that data for the 2018 recidivism cohort may have been impacted in unknown ways by the COVID-19 pandemic and corresponding shelter-in-place orders and social distancing restrictions that began in mid-March 2020. The <u>2020 Juvenile Court Annual Report</u> shows that written allegations to juvenile court decreased substantially beginning in mid-March and remained at a lower level for the rest of 2020. It seems likely that some of the same pandemic-related factors that explain the decline in allegations (e.g., fewer opportunities to engage in delinquent acts due to less inperson interaction) could also lead to fewer new adjudications and convictions for juveniles closed. Thus, pandemic-related factors could play a role in why the recidivism rate of juveniles closed in 2018 (14.6%) was so much lower than in past years. However, the recidivism rate for juveniles closed in 2017 was also lower than in previous years—and data for the 2017 cohort was not affected by the pandemic because, as mentioned above, Pennsylvania's definition of recidivism only counts new adjudications and convictions that occur within two years of case closing.

After a brief description of the methodology employed, the remainder of this report will describe the results of the study. More specifically, the bulk of this report will focus on analyzing the demographic, offense-related, and YLS risk level characteristics correlated with recidivism for adolescents with case closures in 2017 and 2018, and on comparing their recidivism patterns to prior years (2007 through 2016). The report concludes with an overview of project limitations inherent in this type of study.

Methodology

In order to meet the goals of the project, staff members from the Juvenile Court Judges' Commission (JCJC) began the data collection process by querying the Pennsylvania Juvenile Case Management System (PaJCMS) to identify juveniles whose involvement with a juvenile probation department ended in 2017 and 2018.⁵ Juveniles were included in the sample if they had a case that occurred prior to their closure date that had a valid disposition.⁶ A data file was created that included the juvenile's name, date of birth, State Identification Number (SID), social security number (SSN), and the date of the juvenile's closure. These juveniles formed the base sample for the study.

JCJC then provided this base sample to the Administrative Office of Pennsylvania Courts (AOPC). The AOPC in turn queried their case management systems against the base sample juveniles to determine if these individuals had a subsequent conviction for a felony or misdemeanor offense in criminal court following their closure date. A juvenile was matched by: 1.) his or her SID alone, or 2.) two of the following: his or her last name, his or her date of birth, or his or her social security number. The AOPC provided to JCJC the most serious substantiated offense and the disposition for that case for all misdemeanor and felony convictions occurring after the close date.

Concurrently, PaJCMS was queried to determine if any of the youth from the base sample recidivated in juvenile court, and information on both subsequent adjudications of delinquency and criminal convictions was incorporated into a data file. The data was then analyzed to determine whether an individual had a subsequent recidivating event—either an adjudication or a conviction—occurring within two years of his or her closure. If so, they were marked as a recidivist and the individual's first recidivating offense was selected for further analysis.

The PaJCMS was also utilized to collect additional variables that were examined in this report. These include: demographics, offense and disposition variables, and out-of-home service variables. Information related to Serious, Violent, and Chronic offenders and the Youth Level of Service/Case Management Inventory (YLS) was also retrieved from the PaJCMS.

⁵ Prior reports described the youth being analyzed in this study as "juveniles with cases closed." Starting with this report, we refer to the same youth as "juveniles closed." This latter phrasing is more accurate because it is possible for a juvenile to have one case closed while remaining open on another case. This new language clarifies that, as in past reports, the youth included in the analysis of recidivism ended their involvement with a juvenile probation department.

⁶ Valid dispositions for the purposes of this project were as follows: informal adjustment; consent decree; probation; placement; probation with day treatment; deferred adjudication; deferred placement; disposition deferred; courtesy supervision; dependency placement; warned, counseled, case closed; warned and counseled; community service only; fines and/or costs ordered by court; referral to another agency/individual; restitution only ordered; Youth Aid Panel; and "other."

Definitions

The following terms are used in the Pennsylvania juvenile justice system and this report.

Adjudication of Delinquency: The juvenile court's determination that a juvenile has committed a delinquent act and is also in need of treatment, supervision, or rehabilitation. This is similar to the finding of guilt in criminal court.

Case Closure: The juvenile's termination from juvenile court supervision. A juvenile could be on supervision for multiple individual cases at the time of closure.

Chronic Offender: A juvenile who has four or more previous written allegations for separate incidents that occurred prior to the date of the 2007-2016 case closure.

Cohort: A group of individuals that share a common characteristic, such as the year of their case closure.

Correlated: When variation in one variable corresponds with variation in another variable (e.g., the greater the amount of criminogenic risk factors a juvenile is exposed to, the more likely they are to recidivate).⁷

Detention/Shelter: A temporary holding facility.

Disposition: The action/decision implemented or treatment plan decided upon by a juvenile court in response to a written allegation of delinquency. This is similar to the sentence imposed in criminal court.

Diversion: A juvenile court disposition that avoids an adjudication of delinquency and redirects youth away from formal processing in the juvenile justice system.

Expungement: The sealing of a juvenile court record making it permanently unavailable to the public but where some information may be retained only by a juvenile justice agency for limited purposes.

Mean: The numerical average of a data sample. The mean can be found by summing all of the values in the data sample and then dividing by the number of values in the data sample.

Median: The numerical value that separates the higher half of a data sample from the lower half of a data sample. The median can be found by arranging all the values from lowest to highest and picking the middle number. If there is an even number of values in the data sample, the median is identified as the mean of the two middle values.

Out-of-Home Placement: An out-of-home program utilized as a juvenile court disposition. Included in this definition are placements into group homes, general residential programs, secure residential care, foster care, drug and alcohol programs, residential treatment facilities (RTF), Youth Development Centers (YDC), and Youth Forestry Camps (YFC).

⁷ In this report, when two variables are described as being correlated, then statistical significance tests have been performed and the difference is significant at the p<.05 level. This is consistent with the threshold used in much criminological literature to establish that a correlation is unlikely to be a product of chance variation.

Recidivated: To have committed a subsequent felony or misdemeanor offense that resulted in an adjudication of delinquency in juvenile court or criminal conviction within two years of case closure.

Recidivating Case: The first case that resulted in an adjudication of delinquency in juvenile court or a conviction in criminal court following the juvenile's close date.

Serious Offender: A juvenile who has been adjudicated delinquent in juvenile court at any point in his or her juvenile offending history for one of the following offenses: burglary, theft (felonies only), arson, drug trafficking (manufacture/deliver/possession with intent to deliver), and extortion (theft by extortion).

Violent Offender: A juvenile who has been adjudicated delinquent in juvenile court at any point in his or her juvenile offending history for one of the following offenses: homicide or non-negligent manslaughter, rape, robbery, aggravated assault, kidnapping, and select firearm/weapon offenses.

Written Allegation: The document completed by a law enforcement officer or other person that is necessary to allege a juvenile has committed an act of delinquency. It is synonymous with a "court referral," though written allegation is the preferred language.

Youth Level of Service/Case Management Inventory (YLS): A validated research-based assessment tool designed to determine a juvenile's risk to re-offend and the presence of criminogenic needs. The YLS helps the probation officer objectively determine a juvenile's risk of recidivating and the level of intervention needed. The Youth Level of Service/Case Management Inventory is referred to as the YLS in this report.⁸

⁸ There are two versions of the YLS referenced throughout this report: the original Youth Level of Service/Case Management Inventory and the Youth Level of Service/Case Management Inventory 2.0, which is currently in use.

Executive Summary

Section 1: State- and County-Level Recidivism Patterns

- For juveniles closed in 2017 and 2018, the recidivism rate was 16.7% and 14.6%, respectively. The 2017 and 2018 recidivism rates are the lowest since the Juvenile Court Judges' Commission (JCJC) began tracking recidivism and continue the trend of "post-JJSES initiation" rates being below the "pre-JJSES" rate (21.6% for the years 2007-2010).
- In the "pre-JJSES initiation" years (2007-2010), a lower percentage of re-offenders first recidivated as adults (56%) and a higher percentage recidivated as juveniles (44%) than in the "post-JJSES initiation" years (2011-2018). In the "post-JJSES initiation" years, the percentage of re-offenders who first recidivated in criminal court has consistently been above 60% (65% in 2017 and 62% in 2018).
- The average number of months between a juvenile's closure and a new recidivism event increased between 2011 and 2015 and then remained at this higher level in 2016-2017 before falling in 2018. For juveniles closed in 2017 and 2018, the average number of months between closure and a new adjudication or conviction was 12.1 and 11.5, respectively.
- Between 2007 and 2018, among youth who re-offended, the first new offense was a misdemeanor in approximately two-thirds of cases, and this percentage was consistent over time. For juveniles closed in 2017, the first new re-offense was a misdemeanor in 69% of cases and a felony in the remaining 31%. For juveniles closed in 2018, the first new re-offense was a misdemeanor in 70% of cases and a felony in the remaining 30%.
- Over three-quarters of counties (51/67 or 76%) had a recidivism rate in the "post-JJSES initiation" era (2011-2018) that was below their rate in the "pre-JJSES" era (2007-2010). Among the 51 counties with a lower "post-JJSES initiation" than "pre-JJSES" recidivism rate, the mean percentage decrease in recidivism rates was 19.6% and the median percentage decrease was 18.2%.
- Sixty percent of counties (40/67) had a recidivism rate for the years 2015-2018 that was below their rate for 2011-2014. Among the 40 counties with a lower rate for 2015-2018 than 2011-2014, the mean percentage decrease in recidivism rates was 18.8% and the median percentage decrease was 18.6%.

Section 2: Demographic Characteristics and Recidivism

- Over a twelve-year span (2007 through 2018), males have consistently been overrepresented, and females underrepresented, in juvenile court as compared to the general population. For juveniles closed in both 2017 and 2018, 73% of juveniles closed were male and 27% were female.
- Over the last twelve years, males have consistently recidivated at a much higher rate than females. In 2017, 20% of males recidivated compared to 8% of females. In 2018, 17% of males recidivated compared to 7% of females.

- For juveniles closed between 2007 and 2018, White Non-Hispanic youth were consistently the largest racial/ethnic group, followed by Black Non-Hispanic youth, and then Hispanic and Asian Non-Hispanic youth. There has also been an increase in the percentage of youth who were Hispanic: 10% in 2007-2010 versus 14% beginning in 2015.
- Between 2007 and 2018, Black Non-Hispanic youth recidivated at the highest rate, followed by Hispanic youth, and then White Non-Hispanic youth and Asian Non-Hispanic youth. For juveniles closed in 2017 and 2018, these differences are not as pronounced as in years past.
- Further analysis of 2017-2018 juveniles closed shows that racial/ethnic differences in recidivism are greater for males than for females. Among males, 23% of Black Non-Hispanic, 20% of Hispanic, 16% of White Non-Hispanic, and 10% of Asian Non-Hispanic youth recidivated. Among females, 8% of Black Non-Hispanic, 7% of Hispanic, 7% of White Non-Hispanic, and 0% of Asian Non-Hispanic youth recidivated.
- In all the years analyzed (2007-2018), juveniles whose first written allegation occurred at a younger age were more likely to recidivate than juveniles whose first written allegation occurred at an older age. In 2018, contrary to the pattern observed in past years, a higher portion of youth whose first allegation was at ages 18-20 recidivated than youth whose first allegation was at ages 18-20 recidivated than youth whose first allegation was at ages 16-17.
- There was an increase in the percentage of youth closed whose parents had never married between the "pre-JJSES" period (2007-2010) and 2012 (41% vs. 50%). This increase has continued in recent years, reaching 55% and 54% of juveniles closed in 2017 and 2018, respectively. Similarly, there was a decline in the percentage of youth whose parents had separated or divorced between the "pre-JJSES" period and 2013 (29% vs. 22%). This lower percentage has continued through 2017 and 2018 (21%).
- Between 2007 and 2018, juveniles closed whose parents were never married recidivated at a similarly high rate as those whose parent or parents were deceased. These youth recidivated at a higher rate than juveniles whose parents were separated or divorced, who, in turn, recidivated at a higher rate than youth whose parents were married.

Section 3: Offense History, System Penetration, and Recidivism

- For each of the years examined (2013 through 2018), over three-quarters of juveniles had 1-2 written allegations by the time they were closed. Additionally, less than 15% of juveniles had 4 or more allegations at closure.
- For the years 2007 through 2018, youth closed who had more written allegations recidivated at a higher rate than youth who had fewer written allegations. In 2017, 10% of juveniles with one written allegation recidivated, compared to 20% with two allegations, 26% with three allegations, 37% with between four and nine allegations, and 45% of juveniles with ten or more allegations. In 2018, 8% of juveniles with one written allegation recidivated, compared to 18% with two allegations, 24% with three allegations, 33% with between four and nine allegations, 33% with between four and 51% of juveniles with ten or more allegations.

- For juveniles closed in 2017 and 2018, 61% and 62%, respectively, were diverted from adjudication and formal processing, while 39% and 38% were adjudicated delinquent prior to case closure. For the same period, 82% of youth did not receive an out-of-home placement disposition, while 18% received an out-of-home placement disposition prior to case closure. These percentages are consistent with data for juveniles closed in prior years (2013-2016).
- Juveniles closed in 2017-2018 who were diverted from adjudication and formal processing were almost one-third as likely to recidivate as juveniles who were adjudicated delinquent prior to closure (9% vs. 26%). Similarly, juveniles who did not receive an out-of-home placement disposition were less than half as likely to recidivate as juveniles who received an out-of-home placement disposition prior to closure (12% vs. 32%).
- For each of the past twelve years, approximately one out of five juveniles who were closed met the criteria of being a Serious, or Violent, or Chronic (SVC) offender.
- For juveniles closed in 2017-2018, 33% of Serious, or Violent, or Chronic offenders recidivated compared to only 12% of youth whose offense history did not place them in any of these categories. These findings are consistent with those of previous cohorts of juveniles closed (2007 through 2016).

Section 4: Youth Level of Service/Case Management Inventory (YLS) and Recidivism

- For juveniles closed in 2017-2018, more than three-quarters (77%) were assessed as low risk in their final YLS assessment, just over one-fifth (21%) were moderate risk, and 2% were high or very high risk.
- As expected, and consistent with past years (2015-2016), juveniles closed in 2017-2018 who were assessed as high or very high risk on their final YLS assessment were much more likely to re-offend than moderate risk youth, who, in turn, were much more likely to re-offend than low risk youth (40% vs. 28% vs. 13%).
- The percentage of youth closed who were assessed as low risk on their final YLS assessment went up from 73% in 2015 to 77% in 2018 and the percentage assessed as moderate risk declined from 25% in 2015 to 20% in 2018.
- Over the last four years, there has been a notable decline in the recidivism rates of youth assessed as high or very high risk on their final YLS assessment, dropping from 58% in 2015 to 36% in 2018. The recidivism rates of moderate risk youth have also declined less dramatically over the last three years.
- For juveniles closed in 2017-2018, the risk level distribution of males and females on their final YLS assessment was similar. Seventy-seven percent of males were assessed as low risk, 20% as moderate risk, and 2% as high or very high risk. Seventy-five percent of females were assessed as low risk, 22% as moderate risk, and 2% as high or very high risk.

- For juveniles closed in 2017-2018, YLS risk level was correlated with recidivism for both males and females, though males recidivated at a much higher rate at all risk levels. For males, 15% of youth assessed as low risk on their final YLS assessment recidivated compared to 34% of moderate risk youth and 47% of high or very high risk youth. For females, 6% of low risk youth recidivated compared to 14% of moderate risk youth and 21% of high or very high risk youth.
- For juveniles closed in 2017-2018, a higher percentage of Black Non-Hispanic and Hispanic youth than White Non-Hispanic and Asian Non-Hispanic youth were assessed as moderate risk on their final YLS assessment. Likewise, a lower percentage of Black Non-Hispanic and Hispanic youth than White Non-Hispanic and Asian Non-Hispanic youth were assessed as low risk.
- A youth's final YLS risk level was correlated with recidivism for White Non-Hispanic, Hispanic, and Black Non-Hispanic youth among juveniles closed in 2017-2018. For Black Non-Hispanics, 16% of low risk youth recidivated compared to 30% of moderate risk youth, and 34% of high or very risk youth. For Hispanics, 13% of low risk youth recidivated compared to 25% of moderate risk youth, and 55% of high or very high risk youth. For White Non-Hispanics, 10% of low risk youth recidivated compared to 28% of moderate risk youth and 40% of high or very high risk youth.
- In descending order, the risk level domains in which the largest portion of juveniles were assessed as *either moderate or high risk* (excluding Leisure/Recreation) were: (1) Personality/Behavior (46%); (2) Education/Employment (44%); (3) Peer Relations (43%); (4) Substance Abuse (41%); (5) Prior and Current Offense (26%); (6) Attitudes and Orientation (19%); (7) Family Circumstances/Parenting (13%).
- For juveniles' final YLS assessment, three risk level domains stood out as having the strongest relationship to recidivism: Attitudes/Orientation, Prior and Current Offenses, and Peer Relations.
- Final YLS assessment risk levels were predictive of recidivism for both Serious, or Violent, or Chronic youth and those who were not Serious, or Violent, or Chronic. Likewise, for juveniles at each risk level on the YLS, being classified as a Serious, or Violent, or Chronic offender greatly increased the likelihood of recidivism.
- Sixty-three percent of youth who were initially assessed as moderate risk were assessed as low risk in their final YLS. Likewise, 89% of youth initially assessed as high or very high risk were assessed as moderate or low risk in their final YLS.
- Youth who were initially assessed as moderate risk—and then, in their final YLS, were assessed as low risk—recidivated at a lower rate than youth initially assessed as moderate risk who had no change in risk level (19% vs. 30%). Youth who were initially assessed as high or very high risk—and then, in their final YLS, were assessed as moderate or low risk—recidivated at a lower rate than youth initially assessed as high or very high risk who experienced no change in risk level (31% vs. 46%).
- Risk score reduction was more common for youth assessed as higher risk than for youth assessed as lower risk. Sixty-three percent of youth who were initially assessed as low risk saw a decline in their risk scores, while 17% saw no change and 20% saw an increase. Eighty-four percent of youth

who were initially assessed as moderate risk saw a decline in their risk scores, while 3% saw no change and 13% saw an increase.

• Youth who experienced increases in their risk score recidivated at a higher rate than youth who experienced no change or a decrease in their risk score.

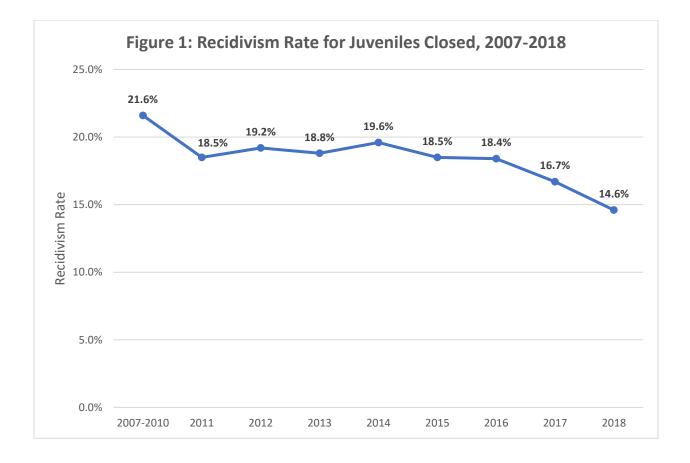
Findings

Section 1: State- and County-Level Recidivism Patterns

Recidivism Rate

For juveniles closed in 2017 and 2018, the recidivism rate was 16.7% and 14.6%, respectively. The 2017 and 2018 recidivism rates are the lowest since the Juvenile Court Judges' Commission (JCJC) began tracking recidivism and continue the trend of "post-JJSES initiation" rates being below the "pre-JJSES" rate (21.6% for the years 2007-2010).*

It is possible that 2018's low recidivism rate was impacted by the reduction in crime and delinquency that occurred as a result of the COVID-19 pandemic (see the <u>2020 Juvenile Court Annual Report</u>). However, the recidivism rate for juveniles closed in 2017 was also lower than in past years—and the 2017 recidivism rate was not affected by the pandemic because Pennsylvania's definition of recidivism only counts new adjudications and convictions that occur within two years of case closing.

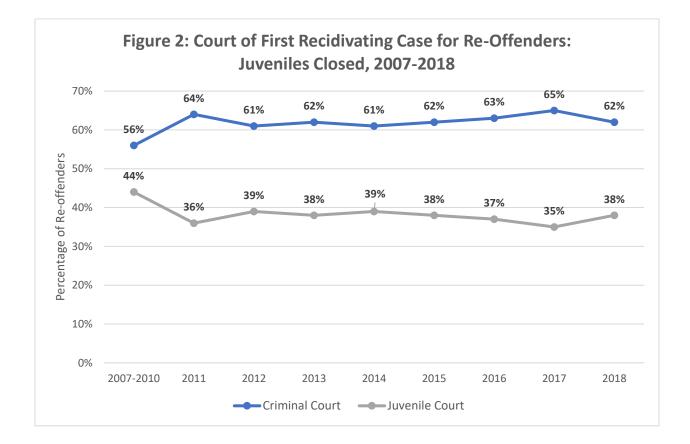


^{*} See the Limitations Section for a discussion of issues to consider when making year-to-year comparisons using recidivism data.

Court of First Recidivating Case

For juveniles closed in 2017, 65% of re-offenders first recidivated as adults, whereas 35% first recidivated as juveniles. For juveniles closed in 2018, 62% of re-offenders first recidivated as adults, while 38% first recidivated as juveniles.

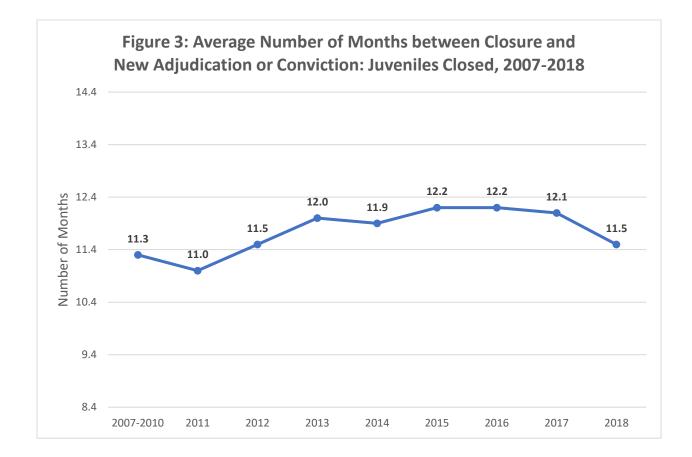
In the "pre-JJSES initiation" years (2007-2010), a lower percentage of re-offenders first recidivated as adults (56%) and a higher percentage recidivated as juveniles (44%) than in the "post-JJSES initiation" years (2011-2018). In the "post-JJSES initiation" years, the percentage of re-offenders who first recidivated in criminal court has consistently been above 60%.



Length of Time to Subsequent Delinquency Adjudication or Criminal Conviction

For juveniles closed in 2017 and 2018, the average number of months between a juvenile's closure and a new adjudication or conviction was 12.1 and 11.5, respectively. The average number of months between a juvenile's closure and a new recidivism event increased between 2011 and 2015 and then remained at this higher level in 2016-2017 before falling in 2018.

The COVID-19 pandemic likely resulted in fewer juveniles recidivating after the onset of shelter-in-place restrictions in mid-March 2020. This is one possible explanation for why recidivists in 2018 received a new adjudication or conviction earlier, on average, than in previous years.

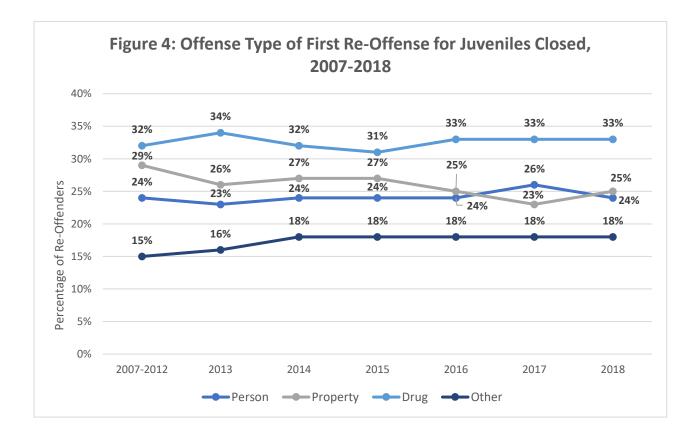


Offense Type and Charge Grade of First Re-Offense

Between 2007 and 2018, among youth who re-offended, the most common first new offense type⁹ was drug, followed by property, person, and then "other."¹⁰ For juveniles closed in 2017, however, a slightly higher percentage of re-offenders committed person than property offenses (26% vs. 23%), though the general pattern of a greater percentage of re-offenders committing property offenses reemerged in 2018.

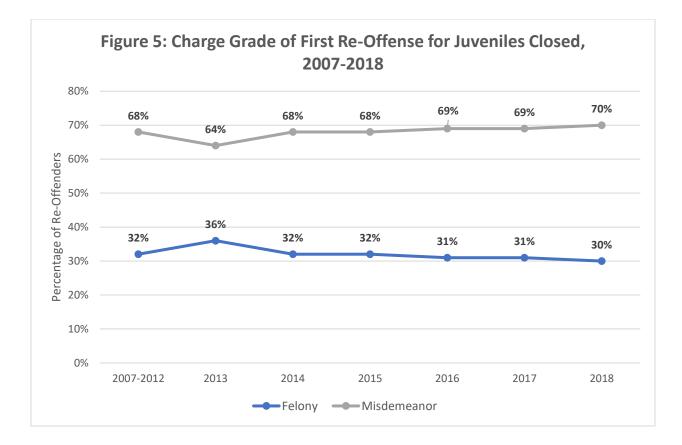
For juveniles closed in 2017, the most common re-offense type was drug (33%), followed by person (26%), followed by property (23%), followed by "other" (18%). For juveniles closed in 2018, the most common re-offense type was drug (33%), followed by property (25%), followed by person (24%), followed by "other" (18%).

Between 2007 and 2018, among youth who re-offended, the first new offense was a misdemeanor in approximately two-thirds of cases, and this percentage has been consistent over time. For juveniles closed in 2017, the first new re-offense was a misdemeanor in 69% of cases and a felony in the remaining 31%. For juveniles closed in 2018, the first new re-offense was a misdemeanor in 70% of cases and a felony in the remaining 30%.



⁹ This study only analyzes the offense characteristics of the first recidivism event occurring within two years of the date a juvenile was closed.

¹⁰ The top three offenses in the "other" category were: (1) Firearm-Related Offense (28%); (2) Disorderly Conduct (20%); (3) Fleeing or Attempting to Allude Police (6%).



County-Specific Recidivism Rates

Table 1 presents county and statewide recidivism data for the twelve-year period beginning in 2007 and ending in 2018.^{*} For each county, the total number of juveniles closed for that year appears *above* the corresponding recidivism rate. These numbers are then tallied and summed up at the bottom of the table to produce statewide statistics.

It is important to note that, in past years, expunged cases created a limitation to analyzing trends in county-level recidivism rates. Prior to October 1, 2014, in Pennsylvania, when a case was expunged, all of a juvenile's identifying information pertaining to that case was "erased" and was therefore not available for analysis. Consequently, juveniles with a case expungement between 2007 and 2014 were omitted from the study's sample, unless they had a separate case closed in those years that was not expunged. Due to a change in the Pennsylvania Rules of Juvenile Court Procedure, however, identifying information can now be retained for research purposes. Beginning with juveniles closed in 2015, expunged cases no longer impact the Juvenile Court Judges' Commission's ability to calculate recidivism rates.

To facilitate analysis of recent and long-term county-specific recidivism trends, Table 2 aggregates the county-specific recidivism data presented in Table 1 into the "pre-JJSES" (2007-2010) period and then 2011-2014 and 2015-2018—the earlier and later years within the "post-JJSES initiation period" (2011-2018). Presenting data separately for 2011-2014 and 2015-2018 allows for more nuanced analysis of county-specific recidivism trends within the "post-JJSES initiation period."

Appearing in the second column to the right is the percentage change in recidivism rates between the "pre-JJSES" (2007-2010) and "post-JJSES initiation" periods (2011-2018). This figure is arrived at by taking the difference between the "post-JJSES initiation" rates (not shown but a combination of the 2011-2014 and 2015-2018 data presented) and "pre-JJSES" rates. Then, this number is divided by the "pre-JJSES" recidivism rate. The bottom of the table shows that, statewide, there was a 16.1% decrease in the recidivism rate between the "pre-JJSES" and the "post-JJSES initiation" periods.

Furthermore, over three-quarters of counties (51/67 or 76%) had a recidivism rate in the "post-JJSES initiation" era (2011-2018) that was below their rate in the "pre-JJSES" era (2007-2010). Among the 51 counties with a lower "post-JJSES initiation" than "pre-JJSES" recidivism rate, the mean percentage decrease in recidivism rates was 19.6% and the median percentage decrease was 18.2%.

Appearing in the right most column is the percentage change in recidivism rates between the earlier and later parts of the "post-JJSES initiation" period (2011-2014 compared to 2015-2018). This figure is arrived at by taking the difference between the 2015-2018 and 2011-2014 recidivism rates and dividing this number by the 2011-2014 rate. The bottom of the table shows that, statewide, there was a 9.7% decrease in the recidivism rate between the years 2011-2014 and 2015-2018.

Sixty percent of counties (40/67) had a recidivism rate for the years 2015-2018 that was below their rate for 2011-2014. Among the 40 counties with a lower rate for 2015-2018 than 2011-2014, the mean percentage decrease in recidivism rates was 18.8% and the median percentage decrease was 18.6%.

^{*} See the Limitations Section for a discussion of issues to consider when analyzing county recidivism rates.

١	Table 1: County and Statewide Recidivism Rates: Juveniles Closed 2007-2018										
	"Pre-JJSES" (2007- 2010) Juveniles Closed (#)	eniles Juveniles Closed (#)			2018 Juveniles Closed (#)						
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)					
Adams	885	680	115	116	118	140					
Adams	24%	19%	19%	23%	22%	19%					
Alloghopy	6,192	7,415	1,525	1,479	1,500	1,418					
Allegheny	25%	20%	19%	17%	15%	13%					
Armstrong	402	250	78	58	49	67					
Armstrong	20%	15%	18%	17%	14%	22%					
Beaver	1,119	1,008	252	215	170	203					
Deaver	17%	15%	15%	12%	12%	8%					
Bedford	252	195	19	19	10	1					
Bealora	18%	14%	5%	11%	10%	0%					
Berks	3,274	2,368	696	612	500	465					
Derks	20%	15%	12%	13%	13%	13%					
Blair	380	438	173	175	173	183					
Didii	17%	16%	22%	25%	16%	14%					
Bradford	197	419	108	102	83	97					
brauloru	20%	11%	12%	20%	16%	9%					
Bucks	2,991	2,185	473	476	422	541					
DUCKS	21%	17%	14%	18%	11%	10%					
Butler	643	661	163	147	123	145					
buller	16%	16%	19%	13%	13%	13%					

١	Table 1: County and Statewide Recidivism Rates: Juveniles Closed 2007-2018										
	"Pre-JJSES" (2007- 2010) Juveniles Closed (#)	2011-2014 Juveniles Closed (#)	2015 Juveniles Closed (#)	2016 Juveniles Closed (#)	2017 Juveniles Closed (#)	2018 Juveniles Closed (#)					
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)					
Combria	1,087	794	251	184	142	163					
Cambria	20%	18%	14%	13%	17%	17%					
Comoron	25	9	10	6	2	4					
Cameron	32%	33%	30%	0%	100%	0%					
Carbon	404	338	62	58	59	91					
Carbon	14%	16%	11%	10%	14%	16%					
Centre	252	227	56	69	69	81					
Centre	19%	12%	20%	13%	14%	15%					
Chester	2,664	2,339	506	385	405	385					
Chester	19%	14%	12%	15%	19%	10%					
Clarion	140	137	23	31	30	21					
Clarion	26%	21%	17%	0%	7%	10%					
Clearfield	224	198	74	27	42	19					
Clearneid	23%	20%	23%	26%	14%	21%					
Clinton	125	170	44	51	44	51					
Clinton	24%	23%	25%	22%	27%	14%					
Columbia	284	325	70	48	50	68					
Columbia	16%	17%	13%	27%	24%	13%					
Choufend	555	464	134	97	59	98					
Crawford	21%	18%	19%	19%	20%	16%					

т	able 1: County	and Statewide	Recidivism Rate	es: Juveniles Clo	osed 2007-2018	;
	(luveniles Closed		2015 Juveniles Closed (#)	2016 Juveniles Closed (#)	2017 Juveniles Closed (#)	2018 Juveniles Closed (#)
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)
Cumberland	375	612	259	280	246	270
Cumbertand	21%	13%	17%	22%	14%	11%
Dauphin	3,707	2,728	562	547	518	509
Dauphin	24%	24%	25%	25%	25%	21%
Delaware	1,145	3,255	814	694	691	702
Delaware	23%	20%	20%	18%	17%	18%
Elk	131	148	38	25	29	36
	26%	25%	21%	12%	24%	14%
Erie	2,925	2,260	404	420	392	410
	21%	20%	18%	23%	18%	20%
Fayette	1,043	1,041	235	185	152	109
rayette	15%	11%	15%	14%	16%	13%
Forest	25	13	1	2	1	0
Forest	12%	8%	0%	50%	100%	-
Franklin	1,217	910	321	216	207	212
FIGIIKIIII	23%	24%	20%	16%	20%	21%
Fulton	54	51	19	18	9	9
Fuiton	13%	12%	11%	11%	0%	11%
Greene	151	190	21	16	11	14
Greene	10%	6%	14%	13%	9%	0%

-	Table 1: County	and Statewide	Recidivism Rate	s: Juveniles Clos	sed 2007-2018	
	"Pre-JJSES" (2007- 2010) Juveniles Closed (#)	2010) Juveniles Juveniles Closed 2015 Juveniles 2016 Juveniles 2017 J		2017 Juveniles Closed (#)	2018 Juveniles Closed (#)	
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)
Unitingdon	197	146	32	30	29	35
Huntingdon	17%	17%	16%	30%	10%	26%
Indiana	258	296	66	78	67	50
mulana	16%	13%	18%	4%	13%	14%
Jefferson	207	197	42	51	33	47
Jenerson	24%	23%	21%	20%	18%	15%
Juniata	56	66	12 18		15	20
Juniata	29%	21%	17%	17%	20%	10%
Lackawanna	776	752	190	226	193	220
Lackawaiiiia	24%	22%	20%	20%	15%	15%
Lancastar	1,643	2,249	641	594	594	596
Lancaster	21%	18%	19%	20%	19%	19%
Lowronco	593	722	103	100	66	70
Lawrence	17%	17%	13%	12%	15%	11%
Lebanon	1,026	702	150	162	191	160
Lebanon	27%	23%	24%	30%	21%	16%
Lehigh	3,611	3,392	683	646	573	496
Lenigh	14%	20%	21%	23%	18%	18%
Luzorpo	1,904	1,377	256	242	211	252
Luzerne	17%	16%	14%	19%	13%	13%

Та	Table 1: County and Statewide Recidivism Rates: Juveniles Closed 2007-2018											
	"Pre-JJSES" (2007-2010) Juveniles Closed (#)	2011-2014 Juveniles Closed (#)	2015 Juveniles Closed (#)	2016 Juveniles Closed (#)	2017 Juveniles Closed (#)	2018 Juveniles Closed (#)						
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)						
lucoming	1,216	1,082	208	171	194	166						
Lycoming	28%	25%	25%	15%	22%	19%						
Makaan	183	194	60	53	41	54						
McKean	24%	16%	23%	17%	15%	22%						
Damon	586	711	156	151	122	153						
Mercer	16%	18%	16%	27%	16%	20%						
Mifflin	261	209	58	49	62	42						
IVIIIIIII	27%	24%	24%	31%	27%	36%						
Monroe	977	794	193	161	158	148						
WONTOE	14%	15%	18%	16%	14%	11%						
Montgomory	3,793	4,144	776	733	696	668						
Montgomery	24%	16%	18%	19%	17%	12%						
Mantaur	83	72	11	18	7	10						
Montour	22%	26%	36%	28%	43%	30%						
Northampton	1,951	2,014	422	440	411	515						
Northampton	17%	18%	17%	15%	17%	11%						
Northurshaulaud	611	667	210	183	166	115						
Northumberland	23%	16%	16%	19%	13%	12%						
Perry	249	187	62	36	27	27						
Perry	25%	26%	23%	25%	19%	19%						

	Table 1: County and Statewide Recidivism Rates: Juveniles Closed 2007-2018										
	"Pre-JJSES" (2007- 2010) Juveniles Closed (#)	2011-2014 Juveniles Closed (#)	2015 luveniles 2016 luveniles 2017 luveniles		2017 Juveniles Closed (#)	2018 Juveniles Closed (#)					
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)					
Dhile de la hie	8,949	12,902	2,488	2,169	1,769	1,771					
Philadelphia	28%	23%	22%	20%	16%	13%					
Pike	309	274	61	62	63	58					
Ріке	13%	13%	8%	8%	8%	12%					
Potter	120	69	5	19	8	5					
Poller	11%	13%	0%	16%	13%	40%					
Schuulkill	1,011	875	171	100	138	156					
Schuylkill	16%	16%	16%	16% 20%		14%					
Spydor	219	260	37 57		38	43					
Snyder	22%	22%	24%	19%	18%	5%					
Somerset	355	234	37	37	26	42					
Somerset	13%	16%	16%	8%	12%	10%					
Sullivan	16	11	8	4	1	1					
Suilivan	6%	0%	13%	0%	0%	0%					
Susquehanna	217	184	32	25	23	50					
Jusquenanna	18%	17%	3%	20%	9%	12%					
Tiese	271	206	41	34	28	25					
Tioga	18%	17%	12%	15%	29%	0%					
Union	105	116	21	33	41	28					
UNION	23%	28%	38%	12%	15%	7%					

T	able 1: County a	nd Statewide Re	ecidivism Rates	: Juveniles Clos	ed 2007-2018	
	"Pre-JJSES" (2007- 2010) Juveniles Closed (#)	2011-2014 Juveniles Closed (#)	2015 Juveniles Closed (#)	2016 Juveniles Closed (#)	2017 Juveniles Closed (#)	2018 Juveniles Closed (#)
County	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)	Recidivism Rate (%)
Vananza	297	434	131	74	76	62
Venango	13%	17%	18%	19%	16%	24%
Warren	256	201	46	48	36	36
warren	17%	19%	20%	19%	6%	22%
Mashington	1,121	1,318	260	210	212	261
Washington	24%	16%	15% 14%		13%	10%
Mayna	263	210	42	45	24	17
Wayne	15%	15%	19%	29%	29%	24%
Westmoreland	2,191	1,795	388	331	238	285
westmoreiand	16%	14%	16%	16%	17%	11%
Wyoming	209	138	28	21	18	17
wyonning	19%	15%	14%	14%	11%	24%
York	3,780	3,422	783	768	752	845
TOTK	25%	20%	19%	18%	20%	16%
Total:	72,738	74,450	16,417	14,938	13,653	14,058
i otai:	21.6%	19.0%	18.5%	18.4%	16.7%	14.6%

Т		-					for Juveniles Clos ion (2011-2018)	ed
	"Pre-JJSES" 2011-2014 2015-2018 (2007-2010)				Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates		
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate
Adams	885	24%	680	19%	489	21%	-16.4%	6.4%
Allegheny	6,192	25%	7,415	20%	5,922	16%	-27.3%	-20.6%
Armstrong	402	19%	250	15%	252	18%	-13.8%	20.1%
Beaver	1,119	17%	1,008	15%	840	12%	-19.6%	-18.4%
Bedford	252	17%	195	14%	49	8%	-24.9%	-43.1%
Berks	3,274	20%	2,368	15%	2,273	13%	-31.9%	-12.8%
Blair	380	17%	438	16%	704	19%	7.7%	19.1%
Bradford	197	20%	419	11%	390	14%	-36.3%	25.7%
Bucks	2,991	21%	2,185	17%	1,912	13%	-26.4%	-23.4%
Butler	643	16%	661	16%	578	15%	-3.3%	-7.4%

Та		-					r Juveniles Close n (2011-2018)	d
	"Pre-JJSES" (2007-2010) 2011-2014 2015-2018		2011-2014 2015-2018				Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate
Cambria	1,087	20%	794	18%	740	15%	-19.0%	-15.9%
Cameron	25	32%	9	33%	22	23%	-19.4%	-31.8%
Carbon	404	14%	338	16%	270	13%	6.8%	-16.5%
Centre	252	19%	227	12%	275	15%	-26.8%	23.8%
Chester	2,664	19%	2,339	14%	1,681	14%	-26.4%	-0.4%
Clarion	140	26%	137	21%	106	8%	-40.8%	-59.9%
Clearfield	224	23%	198	20%	162	21%	-12.6%	6.6%
Clinton	125	24%	170	23%	190	22%	-7.4%	-5.9%
Columbia	284	16%	325	17%	236	18%	6.8%	9.7%
Crawford	555	21%	464	18%	388	19%	-15.7%	5.0%

Та		-					r Juveniles Close n (2011-2018)	d
	"Pre-JJSES" (2007-2010)		2011-2014		2015-2018		Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed Recidivism Rate		Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate
Cumberland	375	28%	612	13%	1,055	16%	-46.6%	28.1%
Dauphin	3,707	24%	2,728	24%	2,136	24%	1.1%	0.1%
Delaware	1,145	23%	3,255	20%	2,901	18%	-17.3%	-10.6%
Elk	131	26%	148	25%	128	18%	-16.2%	-28.1%
Erie	2,925	21%	2,260	20%	1,626	20%	-8.1%	-0.4%
Fayette	1043	15%	1,041	11%	681	15%	-17.6%	32.9%
Forest	25	12%	13	8%	4	50%	47.1%	550.0%
Franklin	1,217	23%	910	24%	956	19%	-5.1%	-20.0%
Fulton	54	13%	51	12%	56	9%	-20.7%	-24.1%
Greene	151	10%	190	6%	62	10%	-28.1%	53.2%

Table 2: County and Statewide Recidivism Rates for Juveniles Closed "Pre-JJSES" (2007-2010) and Post-JJSES Initiation (2011-2018)									
	"Pre-JJSES" (2007-2010)		2011-2014		2015-2018		Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates	
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate	
Huntingdon	197	17%	146	17%	126	21%	11.9%	20.5%	
Indiana	258	16%	296	13%	261	12%	-25.0%	-5.0%	
Jefferson	207	24%	197	23%	173	18%	-13.8%	-19.0%	
Juniata	56	29%	66	21%	65	15%	-35.9%	-27.5%	
Lackawanna	776	24%	752	22%	829	18%	-19.7%	-19.7%	
Lancaster	1,643	21%	2,249	18%	2,425	19%	-13.3%	7.5%	
Lawrence	593	17%	722	17%	339	13%	-10.5%	-24.9%	
Lebanon	1,026	27%	702	23%	663	23%	-15.2%	-1.9%	
Lehigh	3,611	14%	3392	20%	2,398	20%	41.5%	3.0%	
Luzerne	1,904	17%	1,377	16%	961	15%	-10.5%	-8.8%	

Table 2: County and Statewide Recidivism Rates for Juveniles Closed "Pre-JJSES" (2007-2010) and Post-JJSES Initiation (2011-2018)									
	"Pre-JJSES" (2007- 2010)		2011-2014		2015-2018		Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates	
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate	
Lycoming	1,216	28%	1,082	25%	739	20%	-16.1%	-19.0%	
McKean	183	23%	194	16%	208	20%	-23.8%	23.4%	
Mercer	586	16%	711	18%	582	20%	16.6%	8.2%	
Mifflin	261	27%	209	24%	211	29%	-1.5%	20.8%	
Monroe	977	14%	794	15%	660	15%	8.3%	1.8%	
Montgomery	3,793	24%	4,144	16%	2,873	16%	-31.4%	0.2%	
Montour	83	22%	72	26%	46	33%	32.9%	23.6%	
Northampton	1,951	17%	2,014	18%	1,788	15%	-4.9%	-15.6%	
Northumberland	611	23%	667	16%	674	15%	-31.3%	-2.9%	
Perry	249	25%	187	26%	152	22%	-4.4%	-17.1%	

Table 2: County and Statewide Recidivism Rates for Juveniles Closed "Pre-JJSES" (2007-2010) and Post-JJSES Initiation (2011-2018)									
	"Pre-JJSES" (2007-2010)		2011-2014		2015-2018		Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates	
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate	
Philadelphia	8,949	28%	12,902	23%	8,197	19%	-24.6%	-19.0%	
Pike	309	13%	274	13%	244	9%	-17.1%	-29.4%	
Potter	120	11%	69	13%	37	16%	30.6%	24.3%	
Schuylkill	1,011	16%	875	16%	565	16%	2.0%	-1.1%	
Snyder	219	22%	260	22%	175	17%	-9.8%	-24.4%	
Somerset	355	13%	234	16%	142	11%	10.8%	-30.6%	
Sullivan	16	6%	11	0%	14	7%	-36.0%	-	
Susquehanna	217	18%	184	17%	130	11%	-18.2%	-36.1%	
Tioga	271	18%	206	17%	128	14%	-12.1%	-14.8%	
Union	105	23%	116	28%	123	16%	-4.8%	-41.1%	

Table 2: County and Statewide Recidivism Rates for Juveniles Closed "Pre-JJSES" (2007-2010) and Post-JJSES Initiation (2011-2018)										
	"Pre-JJSES" (2007- 2010)		2011-2014		2015-2018		Comparison of "Post-JJSES Initiation" (2011- 2018) with "Pre- JJSES" Recidivism Rates (2007-2010)	Comparison of 2015-2018 with 2011-2014 Recidivism Rates		
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Percentage Change in the Recidivism Rate	Percentage Change in the Recidivism Rate		
Venango	297	13%	434	17%	343	19%	39.8%	8.0%		
Warren	256	17%	201	19%	166	17%	7.1%	-10.8%		
Washington	1,121	24%	1318	16%	943	13%	-39.3%	-18.8%		
Wayne	263	15%	210	15%	128	25%	24.5%	64.1%		
Westmoreland	2,191	16%	1795	14%	1,242	15%	-8.9%	3.9%		
Wyoming	209	19%	138	15%	84	13%	-22.8%	-13.9%		
York	3,780	25%	3,422	20%	3,148	18%	-22.7%	-10.5%		
Total:	72,738	21.6%	74,450	19.0%	59,066	17.1%	-16.1%	-9.7%		

Summary of Key Findings

- The 2017 and 2018 recidivism rates are the lowest since the Juvenile Court Judges' Commission (JCJC) began tracking recidivism and continue the trend of "post-JJSES initiation" rates (2011-2018) being below the "pre-JJSES" rate (2007-2010).
- Between 2007 and 2018 (with the exception of 2017), among youth who re-offended, the most common re-offense type was consistently drug, followed by property, person, and then "other" offenses.
- Among youth who re-offended, the first new offense was a misdemeanor in approximately twothirds of cases, and this pattern was consistent over time.
- Over three-quarters of counties (51/67 or 76%) had a recidivism rate in the "post-JJSES initiation" era (2011-2018) that was below their rate in the "pre-JJSES" era (2007-2010).
- Sixty percent of counties (40/67) had a recidivism rate for the years 2015-2018 that was below their rate for 2011-2014.

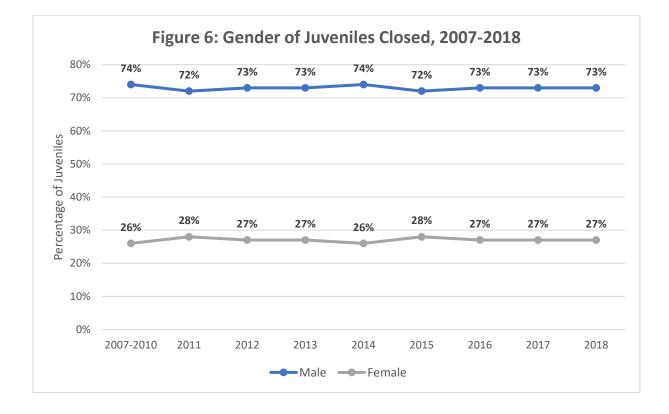
Section 2: Demographic Characteristics and Recidivism

Gender and Recidivism

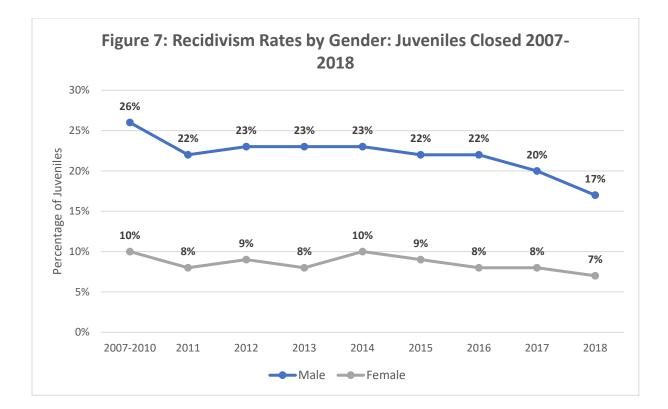
Over a twelve-year span (2007 through 2018), males have consistently been overrepresented, and females underrepresented, in juvenile court as compared to the general population.

For juveniles closed in both 2017 and 2018, 73% were male and 27% were female.

Over the last twelve years, males have consistently recidivated at a much higher rate than females.¹¹ In 2017, 20% of males recidivated compared to 8% of females. In 2018, 17% of males recidivated compared to 7% of females.



¹¹ Whenever an important difference exists between groups, statistical significance tests have been performed and the difference is significant at the p<.05 level. This is consistent with the threshold used in much criminological literature to establish that a correlation is unlikely to be a product of chance variation.



Race, Ethnicity, and Recidivism

In the following section, race and ethnicity are combined into one category for analysis. For the purposes of this report, the following race and ethnicity categories have been identified:

White Non-Hispanic: Reported as White for race and Non-Hispanic for ethnicity.

Black Non-Hispanic: Reported as Black for race and Non-Hispanic for ethnicity.

Asian Non-Hispanic: Reported as Asian for race and Non-Hispanic for ethnicity.

Hispanic: Reported as Hispanic for ethnicity regardless of reported race.

Figure 8 shows that over the last twelve years, White Non-Hispanic youth were consistently the largest racial/ethnic group closed, followed by Black Non-Hispanic youth, and then Hispanic and Asian Non-Hispanic youth.¹² There has also been an increase in the percentage of youth who were Hispanic: 10% in 2007-2010 versus 14% beginning in 2015.

In 2017, 48% of youth were White Non-Hispanic, 37% were Black Non-Hispanic, 14% were Hispanic, and 0.5% were Asian Non-Hispanic youth. In 2018, 50% of youth were White Non-Hispanic, 36% were Black Non-Hispanic, 14% were Hispanic, and 0.5% were Asian Non-Hispanic youth.

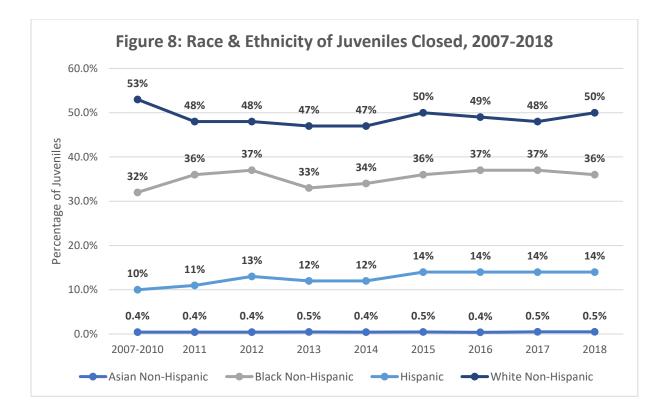
Black Non-Hispanic youth have consistently recidivated at the highest rate, followed by Hispanic youth, and then White Non-Hispanic youth and Asian Non-Hispanic youth, who recidivated at close to the same rate.¹³ For juveniles closed in 2017 and 2018, these differences are not as pronounced as in years past.

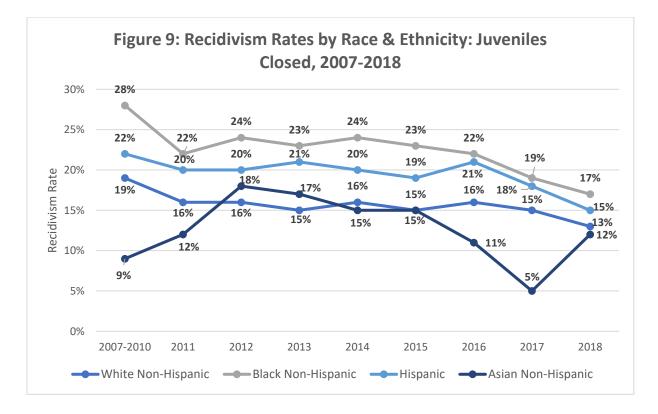
In 2017, 19% of Black Non-Hispanic youth recidivated, compared to 18% of Hispanic, 15% of White Non-Hispanic, and 5% of Asian Non-Hispanic youth. In 2018, 17% of Black Non-Hispanic youth recidivated, compared to 15% of Hispanic, 13% of White Non-Hispanic, and 12% of Asian Non-Hispanic youth.

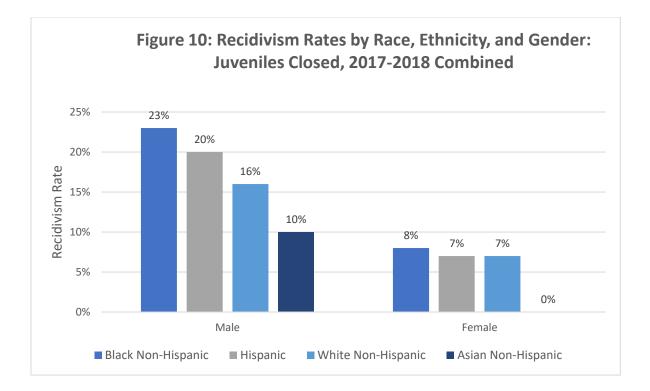
Further analysis of 2017-2018 juveniles closed shows that racial/ethnic differences are greater for males than for females. Among males, 23% of Black Non-Hispanic, 20% of Hispanic, 16% of White Non-Hispanic, and 10% of Asian Non-Hispanic youth recidivated. Among females, 8% of Black Non-Hispanic, 7% of Hispanic, 7% of White Non-Hispanic, and 0% of Asian Non-Hispanic youth recidivated.

¹² For juveniles closed in 2017-2018, a more detailed breakdown of racial/ethnic groups, from largest to smallest, includes youth who were White Non-Hispanic (47%), Black Non-Hispanic (34%), White Hispanic (11%), Multi-Racial (4%), Missing Race or Ethnicity (3%), Black Hispanic (1%), Asian (0%), and Other Race (0%).

¹³ The recidivism rate of Asian Non-Hispanic youth varies greatly likely because of the small number of Asian Non-Hispanic youth included in this study.







Age at First Written Allegation and Recidivism

Consistent with prior years, youth who were between the ages of 13 and 15 at the time of their first written allegation made up the largest portion of juveniles closed in 2017 and 2018, followed by those referred at ages 16-17, at ages 10-12, and, finally, at ages 18-20 years old.¹⁴

In 2017, 48% of youth had their first written allegation between the ages of 13 and 15, 37% between 16 and 17, 14% between 10 and 12, and 2% between 18 and 20 years old. In 2018, 47% of youth had their first written allegation between the ages of 13 and 15, 38% between 16 and 17, 14% between 10 and 12, and 2% between 18 and 20 years old.

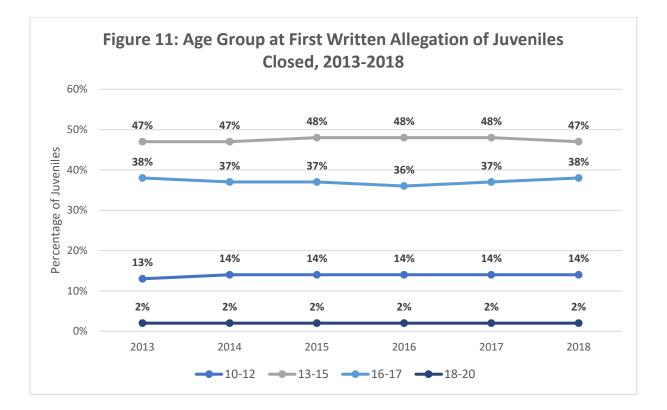
In all the years analyzed, juveniles whose first written allegation occurred at a younger age were more likely to recidivate than juveniles whose first written allegation occurred at an older age (see Figure 12). In 2018, contrary to the pattern observed in past years, a higher portion of youth whose first allegation was between ages 18-20 recidivated than youth whose first allegation was at ages 16-17.

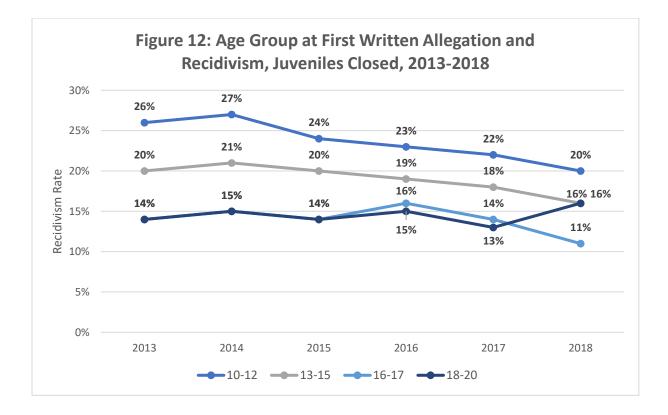
In 2017, 22% of youth whose first written allegation occurred at ages 10-12 recidivated compared to 18% of youth whose first written allegation was at ages 13-15, and 14% of youth at ages 16-17, and 13% of youth at ages 18-20. In 2018, 20% of youth whose first written allegation was at ages 10-12 recidivated compared to 16% of youth whose first written allegation was at ages 13-15, 16% of youth at ages 18-20, and 11% of youth at ages 16-17.

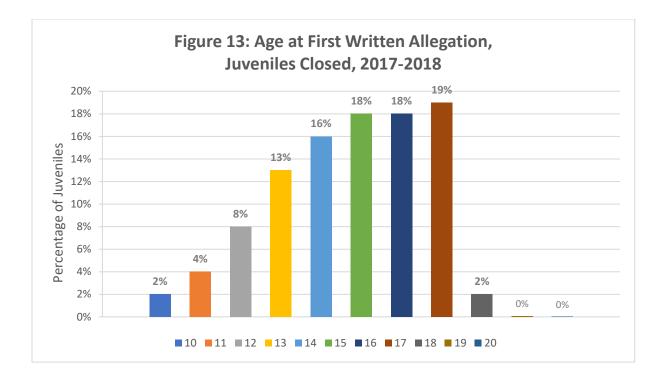
Figures 13 and 14 show specific ages for juveniles closed in 2017-2018 and how age relates to recidivism.¹⁵ Twenty-six percent of juveniles whose first written allegation was at age 10 recidivated compared to 12% of those whose first allegation was at age 17 and 14% of those who were age 18 at the time of their first allegation.

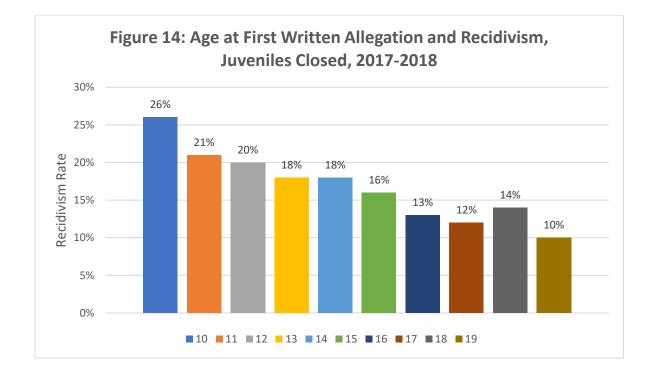
¹⁴ In Pennsylvania, juvenile court jurisdiction ends when a youth turns 18 years old. There is sometimes a lag between when an alleged offense occurred and when a written allegation for that offense is received by the juvenile court. Therefore, there are a small number of juveniles whose first offense occurred at age 17 but who did not receive their first written allegation until they were 18, 19, or 20 years old.

¹⁵ There were 6 youth who were 20 years old at the time of their first written allegation. Therefore, this group is omitted from Figure 14. Throughout this study, when a particular group has fewer than 20 juveniles closed, their recidivism rate is not reported because there is too small a sample to be confident in the findings.









Family Status and Recidivism

Consistent with prior years, for juveniles closed in 2017-2018, youth whose parents had never married made up the largest portion of cases closed, followed by families in which parents were separated or divorced and in which the parents were married, and, finally, youth whose parent or parents were deceased.

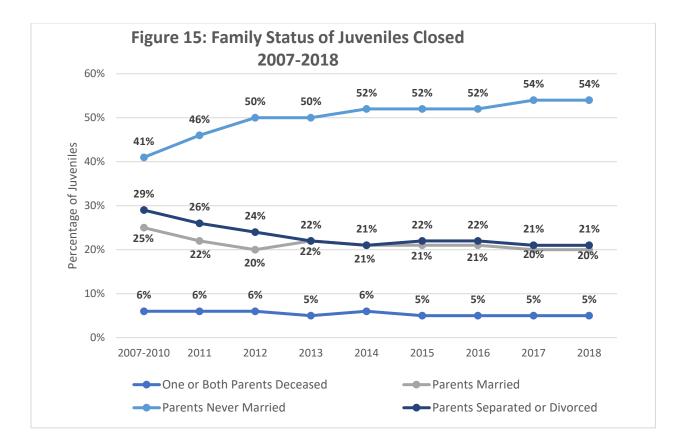
Figure 15 shows that there was an increase in the percentage of youth closed whose parents had never married between the "pre-JJSES" period (2007-2010) and 2012 (41% vs. 50%). This increase has continued in recent years, reaching 54% of juveniles closed in 2017 and 2018. Similarly, there was a decline in the percentage of youth whose parents had separated or divorced between the "pre-JJSES" period and 2013 (29% vs. 22%). This lower percentage has continued through 2017 and 2018 (21%).

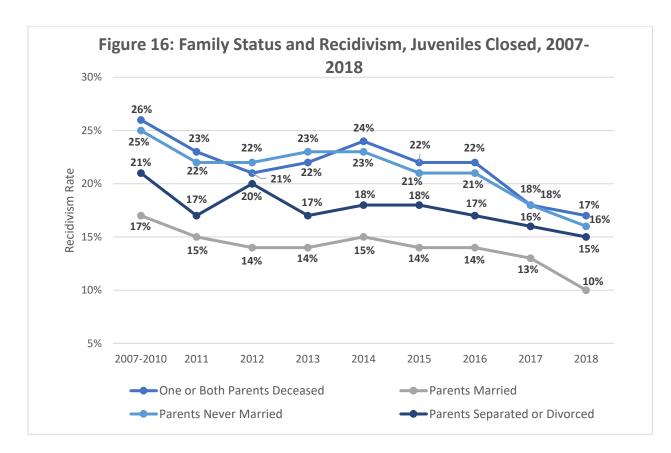
In both 2017 and 2018, 54% of juveniles closed came from families in which their parents were never married, 21% were separated or divorced, 20% were married, and 5% were deceased (at least one parent).

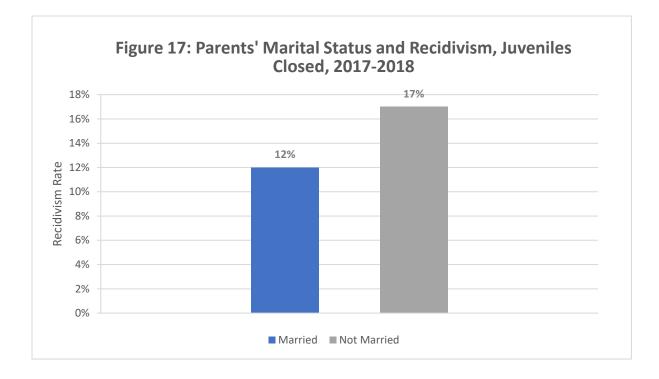
Between 2007 and 2018, juveniles closed whose parents were never married recidivated at a similarly high rate as those whose parent or parents were deceased. These youth recidivated at a higher rate than juveniles whose parents were separated or divorced, who, in turn, recidivated at a higher rate than youth whose parents were married.

In 2017, 18% of juveniles whose parent or parents were deceased and juveniles whose parents were never married recidivated followed by 16% of juveniles whose parents were separated or divorced, and 13% of juveniles whose parents were married. In 2018, 17% of juveniles whose parent or parents were deceased recidivated followed by 16% of juveniles whose parents were never married, 15% of juveniles whose parents were separated or divorced, and 10% of juveniles whose parents were married.

As can be seen in Figure 17, when looking at juveniles closed in 2017-2018, youth whose parents were married recidivated at a lower rate than youth whose parents were not married (12% vs. 17%).







Summary of Key Findings

Gender

- Consistent with prior years, when compared to the general population, males were overrepresented among juveniles closed in 2017 and 2018.
- Gender continues to be the strongest demographic predictor of recidivism.

Race and Ethnicity

- Over the last twelve years, White Non-Hispanic youth closed were consistently the largest racial/ethnic group, followed by Black Non-Hispanic youth, and then Hispanic and Asian Non-Hispanic youth.
- Black Non-Hispanic youth have consistently recidivated at the highest rate, followed by Hispanic youth, and then White Non-Hispanic youth and Asian Non-Hispanic youth. For juveniles closed in 2017 and 2018, however, these differences are not as pronounced as in years past.
- Further analysis shows that racial/ethnic differences in recidivism exist for males but not for females.

Age at First Written Allegation

- Consistent with findings from prior years, youth with a 2017 or 2018 case closure who were between the ages of 13 and 15 at the time of their first written allegation made up the largest portion of juveniles closed, followed by those whose first written allegation was at ages 16-17, at ages 10-12, and, finally, at ages 18-20.
- Consistent with prior years, youth with a 2017 or 2018 case closure who received their first written allegation at a younger age were more likely to recidivate than youth whose first written allegation was at an older age.

Family Status

- Similar to the findings of prior reports, youth whose parents had never married made up the largest portion of juveniles closed in 2017 and 2018, followed by youth living in families in which parents were separated or divorced and youth whose parents were married, and, finally, youth whose parent or parents were deceased.
- Over the last twelve years, there has been an increase in the percentage of youth closed whose parents had never married. Similarly, has been a decline in the percentage of youth whose parents had separated or divorced.
- Juveniles closed in 2017 or 2018 whose parents were married at the time of case closing recidivated a lower rate than those whose parents were not married.

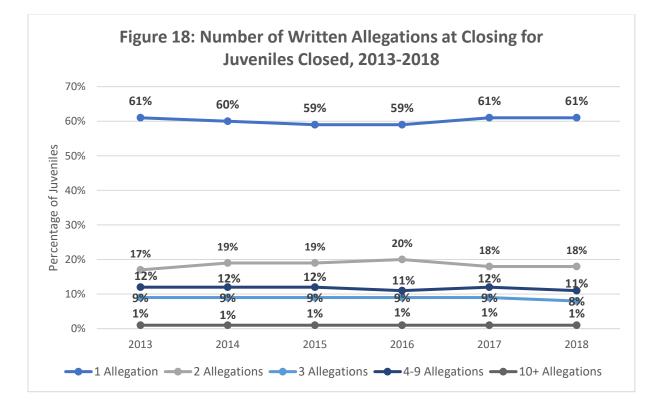
Section 3: Offense History, System Penetration, and Recidivism

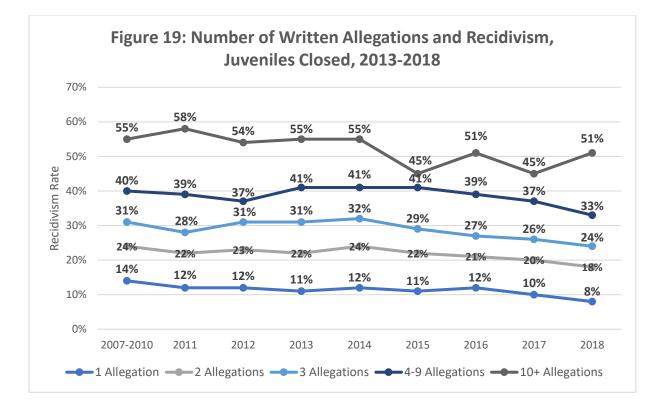
Number of Written Allegations and Recidivism

For each of the years examined (2013 through 2018), over three-quarters of juveniles had 1-2 written allegations by the time they were closed. Additionally, less than 15% of juveniles had 4 or more allegations at closure.

In 2017, 61% of juveniles had only one written allegation, 18% had two, 9% had three, 12% had between four and nine, and 1% had ten or more written allegations. In 2018, 61% of juveniles had only one written allegation, 18% had two, 8% had three, 11% had between four and nine, and 1% had ten or more written allegations.

For these same years, youth who had more written allegations recidivated at a higher rate than youth who had fewer written allegations. In 2017, 10% of juveniles with one written allegation recidivated, compared to 20% with two allegations, 26% with three allegations, 37% with between four and nine allegations, and 45% of juveniles with ten or more allegations. In 2018, 8% of juveniles with one written allegation recidivated, compared to 18% with two allegations, 24% with three allegations, 33% with between four and nine allegations, and 51% of juveniles with ten or more allegations.

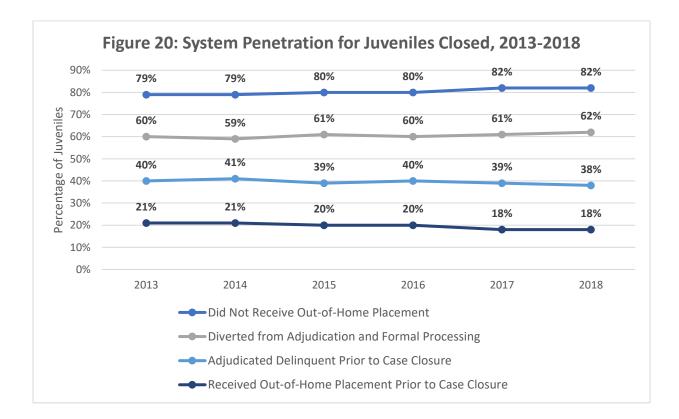


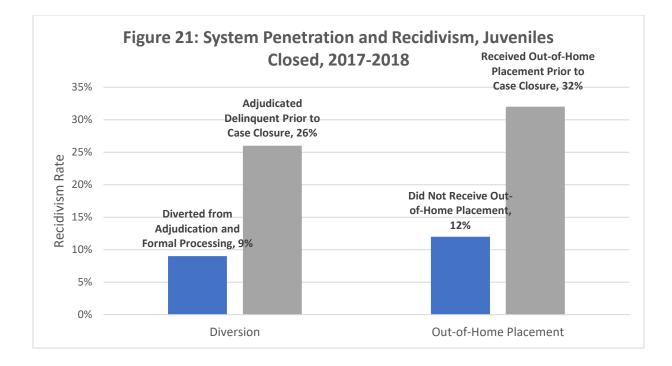


System Penetration and Recidivism

For juveniles closed in 2017 and 2018, 61% and 62%, respectively, were diverted from adjudication and formal processing, while 39% and 38% were adjudicated delinquent prior to case closure. For the same period, 82% of juveniles closed in both 2017 and 2018 did not receive an out-of-home placement disposition, while 18% of juveniles received an out-of-home placement disposition prior to case closure. These percentages are consistent with data for juveniles closed in prior years (2013-2016).

As Figure 21 shows, juveniles closed in 2017-2018 who were diverted from adjudication and formal processing were almost one-third as likely to recidivate as juveniles who were adjudicated delinquent prior to closure (9% vs. 26%). Similarly, juveniles who did not receive an out-of-home placement disposition were less than half as likely to recidivate as juveniles who received an out-of-home placement disposition prior to closure (12% vs. 32%).





Serious, Violent, and Chronic Youth and Recidivism

In response to the growth of violent juvenile crime in the late 1980s and early 1990s, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) developed the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders. The terms "serious," "violent," and "chronic" emerged as part of an effort to identify the subset of juveniles that research shows account for a disproportionate share of offending and re-offending, and to focus court interventions on this group. Furthermore, longitudinal research following juveniles over time and documenting their offending patterns revealed that there were distinctive developmental pathways of juvenile offending that might require different juvenile justice system responses. It was found, for example, that "violent offenders" follow the Overt Pathway, which starts with minor aggression (e.g., bullying) and progresses to physical fighting and violence when youth get older. "Serious offenders", by contrast, follow the Covert Pathway, which starts out as minor shoplifting and frequent lying and leads to inflicting property damage, and then to offenses like burglary, fraud, and serious theft. "Chronic offenders" have been involved in multiple offenses over time, which is often predictive of future offending.¹⁶

The Juvenile Court Judges' Commission (JCJC) wanted to have a research-based method for identifying which youth were at higher risk of reoffending based on their offense profile. For these reasons, starting with the publication of the first recidivism report in May 2013, JCJC has presented data on the relationship between Serious, Violent, and Chronic offending and recidivism. JCJC consulted with the former Director of OJJDP, James "Buddy" Howell, who provided guidance on which offenses in the Pennsylvania Juvenile Court Management System (PaJCMS) should be considered "serious" and "violent" and how to utilize Serious, Violent, and Chronic youth offending classifications (defined below) in research on recidivism.

Serious Offender: A juvenile who has been adjudicated delinquent in juvenile court at any point in his or her juvenile offending history for one of the following offenses: burglary, theft (felonies only), arson, drug trafficking (manufacture/deliver/possession with intent to deliver), and extortion (theft by extortion).

Violent Offender: A juvenile who has been adjudicated delinquent in juvenile court at any point in his or her juvenile offending history for one of the following offenses: homicide or nonnegligent manslaughter, rape, robbery, aggravated assault, kidnapping, and select firearm/weapon offenses.

Chronic Offender: A juvenile who has four or more previous written allegations for separate incidents that occurred prior to the date of the 2007-2018 closure.

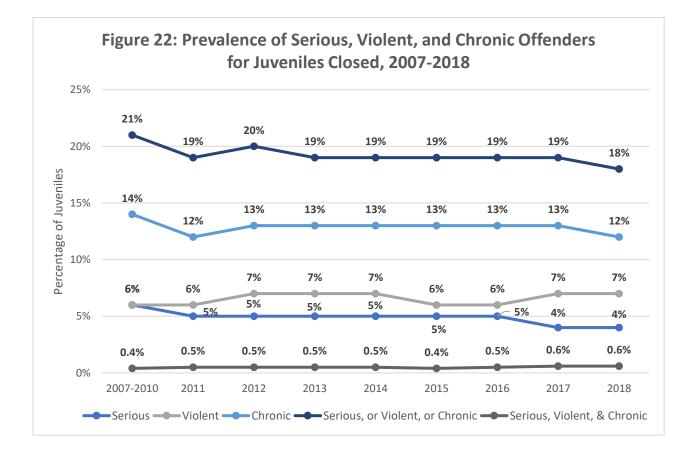
For each of the past twelve years, approximately one out of five juveniles closed met the criteria of being a Serious, or Violent, or Chronic (SVC) offender. As Figure 22 shows, there is consistency in the percentage of youth who meet each of these designations during this period, and, in each year, a larger portion of juveniles closed were Chronic youth than Serious or Violent youth. In 2017, 13% of juveniles closed were Chronic, 7% were Violent, 4% were Serious, 0.6% were Serious, Violent, and Chronic, and 19% were Serious, or Violent, or Chronic. In 2018, 12% of juveniles closed were Chronic, 7% were Violent, 4% were Serious, 0.6% were Serious, or Violent, or Chronic.

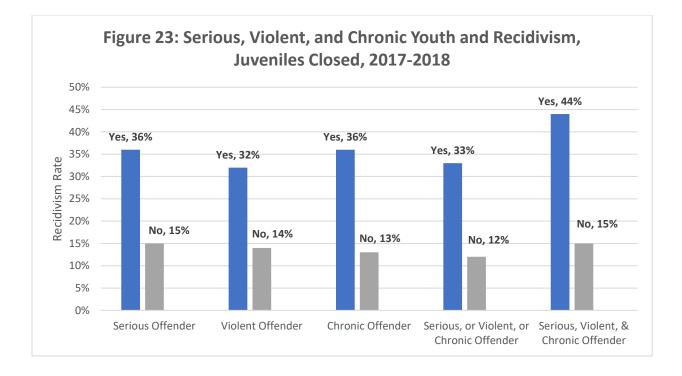
¹⁶ Office of Juvenile Justice and Delinquency Prevention. (1998). *OJJDP Juvenile Justice Bulletin: Serious and Violent Juvenile Offenders*. Retrieved from <u>https://www.ncjrs.gov/pdffiles/170027.pdf</u>.

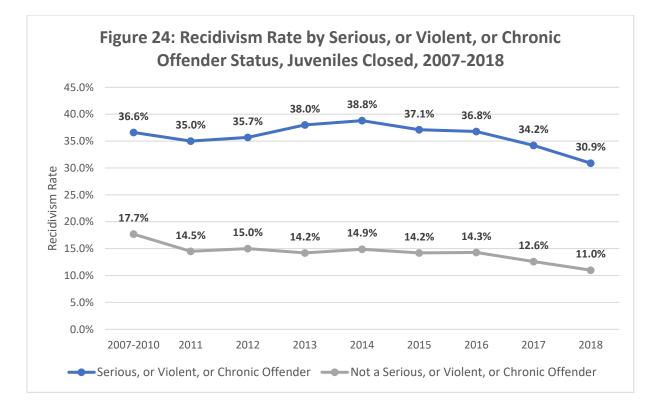
For juveniles closed in 2017-2018, these variables were all strongly correlated with recidivism. Juveniles who met the criteria for being Serious, Violent, *and* Chronic recidivated at a higher rate than those who only met the less restrictive criteria of being Serious, or Violent, or Chronic offenders (44% vs. 33%). These findings are consistent with those of previous cohorts of juveniles closed.

Figure 24 presents data on recidivism rates between 2007 and 2018 separately for juveniles who were Serious, or Violent, or Chronic (SVC) and non-SVC juveniles. The data shows that, for SVC youth between 2007 and 2016, the recidivism rate had fluctuated, without a clear-cut trend. By contrast, the recidivism rate for non-SVC youth for 2011 through 2016 was below the non-SVC recidivism rate average for the "pre-JJSES" years (2007 to 2010).

More recently, the recidivism rates of SVC and non-SVC youth both decreased. The recidivism rates of non-SVC juveniles declined from 14.3% in 2016 to 12.6% and 11.0% in 2017 and 2018, respectively. The recidivism rates of SVC juveniles declined from 36.8% in 2016 to 34.2% and 30.9% in 2017 and 2018, respectively. Thus, recent declines in the statewide recidivism rate (see Section 1, p. 13) occurred for youth with both more and less severe offense histories.







Summary of Key Findings

Number of Written Allegations

- Consistent with prior years, over three-quarters of juveniles closed in 2017-2018 had 1-2 written allegations and less than 15% had 4 or more allegations.
- The number of written allegations a youth had prior to closure is highly correlated with recidivism. Youth with a higher number of written allegations recidivated at a higher rate than youth with a lower number of written allegations.

System Penetration

- For juveniles closed in 2017-2018, 62% were diverted from adjudication and formal processing, while 38% were adjudicated delinquent prior to case closure. For the same period, 82% of juveniles closed in 2017-2018 did not receive an out-of-home placement disposition, while 18% of juveniles received an out-of-home placement disposition prior to case closure.
- Juveniles who were diverted from adjudication and formal processing were almost one-third as likely to recidivate as juveniles who were adjudicated delinquent prior to case closure.
- Juveniles who did not receive an out-of-home placement disposition were less than half as likely to recidivate as juveniles who received an out-of-home placement disposition prior to closure.

Serious, Violent, and Chronic Offenders

- Consistent with past reports, slightly less than one in five juveniles closed in 2017-2018 were either Serious, or Violent, or Chronic.
- Being a Serious, or Violent, or Chronic offender was strongly correlated with recidivism.
- Juveniles who met the criteria for being Serious, Violent, *and* Chronic recidivated at a higher rate than those who only met the less restrictive criteria of being Serious, or Violent, or Chronic offenders.

Section 4: Youth Level of Service/Case Management Inventory (YLS) and Recidivism

Background

A fundamental step in recidivism reduction is the use of a research-based risk assessment tool to measure a youth's risks and needs. This information can then be used to determine appropriate levels of supervision, establish case-specific goals, and better allocate resources in order to achieve effective outcomes. In 2009, members of the Executive Committee of the Pennsylvania Council of Chief Juvenile Probation Officers and staff from the Juvenile Court Judges' Commission chose to pilot the Youth Level of Service/Case Management Inventory risk assessment instrument (YLS). Since then, the YLS has been chosen as the risk assessment tool to be used in Pennsylvania's juvenile justice system, and the Youth Level of Service/Case Management Inventory 2.0 (YLS 2.0) is currently being administered by all Pennsylvania counties.

The YLS 2.0 is a validated actuarial risk assessment tool that measures 42 static and dynamic risk factors, divided into eight domains, that have been identified as most predictive of youthful re-offending.¹⁷ A youth is assessed at a risk level of low, moderate, or high risk for each domain based on their domain-specific score and at an overall risk level of low, moderate, high, or very high risk based on their total score across the 42 risk factors. The score range for the overall risk level is as follows for *males*: Low (0-9); Moderate (10-21); High (22-31); Very High (32 or higher). The score range for the overall risk level is as follows for *females*: Low (0-8); Moderate (9-19); High (20-28); Very High (29 or higher).¹⁸ These results assist juvenile probation officers in targeting a youth's specific needs through treatment, intervention, services, and intensity of supervision.

YLS assessments are completed initially when a youth enters the juvenile justice system. It is best practice for youth to be regularly re-assessed and then given a final YLS assessment at the time their case is closed. Most of the analyses in this section focus on the relationship between the final YLS assessment¹⁹ and recidivism because the final risk level designation is most relevant to predicting a youth's behavior after they are no longer under the supervision of the juvenile court. The analyses in the sections on Risk Level/Risk Score Change between First and Final YLS Assessments and Recidivism examine both the first and the final YLS assessment to see if there was any change in the risk level/risk score of the youth, and whether there is a relationship between risk level/risk score change and recidivism.²⁰

¹⁷ These domains include: (1) Prior and Current Offenses; (2) Family Circumstances/Parenting; (3)
Education/Employment; (4) Peer Relations; (5) Substance Abuse; (6) Leisure/Recreation; (7) Personality/Behavior; (8) Attitudes/Orientation.

¹⁸ The YLS assessments analyzed in this report are a combination of the original Youth Level of Service/Case Management Inventory and the 2.0 version of the tool that is currently in use in Pennsylvania. There are a few differences between the two versions in the range of scores corresponding to each risk level designation. Likewise, the YLS is scored the same way for males and females, while the YLS 2.0 uses different cutoff points to assign a risk level to males and females. The differences between the YLS and YLS 2.0 versions are small enough, however, that mixing these versions had no meaningful effect on the findings from this section.

¹⁹ This report only analyzes YLS risk levels for juveniles whose last YLS assessment was within 6 months of their case closing. Fifty-eight percent (16,187/27,711) of cases closed in 2017 and 2018 met this criterion.

²⁰ Eighty-two percent of juveniles who had a last YLS assessment within 6 months of case closing also had a previous YLS assessment that occurred at least 90 days before their final assessment. In total, 48% (13,207/27,711) of juveniles closed in 2017 and 2018 met the criteria for inclusion in the sections on Risk Level/Score Change between First and Final YLS Assessments and Recidivism.

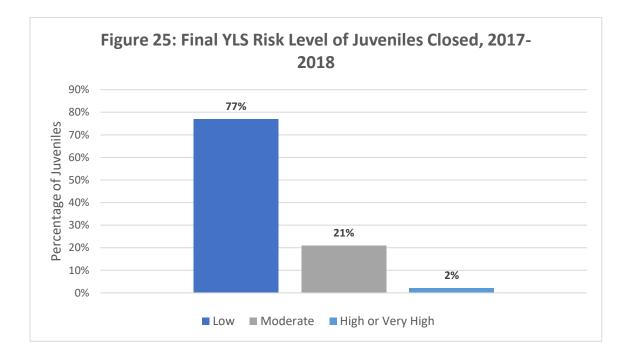
Final YLS Risk Level and Recidivism

This subsection examines the relationship between a youth's final YLS assessment and recidivism. For juveniles closed in 2017-2018, more than three-quarters (77%) were assessed as low risk, just over one-fifth (21%) were moderate risk, and 2% were high or very high risk.

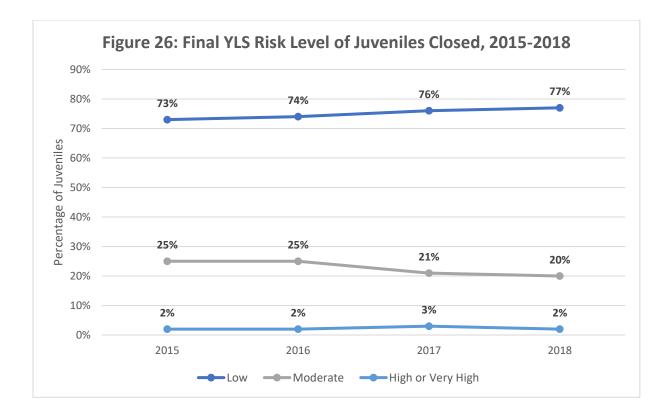
Figure 26 shows that, over the last four years (2015-2018), the percentage of youth closed who were assessed as low risk went up and the percentage assessed as moderate risk declined. The percentage of youth closed who were assessed as low risk went up from 73% in 2015 to 77% in 2018 and the percentage assessed as moderate risk declined from 25% in 2015 to 20% in 2018.

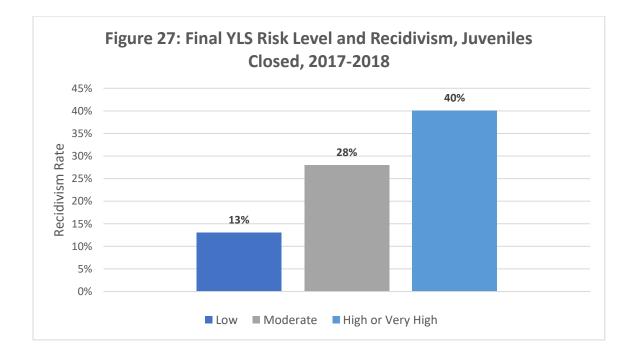
Consistent with past years (2015-2016), juveniles closed in 2017-2018 who were assessed as high or very high risk were much more likely to re-offend than moderate risk youth, who, in turn, were much more likely to re-offend than low risk youth (40% vs. 28% vs. 13%). See Figure 27. These findings are consistent with research that validates the YLS as a risk assessment tool.²¹

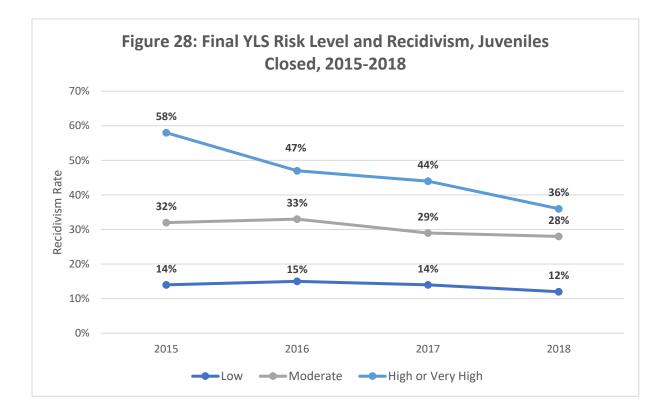
Figure 28 shows that, over the last four years, there has been a notable decline in the recidivism rates of youth assessed as high or very high risk, dropping from 58% in 2015 to 36% in 2018. The recidivism rates of moderate risk youth have also declined less dramatically over the last three years.



²¹ Hoge, R.D., & Andrews, D.A. (2011). *Youth Level of Service/Case Management Inventory 2.0: User's Manual*. North Tonawanda, NY: Multi-Health Systems, Inc.



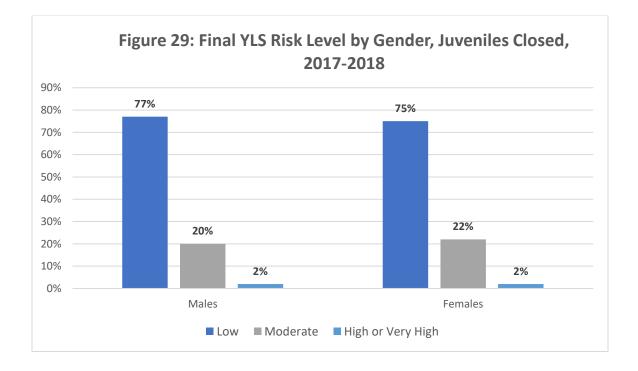


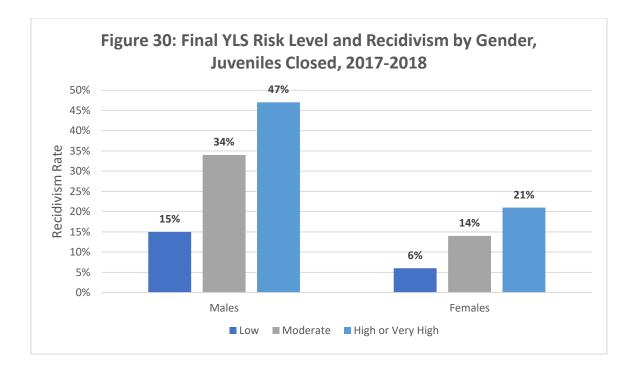


Final YLS Risk Level and Recidivism by Gender

For juveniles closed in 2017-2018, the risk level distribution of males and females was similar. Seventyseven percent of males were assessed as low risk, 20% as moderate risk, and 2% as high or very high risk. Seventy-five percent of females were assessed as low risk, 22% as moderate risk, and 2% as high or very high risk.

Figure 30 shows that YLS risk level was correlated with recidivism for both males and females, though males recidivated at a much higher rate at all risk levels. For males closed in 2017-2018, 15% of low risk youth recidivated compared to 34% of moderate risk youth and 47% of high or very high risk youth. For females closed in 2017-2018, 6% of low risk youth recidivated compared to 14% of moderate risk youth and 21% of high or very high risk youth.





Final YLS Risk Level and Recidivism by Race/Ethnicity

For juveniles closed in 2017-2018, a higher percentage of Black Non-Hispanic and Hispanic youth than White Non-Hispanic and Asian Non-Hispanic youth were assessed as moderate risk on the YLS. Likewise, a lower percentage of Black Non-Hispanic and Hispanic youth than White Non-Hispanic and Asian Non-Hispanic youth were assessed as low risk. Asian Non-Hispanic youth had the largest percentage of youth who were assessed as low risk and there were also no Asian Non-Hispanic youth assessed as high or very high risk.

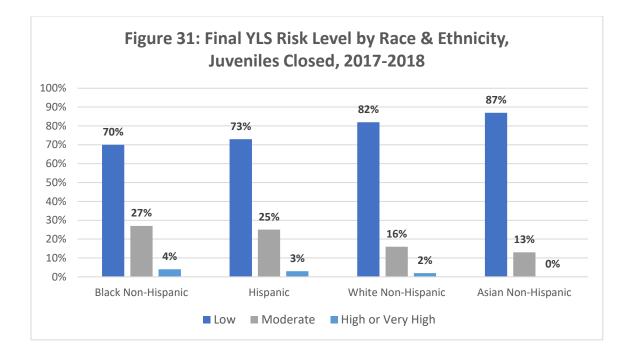
For Black Non-Hispanic youth, 70% were assessed as low risk, 27% moderate risk, and 4% high or very high risk. For Hispanic youth, 73% were assessed as low risk, 25% moderate risk, and 3% high or very high risk. For White Non-Hispanic youth, 82% were assessed as low risk, 16% moderate risk, and 2% high or very high risk. For Asian Non-Hispanic youth, 87% were assessed as low risk, 13% moderate risk, and 0% high or very high risk.

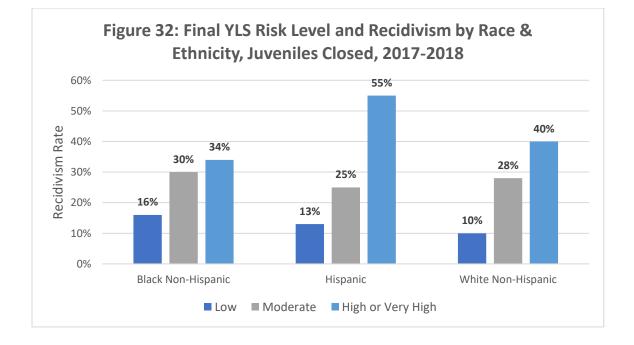
YLS risk level was correlated with recidivism for White Non-Hispanic, Hispanic, and Black Non-Hispanic youth.²² For Black Non-Hispanics, 16% of low risk youth recidivated compared to 30% of moderate risk youth, and 34% of high or very risk youth. For Hispanics, 13% of low risk youth recidivated compared to 25% of moderate risk youth, and 55% of high or very high risk youth. For White Non-Hispanics, 10% of low risk youth recidivated compared to 28% of moderate risk youth and 40% of high or very high risk youth.

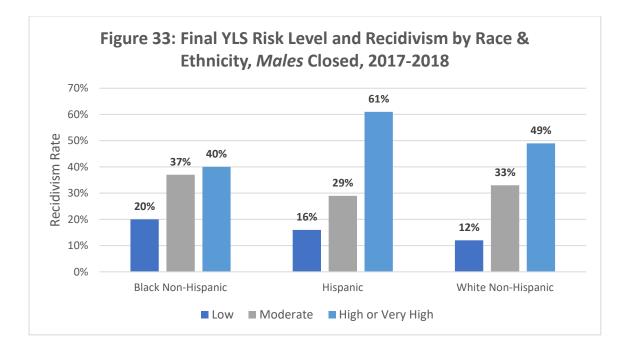
Further analysis presented in Figures 33 and 34 suggests that YLS risk level is correlated with recidivism for all combinations of gender and race/ethnicity: Black Non-Hispanic males and females, White Non-Hispanic males and females, and Hispanic males and females.²³ It is worth noting that, for Black Non-Hispanic youth, there is a smaller difference between the recidivism rates of youth assessed as high or very high risk when compared to youth assessed as moderate risk than for the other racial/ethnic groups.

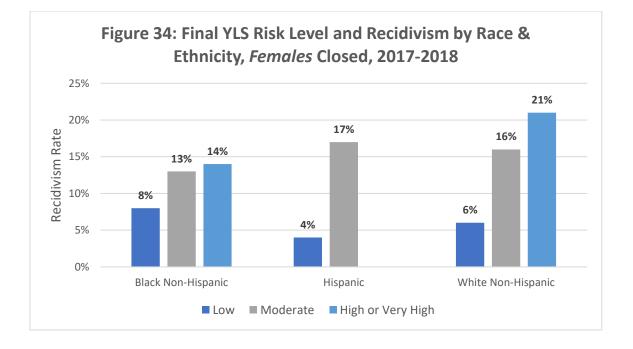
²² Asian Non-Hispanic youth were excluded from this analysis because there were 11 youth assessed as moderate risk and no youth assessed as high or very high risk.

²³ There were 12 Hispanic females assessed as high or very high risk. Therefore, only data for low and moderate risk youth is reported for this group in Figure 34.





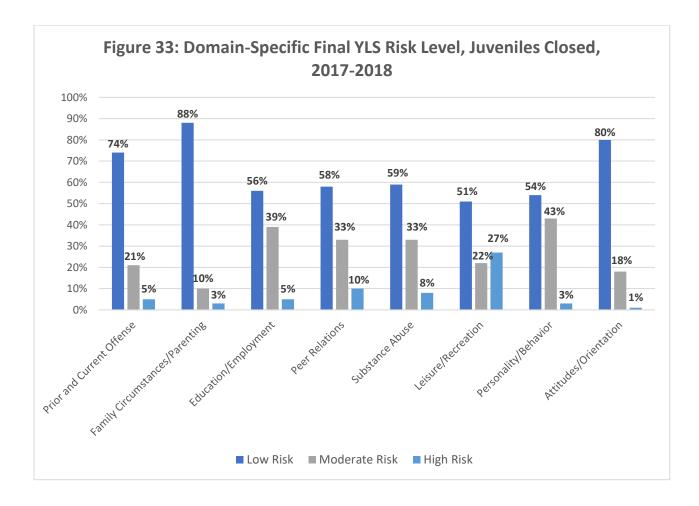


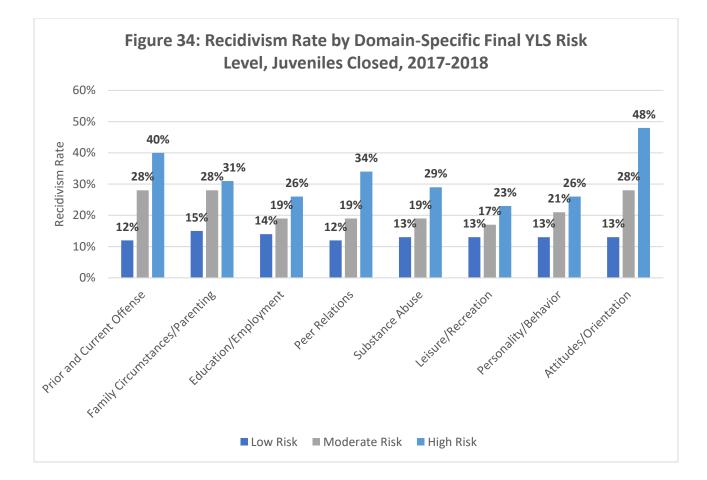


Domain-Specific Final YLS Risk Level and Recidivism

As Figure 33 illustrates, there is variation in the domain-specific risk level profiles of juveniles closed in 2017-2018. In descending order, the risk level domains in which the largest portion of juveniles were assessed as *either moderate or high risk* (excluding Leisure/Recreation) were: (1) Personality/Behavior (46%); (2) Education/Employment (44%); (3) Peer Relations (43%); (4) Substance Abuse (41%); (5) Prior and Current Offense (26%); (6) Attitudes and Orientation (19%); (7) Family Circumstances/Parenting (13%).

All eight YLS risk level domains were correlated with recidivism. Three risk level domains stood out as having the strongest relationship to recidivism: Attitudes/Orientation, Prior and Current Offenses, and Peer Relations. Forty-eight percent of juveniles scoring high risk in Attitudes/Orientation recidivated compared to 28% of those who scored moderate risk and 13% of those who scored low risk for this domain. Forty percent of juveniles scoring high risk in Prior and Current Offenses recidivated compared to 28% of those who scored moderate risk and 12% of those who scored low risk for this domain. Thirty-four percent of juveniles scoring high risk in Peer Relations recidivated compared to 19% of those who scored moderate risk and 12% of this domain.

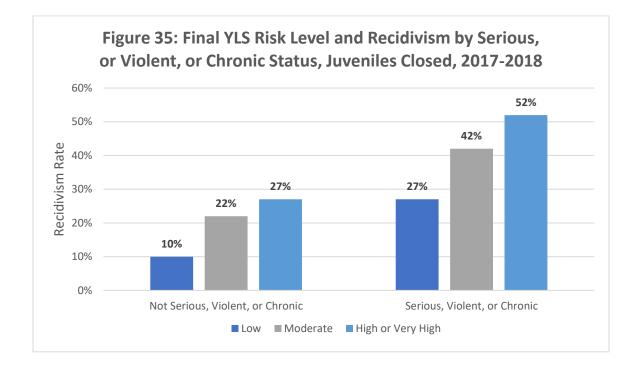




Final YLS Risk Level, Serious, Violent, and Chronic Offending, and Recidivism

Figure 35 shows that final YLS risk levels are predictive of recidivism for both Serious, or Violent, or Chronic (SVC) youth and those who were not Serious, or Violent, or Chronic (non-SVC). For non-SVC youth, 10% of low risk, 22% of moderate risk, and 27% of high or very high risk youth recidivated. For SVC youth, 27% of low risk, 42% of moderate risk, and 52% of high or very high risk youth recidivated. In other words, as expected, the YLS is correlated with recidivism after taking into account the offense history of youth.

Likewise, being a SVC offender is correlated with recidivism after taking into account youths' final YLS risk level. At each YLS risk level, SVC youth recidivated at a much higher rate than non-SVC youth (e.g., 27% vs. 10% for low risk youth). These patterns suggest that both offense history, as captured by SVC status, and final YLS risk level are independently related to recidivism and should continue to be analyzed separately and together.



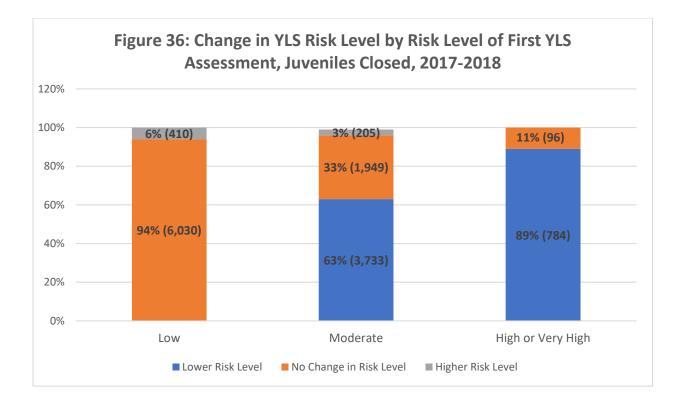
Risk Level Change between First and Final YLS Assessments and Recidivism

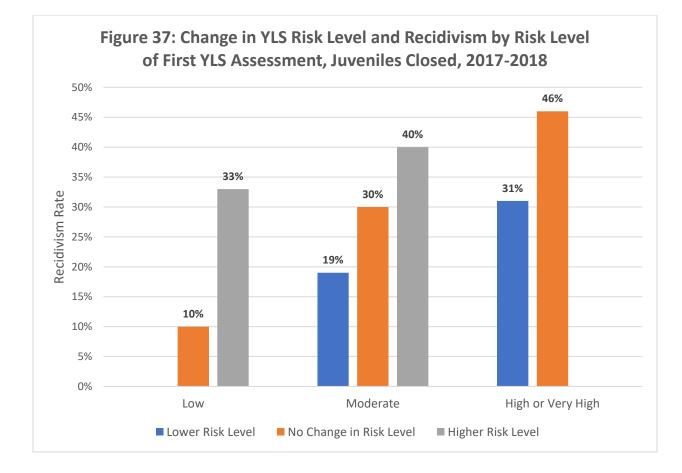
This subsection examines both the first and final YLS assessments in order to gauge the relationship between risk level change and recidivism. Only 48% (13,207/27,207) of juveniles closed in 2017-2018 met the criteria for inclusion in these analyses.²⁴ Any conclusions drawn are, therefore, preliminary and will await confirmation when there is fuller data available in future recidivism reports.

Figure 36 shows that a substantial percentage of youth who were initially moderate, high or very high risk experienced reductions in their risk level by the time of their final YLS assessment. Sixty-three percent of youth who were initially assessed as moderate risk were assessed as low risk in their final YLS. Likewise, 89% of youth initially assessed as high or very high risk were assessed as moderate or low risk in their final YLS. By contrast, only 6% of youth who were initially assessed as low risk had a higher risk level in their final YLS assessment, and only 3% of youth initially assessed as moderate risk had a higher risk level in their final sessent.

As Figure 37 demonstrates, change in the risk level of youth from initial to final YLS assessment is correlated with recidivism. Youth who were initially assessed as moderate risk—and then, in their final YLS, were assessed as low risk—recidivated at a lower rate than youth initially assessed as moderate risk who had no change in risk level (19% vs. 30%). Youth assessed as moderate risk in their first YLS who had no change in risk level (19% vs. 30%). Youth assessed as moderate risk in their first YLS who had no change in risk level (19% vs. 30%). Youth assessed as moderate risk in their first YLS who had no change in risk level (19% vs. 30%). Youth assessed as moderate risk in their first YLS who had no change in risk level (30% vs. 40%). Youth who were initially assessed as high or very high risk—and then, in their final YLS, were assessed as moderate or low risk—recidivated at a lower rate than youth initially assessed as high or very high risk who experienced no change in risk level (31% vs. 46%). Finally, youth initially assessed as low risk whose final YLS assessment risk level had increased were much more likely to recidivate than youth initially assessed as low risk who had no change in risk level (33% vs. 10%).

²⁴ To be included in this analysis, a juvenile had to have both a YLS assessment completed within 6 months of case closure and a YLS assessment that occurred at least 3 months prior to the final assessment.

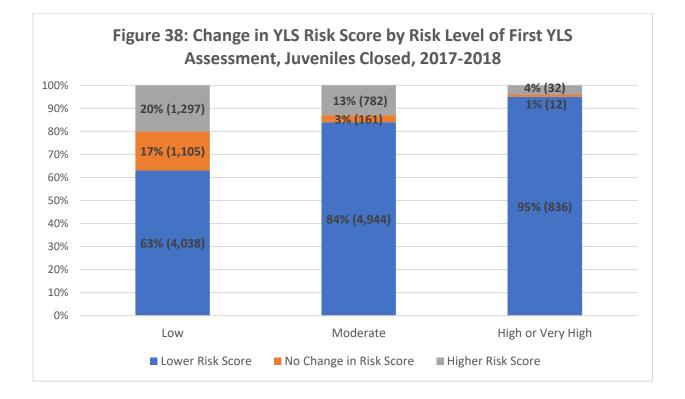




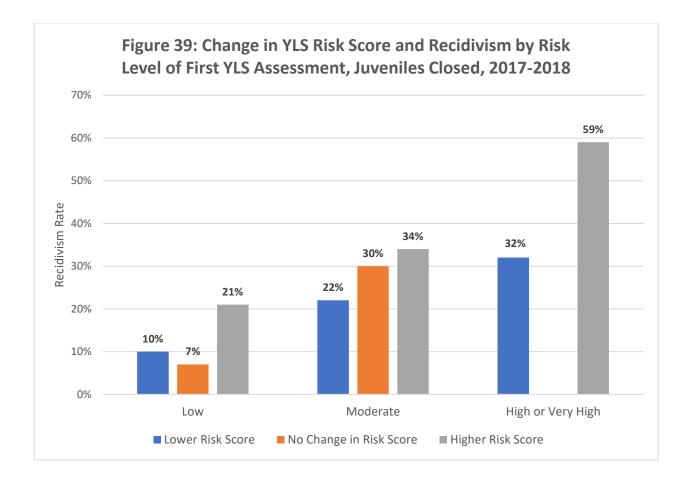
Risk Score Change between First and Final YLS Assessments and Recidivism

This subsection examines both the first and final YLS assessments in order to gauge the relationship between risk score change and recidivism. Figure 38 shows that a substantial percentage of youth closed in 2017-2018 who were initially assessed as low, moderate or high or very high risk experienced reductions in their risk score by the time of their final YLS assessment. Sixty-three percent of youth who were initially assessed as low risk saw a decline in their risk scores, while 17% saw no change and 20% saw an increase. Eighty-four percent of youth who were initially assessed as moderate risk saw a decline in their risk scores, while 3% saw no change and 13% saw an increase. Ninety-five percent of youth who were initially assessed as high or very high risk saw a decline in their risk scores, while 1% saw no change and 4% saw an increase. Thus, risk score reduction was more common for youth assessed as higher risk than for youth assessed as lower risk.

As Figure 39 illustrates, change in the risk score of youth from initial to final YLS assessment is correlated with recidivism. Among juveniles originally assessed as low risk, 10% of youth who saw decreases in their risk score recidivated compared to 7% of youth who saw no change, and 21% of youth whose risk score increased. Among juveniles originally assessed as moderate risk, 22% of youth who saw decreases in their risk score recidivated compared to 30% of youth who saw no change, and 34% of youth whose risk score increased. Among juveniles originally assessed as high or very high risk, 32% of youth who saw decreases in their risk score recidivated compared to 59% of youth whose risk score increased.²⁵



²⁵ There were 12 youth assessed as high or very high risk on their initial YLS assessment whose risk scores did not change. Therefore, this group is omitted from Figure 39.



Summary of Key Findings

Final YLS Risk Level and Recidivism

- For juveniles closed in 2017-2018, more than three-quarters (77%) were assessed as low risk, just over one-fifth (21%) were moderate risk, and a very small number (2%) were high or very high risk.
- As expected, and consistent with past years (2015-2016), juveniles closed in 2017-2018 who were assessed as high or very high risk were much more likely to re-offend than moderate risk youth, who, in turn, were much more likely to re-offend than low risk youth.
- Over the last four years (2015-2018), the percentage of youth closed who were assessed as low risk went up and the percentage assessed as moderate risk declined.
- Over the last four years, there has been a large decline in the recidivism rates of youth assessed as high or very high risk.

Final YLS Risk Level and Recidivism by Gender

- For juveniles closed in 2017 and 2018, the YLS risk level distribution of males and females was similar.
- YLS risk level was correlated with recidivism for both males and females, though males recidivated at a much higher rate at all risk levels.

Final YLS Risk Level and Recidivism by Race/Ethnicity

- For juveniles closed in 2017-2018, a higher percentage of Black Non-Hispanic and Hispanic youth than White Non-Hispanic and Asian Non-Hispanic youth were assessed as moderate risk on the YLS. Likewise, a lower percentage of Black Non-Hispanic and Hispanic youth than White Non-Hispanic and Asian Non-Hispanic youth were assessed as low risk.
- YLS risk level was correlated with recidivism for White Non-Hispanic, Hispanic, and Black Non-Hispanic youth.
- YLS risk level was correlated with recidivism for all combinations of gender and race/ethnicity: Black Non-Hispanic males and females, White Non-Hispanic males and females, and Hispanic males and females.

Domain-Specific Final YLS Risk Level and Recidivism

- In descending order, the risk level domains in which the largest portion of juveniles were assessed as either *moderate or high risk* (excluding Leisure/Recreation) were: (1) Personality/Behavior; (2) Education/Employment; (3) Peer Relations; (4) Substance Abuse; (5) Prior and Current Offense; (6) Attitudes and Orientation; (7) Family Circumstances/Parenting.
- All eight YLS risk level domains were correlated with recidivism. Three risk level domains stood out as having the strongest relationship to recidivism: Attitudes/Orientation, Prior and Current Offenses, and Peer Relations.

Final YLS Risk Level, Serious, Violent, and Chronic Offending, and Recidivism

- YLS risk levels are predictive of recidivism for both Serious, or Violent, or Chronic youth and those who were not Serious, or Violent, or Chronic.
- Likewise, for juveniles at each YLS risk level, being classified as a Serious, or Violent, or Chronic offender greatly increased the likelihood of recidivism.
- These patterns suggest that both offense history, as captured by Serious, or Violent, or Chronic status, and final YLS risk level are independently related to recidivism and should continue to be analyzed separately and together.

Risk Level Change between First and Final YLS Assessment and Recidivism

- A substantial percentage of youth who were initially assessed as moderate or high or very high risk experienced reductions in their risk level by the time of their final YLS assessment. For juveniles closed in 2017-2018, 63% of youth who started out as moderate risk were assessed as low risk in their final YLS. Likewise, 89% of youth who started out as high or very high risk were assessed as moderate or low risk in their final YLS.
- Youth with a lower risk level in their final YLS assessment than in their first assessment recidivated substantially less often than youth who saw no change or an increase in their risk level.

Risk Score Change between First and Final YLS Assessment and Recidivism

- A substantial percentage of youth experienced reductions in their risk score by the time of their final YLS assessment. Risk reduction was more common for youth assessed as higher risk than for youth assessed as lower risk.
- Youth who experienced increases in their risk score recidivated at a higher rate than youth who experienced no change or a decrease in their risk score.

Limitations of the Study

It is important to note several limitations to this study. Recidivism rates are a product of many complex factors outside of the control of the juvenile justice system. Demographics, socioeconomic characteristics, criminal opportunities, gangs, and family functioning are just a few of the factors that research has linked to juvenile offending and re-offending. The characteristics of juveniles closed, or the "case mix"—a term used by Dr. Edward Mulvey of the University of Pittsburgh School of Medicine in previous reports—would be expected to vary from county to county.²⁶ Readers are, therefore, cautioned against making comparisons between county recidivism rates and drawing strong conclusions about the effectiveness of a county's juvenile justice programming.

For the same reason, looking at the recidivism rate over time, without attempting to adjust for the "case mix," has important limitations. Section 1 showed that recidivism rates "post-JJSES initiation" (2011-2018) have been consistently below "pre-JJSES" rates (2007-2010), and there were substantial declines in recidivism over the last few years. It is important to remember that this does not necessarily mean that the system is improving. It is also possible that changes in the characteristics of juveniles closed are responsible for declining recidivism rates.²⁷

The Youth Level of Service/Case Management Inventory (YLS) provides information that is useful for examining whether trends in recidivism are a product of improvements in the juvenile justice system or changes in the characteristics of juveniles closed, or some combination. This year's report, which is the first to use the YLS to help explain recidivism trends, demonstrates the promise and limitations of this approach. Section 4 of the report shows that there have been declines in the recidivism rate for youth who are at a similar risk of re-offending according to their final YLS assessment, and especially for youth assessed as high or very high risk. While this finding points to improved system performance as a potential explanation for recent declines in the statewide recidivism rate, these conclusions require additional validation and study.

It is important to remember that only 58% of juveniles closed in 2017-2018 had a final YLS assessment within six months of their case closure.²⁸ This is a higher percentage than the YLS data available for analysis in the last recidivism report on juveniles closed in 2015-2016 (51%), but there is still a substantial amount of missing data. This is concerning because it is possible that juveniles with a YLS assessment differ from those that did not have a YLS assessment. For example, a higher percentage of juveniles with a final YLS

²⁶ Mulvey, E.P., Schubert, C.A., and Hawes, S. (2015). *Benchmarking Pennsylvania's Juvenile Recidivism Rate*. Pennsylvania Commission on Crime and Delinquency.

²⁷ Previous work by Dr. Mulvey and his colleagues comparing "expected recidivism" to observed recidivism rates attempted to adjust for changes in the "case mix" when analyzing recidivism rates across time for juveniles closed between 2007 and 2014. Their results were consistent with the idea that the initiation of JJSES led to reductions in recidivism. As mentioned in the Introduction, Dr. Mulvey concluded that this analysis is no longer useful as an ongoing measure of the system's performance over time.

²⁸ In order to maximize the number of YLS assessments available to analyze in this report, youth whose most recent assessment occurred as long as six months prior to closure were included. Assessments completed 5-6 months prior to closure are likely not as predictive of a youth's later behavior as those occurring more proximate to closure. In future reports, it is expected that a higher portion of juveniles will have a YLS assessment closer to their termination from juvenile probation, and it may be possible to utilize more stringent criteria for study inclusion.

assessment recidivated than juveniles without a final YLS assessment (16.6% vs. 14.2%). In future reports, a larger percentage of juveniles closed are expected to have YLS data available to analyze, and it is possible that some of the findings in this report will not be replicated.

While the YLS/CMI 2.0 attempts to be comprehensive, like all risk assessment tools, it cannot measure all characteristics of youth that could relate to recidivism. Therefore, there may have been changes in the "case mix" over the last few years that were not fully captured by the YLS beyond the relatively modest increase in the proportion of youth assessed as low risk documented in Section 4 of this report. Thus, unmeasured changes in the "case mix" could be part of the explanation for declining recidivism rates over the last few years. Given this report's finding in Section 3 that Serious, Violent, and Chronic (SVC) youth characteristics are strongly related to recidivism even after taking into account YLS risk levels, future reports may want to find ways to incorporate SVC measures into the analysis of recidivism trends in order to better account for changes in the "case mix." For example, combining YLS and SVC measures when classifying youth as being more or less at risk of re-offending could aid in the interpretation of recidivism trends.

Additionally, it is important to realize that the data presented in this report are descriptive only and do not demonstrate that any of the variables analyzed "causes" recidivism. For example, the analysis of System Penetration and Recidivism showed that juveniles who received out-of-home placement were more than twice as likely to recidivate as juveniles who did not receive out-of-home placement. Out-of-home placement is correlated with recidivism, but the data presented in this report do not allow for the conclusion to be drawn that out-of-home placement itself causes youth to recidivate. This is because juveniles who receive out-of-home placement could have many other characteristics that are also correlated with recidivism (e.g., being a Serious, or Violent, or Chronic offender). Looking at the descriptive relationship between a variable and recidivism is often a valuable first step toward deeper analysis, which is how the data in this report should be viewed.

An additional limitation of this study involves a methodological issue. Since only Pennsylvania-based case management systems were queried for recidivating events, recidivism that occurred in other states or jurisdictions was not captured in the analysis. Other states that have conducted similar recidivism analyses generally only use case management systems unique to their state, so this is a common limitation to recidivism research.