The Pennsylvania Juvenile Justice Recidivism Report: Juveniles Closed 2007-2020

Pennsylvania Juvenile Court Judges' Commission <u>www.jcjc.pa.gov</u>

> Commonwealth of Pennsylvania Josh Shapiro Governor





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Commonwealth of Pennsylvania

Josh Shapiro, Governor

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Introduction

Background

The Pennsylvania JCJC provides leadership, advice, training, and support to enable Pennsylvania's juvenile justice system to achieve its balanced and restorative justice mission. The JCJC 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. For more information regarding the JJSES, please refer to the <u>Pennsylvania's Juvenile Justice System Enhancement Strategy Monograph</u>.



JJSES Statement of Purpose

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.

Key stakeholders concluded that one of the most appropriate ways to evaluate the effectiveness of the JJSES was to examine the recidivism rates of youth who have been involved in Pennsylvania's juvenile justice system. After all, recidivism is the key statistic in determining whether interventions are making a difference in keeping offenders from committing more crimes. 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 episode of involvement ended.

Since the CJJT&R, a division of the JCJC, collects and maintains delinquency data from all 67 counties through the PaJCMS, the JCJC undertook the project. Over time, the JCJC developed the methodology and capacity to monitor the statewide recidivism rates of juvenile offenders. Discussions were held with Temple University Criminal Justice Professor Phil Harris, the JCJC staff, and representatives from the PCCJPO 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.

Since the agreed-upon definition of recidivism included criminal convictions, 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 two-year tracking period was selected because there was a consensus that recidivism beyond two years from case closure would less likely 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 proceedings were included in the definition of recidivism because these case outcomes require judicial determinations.

Initial recidivism studies had two overarching goals. First, because 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.

Beginning with *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles with Cases Closed in 2007-2016*, which was published in January of 2021, YLS risk levels and scores were incorporated to obtain a picture of the differential performance of the system on youth with different levels of risk for recidivism. *The Pennsylvania Juvenile Justice Recidivism Report: Juveniles Closed in 2007-2018, The Pennsylvania Juvenile Justice Recidivism Report: Juveniles Closed in 2007-2019, and this current study, <i>The Pennsylvania Juvenile Justice Recidivism Report: Juveniles Closed in 2007-2020,* expand on the approach of analyzing the relationship between youths' assigned risk level and recidivism.

Key Findings

Recidivism rates substantially declined over the most recent five years examined, dropping from 18.4% in 2016 to 12.6% in 2020. Since the benchmark years of 2007-2010, recidivism rates have dropped 41.7%, down from a rate of 21.6%.

It is important to consider the many factors that could be contributing to these decreases in recidivism. First, 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. There have 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. However, declining recidivism rates among youth assessed

as having the same risk level suggest that something other than the characteristics of those youth assessed by the YLS must explain those trends. These latter findings are consistent with the idea that the programming innovations occurring under the JJSES are continuing to bear fruit and drive recidivism rates down. The JCJC's JJSES Implementation Survey provides details about the implementation and sustainability of this programming at the county-specific and statewide levels. An analysis of survey results is available on the JCJC website.

Second, it is important to consider that the decline in recidivism rates likely also reflects the natural progression of pre-existing temporal fluctuations in recidivism over time (similar to fitting a smooth trend line to the data). Such macro-level trends are typically driven by changes in system processing resulting from ideological shifts in correctional practice. For example, the increase in juvenile violent crime rates between the late 1980s and early 1990s,¹ coupled with the emergence of mass incarceration nationally, led to a shift in correctional policies and practices known as the "get tough" era, which resulted in increases in arrests, allegations, commitments, and transfers to adult court.² In more recent years, this trend has reversed, and a more rehabilitative ideology has persisted in corrections, resulting in national decreases in measures of crime and more severe responses such as commitment or adult transfer.³ Specific to the current analysis, if, for example, the broader juvenile justice system has shifted to a more diversion-based approach, fewer youth on the whole will ever make it to the point of adjudication, regardless of whether they actually reoffended or not. Thus, the observed decrease in recidivism rates more recently may also be partially explained by these larger macro-level forces in addition to changes in individual practices and youth characteristics.

COVID-19 Impact

Readers of this report should keep in mind that data for the 2018, 2019, and 2020 recidivism cohorts 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 2020 Juvenile Court Annual Report shows that written allegations to juvenile court decreased substantially beginning in mid-March and remained at a lower level for the rest of 2020 and through 2021, as the 2021 Juvenile Court Annual Report reflects. The 2022 Juvenile Court Annual Report and the 2023 Juvenile Court Annual Report, however, show that the number of delinquency allegations to Pennsylvania juvenile probation departments has rebounded to near prepandemic levels. In fact, in 2023, the number of delinguency allegations received by juvenile probation departments was nearly identical to the number received in 2019 (22,486 and 22,724, respectively). 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 in-person 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 rates of juveniles closed in 2018, 2019, and 2020 (14.6%, 11.7%, and 12.6%, respectively) were so much lower than in past years. However, the recidivism rate for juveniles closed in 2017 was also lower than in previous years—and the pandemic did not affect data for the 2017 cohort because, as mentioned above, Pennsylvania's definition of recidivism only counts new adjudications and convictions that occur within two years of case closing.

¹ National Criminal Justice Association. (1997). *Juvenile Justice Reform Initiatives in the States: 1994-1996.* https://ojjdp.ojp.gov/library/publications/juvenile-justice-reform-initiatives-states-1994-1996

² Mears, D. P., Hay, C., Gertz, M., & Mancini, C. (2007). Public opinion and the foundation of the juvenile court. *Criminology*, *45*(*1*), 223-258.

³ Puzzanchera, C., Hockenberry, S., & Sickmund, M. (2022). *Youth and the Juvenile Justice System: 2022 National Report*. https://ojjdp.ojp.gov/publications/2022-national-report.pdf.

Current Report

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 juveniles closed in 2020 and on comparing their recidivism patterns to prior years (2007 through 2019). 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 JCJC began the data collection process by querying the PaJCMS to identify youth whose involvement with a juvenile probation department ended in 2020. Youth were included in the sample if they had a case that occurred prior to their closure date that had a valid disposition.⁴ These youth formed the base sample for the study.

The JCJC provided this base sample to the AOPC. The AOPC in turn queried their case management systems (Common Pleas Case Management System [CPCMS] and Magisterial District Judge System [MDJS]) against the base sample youth to determine if these individuals had a subsequent conviction for a felony or misdemeanor offense in criminal court following their closure date. A youth was matched by: (1) State Identification Number⁵ alone, or (2) two of the following: last name, date of birth, or Social Security number. The AOPC provided to the JCJC the most serious substantiated offense and the disposition for that case for all misdemeanor and felony convictions occurring after the close date.

The PaJCMS was queried to determine if any youth from the base sample recidivated in juvenile court, and information on both subsequent adjudications of delinquency and criminal convictions were merged. 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 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/or Chronic offenders and the YLS was also retrieved from the PaJCMS.

⁴ 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."

⁵ The State Identification Number, or SID, is a unique identifier assigned to an individual after being fingerprinted.

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 youth 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.

Chronic Offender: A youth who has four or more previous written allegations for separate incidents that occurred prior to the date of the 2020 juvenile closure.

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

Correlated: When variation in one variable corresponds with a variation in another variable (e.g., the greater the amount of criminogenic risk factors a youth is exposed to, the more likely they are to recidivate).⁶

Detention/Shelter: A temporary holding facility.

Disposition: The action or 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.

Juveniles Closed: Juveniles terminated from juvenile court supervision. A juvenile could be on supervision for multiple individual cases at the time of closure.

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.

 $^{^{6}}$ In this report, when two variables are described as being correlated, 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.

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).

Recidivated: To have committed a subsequent felony or misdemeanor offense that resulted in an adjudication of delinquency in juvenile court or conviction in criminal court within two years of the juvenile's 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 youth who has been adjudicated delinquent in juvenile court at any point in the youth's 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 youth who has been adjudicated delinquent in juvenile court at any point in the youth's 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 that a youth has committed an act of delinquency. It is synonymous with a "court referral," although written allegation is the preferred language.

Youth Level of Service/Case Management Inventory (YLS): A validated research-based assessment tool designed to determine a youth's risk to reoffend and the presence of criminogenic needs. The YLS helps the probation officer objectively determine a youth's risk of recidivating, and the level of intervention needed. This report refers to the Youth Level of Service/Case Management Inventory as the YLS.

Executive Summary

This executive summary provides the main findings of the report, organized into four sections: 1) stateand county-level recidivism patterns, 2) demographic characteristics and recidivism, 3) offense history and recidivism, and 4) Youth Level of Service/Case Management Inventory (YLS) and recidivism.

Section 1: State- and County-Level Recidivism Patterns

- The recidivism rate for juveniles closed in 2020 was 12.6%. The 2020 recidivism rate is the second lowest since the JCJC began tracking recidivism, continuing the trend of "post-JJSES initiation" rates being below the "pre-JJSES initiation" rate (21.6% for the years 2007-2010).
- Among youth who reoffended, public order offenses were the most common subsequent type of offense. This is the first time since the JCJC began tracking recidivism that this offense type has been the most common among youth who reoffend.
- More youth who reoffend first recidivate as adults than juveniles, with the percentage of youth who reoffended first recidivating as adults increasing from "pre-JJSES initiation" levels.
- 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 longer time in 2016-2017 before falling in 2018 through 2019. For juveniles closed in 2020, the average number of months between closure and a new adjudication or conviction was 12.6, the longest since the JCJC began tracking it, and a 1.4 month increase from the 2019 cohort.
- Between 2007 and 2020, the first new offense for recidivists was a misdemeanor in approximately two thirds of cases. This trend has been consistent over time, with the proportion of misdemeanors increasing slightly. For juveniles closed in 2020, the first new reoffense was a misdemeanor in 69% of cases and a felony in the remaining 31%.
- Fifty-two (78%) counties had a recidivism rate in the "post-JJSES initiation" era (2011-2020) below their "pre-JJSES initiation" era (2007-2010) rate.
- Forty-seven (70%) counties had a recidivism rate for the years 2015-2020 below their rate for 2011-2014.

Section 2: Demographic Characteristics and Recidivism

- Over a 14-year span (2007 through 2020), males have consistently accounted for three times as many juveniles closed as females. For juveniles closed in 2020, 74% of juveniles closed were male, and 26% were female.
- Over the last 14 years, males have consistently recidivated at a much higher rate than females. In 2020, 15% of males recidivated compared to 6% of females.
- For juveniles closed in 2020, White Non-Hispanic youth were the largest racial/ethnic group, followed by Black Non-Hispanic youth, and then Hispanic youth.
- Between 2007 and 2018, Black Non-Hispanic youth recidivated at the highest rate. Although this trend differed for juveniles closed in 2019 (Black Non-Hispanic youth and Hispanic youth recidivated at the same rate), among juveniles closed in 2020, Black Non-Hispanic youth again recidivated at the highest rate (16%). Differences in recidivism rates across racial and ethnic groups are not as pronounced in more recent years as they were in years past.
- In all the years analyzed (2007-2020), youth whose first written allegation occurred at a younger age were more likely to recidivate than youth whose first written allegation occurred at an older age. For juveniles closed in 2020 as well as in 2018, contrary to the pattern observed in other past years, a higher portion of youth whose first allegation was at ages 18-20 recidivated than youth whose first allegation was at ages 16-17.

Section 3: Offense History and Recidivism

- In 2020, over three quarters of youth had one to two written allegations by the time they were closed. Additionally, less than 15% of youth had four or more allegations at closure.
- For the years 2007 through 2020, juveniles closed who had more written allegations recidivated at a higher rate than youth who had fewer written allegations. In 2020, 7% of youth with one written allegation recidivated, compared to 15% with two allegations, 19% with three allegations, 30% with between four and nine allegations, and 43% of youth with 10 or more allegations.
- For each of the past 14 years, approximately one out of five youth who were closed met the criteria of being a Serious, or Violent, or Chronic offender. For juveniles closed in 2020, 18% met these criteria.
- For juveniles closed in 2020, 28% of Serious, or Violent, or Chronic offenders recidivated compared to only 9% 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, beginning in 2007.

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

- For juveniles closed in 2020, three quarters (75%) were assessed as low risk in their final YLS assessment, just over one fifth (23%) were moderate risk, and 3% were high or very high risk.
- The percentage of juveniles closed who were assessed as low risk on their final YLS assessment increased from 73% in 2015 to 75% in 2020, and the percentage assessed as moderate risk declined from 25% in 2015 to 23% in 2020.
- As expected, and consistent with past years (2015-2019), juveniles closed in 2020 who were assessed as high or very high risk on their final YLS assessment were more likely to reoffend than moderate risk youth, who, in turn, were much more likely to reoffend than low risk youth (31% vs. 24% vs. 11%).
- The recidivism rates of youth assessed as high or very high risk notably declined from 2015 to 2020 (58% to 31%). Moderate risk youth also experienced a decline in recidivism (from 32% to 24%) during that same time period.
- For juveniles closed in 2020, the risk level distribution of males and females on their final YLS assessment was similar. Seventy-six percent of males were assessed as low risk, 22% as moderate risk, and 2% as high or very high risk. Seventy-two percent of females were assessed as low risk, 26% as moderate risk, and 3% as high or very high risk.
- For juveniles closed in 2020, YLS risk level was correlated with recidivism for both males and females. Males recidivated at a much higher rate than females at all risk levels. For males, 12% of youth assessed as low risk on their final YLS assessment recidivated compared to 27% of moderate risk youth and 39% of high or very high risk youth. For females, 5% of low risk youth recidivated compared to 13% of moderate risk youth and 5% of high or very high risk youth.⁷
- For juveniles closed in 2020, a higher percentage of Black Non-Hispanic youth and Hispanic youth than White Non-Hispanic youth were assessed as moderate risk on their final YLS assessment. Additionally, a lower percentage of Black Non-Hispanic youth and Hispanic youth than White Non-Hispanic youth were assessed as low risk.
- A youth's final YLS risk level was correlated with recidivism for White Non-Hispanic and Black Non-Hispanic youth, but not for Hispanic youth among juveniles closed in 2020. Among Black Non-Hispanic youth, 14% assessed as low risk youth recidivated, compared to 26% assessed as moderate risk youth and 33% assessed as high or very risk youth. Among White Non-Hispanic youth, 9%

⁷ Although only 5% of the 41 females assessed as high or very high risk on the YLS recidivated, we used a Pearson bivariate correlation to determine whether a relationship exists between YLS risk level and recidivism for females. This test showed that a statistically significant relationship exists (r = 0.101, p < 0.001) such that females with a higher YLS risk level are more likely to recidivate than females with a lower YLS risk level.

assessed as low risk recidivated, compared to 19% assessed as moderate risk and 36% assessed as high or very high risk. Among Hispanic youth, 10% assessed as low risk youth recidivated, compared to 27% assessed as moderate risk youth and 13% assessed as high or very high risk youth.

- In descending order, the top three risk level domains in which the largest portion of youth were assessed as either moderate or high risk (excluding Leisure/Recreation) were: (1) Personality/Behavior (53%) and (2 Tie) Peer Relations (45%) and Substance Abuse (45%).
- 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.
- Sixty-two 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 (15% vs. 23%). 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 (25% vs. 29%).

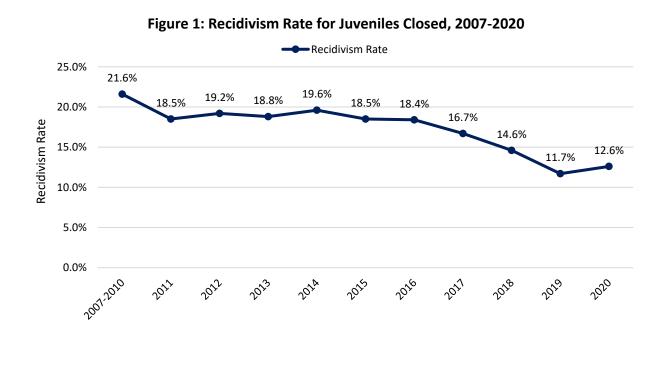
Findings^{8, 9}

Section 1: State- and County-Level Recidivism Patterns

Recidivism Rate

The recidivism rate for juveniles closed in 2020 was 12.6%. The 2020 recidivism rate is the second lowest since the JCJC began tracking recidivism, continuing the trend of "post-JJSES initiation" rates being below the "pre-JJSES initiation" rate (21.6% for the years 2007-2010).¹⁰

It is possible that the COVID-19 pandemic impacted 2018, 2019, and 2020's low recidivism rates (see the 2020 Juvenile Court Annual Report, 2021 Juvenile Court Annual Report, and 2022 Juvenile Court Annual Report). However, the recidivism rate for juveniles closed in 2017 was also lower than in past years, and the pandemic would not affect the 2017 recidivism rate since outcomes were only tracked for two years post-closure.



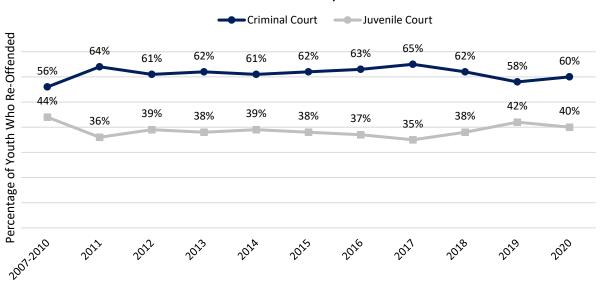
⁸ Values in charts may not total 100% due to rounding.

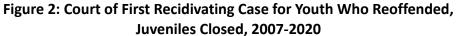
⁹ Trends may vary greatly due to the small number of youth in certain subcategories.

¹⁰ 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 2020, 60% of youth who reoffended first recidivated as adults. This marks the return of "post-JJSES initiation" years having a notably higher percentage of youth who reoffended recidivating as adults, after dipping below 60% in the previous year.





Length of Time to Subsequent Delinquency Adjudication or Criminal Conviction

For juveniles closed in 2020, the average number of months between a juvenile's closure and a new adjudication or conviction was 12.6. 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 longer time in 2016-2017 before falling in 2018 through 2019. The average length of time to recidivation is at its longest since the JCJC began tracking this.

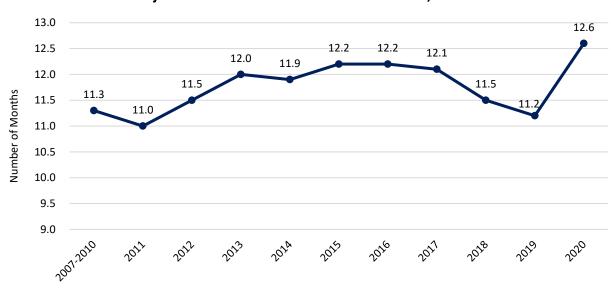


Figure 3: Average Number of Months Between Closure and New Adjudication or Conviction: Juveniles Closed, 2007-2020

Offense Type and Charge Grade of First Reoffense

Among youth who reoffended between 2007 and 2020, the most common first new offense type¹¹ was a public order offense. This was the first time that public order offenses were the most common subsequent type of offense, rising five percentage points from 2019 (24% to 29%). The percentage of youth who reoffended committing drug offenses (previously the most common subsequent offense type) fell from 29% in 2019 to 28% in 2020. Additionally, the percentage of youth who reoffended committing property offenses decreased four percentage points (22% to 18%) from 2019 to 2020, the lowest recorded since 2007.

For juveniles closed in 2020, the most common reoffense type was public order (29%), followed by drug (28%), followed by person (26%), followed by property (18%).

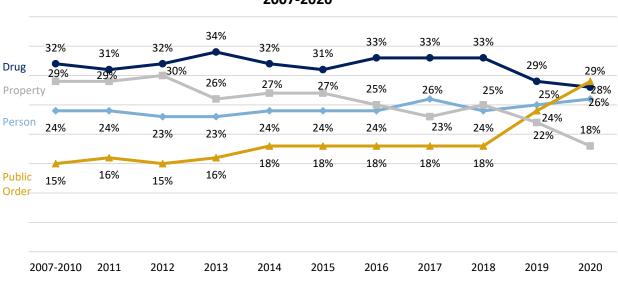


Figure 4: Offense Type of First Reoffense for Juveniles Closed, 2007-2020

¹¹ This study only analyzes the offense characteristics of the first recidivism event occurring within two years of the date a juvenile was closed.

Between 2007 and 2020, among youth who reoffended, the first new offense was a misdemeanor in approximately two thirds of juveniles closed. This percentage has been consistent over time, with the proportion of misdemeanors increasing slightly. For juveniles closed in 2020, the first new reoffense was a misdemeanor in 69% of cases and a felony in the remaining 31%.

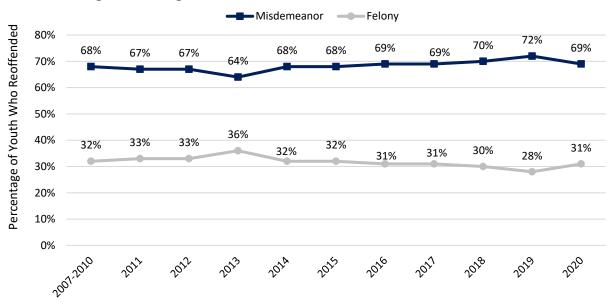


Figure 5: Charge Grade of First Reoffense for Juveniles Closed, 2007-2020

County-Specific Recidivism Rates

County and statewide recidivism data for the 14-year period beginning in 2007 and ending in 2020 are presented below. Each county's total number of juveniles closed for that year appears **above** the corresponding recidivism rate. These numbers are then tallied and summed at the bottom of the table to produce statewide statistics.

When reviewing county-specific recidivism rates, please note that smaller numbers of juveniles closed skew percentages. Smaller denominators can produce widely varying trends and/or distort a single year's percentages. This could be especially notable in rural counties. See the Study Limitations Section for a discussion of other issues to consider when analyzing county recidivism rates.

	Table 1: County and Statewide Recidivism Rates: Juveniles Closed 2007-2020								
Cohort Time Period	Pre-JJSES 2007-2010	2011-2014	2015	2016	2017	2018	2019	2020	
County	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	
	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	
Adams	885	680	115	116	118	140	101	97	
	24%	19%	19%	23%	22%	19%	18%	19%	
Allegheny	6,192	7,415	1,525	1,479	1,500	1,418	1,420	1,143	
Allegheny	25%	20%	19%	17%	15%	13%	10%	10%	
Armstrong	402	250	78	58	49	67	56	55	
Armstrong	20%	15%	18%	17%	14%	22%	16%	7%	
Beaver	1,119	1,008	252	215	170	203	169	127	
Deaver	17%	15%	15%	12%	12%	8%	5%	11%	
Bedford	252	195	19	19	10	112	54 ¹³	21	
Beuloru	18%	14%	5%	11%	10%	0%	22%	10%	
Berks	3,274	2,368	696	612	500	465	456	376	
Derks	20%	15%	12%	13%	13%	13%	11%	9%	
Blair	380	438	173	175	173	183	148	125	
Didii	17%	16%	22%	25%	16%	14%	18%	9%	
Bradford	197	419	108	102	83	97	57	73	
Bradiord	20%	11%	12%	20%	16%	9%	4%	18%	
Bucks	2,991	2,185	473	476	422	541	481	401	
DUCKS	21%	17%	14%	18%	11%	10%	7%	7%	

¹² Data entry irregularities in Bedford County may have impacted the number of juveniles closed in 2018.

¹³ Data entry irregularities in Bedford County may have impacted the number of juveniles closed in 2019.

	Table 1: Co	ounty and St	tatewide Re	cidivism Ra	tes: Juvenile	es Closed 20	07-2020	
Cohort Time Period	Pre-JJSES 2007-2010	2011-2014	2015	2016	2017	2018	2019	2020
County	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed
	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism
Butler	643	661	163	147	123	145	139	104
	16%	16%	19%	13%	13%	13%	11%	15%
Cambria	1,087	794	251	184	142	163	166	169
Cambrid	20%	18%	14%	13%	17%	17%	15%	9%
Cameron	25	9	10	6	2	4	3	2
Cameron	32%	33%	30%	0%	100%	0%	0%	0%
Carbon	404	338	62	58	59	91	66	57
Carbon	14%	16%	11%	10%	14%	16%	11%	11%
Centre	252	227	56	69	69	81	61	44
Centre	19%	12%	20%	13%	14%	15%	8%	9%
Chaster	2,664	2,339	506	385	405	385	390	376
Chester	19%	14%	12%	15%	19%	10%	7%	8%
Clarion	140	137	23	31	30	21	33	31
Clarion	26%	21%	17%	0%	7%	10%	12%	16%
Clearfield	224	198	74	27	42	19	70	83
Clearneid	23%	20%	23%	26%	14%	21%	20%	14%
Clinton	125	170	44	51	44	51	45	36
Cinton	24%	23%	25%	22%	27%	14%	16%	17%
Columbia	284	325	70	48	50	68	59	58
Columbia	16%	17%	13%	27%	24%	13%	10%	3%
Crawford	555	464	134	97	59	98	101	73
Crawioru	21%	18%	19%	19%	20%	16%	15%	19%
Cumberland	375	612	259	280	246	270	259	246
cumperiand	21%	13%	17%	22%	14%	11%	12%	11%
Dourhin	3,707	2,728	562	547	518	509	550	325
Dauphin	24%	24%	25%	25%	25%	21%	18%	19%
Delourere	1,145	3,255	814	694	691	702	604	465
Delaware	23%	20%	20%	18%	17%	18%	12%	9%
E11.	131	148	38	25	29	36	32	26
Elk	26%	25%	21%	12%	24%	14%	22%	12%

	Table 1: Co	ounty and St	tatewide Re	cidivism Rat	tes: Juvenile	es Closed 20	07-2020	
Cohort Time Period	Pre-JJSES 2007-2010	2011-2014	2015	2016	2017	2018	2019	2020
County	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed
county	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism
Erie	2,925	2,260	404	420	392	410	403	364
Ene	21%	20%	18%	23%	18%	20%	17%	19%
Envette	1,043	1,041	235	185	152	109	234	165
Fayette	15%	11%	15%	14%	16%	13%	8%	7%
Forest	25	13	1	2	1	0	1	0
Forest	12%	8%	0%	50%	100%	N/A ¹⁴	0%	N/A ¹⁵
Franklin	1,217	910	321	216	207	212	226	153
Tankin	23%	24%	20%	16%	20%	21%	12%	13%
Fulton	54	51	19	18	9	9	14	9
	13%	12%	11%	11%	0%	11%	7%	0%
Greene	151	190	21	16	11	14	14	28
Greene	10%	6%	14%	13%	9%	0%	7%	11%
Huntingdon	197	146	32	30	29	35	45	26
nuntinguon	17%	17%	16%	30%	10%	26%	16%	8%
Indiana	258	296	66	78	67	50	79	98
Indiana	16%	13%	18%	4%	13%	14%	10%	12%
Jefferson	207	197	42	51	33	47	48	31
Jenerson	24%	23%	21%	20%	18%	15%	13%	10%
Juniata	56	66	12	18	15	20	16	16
Juniata	29%	21%	17%	17%	20%	10%	6%	31%
Lackawanna	776	752	190	226	193	220	230	265
Lackawaiiiid	24%	22%	20%	20%	15%	15%	15%	21%
Loncostor	1,643	2,249	641	594	594	596	516	436
Lancaster	21%	18%	19%	20%	19%	19%	14%	14%

 ¹⁴ A recidivism rate could not be calculated because no juveniles were closed in this time period.
¹⁵ A recidivism rate could not be calculated because no juveniles were closed in this time period.

	Table 1: Co	ounty and St	tatewide Re	cidivism Ra	tes: Juvenile	es Closed 20	07-2020	
Cohort Time Period	Pre-JJSES 2007-2010	2011-2014	2015	2016	2017	2018	2019	2020
County	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed
county	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism
Loumonoo	593	722	103	100	66	70	76	54
Lawrence	17%	17%	13%	12%	15%	11%	13%	7%
Lebanon	1,026	702	150	162	191	160	153	129
Lebanon	27%	23%	24%	30%	21%	16%	10%	14%
Lehigh	3,611	3,392	683	646	573	496	461	370
Lenigh	14%	20%	21%	23%	18%	18%	14%	13%
Luzerne	1,904	1,377	256	242	211	252	233	170
Luzerne	17%	16%	14%	19%	13%	13%	10%	10%
Lycoming	1,216	1,082	208	171	194	166	188	184
Lycoming	28%	25%	25%	15%	22%	19%	16%	13%
McKean	183	194	60	53	41	54	56	71
wickean	24%	16%	23%	17%	15%	22%	9%	17%
Mercer	586	711	156	151	122	153	128	92
Wercer	16%	18%	16%	27%	16%	20%	13%	13%
Mifflin	261	209	58	49	62	42	66	30
WIIIIII	27%	24%	24%	31%	27%	36%	33%	33%
Monroe	977	794	193	161	158	148	195	173
Monroe	14%	15%	18%	16%	14%	11%	9%	13%
Montoomou	3,793	4,144	776	733	696	668	721	460
Montgomery	24%	16%	18%	19%	17%	12%	11%	8%
Montour	83	72	11	18	7	10	8	16
wontour	22%	26%	36%	28%	43%	30%	13%	19%
Northampton	1,951	2,014	422	440	411	515	511	349
Normampton	17%	18%	17%	15%	17%	11%	12%	12%
Northumberland	611	667	210	183	166	115	158	136
Northumperiand	23%	16%	16%	19%	13%	12%	9%	14%

	Table 1: Co	ounty and S	tatewide Re	cidivism Ra	tes: Juvenile	es Closed 20	07-2020	
Cohort Time Period	Pre-JJSES 2007-2010	2011-2014	2015	2016	2017	2018	2019	2020
County	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed
	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism
Perry	249	187	62	36	27	27	25	38
	25%	26%	23%	25%	19%	19%	4%	13%
Philadelphia	8,949	12,902	2,488	2,169	1,769	1,771	1,774	1,188
	28%	23%	22%	20%	16%	13%	12%	14%
Pike	309	274	61	62	63	58	63	41
Pike	13%	13%	8%	8%	8%	12%	6%	5%
Potter	120	69	5	19	8	5	2	11
i otter	11%	13%	0%	16%	13%	40%	0%	27%
Schuvlkill	1,011	875	171	100	138	156	173	127
Schuylkill	16%	16%	16%	20%	14%	14%	8%	9%
Snyder	219	260	37	57	38	43	45	32
Silyaci	22%	22%	24%	19%	18%	5%	7%	13%
Somerset	355	234	37	37	26	42	33	23
Somerset	13%	16%	16%	8%	12%	10%	3%	9%
Sullivan	16	11	8	4	1	1	1	4
Sunvan	6%	0%	13%	0%	0%	0%	100%	0%
Susquehanna	217	184	32	25	23	50	32	15
Jusquenanna	18%	17%	3%	20%	9%	12%	3%	20%
Tioga	271	206	41	34	28	25	43	27
noga	18%	17%	12%	15%	29%	0%	9%	11%
Union	105	116	21	33	41	28	24	17
UNION	23%	28%	38%	12%	15%	7%	13%	6%
Venango	297	434	131	74	76	62	57	49
venango	13%	17%	18%	19%	16%	24%	18%	14%
Warren	256	201	46	48	36	36	55	44
	17%	19%	20%	19%	6%	22%	15%	16%

	Table 1: Co	ounty and St	tatewide Re	cidivism Ra	tes: Juvenile	es Closed 20	07-2020	
Cohort Time Period	Pre-JJSES 2007-2010	2011-2014	2015	2016	2017	2018	2019	2020
County	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed	# Juveniles Closed
-	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism	% Recidivism
Washington	1,121	1,318	260	210	212	261	249	245
Washington	24%	16%	15%	14%	13%	10%	8%	12%
Wayna	263	210	42	45	24	17	37	19
Wayne	15%	15%	19%	29%	29%	24%	5%	11%
Westmoreland	2,191	1,795	388	331	238	285	285	281
westmoreiand	16%	14%	16%	16%	17%	11%	9%	14%
Missening	209	138	28	21	18	17	19	19
Wyoming	19%	15%	14%	14%	11%	24%	11%	0%
York	3,780	3,422	783	768	752	845	779	649
TOIK	25%	20%	19%	18%	20%	16%	12%	12%
Total:	72,738	74,450	16,417	14,938	13,653	14,058	13,996	11,167
rotal:	21.60%	19.00%	18.50%	18.40%	16.70%	14.60%	11.70%	12.60%

County-Specific Aggregated Recidivism Rates

To facilitate analysis of recent and long-term county-specific recidivism trends, county-specific recidivism data is aggregated into the pre-JJSES (2007-2010) period and then 2011-2014 and 2015-2020—the earlier and later years within the post-JJSES initiation period (2011-2020). Presenting data separately for 2011-2014 and 2015-2020 allows for more nuanced analysis of county-specific recidivism trends within the post-JJSES initiation period.

Appearing in the second column to the right in Table 2 below is the percentage change in recidivism rates between the pre-JJSES (2007-2010) and post-JJSES initiation periods (2011-2020). 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 2015-2020 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 20.4% decrease in the recidivism rate between the pre-JJSES initiation periods.

Furthermore, 78% of counties (n=52) had a recidivism rate in the post-JJSES initiation era (2011-2020) below their rate in the pre-JJSES era (2007-2010). Among these 52 counties, the mean percentage decrease in recidivism rates was 22.2%, and the median percentage decrease was 21.5%.

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 2015-2020). This figure is arrived at by taking the difference between the 2015-2020 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 17.7% decrease in the recidivism rate between the 2011-2014 era and the 2015-2020 era.

Seventy percent (n=47) of counties had a recidivism rate for the years 2015-2020 below their rate for 2011-2014. Among these 47 counties, the mean percentage decrease in recidivism rates was 22.2%, and the median percentage decrease was 21.4%.

	Table 2: Co	ounty and St	atewide Re	cidivism Ra	tes for Juve	eniles Close	d	
	Pre-JJSES	2007-2010	2011-	2014	2015	-2020	% Change in Rat	
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Pre-JJSES (2007-2010) to Post- JJSES Initiation (2011-2020)	2011-2014 to 2015-2020
Adams	885	24%	680	19%	687	20%	-18%	5%
Allegheny	6,192	25%	7,415	20%	8,485	14%	-33%	-30%
Armstrong	402	19%	250	15%	363	16%	-17%	8%
Beaver	1,119	17%	1,008	15%	1,136	11%	-26%	-28%
Bedford	252	17%	195	14%	124	15%	-15%	4%
Berks	3,274	20%	2,368	15%	3,105	12%	-35%	-20%
Blair	380	17%	438	16%	977	18%	1%	10%
Bradford	197	20%	419	11%	520	13%	-38%	22%
Bucks	2,991	21%	2,185	17%	2,794	12%	-32%	-32%
Butler	643	16%	661	16%	821	14%	-7%	-12%
Cambria	1,087	20%	794	18%	1,075	14%	-21%	-20%
Cameron	25	32%	9	33%	27	19%	-31%	-44%
Carbon	404	14%	338	16%	393	12%	1%	-22%
Centre	252	19%	227	12%	380	14%	-31%	14%
Chester	2,664	19%	2,339	14%	2,447	12%	-31%	-13%
Clarion	140	26%	137	21%	170	11%	-41%	-50%
Clearfield	224	23%	198	20%	315	19%	-15%	-3%
Clinton	125	24%	170	23%	271	20%	-12%	-13%
Columbia	284	16%	325	17%	353	15%	-1%	-12%
Crawford	555	21%	464	18%	562	18%	-15%	1%
Cumberland	375	28%	612	13%	1,560	15%	-50%	13%
Dauphin	3,707	24%	2,728	24%	3,011	23%	-3%	-6%
Delaware	1,145	23%	3,255	20%	3,970	16%	-22%	-19%
Elk	131	26%	148	25%	186	18%	-19%	-29%
Erie	2,925	21%	2,260	20%	2,393	19%	-7%	-4%
Fayette	1,043	15%	1,041	11%	1,080	12%	-22%	11%
Forest	25	12%	13	8%	5	40%	39%	400%
Franklin	1,217	23%	910	24%	1,335	17%	-13%	-28%
Fulton	54	13%	51	12%	79	8%	-29%	-37%
Greene	151	10%	190	6%	104	10%	-25%	60%
Huntingdon	197	17%	146	17%	197	18%	3%	5%
Indiana	258	16%	296	13%	438	12%	-24%	-9%
Jefferson	207	24%	197	23%	252	16%	-20%	-29%
Juniata	56	29%	66	21%	97	16%	-37%	-21%

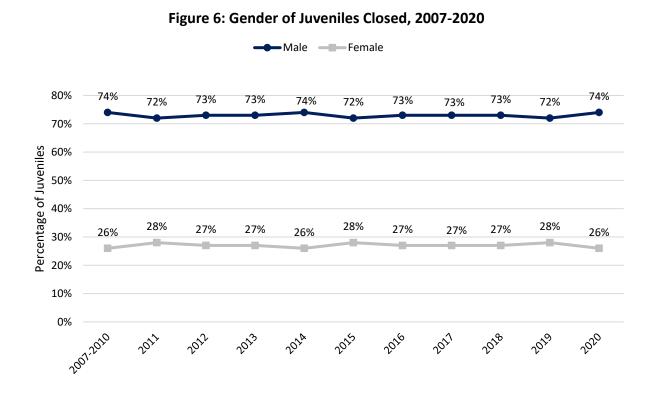
	Table 2: Cou	unty and Sta	tewide Reci	divism Rate	es for Juve	niles Closed			
	Pre-JJSES 2	Pre-JJSES 2007-2010		2011-2014		-2020	-	% Change in Recidivism Rates	
County	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Number of Juveniles Closed	Recidivism Rate	Pre-JJSES (2007-2010) to Post-JJSES Initiation (2011-2020)	2011-2014 to 2015-2020	
Lackawanna	776	24%	752	22%	1,324	18%	-20%	-19%	
Lancaster	1,643	21%	2,249	18%	3,377	18%	-15%	-2%	
Lawrence	593	17%	722	17%	469	12%	-12%	-29%	
Lebanon	1,026	27%	702	23%	945	20%	-21%	-14%	
Lehigh	3,611	14%	3,392	20%	3,229	18%	36%	-8%	
Luzerne	1,904	17%	1,377	16%	1,364	13%	-13%	-17%	
Lycoming	1,216	28%	1,082	25%	1,111	18%	-23%	-27%	
McKean	183	23%	194	16%	335	17%	-22%	-9%	
Mercer	586	16%	711	18%	802	18%	15%	2%	
Mifflin	261	27%	209	24%	307	30%	3%	26%	
Monroe	977	14%	794	15%	1,028	14%	1%	-9%	
Montgomery	3,793	24%	4,144	16%	4,054	14%	-36%	-10%	
Montour	83	22%	72	26%	70	27%	22%	4%	
Northampton	1,951	17%	2,014	18%	2,648	14%	-9%	-23%	
Northumberland	611	23%	667	16%	968	14%	-36%	-12%	
Perry	249	25%	187	26%	215	18%	-12%	-30%	
Philadelphia	8,949	28%	12,902	23%	11,159	17%	-28%	-26%	
Pike	309	13%	274	13%	348	8%	-22%	-38%	
Potter	120	11%	69	13%	50	18%	38%	38%	
Schuylkill	1,011	16%	875	16%	865	13%	-8%	-17%	
Snyder	219	22%	260	22%	252	14%	-17%	-35%	
Somerset	355	13%	234	16%	198	10%	1%	-40%	
Sullivan	16	6%	11	0%	19	11%	11%	N/A ¹⁶	
Susquehanna	217	18%	184	17%	177	10%	-25%	-40%	
Tioga	271	18%	206	17%	198	13%	-19%	-26%	
Union	105	23%	116	28%	164	15%	-13%	-48%	
Venango	297	13%	434	17%	449	18%	36%	6%	
Warren	256	17%	201	19%	265	16%	2%	-15%	
Washington	1,121	24%	1,318	16%	1,437	12%	-42%	-25%	
Wayne	263	15%	210	15%	184	20%	15%	30%	
Westmoreland	2,191	16%	1,795	14%	1,808	14%	-11%	0%	
Wyoming	209	19%	138	15%	122	11%	-31%	-29%	
York	3,780	25%	3,422	20%	4,576	16%	-28%	-19%	
Total	72,738	21.6%	74,450	19.0%	84,229	15.6%	-20.4%	-17.7%	

¹⁶ A percent change could not be calculated because Sullivan County's recidivism rate was 0% from 2011 to 2014.

Section 2: Demographic Characteristics and Recidivism

Gender and Recidivism

Over a 14-year span (2007 through 2020), males have consistently accounted for three times as many juveniles closed as females. For juveniles closed in 2020, 74% were male, and 26% were female.



Over the last 14 years, males have consistently recidivated at a much higher rate than females. In 2020, 15% of males recidivated compared to 6% of females.

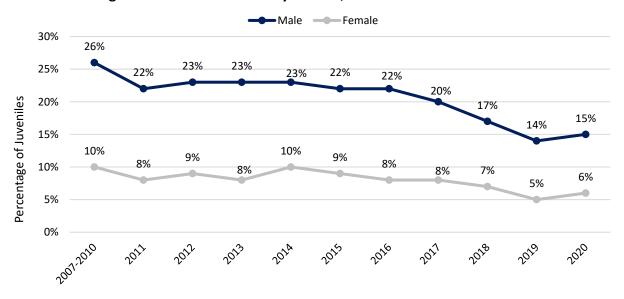


Figure 7: Recidivism Rates by Gender, Juveniles Closed 2007-2020

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.

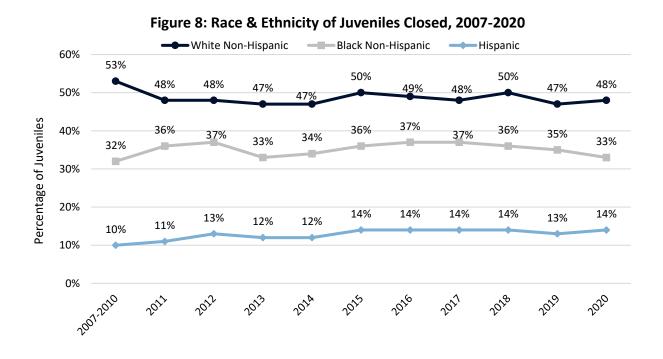
Black Non-Hispanic: Reported as Black for race and Non-Hispanic for ethnicity.

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

Over the last 14 years, White Non-Hispanic youth were consistently the largest racial/ethnic group closed, followed by Black Non-Hispanic youth, then Hispanic youth. There has also been an increase in the percentage of youth who were Hispanic: 10% in 2007-2010 vs. 14% from 2015 through 2020, with the exception of 2019 (13%).

In 2020, 48% of youth were White Non-Hispanic, 33% were Black Non-Hispanic, and 14% were Hispanic.

Note: Due to small numbers, youth who are not White Non-Hispanic, Black Non-Hispanic, Hispanic, or who are of unknown race were excluded from charts pertaining to race.



Black Non-Hispanic youth recidivated at the highest rate with the exception of 2019, when Black Non-Hispanic youth and Hispanic youth recidivated at the same rate. In 2020, 16% of Black Non-Hispanic youth recidivated, followed by 13% of Hispanic youth, and 10% of White Non-Hispanic youth. These differences are not as pronounced as in years past.

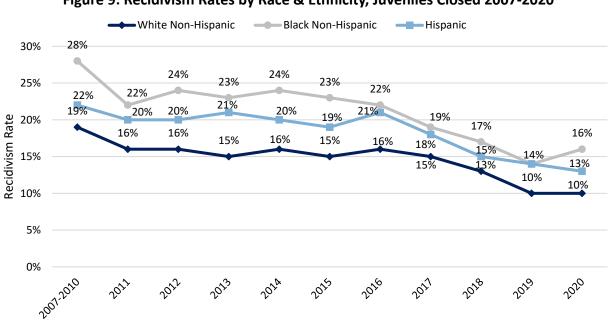
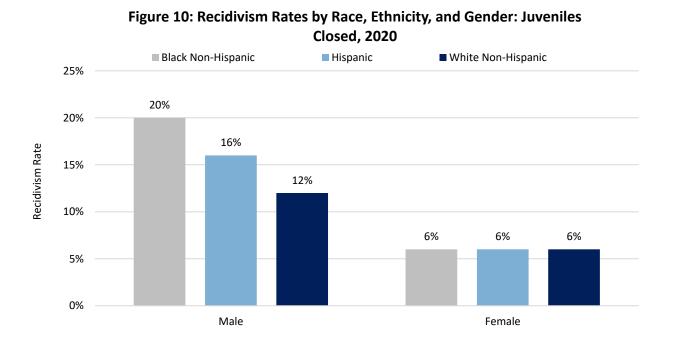


Figure 9: Recidivism Rates by Race & Ethnicity, Juveniles Closed 2007-2020

Further analysis of 2020 juveniles closed shows that racial/ethnic differences in recidivism rates are greater for males than for females. Among males, 20% of Black Non-Hispanic youth, 16% of Hispanic youth, and 12% of White Non-Hispanic youth recidivated. Among females, 6% of White Non-Hispanic, Black Non-Hispanic, and Hispanic youth recidivated.



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 2020, followed by those referred for the first time at ages 16-17, at ages 10-12, and, finally, at ages 18-20.¹⁷

In 2020, 49% of youth had their first written allegation between the ages of 13 and 15, 35% at ages 16-17, 14% at ages 10-12, and 2% at ages 18-20.

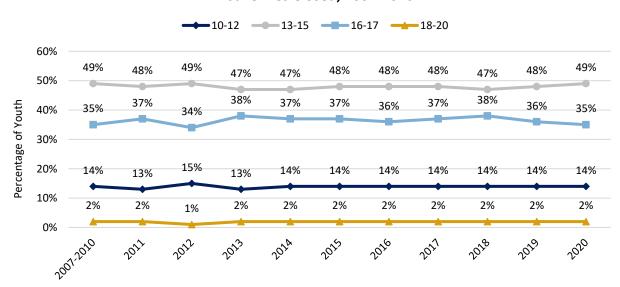


Figure 11: Age Group at First Written Allegation of Juveniles Closed, 2007-2020

¹⁷ 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 youth 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.

In all the years analyzed, youth whose first written allegation occurred at a younger age were more likely to recidivate than youth whose first written allegation occurred at an older age. In 2018 and 2020, contrary to the pattern observed in past years and in 2019, a higher portion of youth whose first allegation was at ages 18-20 recidivated than youth whose first allegation was at ages 16-17.

In 2020, 17% of youth whose first written allegation occurred at ages 10-12 recidivated compared to 13% of youth whose first written allegation was at ages 13-15, and 10% of youth at ages 16-17, and 13% of youth at ages 18-20.

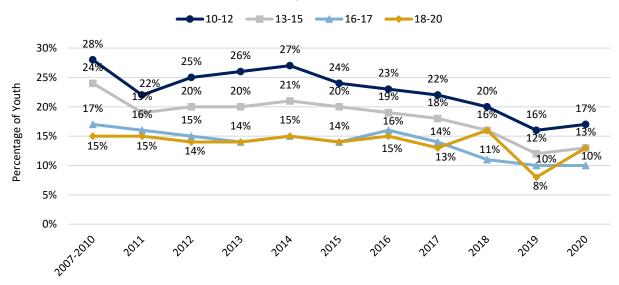


Figure 12: Age Group at First Written Allegation and Recidivism, Juveniles Closed, 2007-2020

The first figure below shows specific ages for juveniles closed in 2020, while the second shows how age relates to recidivism. Twenty-two percent of youth whose first written allegation was at age 10 recidivated compared to 9% of those whose first allegation was at age 17 and 15% of those who were age 18 at the time of their first allegation.

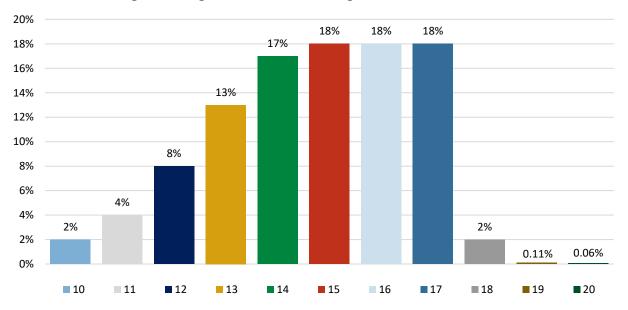
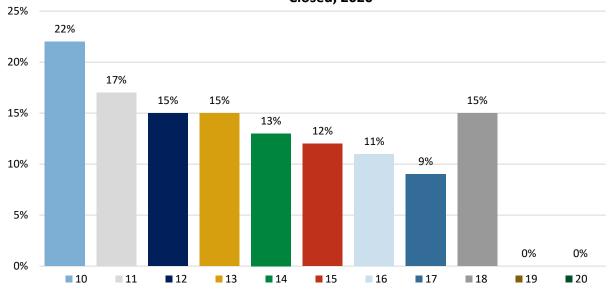


Figure 13: Age at First Written Allegation, Juveniles Closed, 2020

Figure 14: Age at First Written Allegation and Recidivism, Juveniles Closed, 2020



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Section 3: Offense History and Recidivism

Number of Written Allegations and Recidivism

For each of the years examined (2007 through 2020), over three quarters of youth had one to two written allegations by the time they were closed. Additionally, less than 15% of youth had four or more allegations at closure.

In 2020, 61% of youth had only one written allegation, 18% had two, 8% had three, 11% had between four and nine, and 1% had 10 or more written allegations.

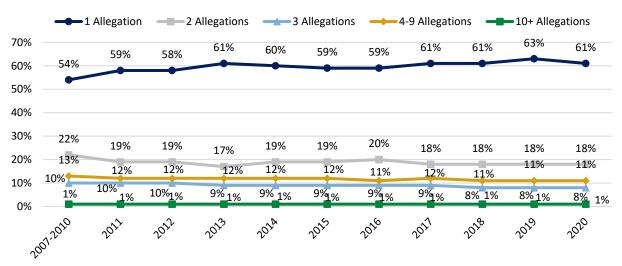


Figure 15: Number of Written Allegations at Closing for Juveniles Closed, 2007-2020

For these same years, youth who had more written allegations recidivated at a higher rate than youth who had fewer written allegations. In 2020, 7% of youth with one written allegation recidivated, compared to 15% with two allegations, 19% with three allegations, 30% with between four and nine allegations, and 43% of youth with 10 or more allegations.

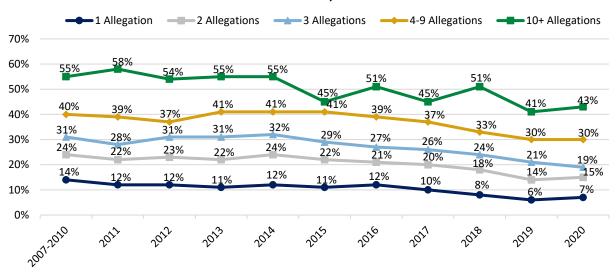


Figure 16: Number of Written Allegations and Recidivism, Juveniles Closed, 2007-2020

Serious, Violent, and/or 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/or Chronic Juvenile Offenders. The terms "serious," "violent," and "chronic" emerged as part of an effort to identify the subset of youth that research shows account for a disproportionate share of offending and reoffending and to focus court interventions on this group. Furthermore, longitudinal research following youth 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.¹⁸

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

Chronic Offender: A youth who has four or more previous written allegations for separate incidents that occurred prior to the date of the 2007-2020 closure.

Serious, Violent, or Chronic Offender: A youth who meets the definition of at least one of the following: serious offender, violent offender, or chronic offender.

Serious, Violent, and Chronic Offender (SVC): A youth who meets the definition of a serious offender, a violent offender, and a chronic offender.

¹⁸ Office of Juvenile Justice and Delinquency Prevention. (1998). *OJJDP Juvenile Justice Bulletin: Serious and Violent Juvenile Offenders*. https://www.ncjrs.gov/pdffiles/170027.pdf

For each of the past 14 years, approximately one out of five juveniles closed met the criteria of being a Serious, or Violent, or Chronic offender. 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 2020, 12% of juveniles closed were Chronic, 6% were Violent, 3% were Serious, 0.4% were SVC, and 18% were Serious, or Violent, or Chronic.

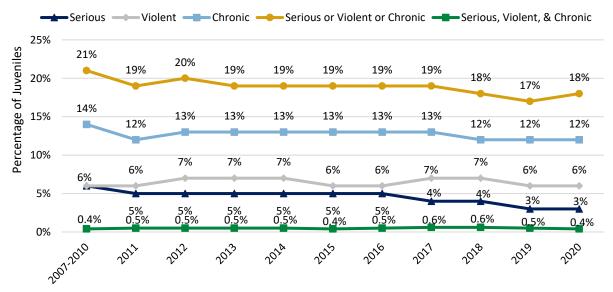


Figure 17: Prevalence of Serious, Violent, and Chronic Offenders for Juveniles Closed, 2007-2020

For juveniles closed in 2020, these variables were all correlated with recidivism. Youth who met the criteria for being SVC recidivated at a higher rate than those who only met the less restrictive criteria of being Serious, or Violent, or Chronic offenders (36% vs. 28%). These findings are consistent with those of previous cohorts of juveniles closed.

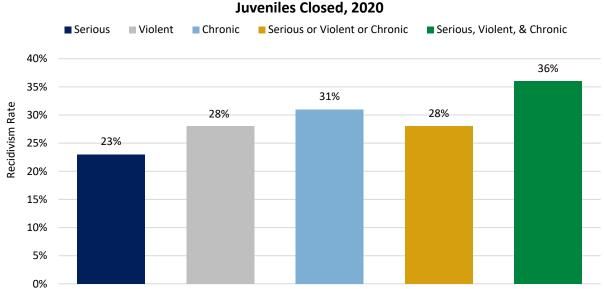


Figure 18: Serious, Violent, and Chronic Youth and Recidivism, Juveniles Closed, 2020

The figure below presents data on recidivism rates between 2007 and 2020 separately for youth who were Serious, or Violent, or Chronic and their counterparts. The data shows that, for Serious, or Violent, or Chronic youth between 2007 and 2016, the recidivism rate fluctuated, without a clear-cut trend. By contrast, the recidivism rate for their counterparts for 2011 through 2016 was below their recidivism rate average for the pre-JJSES years (2007 to 2010). Regardless of the fluctuation in recidivism rates for Serious, or Violent, or Chronic youth, the recidivism rates were always more than twice those of their counterparts.

More recently, the recidivism rates of both groups decreased. The recidivism rates of Serious, or Violent, or Chronic offenders declined from 37% in 2016 to 28% in 2020. The recidivism rates of their counterparts declined from 14% in 2016 to 9% in 2020. Thus, recent declines in the statewide recidivism rate occurred for youth with both more and less severe offense histories.

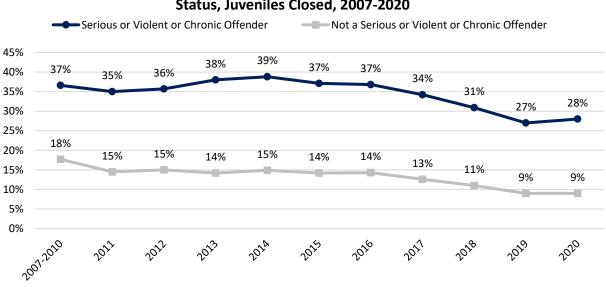


Figure 19: Recidivism Rate by Serious, or Violent, or Chronic Offender Status, Juveniles Closed, 2007-2020

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 PCCJPO and staff from the JCJC chose to pilot the YLS risk assessment instrument. Since then, the YLS has been chosen as the risk assessment tool to be used in Pennsylvania's juvenile justice system. The YLS 2.0 was introduced in 2017 and is currently being administered by all Pennsylvania counties.¹⁹

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 reoffending.²⁰ 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).²¹ 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 reassessed 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 assessment 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.

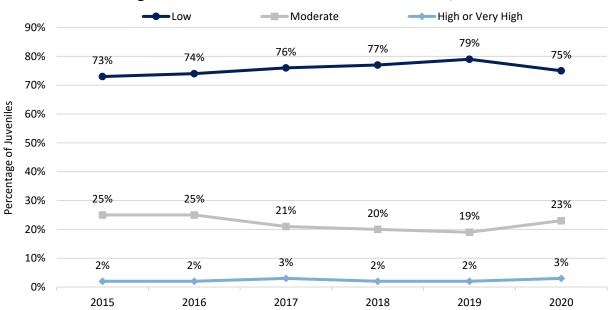
¹⁹ The YLS assessments analyzed in this report used the YLS 2.0 version. The YLS 2.0 range of scores corresponding to each risk level designation differs from the original version.

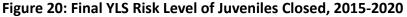
 ²⁰ These domains are: (1) Prior and Current Offenses; (2) Family Circumstances/Parenting; (3) Education/ Employment;
(4) Peer Relations; (5) Substance Abuse; (6) Leisure/Recreation; (7) Personality/Behavior; (8) Attitudes/Orientation.

²¹ The original YLS was 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. Due to these differences, 471 initial YLS 1.0 valid assessments were eliminated from analysis. Because no final assessments used the YLS 1.0, none needed to be eliminated.

Final YLS Risk Level and Recidivism²²

This subsection examines the relationship between a youth's final YLS assessment and recidivism. For juveniles closed in 2020, three quarters (75%) were assessed as low risk, just over one fifth (23%) were moderate risk, and 3% were high or very high risk. Over the last six years (2015-2020), the percentage of youth closed who were assessed as low risk increased from 73% in 2015 to 75% in 2020. The percentage assessed as moderate risk declined from 25% in 2015 to 23% in 2020.

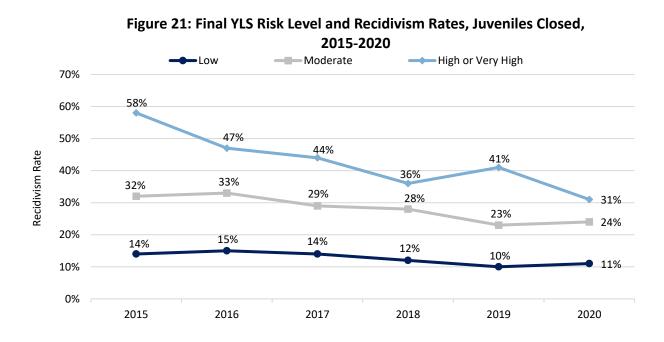




²² This report only analyzes YLS risk levels for youth whose last YLS assessment was six months before their closing, or within 60 days after their closing and that was specifically identified in the PaJCMS as a closing assessment. In other words, initial and review assessments are excluded from being considered final assessments. Fifty-seven percent (6,418/11,167) of juveniles closed in 2020 met these criteria.

Consistent with past years, juveniles closed in 2020 who were assessed as high or very high risk were more likely to reoffend than moderate risk youth, who, in turn, were much more likely to reoffend than low risk youth (31% vs. 24% vs. 11%). These findings are consistent with research that validates the YLS as a risk assessment tool.²³

From 2015 to 2018, there was 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. However, the rate rebounded a bit, reaching 41% in 2019 before dropping down to 31% in 2020. The recidivism rates of moderate risk youth declined over the last five years, from 33% in 2016 to 24% in 2020.



²⁵ Hoge, R.D., & Andrews, D.A. (2011). Youth Level of Service/Case Management Inventory™ 2.0: User's Manual. Multi-Health Systems, Inc.

Final YLS Risk Level and Recidivism by Gender

For juveniles closed in 2020, the risk level distribution of males and females was similar. Seventy-six percent of males were assessed as low risk, 22% as moderate risk, and 2% as high or very high risk. Seventy-two percent of females were assessed as low risk, 26% as moderate risk, and 3% as high or very high risk.

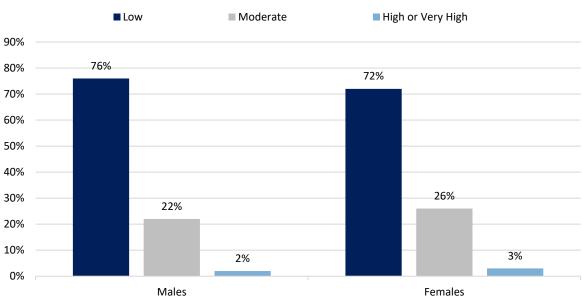


Figure 22: Final YLS Risk Level by Gender, Juveniles Closed, 2020

The YLS risk level was correlated with recidivism for both males and females,²⁴ although males recidivated at a much higher rate at all risk levels. For males closed in 2020, 12% of low risk youth recidivated compared to 27% of moderate risk youth and 39% of high or very high risk youth. For females closed in 2020, 5% of low risk youth recidivated compared to 13% of moderate risk youth and 5% of high or very high risk youth.

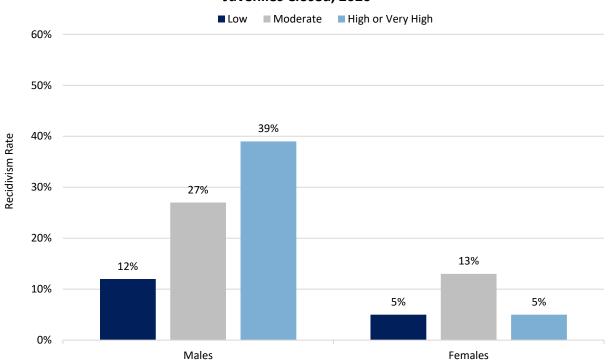


Figure 23: Final YLS Risk Level and Recidivism by Gender, Juveniles Closed, 2020

²⁴ Although only 5% of the 41 females assessed as high or very high risk on the YLS recidivated, we used a Pearson bivariate correlation to determine whether a relationship exists between YLS risk level and recidivism for females. This test showed that a statistically significant relationship exists(r = 0.101, p < 0.001) such that females with a higher YLS risk level are more likely to recidivate than females with a lower YLS risk level.

Final YLS Risk Level and Recidivism by Race and Ethnicity

For juveniles closed in 2020, a higher percentage of Black Non-Hispanic youth and Hispanic youth than White Non-Hispanic youth were assessed as moderate risk on the YLS. Conversely, a lower percentage of Black Non-Hispanic youth and Hispanic youth than White Non-Hispanic youth were assessed as low risk.

Specifically, among Black Non-Hispanic youth, 67% were assessed as low risk, 29% moderate risk, and 4% high or very high risk. Among Hispanic youth, 72% were assessed as low risk, 25% moderate risk, and 3% high or very high risk. Among White Non-Hispanic youth, 81% were assessed as low risk, 17% moderate risk, and 2% high or very high risk.

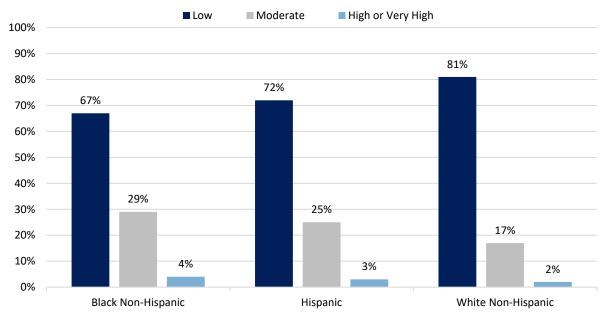


Figure 24: Final YLS Risk Level by Race & Ethnicity, Juveniles Closed, 2020

YLS risk level was correlated with recidivism for White Non-Hispanic, Hispanic,²⁵ and Black Non-Hispanic youth. Among Black Non-Hispanic youth, 14% of low risk youth recidivated compared to 26% of moderate risk youth, and 33% of high or very high risk youth. Among Hispanic youth, 10% of low risk youth recidivated compared to 27% of moderate risk youth, and 13% of high or very high risk youth. Among White Non-Hispanic youth, 9% of low risk youth recidivated compared to 19% of moderate risk youth and 36% of high or very high risk youth.

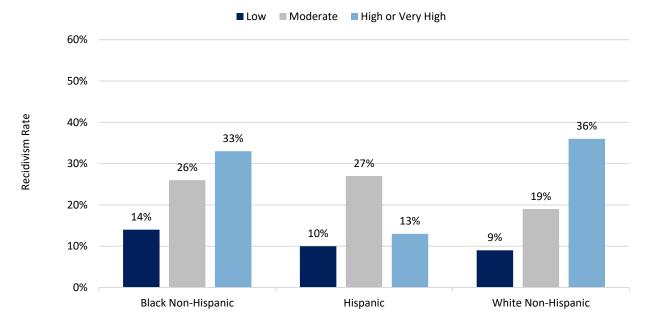
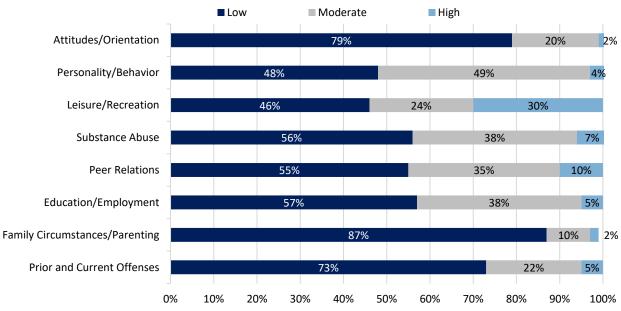


Figure 25: Final YLS Risk Level and Recidivism by Race & Ethnicity, Juveniles Closed, 2020

 $^{^{25}}$ Although only 13% of the 23 Hispanic youth assessed as high or very high risk on the YLS recidivated, we used a Pearson bivariate correlation to determine whether a relationship exists between YLS risk level and recidivism for Hispanic youth. This test showed that a statistically significant relationship exists (r = 0.177, p < 0.001) such that Hispanic youth with a higher YLS risk level are more likely to recidivate than Hispanic youth with a lower YLS risk level.

Domain-Specific Final YLS Risk Level and Recidivism

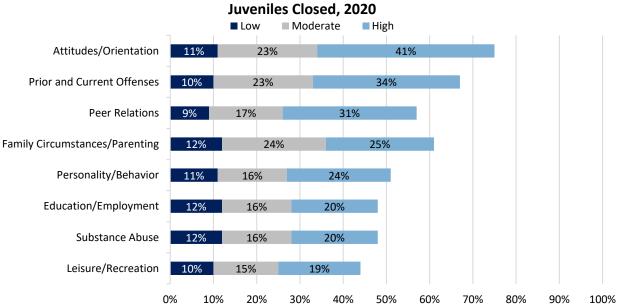
Domain-specific variations exist in risk level profiles of juveniles closed in 2020. In descending order, the top three risk level domains in which the largest portion of youth were assessed as either moderate or high risk (excluding Leisure/Recreation) were: (1) Personality/Behavior (52%) and (2) Peer Relations (45%) and (3) Substance Abuse (44%).²⁶

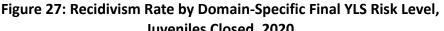




²⁶ The Leisure/Recreation domain is excluded because it is generally the weakest predictor of delinquency compared to other domains. In addition, for youth at moderate risk or higher, stronger and often multiple risk factors are present; therefore, Leisure/Recreation is not a prioritized target for interventions and treatment aimed at reducing risk.

All eight YLS risk level domains were correlated with recidivism. Forty-one percent of youth scoring high risk in Attitudes/Orientation recidivated compared to 23% of those who scored moderate risk and 11% of those who scored low risk for this domain. Thirty-four percent of youth scoring high risk in Prior and Current Offenses recidivated compared to 23% of those who scored moderate risk and 10% of those who scored low risk for this domain.





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

Final YLS risk levels are predictive of recidivism for youth identified as a Serious, or Violent, or Chronic offender, as well as those who were not a Serious, or Violent, or Chronic offender. For the latter, 8% of low risk, 18% of moderate risk, and 27% of high or very high risk youth recidivated. For those identified as Serious, or Violent, or Chronic, 23% of low risk, 34% of moderate risk, and 35% of high or very high risk youth recidivated.

Being a Serious, or Violent, or Chronic offender is correlated with recidivism after taking into account youths' final YLS risk level for low and moderate risk youth. This was not the case, however, for youth assessed as high or very high risk on their closing YLS. At low and moderate YLS risk levels, Serious, or Violent, or Chronic youth recidivated at a much higher rate than their counterparts (e.g., 23% vs. 8% for low risk youth). Serious, or Violent, or Chronic youth assessed as high or very high risk recidivated at a slightly higher rate than their counterparts (e.g., 35% vs. 27%); however, this difference was not statistically significant.²⁷

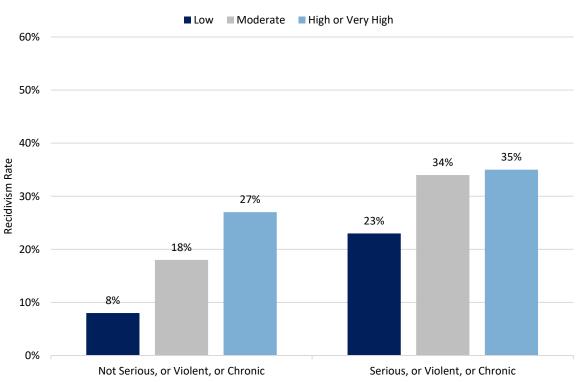


Figure 28: Final YLS Risk Level and Recidivism by Serious, or Violent, or Chronic Status, Juveniles Closed, 2020

²⁷ The lack of statistical significance may be due to the relatively small sample sizes of youth assessed as high or very high risk to reoffend at closing (89 youth who were not serious or violent or chronic vs. 74 youth who were either serious, violent, or chronic). Regardless, a statistically insignificant relationship suggests that when a youth is assessed as high or very high risk to reoffend, the designation of serious, violent, or chronic does not significantly change the youth's likelihood of recidivism.

Risk Level Change Between First and Final YLS Assessments and Recidivism

This subsection examines both the first and final YLS assessments to gauge the relationship between risk level change and recidivism. Only 55% (6,182/11,167) of juveniles closed in 2020 met the criteria for inclusion in these analyses.²⁸ Any conclusions drawn are, therefore, preliminary and will await confirmation when there is fuller data available in future recidivism reports.

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-two 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 assessment.

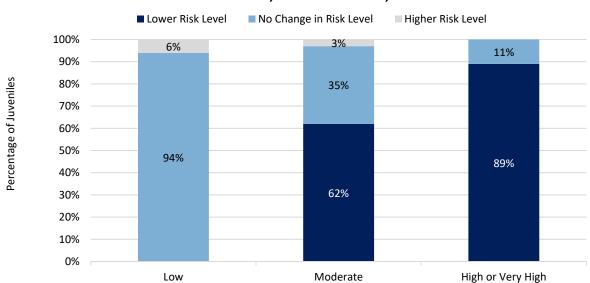


Figure 29: Change in YLS Risk Level by Risk Level of First YLS Assessment, Juveniles Closed, 2020

²⁸ In total, 55% (6,182/11,167) of juveniles closed in 2020 met the criteria for inclusion in this section: a final YLS 2.0 assessment within six months before or 60 days after closing with a previous YLS 2.0 assessment that occurred at least 90 days before the final assessment.

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 (15% vs. 23%). Youth assessed as moderate risk in their first YLS who had no change in risk level, in turn, recidivated at a lower rate than youth first assessed as moderate risk whose risk level had increased in their final YLS (23% vs. 31%). 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 (25% vs. 29%). 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 (23% vs. 6%).

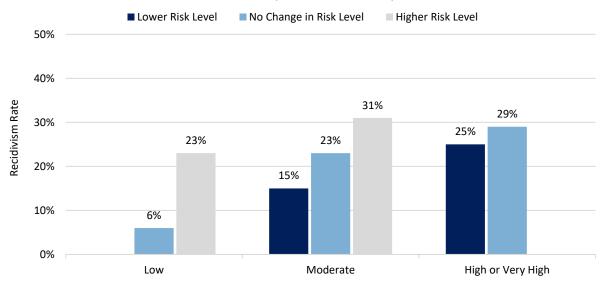


Figure 30: Change in YLS Risk Level and Recidivism by Risk Level of First YLS Assessment, Juveniles Closed, 2020

Study Limitations

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 reoffending. 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—are expected to vary from county to county.²⁹ 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" (2011-2020) are consistently below "pre-JJSES" rates (2007-2010), and there were notable declines in recidivism beginning in 2018. Further research is needed to determine if this is a result of the system improving. It is also possible that changes in the characteristics of juveniles closed are responsible for declining recidivism rates.³⁰

The 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 report 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 reoffending 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 57% of juveniles closed in 2020 had a final YLS assessment within six months of their juvenile closure.³¹ There is a substantial amount of missing data. This is noteworthy because it is possible that youth with a YLS assessment differ from those who did not have a YLS assessment. For example, a higher percentage of youth with a final YLS assessment recidivated than youth without a final YLS assessment (14% vs. 11%). 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.

²⁹ Mulvey, E.P., Schubert, C.A., and Hawes, S. (2015). Benchmarking Pennsylvania's Juvenile Recidivism Rate. Pennsylvania Commission on Crime and Delinquency.

³⁰ 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 the 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.

³¹ 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 five to six 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 youth 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.

While the YLS 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 circumstances surrounding the delinquency allegation and case processing practices could be part of the explanation for declining recidivism rates over the last few years.

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 youth's identifying information pertaining to that case was "erased" and was therefore not available for analysis. Consequently, youth 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 JCJC's ability to calculate recidivism rates.

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 "cause" recidivism. There are many factors which contribute to producing complex outcomes such as recidivism which cannot be measured and controlled statistically. For example, the level of surveillance and arrest practices of the youth's home jurisdiction and judges' perceptions of culpability affect the likelihood of recidivism but are not routinely measured and therefore could not be included in our analyses. 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. Because 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.