

Students' Experiences with the Juvenile and Criminal Justice Systems In and Out of School

A Longitudinal Analysis of Pittsburgh Public School Students, 2010–2018



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TABLE OF CONTENTS

Definitions	3
Acronyms	4
Introduction	4
Key Findings	6
Methodology	7
Study Population	7
Data Sources	7
Data Analysis and Results	8
Juvenile Court Allegations	8
Demographics	9
Allegation Type	11
Subsequent Juvenile Justice System Involvement	12
Academic Outcomes	12
Impact of First Allegations on Academic Performance, Suspensions, and Absences	16
Human Services Involvement	19
Criminal Justice Outcomes	21
Racial Disparity among Groups with Subsequent Criminal Justice Involvement as an Adult	23
Discussion and Practical Implications	23
School and County Interventions	23
APPENDIX A: Methodology	26
Data cleaning	26
Limitations of the data and analyses	26
Student Grouping	27
GPA Calculation	27
APPENDIX B: Educational Outcomes and Performance by Grade	28
APPENDIX C: Educational Outcomes and Performance, Impact of First Allegation	31
APPENDIX D: Program Utilization by Allegation source	32
APPENDIX E: Population Eligible for Criminal Justice Outcomes as an Adult	33

DEFINITIONS

Allegation: The document submitted to the juvenile probation office by the law enforcement officer or, in a rare case, by a private citizen, that alleges a juvenile has committed an act of delinquency.

Assisted Housing: Low-income housing for individuals receiving housing assistance, administered locally by the Housing Authority of the City of Pittsburgh and the Allegheny County Housing Authority.

Behavioral Health Services: Mental health and substance use disorder prevention and treatment.

Child Welfare (as a child): Children and youth under age 18 with an open child welfare case. Includes individuals receiving home and community-based services, in an out-of-home placement, and/or being otherwise supported by an assigned CYF caseworker.

DHS Housing Support: Prevention services, support services and/or housing for individuals and families who are homeless or at risk of becoming homeless. Services are provided by DHS and DHS-contracted providers and include housing assistance, case management, prevention and outreach.

Felony: The most serious type of criminal offense.

Juvenile: In Pennsylvania law, a child or youth who is 10 years old but not yet 21 years old.

Juvenile Court: Court having jurisdiction over cases involving a child or youth who is 10 years old and is not yet 21 years old who is alleged to have, upon or after their 10th birthday, committed a delinquent act before reaching age 18 or who is alleged to have violated the terms of juvenile probation prior to termination of juvenile court supervision.

Mental Health: Individuals receiving a publicly funded (Allegheny County or Medicaid managed care/HealthChoices) mental health service. Includes both clinical services, such as individual and group therapy, and non-clinical services, such as case management and peer support.

Misdemeanor: A less serious criminal offense.

Substance Use Disorder Treatment: Individuals receiving any substance use disorder (i.e., drug and alcohol) services that are paid for by the County or HealthChoices (i.e., Medicaid managed care). Includes both clinical services, such as individual and group therapy, and non-clinical services, such as case management and peer recovery support.

Summary Offense: An offense of a minor nature that normally carries a less serious penalty, such as a fine or community service.

Supplemental Nutrition Assistance Program (SNAP): A program through which individuals make food purchases at grocery stores using a SNAP card. Must meet income eligibility requirements.

Supplemental Security Income (SSI): SSI is a federal program that provides monthly cash payments to people who are 65 or older and individuals of any age (including children) who are blind or disabled. Must meet income eligibility requirements.

Temporary Assistance for Needy Families (TANF): TANF provides cash assistance to pregnant women, dependent children and their parents, and other relatives who live with and care for dependent children. Must meet income eligibility requirements.

ACRONYMS

DHS: [Allegheny County] Department of Human Services

GPA: Grade point average

PaJCMS: Pennsylvania Juvenile Case Management System

MDJS: [The Pennsylvania] Magisterial District Judge System

PERC: Pursuing Equitable and Restorative Communities initiative

PPS: Pittsburgh Public Schools [District]

SJP: School Justice Program

SY: School Year (e.g., SY 2010/2011)

INTRODUCTION

Police forces were first introduced into school systems in the 1950s as a means of increasing safety by proactively curbing crime on school grounds.¹ The practice has become increasingly common, and today, more than 60% of U.S. high school students attend a school that has a law enforcement officer.²

Locally, Pittsburgh Public Schools employ more than 20 police officers, who are tasked with both preventive activities — like mentorship and relationship-building — and law enforcement duties when the need arises. Pennsylvania state law requires school administrators to immediately notify police when certain offenses, such as weapon possession, possession of illegal substances and disorderly conduct, occur on school property.³ The agreement between Pittsburgh Public Schools and law enforcement gives school officers the authority to hand out citations and make arrests.⁴

While police forces were initially introduced into schools as a way of deterring criminal behavior, studies have found that law enforcement in schools has little impact on safety and, in some cases, may lead to increases in reports of criminal behavior.⁵ A report by the Justice Policy Institute found that, even controlling for a school

1 [A Brief History of School-Based Law Enforcement. Texas School Safety Center.](#) February 2016.

2 [Lindsay, Constance A.; Lee, Victoria; and Lloyd, Tracey. "The Prevalence of Officers in US Schools." Urban Institute.](#)

3 [TITLE 24 P.S. EDUCATION ARTICLE XIII-A. SAFE SCHOOLS](#)

4 [Benzig, Jeffrey. "From School to Jail: How Hundreds of Kids Get Arrested in Pittsburgh Schools Every Year."](#)

5 [Javdani, S. "Policing Education: An Empirical Review of the Challenges and Impact of the Work of School Police Officers." Am J Community Psychol, 63: 253–269 \(2019\).](#)

district's poverty level, schools with officers had five times as many arrests for disorderly conduct as schools without them.⁶ Another study found that when school systems increased the number of police in their schools, schools also documented more crimes involving weapons and drugs and reported a higher percentage of their non-serious violent crimes to law enforcement.⁷

Arrests can have lasting consequences for students. In the short term, arrests can lead to missed school time, worse academic outcomes, and negative perception of students by teachers and peers.⁸ In the long term, early contact with the juvenile justice system is associated with unemployment,⁹ worse physical and mental health,¹⁰ and involvement with the adult criminal justice system.¹¹

Despite extensive research on the impacts of juvenile justice involvement, we know little about differences in outcomes based on where the arrest of a youth happens — in or out of school — and how the outcomes of students involved with the juvenile justice system differ from those who have not been arrested. We also wanted to explore the interplay of race, gender and students' arrest history given the disproportionate representation of Black males in the criminal justice system nationally and locally. Finally, we wanted to know more about students' involvement with human services in order to better understand how their experiences differ and where there might be gaps in services and supports.

To explore these questions, we take a descriptive longitudinal look at three groups of students who were registered in Pittsburgh Public Schools (PPS) in school year (SY) 10/11 and follow them through August 2018. It is important to note that PPS has made substantial changes in their disciplinary practices since SY 10/11, some of which are detailed at the end of this report. The effects of those new efforts over time are not examined in this analysis.

The three groups of students examined are:

- students arrested in school
- students arrested outside of school
- students with no arrests

In this analysis, we describe students' juvenile court allegations, academic outcomes, involvement with publicly funded human services and subsequent contact with the adult criminal justice system. Whenever possible, the results are presented by sex and race. This is in accordance with previous research showing disparities in arrests, school disturbances and academic outcomes.

6 http://www.justicepolicy.org/uploads/justicepolicy/documents/educationunderarrest_fullreport.pdf

7 Na, Chongmin and Gottfredson, Denise C. "Police Officers in Schools: Effects on School Crime and the Processing of Offending Behaviors." *Justice Quarterly*, 30:4, 619–650 (2013).

8 Lindsay, Constance A.; Lee, Victoria; and Lloyd, Tracey. "The Prevalence of Officers in US Schools." Urban Institute.

9 Carter, Angela. "The Consequences of Adolescent Delinquent Behavior for Adult Employment Outcomes." *Journal of Youth and Adolescence*, 48(1): 17–29 (2019).

10 Barnert, Elizabeth, et al. "How Does Incarcerating Young People Affect Their Adult Health Outcomes?" *Pediatrics* 139(2) (2017).

11 Colman, Rebecca. "Long-Term Consequences of Delinquency: Child Maltreatment and Crime in Early Adulthood in New York, 1990–2006." Ann Arbor, Mich.: Inter-university Consortium for Political and Social Research [distributor], April 4, 2011.

KEY FINDINGS

Juvenile Court Allegations

- One out of four PPS middle and high school students registered in SY 10/11 had at least one allegation to juvenile court.
 - Of the students with allegations, 37% of the allegations had been made by PPS police.
 - Allegations from PPS police were much more likely to be for lower-level offenses than allegations from other sources.
- Students with allegations were more likely to be male and Black than the student population in general. Eight of 10 students with allegations were Black, while only 58% of the total student body was Black.

Academic Outcomes

- Students with any allegation had a higher number of school absences and suspensions throughout their time in school than those with no allegations.
- For students with allegations from PPS police, school absences and suspensions increased during the same school year as the first allegation; grade point averages (GPAs) decreased at the same time.

Human Services Involvement

- Students with at least one allegation were more likely than students with no allegations to be involved with the child welfare system, mental health services and assisted housing, as well as enrolled in public benefits.

Adult Criminal Justice Involvement

- Although school allegations may be different in character than allegations occurring outside of school, the outcomes are similar.
 - Fifty-three percent of students with PPS allegations ended up in the criminal justice system as young adults compared to 58% of those with allegations made out of school (which tend to be more serious).
 - Only 14% of students without allegations while in school were found to have criminal justice charges filed later.
- Regardless of allegation source and even if they had no allegations, Black students were overrepresented among those with subsequent criminal justice involvement.

METHODOLOGY

Study Population

At the end of SY 10/11, 14,202 middle and high school students (grades 6 to 12) were enrolled in PPS. Student data include student ID number (assigned by school), first name, last name, sex, race, date of birth, school and grade. Using date of birth, we calculated each student's age at the end of the school year.

We removed 113 students from the sample (0.7% of the original cohort) due to data duplication, missing data or inconsistent data entry. See **Appendix A** for more details. The total number of students remaining was 14,089. We divided these students into three groups in order to study differences in outcomes:

- Group A: Students who had their first (or only) allegation made by PPS police to juvenile court from 1/1/2000 through 8/31/2018.
- Group B: Students who had their first (or only) allegation made to juvenile court by an allegation source other than PPS police from 1/1/2000 through 8/31/2018. These sources include City of Pittsburgh or other police and district magistrates.
- Group C: Students without allegations.

For each group, we studied: academic performance in 7th, 9th and 12th grades; involvement in human services programs such as child welfare, assisted housing and mental health services; and involvement in the criminal justice system as an adult. For Groups A and B, allegations for Failure to Comply (i.e., failure to meet requirements set forth by the juvenile probation office for a summary offense) are not included in this analysis.

Data Sources

The Pennsylvania Juvenile Case Management System (PaJCMS)

The Pennsylvania Juvenile Case Management System “enables juvenile probation offices to maintain electronic records of juvenile offenders, process allegations of delinquency, monitor compliance with conditions of supervision, and maintain juvenile-specific information.”¹² DHS has access to the main tables of the PaJCMS, which were used to extract information about juveniles' cases, including allegation source and charges.

The Pennsylvania Magisterial District Judge System (MDJS)

Magisterial district courts utilize the Magisterial District Judge System, a database that tracks the cases filed in the district courts and is capable of compiling aggregate local and statewide statistics in several important categories. DHS has access to the main tables of the MDJS, which were used to observe criminal justice involvement as an adult for the student cohort.

¹² <https://www.jcjc.pa.gov/Program-Areas/Information-Technology/Pages/default.aspx>

Pittsburgh Public Schools Data

Since SY 04/05, PPS has sent daily data to DHS. Data include personal identifiers, academic achievement, attendance, specialized programs and standardized test results. These data are integrated in the Allegheny County Data Warehouse.

Allegheny County Data Warehouse

The Data Warehouse brings together and integrates client and service data from a wide variety of sources both internal and external to the County. It was created by consolidating publicly funded human services data (e.g., behavioral health, child welfare, intellectual disability, homelessness and aging) and, over time, expanded to include data from other sources. It now includes 21 categories of data. (For a full list of data sources as well as additional information about the Data Warehouse, please see [Allegheny County Data Warehouse](#).)

In addition to academic performance and school attendance, we extracted information from the data warehouse about students' involvement in the Allegheny County Jail as well as involvement in human services such as child welfare and behavioral health.

DATA ANALYSIS AND RESULTS**Juvenile Court Allegations**

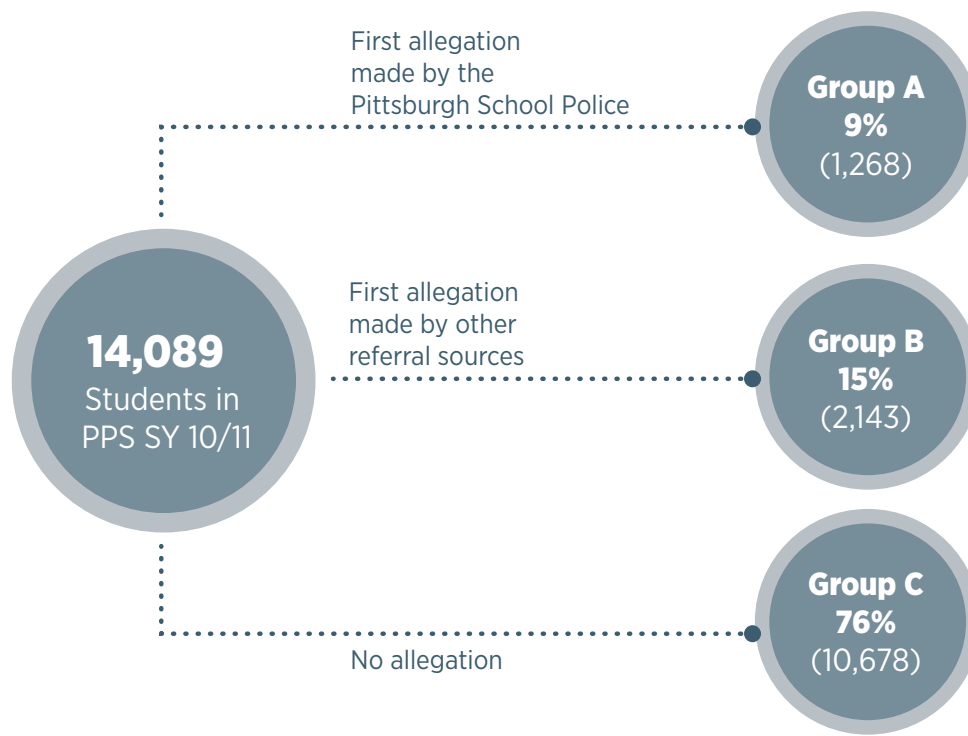
Among the 14,089 middle and high school students in our study population:

- 9% (1,268) had their first (or only) allegation made by PPS police to juvenile court sometime during Jan. 1, 2000, through Aug. 31, 2018.
- 15% (2,143) had their first (or only) allegation made to juvenile court by an allegation source¹³ other than PPS police sometime during Jan. 1, 2000, through Aug. 31, 2018.
- 76% (10,678) had no allegations.

Figure 1 illustrates the three groups.

13 Around 72% of the allegations made to the juvenile court by other allegation sources were made by local police, and the remaining 28% corresponds to allegations made by the magistrate.

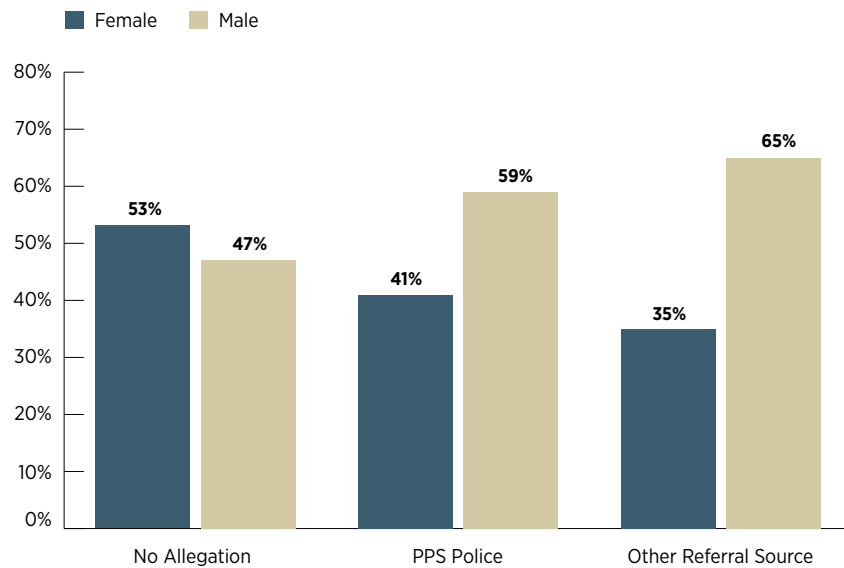
FIGURE 1: Total population and allegation groups



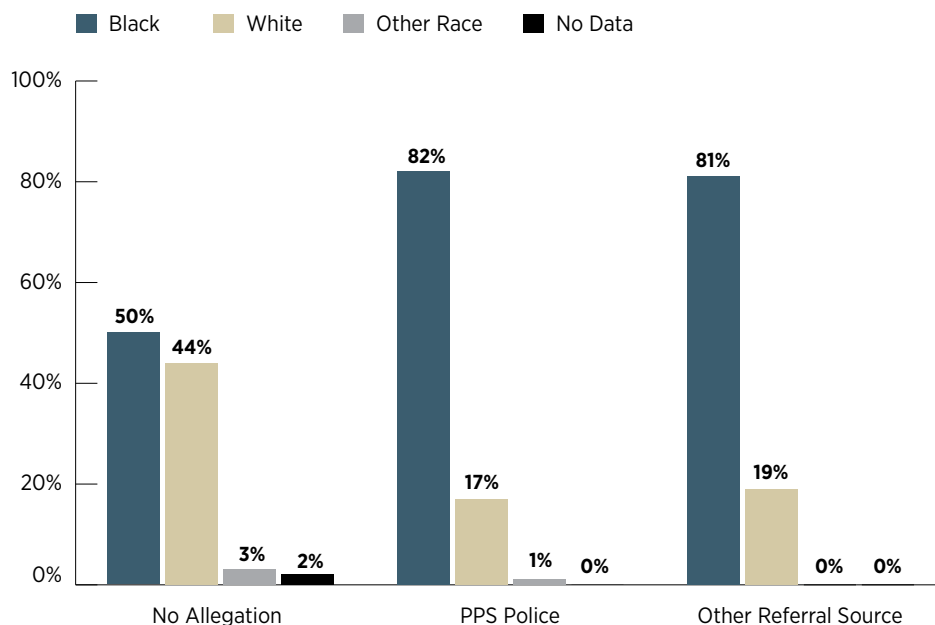
Appendix A includes detailed examples of the two first groups (a total of 3,411 students).

Demographics

The population of all PPS students (14,089 in SY 10/11) was 51% male and 49% female. As shown in **Figure 2**, this distribution is similar for students without allegations (47% male and 53% female). Almost 60% (754, N=1,268) of those with allegations by PPS police were male, as were 65% (1,390, N=2,143) of those with allegations made by sources outside of the school environment.

FIGURE 2: Sex of individuals by allegation source

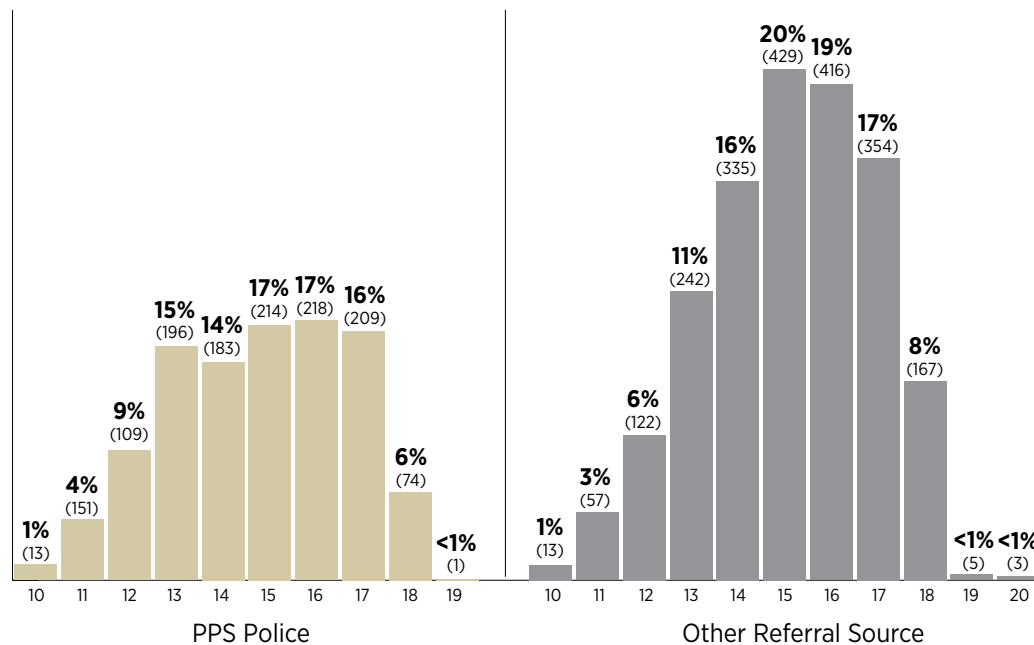
In SY 10/11, almost six of 10 students in the total PPS population were Black (8,120, N=14,089). As shown in **Figure 3**, 50% of students without allegations (5,343, N=10,678) were Black. However, 82% (1,043, N=1,268) of students with an allegation by the PPS police and 81% (1,734, N=2,143) of the students alleged by other allegation sources were Black.

FIGURE 3: Race of individuals by allegation source

Due to rounding, some percentages do not total 100%.

We explored age at the time of first allegation and found that about 60% (766, N=1,268) of the students with an allegation by PPS police were 15 or younger at the time of their first arrest. The percentage was slightly lower, 57% (1,198, N=2,143), for other allegation sources.

FIGURE 4: Age at first allegation by allegation source¹⁴



Allegation Type

Seventy percent (893, N=1,268) of the allegations made by PPS police were misdemeanors, while the remaining 30% (375, N=1,268) were classified as felonies.¹⁵ In contrast, when charged by another allegation source, 43% (787, N=1,843)¹⁶ of the allegations were misdemeanors, 42% (767, N=1,843) were felonies and the remaining 16% (289, N=1,843) were charges for summary offenses.¹⁷

The four most common charges per allegation source are shown in **Table 1**. It is important to point out that whereas aggravated assault is typically defined as an assault causing serious bodily injury, in a school setting it may have little to do with the severity of the assault. Because public servants (including teachers) enjoy protected status, any physical contact against a teacher may be deemed aggravated assault.

14 Students 18 years and older who appear in this dataset were referred for alleged offenses committed when they were younger than 18.

15 As any student may have multiple charges, we focused on the most serious charge.

16 2,143 first allegations were made by other allegation sources during the time studied. Eighty-six percent of these allegations (1,843) were graded as a felony, misdemeanor or summary. The remaining are ungraded charges.

17 These summary offenses were for failure to comply cases and/or non-payment of fines. These charges are now considered ungraded but were considered to be summary offenses during part of the study period.

TABLE 1: Most serious charge by allegation source and grade¹⁸

FELONY		MISDEMEANOR	
PPS POLICE (N=375)	OTHER ALLEGATION SOURCE (N=767)	PPS POLICE (N=893)	OTHER ALLEGATION SOURCE (N= 787)
Aggravated assault on a teacher (62%)	Robbery & related (18%)	Simple assault (27%)	Simple assault (33%)
Aggravated assault (19%)	Aggravated assault (16%)	Drug charges (23%)	Retail theft (10%)
Drug charges (3%)	Burglary (16%)	Weapons on school property (24%)	Theft & related-conspiracy/attempt (10%)
Robbery & related (3%)	Drug charges (9%)	Disorderly conduct (10%)	Drug charges (10%)

Subsequent Juvenile Justice System Involvement

Fifty-four percent (1,844, N=3,411) of the students had a second or subsequent allegation. Whether students' first referral was by PPS police or another allegation source, they fared almost the same when it came to likelihood of additional referrals after the initial one. Fifty-two percent (660, N=1,268) of the students whose first allegation was made by PPS police had another allegation, as did 55% (1,184, N=2,143) of the students alleged for the first time by another allegation source (Table 2).

TABLE 2: Percentage of students with additional arrest by first allegation source

NUMBER OF REFERRALS	FIRST REFERRAL MADE BY:	
	PPS POLICE	OTHER ALLEGATION SOURCES
2–3 referrals	60% (394)	61% (270)
4–5 referrals	24% (157)	23% (273)
6–10 referrals	15% (100)	14% (169)
More than 10 referrals	1% (9)	2% (22)
Total	100% (660)	100% (1,184)

Academic Outcomes

To determine if there were differences in academic performance among the three student groups, we obtained information about their academic performance, absences and suspensions in 7th, 9th and 12th grades. We selected these years because they represent three important milestones in the students' education trajectory: middle school, starting high school and last grade before graduation.

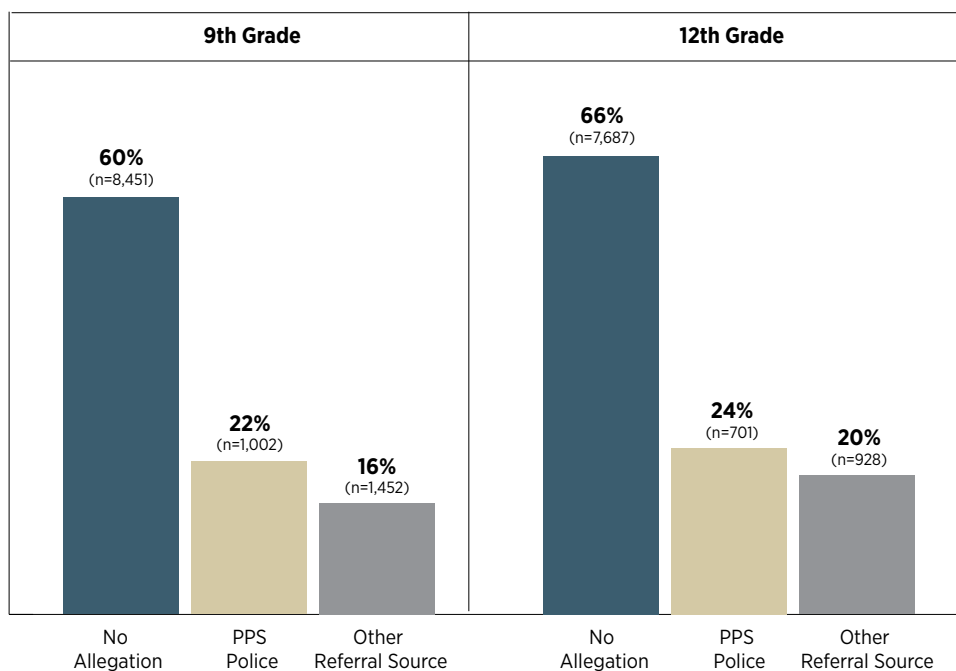
¹⁸ Drug charges include several offenses such as: drug possession; drug paraphernalia; the manufacture, delivery and possession of a regulated substance; possession of marijuana small amount, among others. These are considered felonies or misdemeanors according to the severity of the offense.

Because of school transfers and dropouts, we do not have data for all students in the cohort. **Appendix B** shows the number of students with available information for each grade. Additionally, students who fail school, who are suspended for long periods of time or who drop out are no longer visible in grade 12; this means that we may be missing data about some of the highest-risk individuals.

Academic performance

We evaluated academic performance using final GPA by grade level (see **Appendix A** for how final GPA was calculated and **Appendix B** for additional education tables/figures). More than 60% of students without an allegation had a GPA of 2.5 or greater in 9th and 12th grades, compared to around 20% for those who had at least one allegation (**Figure 5**). This is an important metric, as a minimum GPA of 2.5 is required in order to qualify for a Pittsburgh Promise scholarship.¹⁹ In other words, students who have been arrested are much less likely to receive funding and other supports that would make college a realistic goal.

FIGURE 5: Percentage of PPS students in 9th and 12th grades with a minimum GPA of 2.5, by allegation source

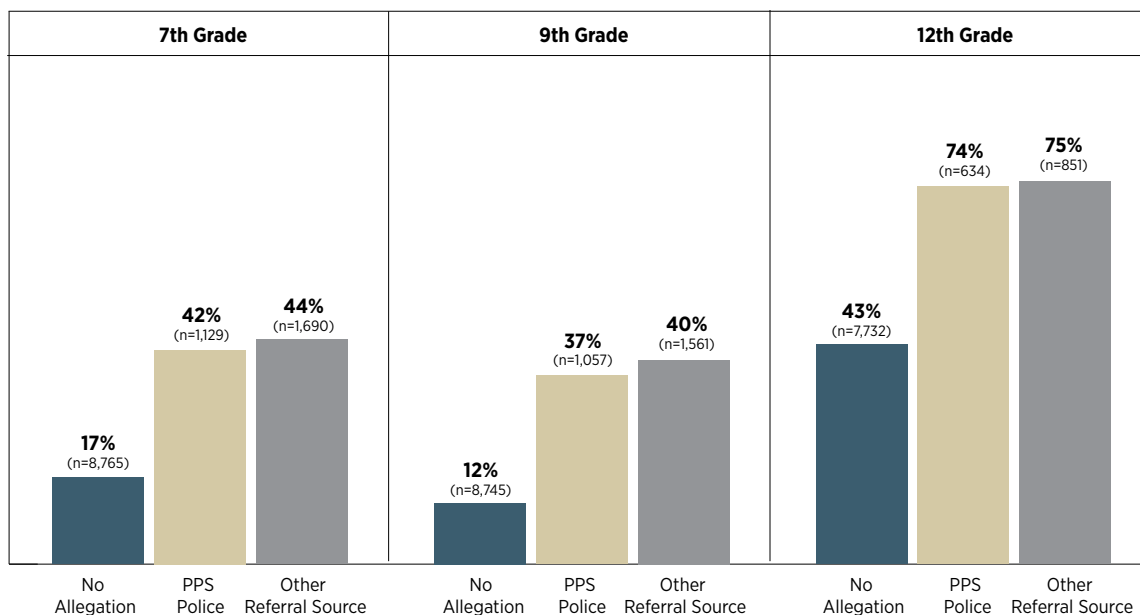


¹⁹ The [Pittsburgh Promise](#) promotes high educational aspirations among urban youth, funds scholarships for post-secondary access, and fuels a prepared and diverse regional workforce.

Absences

We observed the rate at which students were chronically absent in 7th, 9th and 12th grades. Chronic absence²⁰ is associated with poor academic and behavioral outcomes.²¹ As shown in **Figure 6**, the percentage of students with chronic absence is more than double for 7th- and 9th-grade students with a referral compared to those without an allegation. In 12th grade, the percentage of students with chronic absences was higher for all three cohorts; however, the percentage was significantly higher for students with an allegation.

FIGURE 6: Percentage of students with chronic absences by grade and allegation source



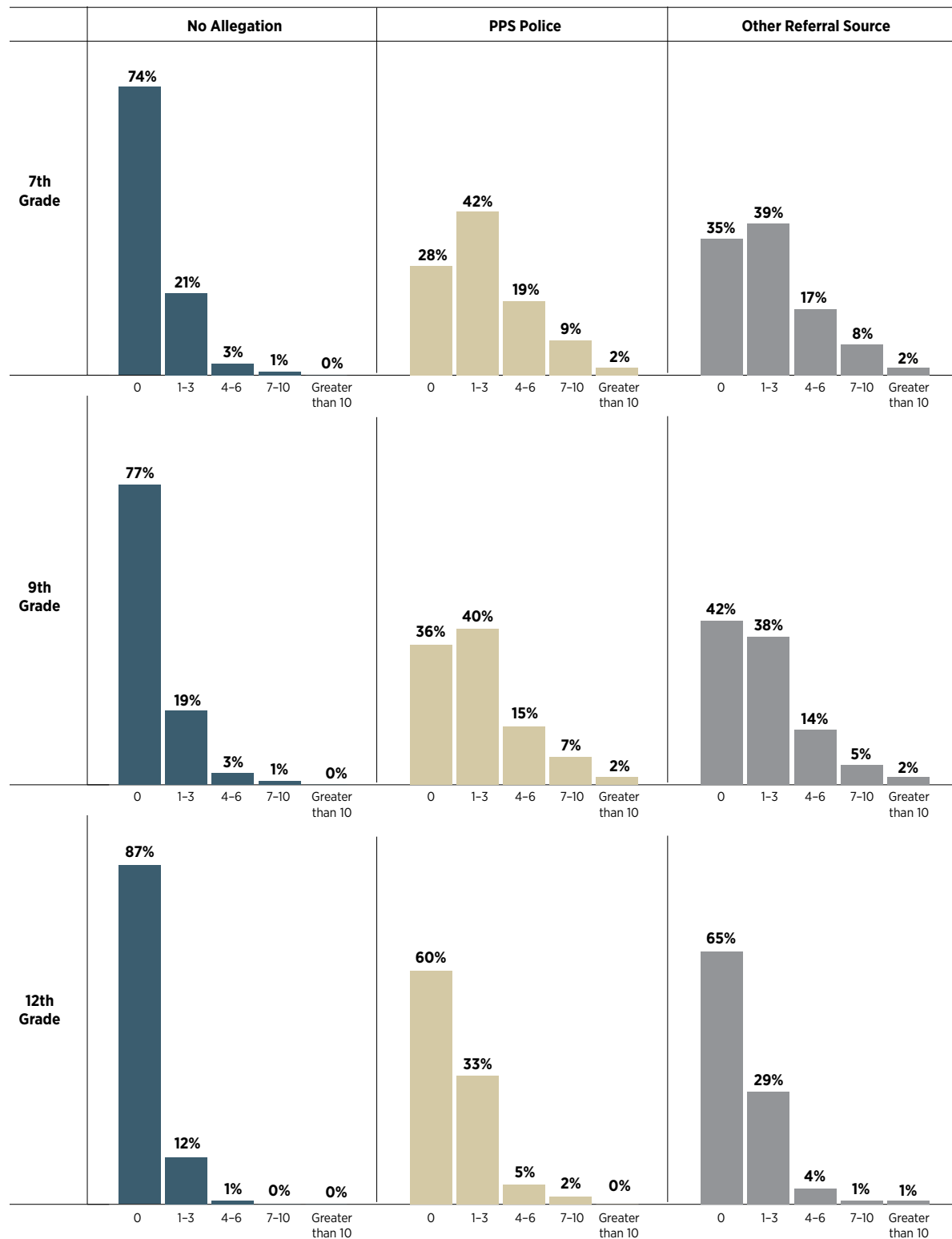
Suspensions

The three cohorts differed significantly from one another in terms of out-of-school suspensions in all grades; students with allegations from any source have a more frequent suspension rate than students without an allegation. In all three grades, students who had their first allegation made by the PPS police had, on average, a higher rate of out-of-school suspensions. We also see that PPS police-referred students have a higher percentage of four or more out-of-school suspensions than those referred by another source or not at all (**Figure 7**). The rate of suspensions decreased over time for all three cohorts.

20 Chronic absence is an absence rate of 10% of school days or more. Absence rate is calculated as: Total number of absences/ Total enrolled days and is only calculated for students with 30 or more enrolled days.

21 Center for Research in Education and Social Policy. "[Chronic Absenteeism and its Impact on Achievement](#)." University of Delaware (2018).

FIGURE 7: Percentage of students with out-of-school suspensions by grade and allegation source



Consistent with previous data, the average and median number of suspended days is largest for students with a PPS allegation and lowest for those without a juvenile arrest (**Table 3**).

TABLE 3: Out-of-school suspension days by allegation source and grade

GRADE	ALLEGATION SOURCE	N	MINIMUM	MAXIMUM	AVERAGE	MEDIAN
7th grade	No allegation	9,182	0	35	0.9	0
	PPS police	1,178	0	52	5.3	3
	Other allegation sources	1,799	0	40	4.2	2
9th grade	No allegation	9,225	0	37	0.9	0
	PPS police	1,144	0	37	4.8	3
	Other allegation sources	1,768	0	32	3.7	1
12th grade	No allegation	8,561	0	27	0.5	0
	PPS police	852	0	36	2.3	0
	Other allegation sources	1,180	0	39	1.8	0

Impact of First Allegation on Academic Performance, Suspensions and Absences

Given the association between school absence, suspensions and arrests, we wanted to examine the temporal relationship between them. For students with an allegation, we analyzed data on their academic performance for the school year prior to the allegation, the school year during which the allegation occurred, and the school year after the allegation.²²

As education data is only available for SY 04/05 through SY 16/17 at the time of this report, we do not have complete data for students whose first allegation was pre/during SY 04/05 or during/after SY 16/17. In addition, some students were not enrolled in PPS for three consecutive years, meaning that their data are also incomplete. The population with complete available information is presented in **Table 4**.

²² A school year runs from August through June.

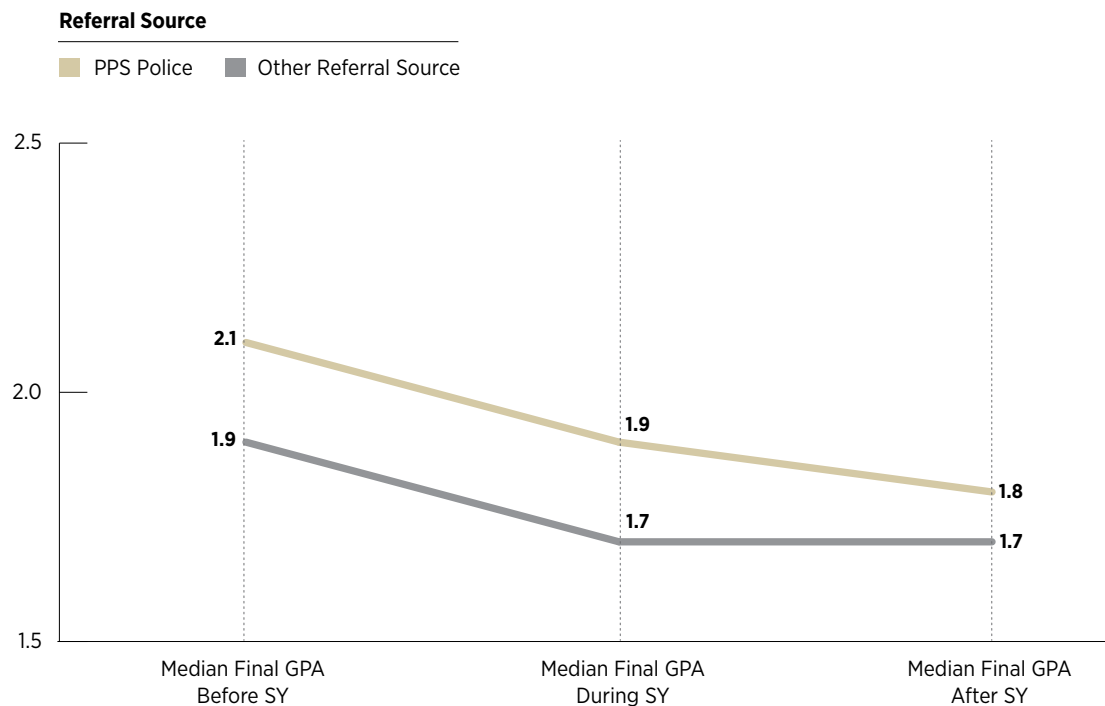
TABLE 4: Population with available GPA, suspensions and absences information, by grade

	FIRST ALLEGATION BY PPS POLICE	FIRST ALLEGATION BY ANOTHER ALLEGATION SOURCE
Total original population	1,268	2,143
Population with complete information of GPA before, during and after allegation date	515 (40%)	719 (33%)
Population with complete information of absences before, during and after allegation date	945 (74%)	1,170 (54%)
Population with complete information of out-of-school suspensions before, during and after allegation date	913 (72%)	1,154 (54%)

As we illustrate below, in the school year when the student first received an allegation from any source, GPA was lower, absences were higher and out-of-school suspensions were higher, on average, compared to the previous school year (i.e., before an allegation). See **Appendix C** for outcome data.

GPA was lower for 64% (329, N= 515) of PPS police-referred students and 63% (454, N=719) of other source-referred students in the school year of the allegation, compared with the previous year. In addition, the median GPA for students with allegations continued to fall the year after the first allegation (**Figure 8**).

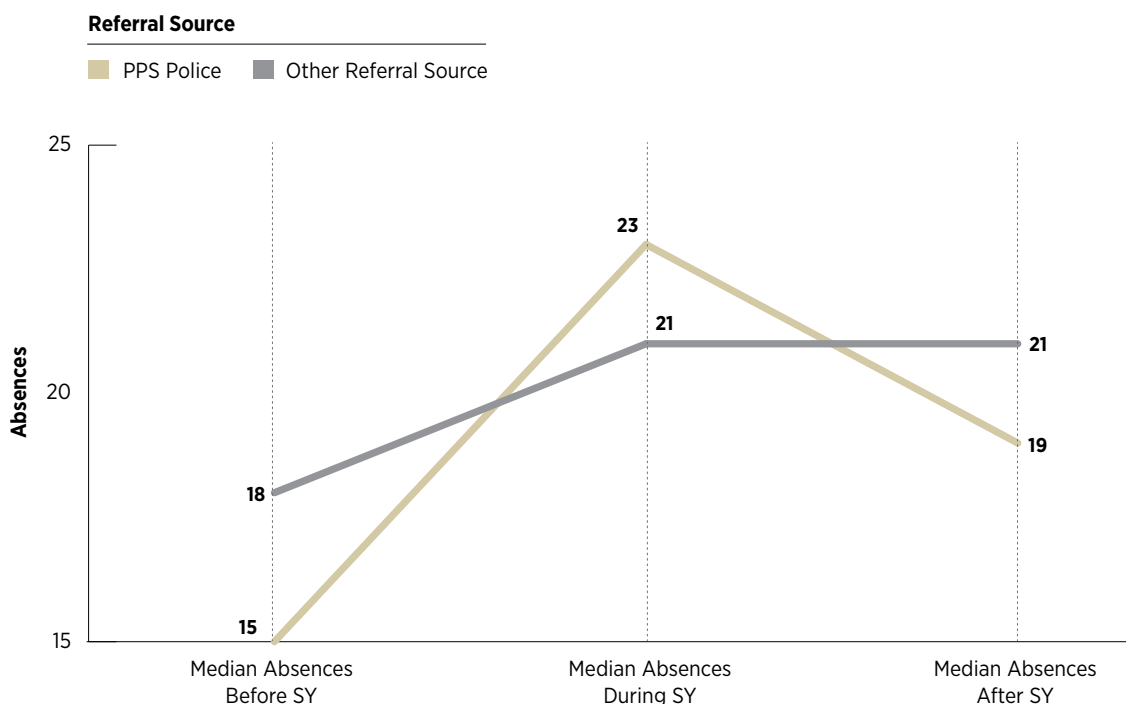
FIGURE 8: Median GPA before, during and after first allegation



The number of absences increased during the school year of the allegation compared with the previous year (**Figure 9**). Sixty-seven percent (633, N=945) of students whose first allegation was made by PPS police saw an increase in absences; for other allegation sources, this number was 58% (683, N=1,170).

Compared to other allegation sources, which are associated with a relatively small increase in absences, a PPS police referral is associated with a greater increase in the number of individual absences. Determining a cause-and-effect relationship (whether problem behaviors relating to absences result in PPS police allegations in school or whether the allegation incident leads to an escalation in absences) is beyond the scope of this report.

FIGURE 9: Median absences before, during and after first allegation

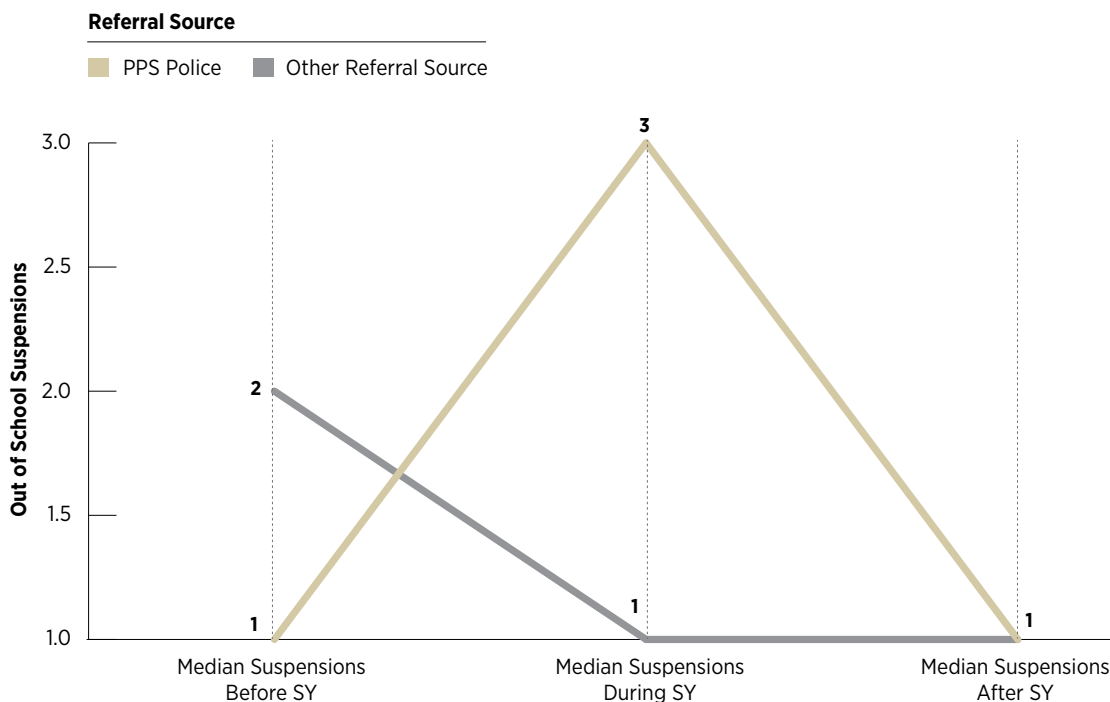


The number of out-of-school suspensions increased for those students who had their first allegation made by PPS police, with 60% (545, N=913) showing an increase during the school year of allegation compared to the previous year. Suspensions decreased, however, in the school year after the first allegation by PPS police. For other allegation sources, 40% (467, N=1,154) saw a decrease during the school year of allegation compared to the previous year (**Figure 10**).

More analysis is needed to determine the cause(s) of these trends. It may be that the decrease in suspensions during the school year after students' first allegation by PPS police is associated with an increase in absences for individual students, or that schools tend to respond with allegations rather than suspensions when someone has already received a first allegation. Or it may be that individual students with lengthy suspensions may not be

eligible for new suspensions, and thus do not show up in these results. Another possible explanation is that problem behaviors escalate from minor disciplinary issues that warrant suspension to more serious behaviors that result in an arrest. It is possible that suspension rates decrease for individual students while the arrest rate increases over time and replaces suspensions.

FIGURE 10: Median out-of-school suspensions before, during and after first allegation



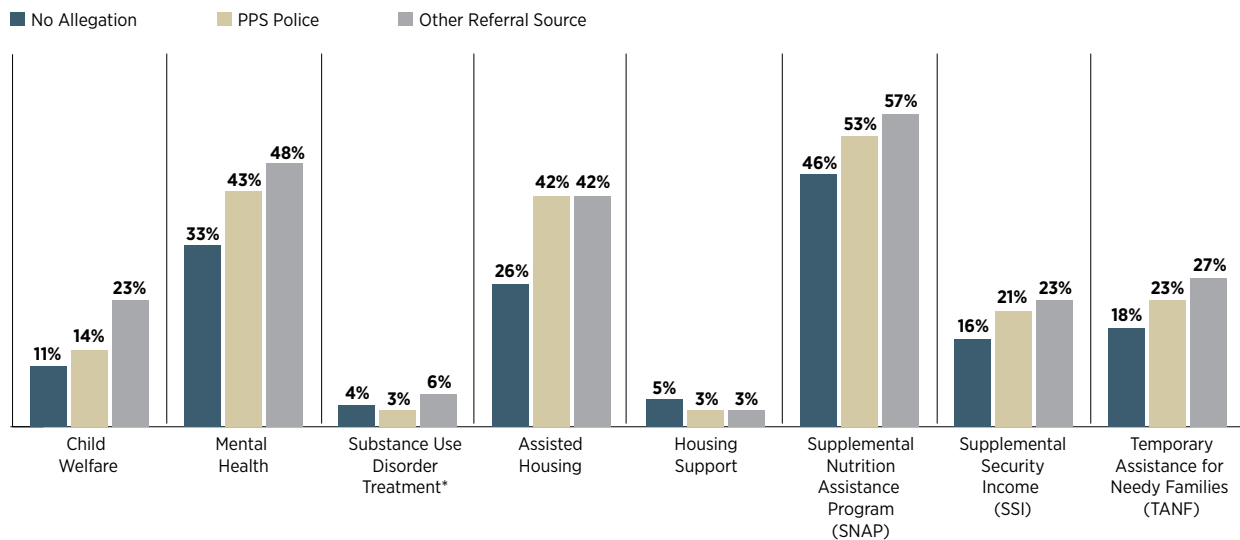
Human Services Involvement

Adverse childhood experiences (such as experiences that require involvement with child welfare) are associated with academic failure, problem behaviors in school and other settings, and later undesirable outcomes such as delinquency and/or mental health problems.²³ We investigated the extent to which students in the three groups had human services involvement (child welfare, mental health services, substance use disorder treatment, assisted housing and housing support) and enrollment in public benefits.²⁴ **Figure 11** displays the results. (See **Appendix D** for program utilization by allegation source and **Definitions** for more detailed information about programs.)

23 Baglivio, M. T.; Epps, N.; Swartz, K.; Sayedul Huq, M.; Sheer, A.; and Hardt, N. S. "The prevalence of adverse childhood experiences (ACE) in the lives of juvenile offenders." *Journal of Juvenile Justice*, 3(2) 1-17 (2014); Schilling, E. A., Aseltine Jr., R. H.; and Gore S. "Adverse childhood experiences and mental health in young adults: a longitudinal study." *BMC Public Health*, 7(30) (2007).

24 For students with at least one allegation, we analyzed service involvement prior to their earliest allegation. For students without an allegation, we analyzed their service involvement through 2018 (Prior to December 2018).

FIGURE 11: Human Services Involvement



Eleven percent of students without an allegation had previous involvement with the child welfare system (1,205, N=10,678). For those students whose first allegation was made by PPS police, 14% (177, N=1,266) had been active in the child welfare system prior to their first referral, as were 22% of all students (489, N=2,143) whose first point of contact with the justice system was through another allegation source.

Involvement in behavioral health services (mental health or substance use disorder treatment) was also lowest for students without an allegation; 34% (3,638, N=10,678) had received any mental health services. This is compared to 43% (543, N=1,268) for those students whose first allegation was made by PPS police and 48% (1,029, N=2,143) for those students whose first allegation was made by another allegation source. This may point to a potential discrepancy in how students are referred for mental health services. For example, a student with an allegation may be more likely to be referred to mental health treatment than a peer without an allegation who has similar needs. It may also point to potential differences in the level of need among the groups.

Enrollment in public benefits followed a similar pattern as human services involvement; students with an allegation were more likely than students without an allegation to be enrolled in SNAP, SSI and TANF.

Criminal Justice Outcomes

Before looking into the criminal justice outcomes of the student cohort, it is important to note that older students in the cohort have been adults for a longer period of time than younger students, and therefore have had more exposure time to the adult criminal justice system. See **Appendix E** for the age of students at the beginning of the study period and the number of years as an adult by the end of the study period.

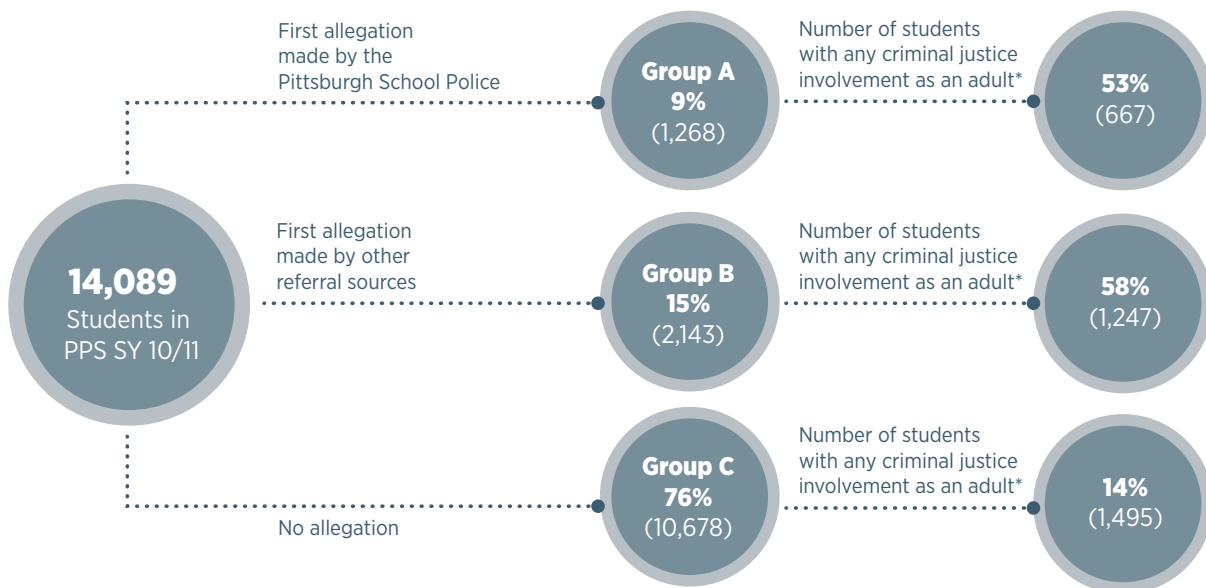
Disaggregating the results by allegation source shows that 99% of each group had been legally considered an adult (18+ years) for at least one year at the time of this analysis. This means that it was possible to study their criminal justice involvement as adults. **Figure 12** shows criminal justice outcomes for each cohort.

We found that:

- More than half of students whose first juvenile court allegation was by PPS (53%) (667, N=1,265) had been involved in the criminal justice system as an adult, either as identified through a criminal docket number in the magisterial district court or through a booking in the Allegheny County Jail.
- Fifty-eight percent (1,247, N=2,139) of those individuals whose first juvenile court allegation was by an allegation source other than PPS had been involved in the criminal justice system as an adult.
- As a comparison, only 14% (1,495, N=10,629) of the individuals who did not have an allegation during the time of the data collection were involved in the criminal justice system as an adult.

Though the exposure time as an adult differs, more than half of arrested juveniles had an adult criminal charge. Being arrested by allegation sources other than PPS police was associated with a slightly higher likelihood of ending up in the criminal justice system. One plausible explanation, based on the previous comparison of the seriousness of charges for the two groups, is that street crime is of a more serious nature than school crime. More serious charges are associated with longer and more frequent involvement in the justice system in the future.²⁵

FIGURE 12: Criminal justice involvement by cohort



*We include only students legally considered an adult (18+ years) for at least one year at the time of this analysis. For those whose first arrest was made by PPS police, 99% (1,265) were eligible to be in the criminal justice system as an adult. This number was 99% (2,139) and 99% (10,629), respectively, for students first referred by other allegation sources or students without allegations.

25 Loeber, R.; Farrington, D. P.; Stouthamer-Loeber, M.; and White, H. R. *Violence and Serious Theft: Development and Prediction from Childhood to Adulthood*. New York: Routledge (2008).

Racial Disparity among Groups with Subsequent Criminal Justice Involvement as an Adult

Of the 667 students who had an allegation made by PPS police and were subsequently involved in the criminal justice system, 86% were Black, despite Black students comprising only 58% of the student body.²⁶ Eighty-five percent of the 1,247 students with allegations made by other allegation sources and who had subsequent system involvement were Black. The disparity is also seen in students without a juvenile justice allegation; 73% of students from that group who had subsequent criminal justice involvement were Black.

FIGURE 13: Race of students without a juvenile justice allegation who have criminal justice involvement as an adult (N=1,495)

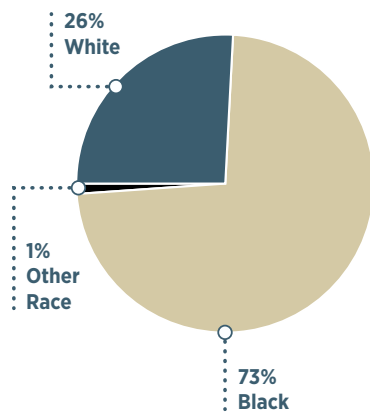


FIGURE 14: Race of students whose first allegation was made by another allegation source and who have criminal justice involvement as an adult (N=1,247)

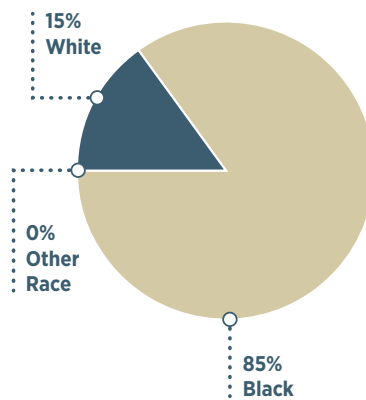
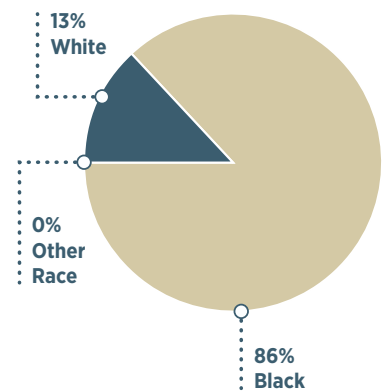


FIGURE 15: Race of students whose first allegation was made by PPS police and who have criminal justice involvement as an adult (N=667)



Analysis of the causes of this disparity are beyond the scope of this report. However, one possibility is that Black students may be subject to disciplinary bias, and once disciplined (or subject to allegations) might be labeled as more problematic in comparison to other students so that schools might fall back on more harsh disciplinary actions such as involving school police.

²⁶ A student is defined as having adult criminal justice system involvement if they have a criminal docket number in the magisterial district court or a jail booking in Allegheny County.

DISCUSSION AND PRACTICAL IMPLICATIONS

This analysis shows that arrests made by allegation sources other than PPS police were, in general, of a more serious nature than those within the school. More of those offenses were coded as felonies than misdemeanors. In school, however, PPS police allegations were more often for misdemeanors. Additionally, we found that students with one or more allegations had significantly higher involvement in most human services and with public benefits.

We found that students with PPS police allegations were almost as likely to have poor academic outcomes, subsequent juvenile justice involvement and future contact with the adult criminal justice system as students arrested in other settings (often for more serious offenses). The results show that the students alleged by both school police and other sources had significantly lower GPAs compared to students without allegations. Moreover, for students with PPS allegations, school absences and suspensions increased during the same school year as the first allegation; GPAs decreased at the same time.

School and County Interventions

School and County interventions have been put in place since the time period analyzed on this report. For example, in 2014, PPS received a \$3 million grant from the U.S. Department of Justice, which supported training by the International Institute for Restorative Practices for teachers at 22 schools.²⁷ The project, which operated during SY 15/16 and SY 16/17, was part of PPS's Pursuing Equitable and Restorative Communities initiative (PERC). Restorative practices are designed to improve school culture and relationships between students and teachers. They provide an alternative to school suspension and expulsion and are shown to reduce racial disparities in student discipline. A 2018 RAND report found that, on average, suspension rates and racial disparities in suspension rates were reduced in PERC schools.²⁸ In addition, teachers reported high buy-in to the practices and felt that the school climate had improved. In the fall of 2018, PPS adopted restorative practices throughout the district.²⁹

Elsewhere in Allegheny County, the School Justice Program (SJP) is a multidisciplinary effort involving the courts, law enforcement, education and mental health providers, initiated to implement a pre-arrest diversion program in partnership with the Woodland Hills School District, the Penn Hills School District and PPS's Oliver Citywide Academy. This program addresses low-level offenses under a behavioral health/restorative practice framework in which students charged with such offenses are diverted from the juvenile justice system and referred to appropriate restorative practices and/or behavioral health support. Additional school districts will be added in the future.

27 For more information about the model implemented, see <http://www.iirp.edu/pdf/WSC-Overview.pdf>

28 https://www.rand.org/pubs/research_reports/RR2840.html

29 <https://www.post-gazette.com/news/education/2019/08/12/restorative-practices-pittsburgh-public-schools-mifflin-allegheny-traditional-suspensions-discipline/stories/201908110036>

Given our findings on racial disproportionality, poor academic outcomes and adult criminal justice involvement, we look forward to seeing the impact of promising programs like these.

ANALYSIS

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APPENDIX A

APPENDIX A: METHODOLOGY

Data Cleaning

One hundred thirteen students were removed from the analysis for the following reasons:

Unique ID: 20 students were removed due to duplicate Master Client Index (MCI) numbers in the database.

Contradictions in date of birth (DOB): 17 students were removed because the DOB in the school data didn't match the DOB in the Data Warehouse; 65 students were excluded from the analysis as their DOB was different than the DOB in the juvenile system. One student was excluded from the study as calculated age at grade was zero.

Extreme outliers: Two students, one age 10 and another age 23, were removed from the analysis because they do not fall within the normal age range for this student cohort.

No information about allegation source: Eight student files had information about charges, but lacked information about allegation source, an essential part of the analysis.

Limitations of the Data and Analyses

The analyses and results are limited to data for students who were enrolled in Pittsburgh Public Schools at the end of Sy 10/11. Public school systems in different regions and cities have their own characteristics and structure, and the current analyses cannot be generalized to other public school systems. Comparison of these results to other school populations must be drawn with caution due, in part, to the limitations of official records and registry data. Care must also be taken when drawing conclusions in the absence of data about factors such as family and social/environmental status. Despite these limitations, registry studies can indicate general trends and provide some direction about the value of future studies.

APPENDIX A

Student Grouping

TABLE 5: Examples of group assignment for cohorts A and B

STUDENT ID	REFERRAL	ALLEGATION SOURCE	GROUP
1	1	Pittsburgh Board of Education — School	A First allegation out of a total of four, made by PPS police
	2	Aleppo Township	
	3	Aleppo Township	
	4	Private Complaint	
2	1	Pittsburgh — Investigations	B First allegation out of two, made by another allegation source
	2	Ross Township	
3	1	Scott Township	B First allegation out of two, made by another allegation source
	2	Pittsburgh Board of Education — School	
4	1	Pittsburgh Board of Education — School	A First allegation out of two, made by PPS police
	2	Pittsburgh Board of Education — School	
5	1	Robinson Township	B First allegation (single) made by another allegation source
6	1	Pittsburgh Board of Education — School	A First allegation (single) made by PPS police

GPA Calculation

In the PPS police data provided by the district, there are five GPA periods:

GPA for each quarter: GPA Q1, GPA Q2, GPA Q3 and GPA Q4

GPA at the end of school year: FINAL GPA

For this analysis, we focused on the final GPA at the end of the school year. However, this variable is null for some students, even though they may have a GPA for each quarter. In those cases, we calculated “FINAL GPA” as the average of those quarters:

$$\text{FINAL}_{\text{GPA}} = \frac{\text{GPA}_{\text{Q1}} + \text{GPA}_{\text{Q2}} + \text{GPA}_{\text{Q3}} + \text{GPA}_{\text{Q4}}}{\text{COUNT}(\text{Q})}$$

where Q is the number of quarters with available data.

If the GPA during the quarter was zero, it was replaced by null.

APPENDIX B

APPENDIX B: EDUCATIONAL OUTCOMES AND PERFORMANCE BY GRADE

TABLE 6: Population with available GPA information, SY 10/11

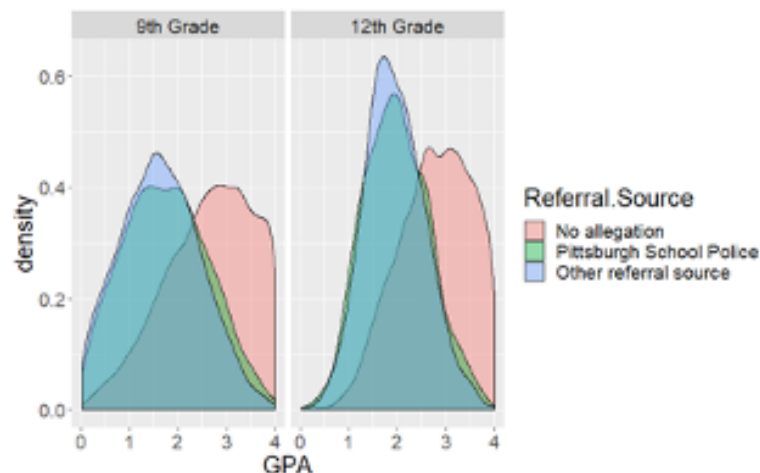
	NO ALLEGATION	FIRST ALLEGATION BY PPS POLICE	FIRST ALLEGATION BY OTHER ALLEGATION SOURCES	TOTAL
Original population	10,678	1,268	2,143	14,089
Population with available information about 9th grade	9,225	1,144	1,768	12,137
Population with available GPA data about 9th grade	8,451 (91%)	1,002 (87%)	1,452 (82%)	10,905 (90%)
Population with available information about 12th grade	8,561	852	1,180	10,593
Population with available GPA data about 12th grade	7,687 (90%)	701 (82%)	928 (79%)	9,316 (88%)

TABLE 7: Summary of final GPA in 9th and 12th grade by allegation source

GRADE	ALLEGATION SOURCE	N	MINIMUM GPA	MAXIMUM GPA	MEAN	MEDIAN
9th grade	No allegation	8,451	0.04	4.0	2.6	2.7
	PPS police	1,002	0.03	4.0	1.8	1.7
	Other allegation sources	1,452	0.03	4.0	1.6	1.6
12th grade	No allegation	7,687	0.14	4.0	2.8	2.8
	PPS police	701	0.02	3.9	2.0	2.0
	Other allegation sources	928	0.18	4.0	2.0	1.9

Outcomes are calculated at the cohort level; for example, available 9th-grade GPA data for students in 11th grade during SY 10/11 would be included here.

FIGURE 16: Distribution of GPA in 9th and 12th grade, by allegation source



APPENDIX B

TABLE 8: Population with available absence and suspension information, SY 10/11

	NO ALLEGATION	FIRST ALLEGATION BY PPS POLICE	FIRST ALLEGATION BY OTHER ALLEGATION SOURCES	TOTAL
Original population	10,678	1,268	2,143	14,089
Population with available information about 7th grade	9,182 (86%)	1,178 (93%)	1,799 (84%)	12,159 (86%)
Population with 30 or more days of enrollment in 7th grade	8,765 (82%)	1,129 (89%)	1,690 (79%)	11,584 (82%)
Population with available information about 9th grade	9,225 (86%)	1,144 (90%)	1,768 (83%)	12,137 (86%)
Population with 30 or more days of enrollment in 9th grade	8,745 (82%)	1,057 (83%)	1,561 (73%)	11,363 (81%)
Population with available information about 12th grade	8,561 (80%)	852 (67%)	1,180 (55%)	10,593 (75%)
Population with 30 or more days of enrollment in 12th grade	7,732 (72%)	634 (50%)	851 (40%)	9,217 (65%)

TABLE 9: Summary of total absences in 7th, 9th and 12th grade, by allegation source

GRADE	ALLEGATION SOURCE	N	N (WITH 30 OR MORE DAYS OF ENROLLMENT)	MIN	MAX	AVG	MEDIAN
7th grade	No allegation	9,182	8,765	0	164	10	8
	PPS police	1,178	1,129	0	106	17	13
	Other allegation sources	1,799	1,690	0	149	16	14
9th grade	No allegation	9,225	8,745	0	159	7	4
	PPS police	1,144	1,057	0	159	15	9
	Other allegation sources	1,768	1,561	0	158	16	10
12th grade	No allegation	8,561	7,732	0	157	19	14
	PPS police	852	634	0	152	25	19
	Other allegation sources	1,180	851	0	153	25	18

APPENDIX B

TABLE 10: Out-of-school suspensions in 7th, 9th and 12th grade, by allegation source

GRADE	ALLEGATION SOURCE	N	MIN	MAX	AVG	MEDIAN
7th grade	No allegation	9,182	0	17	0.57	0
	PPS police	1,178	0	17	2.71	2
	Other allegation sources	1,799	0	25	2.36	1
Total 12,159						
9th grade	No allegation	9,225	0	23	0.5	0
	PPS police	1,144	0	22	2.2	1
	Other allegation sources	1,768	0	22	1.9	1
Total 12,137						
12th grade	No allegation	8,561	0	16	0.2	0
	PPS police	852	0	25	0.9	0
	Other allegation sources	1,180	0	15	0.8	0
Total 10,593						

APPENDIX C

APPENDIX C: EDUCATIONAL OUTCOMES AND PERFORMANCE, IMPACT OF FIRST ALLEGATION

TABLE 11: GPA before, during and after first allegation, by allegation source

	MINIMUM GPA	MAXIMUM GPA	AVERAGE GPA	MEDIAN GPA
PPS police before SY	0.13	4.0	2.1	2.1
PPS police during SY	0.06	4.0	1.9	1.9
PPS police after SY	0.06	4.0	1.8	1.8
Other allegation source before SY	0.06	3.8	1.9	1.9
Other allegation source during SY	0.03	3.8	1.7	1.7
Other allegation source after SY	0.04	3.9	1.7	1.7

TABLE 12: Absences before, during and after first allegation, by allegation source

	MINIMUM ABSENCES	MAXIMUM ABSENCES	AVERAGE ABSENCES	MEDIAN ABSENCES
PPS police before SY	0	140	19	15
PPS police during SY	0	109	26	23
PPS police after SY	0	154	24	19
Other allegation source before SY	0	145	22	18
Other allegation source during SY	0	149	26	21
Other allegation source after SY	0	177	27	21

TABLE 13: Out of school suspensions before, during and after first allegation, by allegation source

	MINIMUM NUMBER	MAXIMUM NUMBER	AVERAGE NUMBER	MEDIAN NUMBER
PPS police before SY	0	27	2.7	1.0
PPS police during SY	0	21	3.5	3.0
PPS police after SY	0	20	2.1	1.0
Other allegation source before SY	0	23	2.7	2.0
Other allegation source during SY	0	25	2.6	1.0
Other allegation source after SY	0	19	2.1	1.0

APPENDIX D

APPENDIX D: PROGRAM UTILIZATION BY ALLEGATION SOURCE

TABLE 14: Program Utilization by Allegation Source

	POPULATION			PERCENTAGE		
	NO ALLEGATION	PPS POLICE	OTHER REFERRAL SOURCE	NO ALLEGATION	PPS POLICE	OTHER REFERRAL SOURCE
Child welfare	10,678	1,268	2,143	11%	14%	23%
Mental health	10,678	1,268	2,143	33%	43%	48%
Substance use disorder treatment*	10,678	810	1,558	4%	3%	6%
Assisted housing	10,678	1,268	2,143	26%	42%	42%
Housing support	10,678	1,268	2,143	5%	3%	3%
Supplemental Nutrition Assistance Program (SNAP)	10,678	1,268	2,143	46%	53%	57%
Supplemental Security Income (SSI)	10,678	1,268	2,143	16%	21%	23%
Temporary Assistance for Needy Families (TANF)	10,678	1,268	2,143	18%	23%	27%

*Includes only individuals 14 and older

APPENDIX E

APPENDIX E: POPULATION ELIGIBLE FOR CRIMINAL JUSTICE OUTCOMES AS AN ADULT

TABLE 15: Number of years as an adult for the student cohort, N=14,089

NUMBER OF YEARS AS AN ADULT	ELIGIBLE ADULT INVOLVEMENT	AGE RANGE	NUMBER OF STUDENTS	PERCENTAGE OF TOTAL STUDENTS*	CUMULATIVE PERCENTAGE OF TOTAL STUDENTS
Less than 1 year	N	11	56	<1%	<1%
1-2 years	Y	11-12	1,562	11%	11%
2-3 years	Y	12-13	2,012	14%	25%
3-4 years	Y	13-14	1,958	14%	40%
4-5 years	Y	14-15	2,033	14%	54%
5-6 years	Y	15-16	2,080	15%	69%
6-7 years	Y	16-17	2,133	15%	84%
7-8 years	Y	17-18	1,599	11%	95%
8-9 years	Y	18-21	656	5%	100%

*Percentages are rounded and therefore do not total 100% in all cases.