Research Report

Homicides in Allegheny County, 1997 through 2012

PREPARED BY

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Allegheny County Department of Human Services
The Allegheny County Department of Human Services (DHS) is dedicated to meeting the human services needs of county residents, particularly the county's most vulnerable populations, through an extensive range of prevention, intervention, crisis management and after-care services.

This report was prepared by the Office of Data Analysis, Research and Evaluation (DARE), an office within DHS. DARE supports and publishes research related to the activities of DHS in a number of categories, including: Aging; Basic Needs; Behavioral Health and Disabilities; Child Development and Education; Children, Youth and Families; Crime and Justice; and Innovation, Reform and Policy.

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ACRONYMS AND DEFINITIONS

Acronyms

ACJ	Allegheny County Jail
ACME	Allegheny County Medical Examiner
DHS	[Allegheny County] Department of Human Services
GIS	Geographic Information Systems
JRS	Justice Related Services
PBP	Pittsburgh Bureau of Police
PSP	Pennsylvania State Police
UCR	Uniform Crime Report

Definitions

- **Aggravated Assault —** An attempt to cause serious bodily injury to another with a deadly weapon
- **Allegheny County Jail Collaborative —** A group consisting of representatives of the Court of Common Pleas, Department of Human Services, Allegheny County Jail, the Allegheny County Health Department and the County Executive, created to develop collaborative strategies to increase public safety and reduce recidivism
- **Behavioral Health —** A category that includes mental health and/or substance abuse issues and treatment
- **Cleared by Arrest —** An offense is "cleared by arrest" when at least one person is arrested for the commission of the offense and turned over to the court for prosecution (whether following arrest, court summons or police notice)
- **Homicide —** The deliberate and unlawful killing of one person by another
- **Severely Distressed Neighborhood (Annie E. Casey Foundation) —** Distressed communities must demonstrate at least three of the four following characteristics:
    1. A high percentage of people living in poverty (27.4 percent or more)
    2. A high percentage of families with related children headed by women with no husband present (37.1 percent or more)

Glossary
(continued)

3. A high percentage of 16- to 19-year-olds who are not enrolled in school and not high school graduates (23.0 percent or more)
4. A high percentage of civilian, non-institutionalized men ages 16 to 64 who are unemployed or not in the labor force (34.0 percent or more)

- **Shooting —** Aggravated assault (with a firearm) that resulted in injury

EXECUTIVE SUMMARY

Introduction

Research points to a number of risk factors for violence against individuals and in communities, including individual risk factors (e.g., history of victimization, behavioral challenges, exposure to violence), relationship risk factors (e.g., poor family functioning, parental substance abuse or criminality, gang involvement), and community risk factors (e.g., high level of transiency, socially disorganized neighborhoods, diminished economic opportunities).

By understanding the factors that contribute to violence in local communities, prevention efforts and interventions can be better designed. The Allegheny County Department of Human Services (DHS) is particularly interested in understanding the factors that contribute to violence in communities and how it disproportionately affects vulnerable populations.

This report examines homicides that occurred from 1997 through 2012 in Allegheny County, particularly examining the City of Pittsburgh's victimization rates for gender, racial and age groups, to assess the relative risk of victimization for each group. In addition, it examines demographics of victims and offenders, the locations of homicides and shootings within Allegheny County, the relationships between victims and offenders, and reported motives. It also uses routine activity theory to study when homicides and shootings are occurring, paying particular attention to school age youth victims.

National Trends

After decades of sharp increases in homicides in the United States, homicide rates have fallen, with large decreases during the 1990s. Homicide rates continued to fall throughout the 2000s, and in 2011 the homicide rate in the United States was 4.7 per 100,000 individuals.

Homicide disproportionately affects certain groups. Young people are over-represented as both victims and offenders; and young black men are overwhelmingly more likely to be victims of homicides. Federal estimates, based on Uniform Crime Report (UCR) data from 2008, show

that the homicide rate for black males, 18 through 24 years of age, was 92 per 100,000 victims, nearly 19 times the national rate across all groups.

Homicides in Allegheny County and the City of Pittsburgh

While Pittsburgh's homicide rate was only half that of Detroit, Baltimore and St. Louis, and is comparable to that of cities such as Indianapolis, Cleveland and Milwaukee, it was twice that of Minneapolis and Denver. In 2011, the homicide rate in the United States was 4.7 per 100,000, while the rate in Allegheny County was 6.4 per 100,000 and 14.1 per 100,000 in the City of Pittsburgh.

Pittsburgh's homicides currently average approximately 40 per year, down from almost 60 homicides per year in the late 2000s. Unlike national trends, Pittsburgh homicides continued to increase throughout the 1990s and have only decreased in recent years. From 2000 through 2012, an average of 200 non-fatal shootings per year occurred in the City of Pittsburgh. Eighty percent of homicides in the City of Pittsburgh during the years 2000 through 2012 were committed with a firearm.

Consistent with national trends, young African American males are most affected by homicides in Pittsburgh and Allegheny County.

The proportion of Allegheny County homicides occurring outside of the City of Pittsburgh increased throughout the 2000s, with half of all homicides in 2012 occurring outside of the city.

Shootings

Although homicides are most likely to receive media attention, aggravated assaults with a firearm were 10 times more likely to occur than homicides; shootings were six times more likely to occur. This trend in Pittsburgh is similar to national trends in violence. Shootings in the City of Pittsburgh decreased significantly (37 percent) from 2003 through 2012. Those cleared by arrest also decreased during this period. Of the 17 percent cleared by arrest, 15 percent were cleared with an adult arrest and another two percent with the arrest of a juvenile.

Who is at Risk?

Eighty-six percent of those murdered in Pittsburgh during the years 2000 through 2012 were African American. Eighty-six percent of those murdered in Pittsburgh during the years 2000 through 2012 were male. Sixty-one percent of those murdered in Pittsburgh from 2000 through 2012 were under the age of 30. The average homicide rate for young African American men in Pittsburgh was over 65 times the average homicide rate in the United States.

A significant percentage of homicide victims had a history of human services involvement. Forty-eight percent of all homicide victims since 2002 were involved in a DHS service or in other supportive human or income maintenance services. The largest percentage were involved in behavioral health services (mental health and/or substance abuse) followed by the child welfare system, either as a child or as a parent.

Forty-eight percent of homicide victims had been involved in the juvenile justice and/or criminal justice system.

Homicides Involving School-Age Youth

Homicides for school-age youth in the City of Pittsburgh varied from three in 2004 to 13 in 2008. More than 80 percent of school-age victims were between the ages of 14 and 18. About three-quarters of these homicides were committed with a firearm.

The demographics of these young homicide victims were similar to the demographics of homicide victims as a whole; i.e., 91 percent African American, 84 percent male, 78 percent both African American and male.

Who Are the Offenders?

Offenders were known in only about half of all homicide cases. For cases where information on offenders was known, 68 percent were under the age of 30, 78 percent were African American and 89 percent were male.

Relationship between Victim and Offender

In part due to the fact that offenders were not known in all cases, information on the relationship between victims and offenders was known only in about 30 percent of cases. When relationship was reported, victim and offender knew one another in more than three quarters of cases. The most common recorded relationship was acquaintance or friend (48 percent) followed by intimate partner (which includes wife, husband, boyfriend and girlfriend).

When gender was known for both victim and offender, both the victim and the offender were men in 75 percent of cases. Where offender and victim age was known, 61 percent were both under the age of 30. In 27 percent of cases, offenders were under 30 and their victims were over 30. In only three percent of the cases was there a 30-year-old victim and an offender over 30.

Where offender and victim race were known, 77 percent were both African American and 13 percent were both white. In seven percent of cases, the offender was African American and the victim was white, and in three percent of the cases, the offender was white and the victim was African American.

Where Did Violence Occur within Allegheny County?

Although City of Pittsburgh residents comprise only 25 percent of the county population, over half of all homicides from 2000 through 2012 occurred in the city. Fifty-four percent of homicides in the City of Pittsburgh occurred in just 21 of the city's 92 neighborhoods.

In 2012, 50 percent of all homicides in Allegheny County occurred outside the City of Pittsburgh.

From 2005 through 2011, just five of the 129 Allegheny County municipalities accounted for 39 percent of all county (minus the City of Pittsburgh) homicides. Nearly 80 percent of all homicides occurred within the City of Pittsburgh and five suburban municipalities.

When Did Violence Occur?

While violence occurs every month, homicides were more common during the summer months, on the weekend, and late at night, between the hours of 10 p.m. and 2 a.m. The exception was with victims ages 5 through 17; they were more likely to be killed during the day and on weekdays between 6 p.m. and midnight.

Motive

Where the homicide motive was known (about half of the deaths), "argument" was identified as the motive 38 percent of the time, while "robbery/burglary" was identified as the motive in 21 percent of cases. While arguments were identified as the most common motive in homicides in the City of Pittsburgh, "other" was the most common motive identified in all of Allegheny County (42 percent of the cases where motive was known and reported).

DATA SOURCES

This report limits its study of violent incidents to homicides and shootings that occurred from 1997 through 2012 in Allegheny County, with a special focus on the City of Pittsburgh.

About Allegheny County and the City of Pittsburgh

Population estimates from the 2010 census list the total number of individuals residing in Allegheny County as 1,223,348, with the City of Pittsburgh accounting for 305,704 individuals (25 percent of the total population). Pittsburgh's total population had decreased by about nine percent since the 2000 census. By examining the city's demographic composition based on the 2010 census data, we were able to calculate victimization rates for gender, racial and age groups in order to assess a group's relative risk of victimization.

City of Pittsburgh Bureau of Police

Incident data from 1997 through 2012 were provided by the City of Pittsburgh Bureau of Police (PBP) and contain information on all homicides and aggravated assaults with a firearm that were recorded by the PBP. Homicide data include date, time, location of offense by address and census tract, and victim's race, gender and age. Aggravated assault data include date, time, offense (categorized as either firearm assault with injury, without injury, drive-by aggravated assaults resulting in injury, or drive-by assaults without injury), status of the case (e.g., adult arrest, pending), and location of offense by address, census tract and neighborhood. Unlike the homicide data, demographic information is not provided for aggravated assault victims. Further, the offenses represented by the aggravated assault data from years 1997 through 2002 were coded in a different manner from more recent data, making it difficult to distinguish the different types of incident; therefore, only aggravated assault data from 2003 through 2012 are used.

It should be noted that incident data reflect only offenses that were reported to the police. Although reporting tends to be better for both homicides and aggravated assaults with a firearm than for other crimes, these data still undercount the actual level of victimization and violence in Pittsburgh and Allegheny County.

Allegheny County Medical Examiner's Office

This report relies on data extracted from the Allegheny County Medical Examiner's (ACME) records from years 1997 through 2012 and the ACME Annual Reports from 2003 and 2006. The ACME is required to autopsy all premature and unexplained deaths that may have resulted from a sudden, violent, unexplained or traumatic event. ACME data are housed within the DHS Data Warehouse and were used to identify and examine victims' prior human services involvement and prior involvement in the juvenile and criminal justice systems.

The ACME data do not always agree with the Pennsylvania State Police or City of Pittsburgh data but they add depth to this investigation by providing more information about the victims.

Pennsylvania State Police

The Pennsylvania State Police (PSP) collect UCR data from participating police departments. These data are available for query from their website. These data include information on incidents, victims, offenders, relationships, weapons and motives, and were used primarily to provide information on offenders. Information for both the City of Pittsburgh and Allegheny County was used in this report. Data was downloaded on April 30, 2013.

Department of Human Services Data Warehouse

This report utilizes information from the DHS Data Warehouse. Today, the Data Warehouse contains more than 528 million records for about 1,000,000 distinct clients. It contains data from 19 data sources (10 internal and nine external) that represent 28 different human services program areas. The Data Warehouse has evolved to be a central repository of social services data, which allows DHS to track and report client demographic and service data across its program offices and beyond. The Data Warehouse includes data on aging services, child welfare services, mental health services, drug and alcohol services, intellectual disability services, homeless and housing supports, family support centers, juvenile justice involvement, Allegheny County Jail (ACJ) involvement, assisted housing (public housing and Section 8), and public benefits.

U.S. Census Bureau

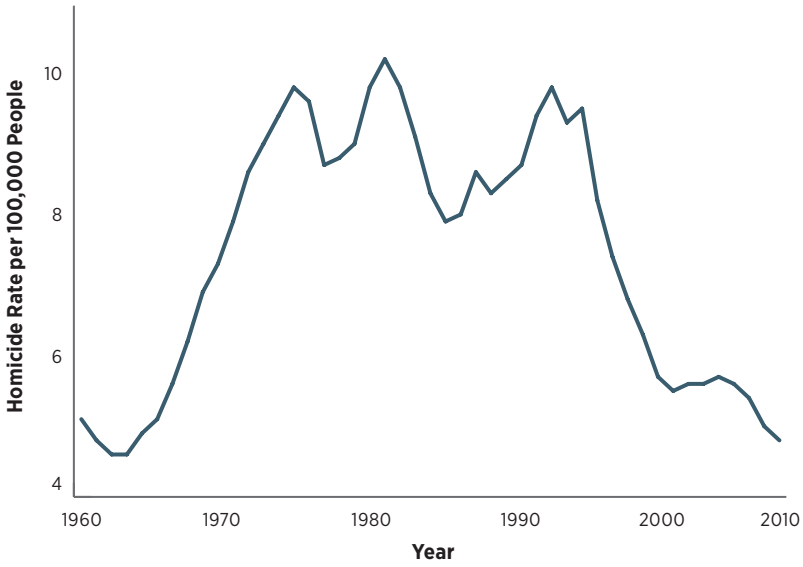
Population data for Allegheny County municipalities and City of Pittsburgh neighborhoods were obtained from the U.S. Census Bureau website. If appropriate and possible, the tables and figures in this report represent information as rates (e.g., the number of violent crime victims per 100,000 people).

DATA ANALYSIS

Violence Nationally and Locally with Comparison to Benchmark Cities

Nationally, violence increased between 1960 and the early 1990s, from a low violent-crime rate of 158 per 100,000 people in 1961 to a high of 758 in 1991. Homicide rates peaked in 1980 with 10.2 victims per 100,000 people and have fallen since the 1990s, with large decreases in the 1990s and decreases at lower rates in the 2000s (See **Figure 1**). In 2011, the homicide rate in the United States was 4.7 per 100,000, while the rate in Allegheny County was 6.4 per 100,000. Nationally, homicide rates tend to be higher in urban areas as compared to other areas. In the City of Pittsburgh, the homicide rate in 2011 was 14.1 per 100,000.

FIGURE 1: **United States Homicide Rates, 1960 through 2010**



Data Source: U.S. Bureau of Justice Statistics

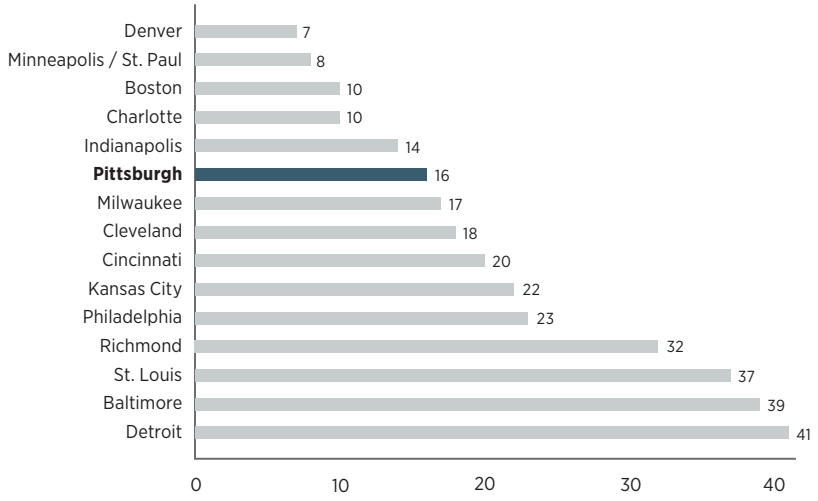
According to population estimates from the 2010 census, a total of 1,223,348 individuals reside in Allegheny County, with the City of Pittsburgh accounting for 305,704 individuals (or 25 percent of the total population).[1] We were able to calculate victimization rates by studying the city's demographic composition based on the 2010 census data (see Appendix A on page 33).

Compared with 16 benchmark cities,[2] the City of Pittsburgh's average homicide rate of 16 per 100,000 people is slightly below the average homicide rate of 21 victims per 100,000 people. Pittsburgh's rate is less than half that of Detroit, Baltimore and St. Louis; comparable to Indianapolis, Cleveland and Milwaukee; and twice that of Minneapolis and Denver.

[1] Pittsburgh's total population decreased approximately nine percent between the 2000 census and the 2010 census.

[2] Benchmark cities are based on cities of comparable size and defined in Key Indicators for Understanding Our Region, published by Pittsburgh Today (http://www.pittsburghtoday.org/).

FIGURE 2: **Average Homicide Rate by City, 2000 through 2011**

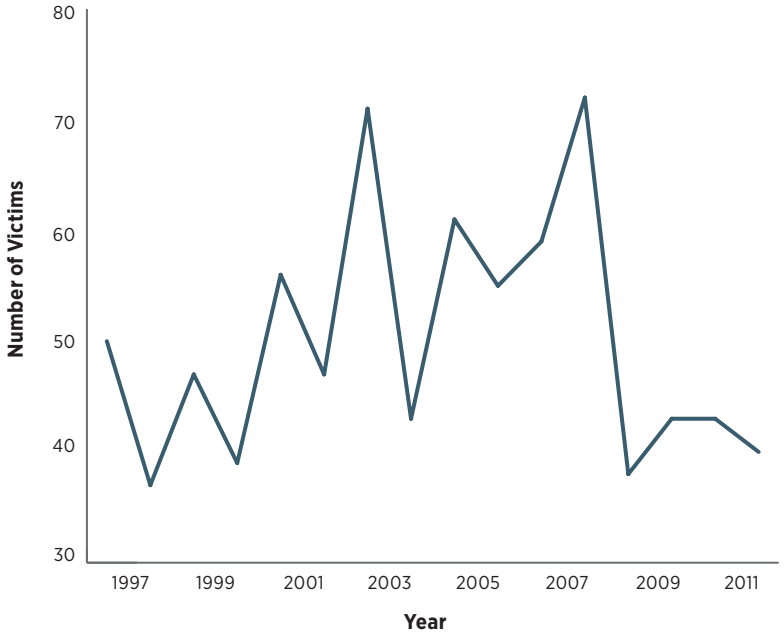


Data Source: Pittsburgh Today (http://www.pittsburghtoday.org/)

Homicides and Shootings

While U.S. homicide rates were declining, Pittsburgh's homicides increased from fewer than 40 per year in the late 1980s to almost 50 per year in the late 1990s, to almost 60 per year by the late 2000s. Since 2008, they have decreased and currently average approximately 40 per year. Firearms were used to commit the homicide in 80 percent of the city's cases in which the weapon was known.

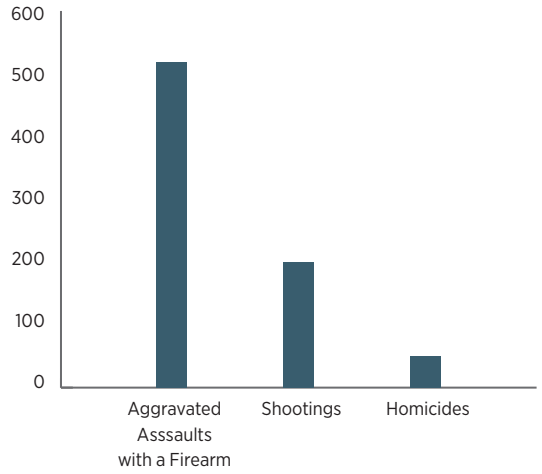
FIGURE 3: **Homicides in the City of Pittsburgh, 1997 through 2012**



Data Source: City of Pittsburgh Bureau of Police

In the City of Pittsburgh, from 2000 through 2012, there were an average of 518 aggravated assaults with a firearm per year, 200 non-fatal shootings per year and 51 homicides per year (see **Figure 4**).

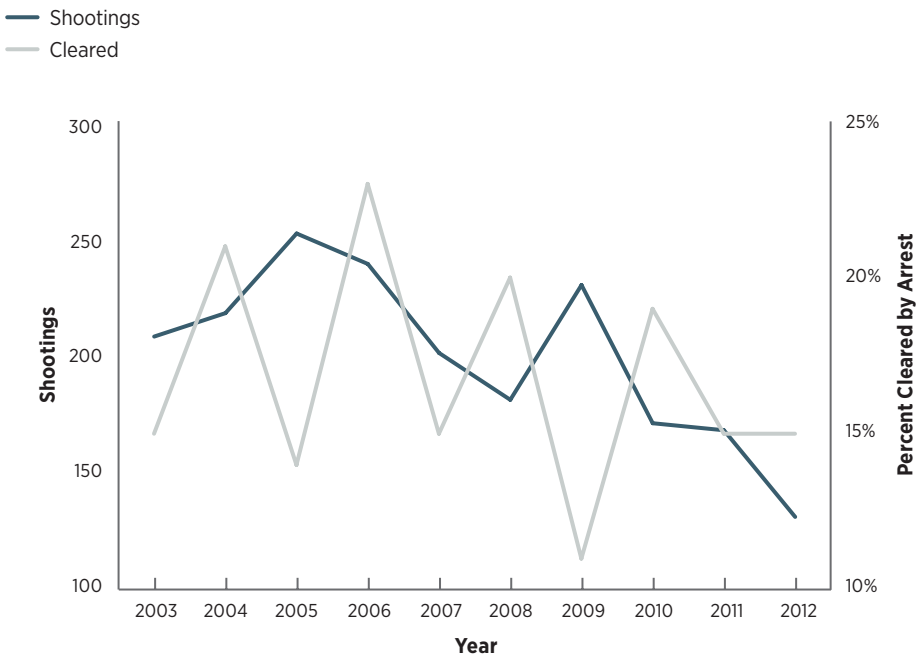
FIGURE 4: **Annual Averages of Violent Crime in Pittsburgh, 2000 through 2012**



Data Source: City of Pittsburgh Bureau of Police

Since 2003, shootings in Pittsburgh have declined, from a high of 252 in 2005 to a low of 131 in 2012, a drop of 37 percent (see **Figure 5**). Aggravated assaults followed similar trends, although homicides did not begin to decline until 2008. During this same period, shootings "cleared by arrest" decreased by six percent. The mean percent of shootings cleared by arrest from 2003 through 2012 was 17 percent, with 15 percent cleared by adult arrest and two percent by juvenile arrest.

FIGURE 5: **Shootings in the City of Pittsburgh and Percent of Shootings Cleared by Arrest, 2003 through 2012**



Who Were the Victims of Homicide?

Homicide victims were overwhelmingly young, male and African American. Sixty-one percent of homicide victims in Pittsburgh from 2000 through 2012 were under 30, 86 percent were African American and 86 percent were male. A significant percentage of homicide victims had a history of human services involvement. Though a small group (N=39), more than three quarters of older adult victims (65+) were involved in aging services of some kind. The next highest levels of service involvement of victims were those in the child welfare system either as a child or as a parent, and in behavioral health services (mental health and/or drug and alcohol). In addition, almost half of homicide victims were involved with the juvenile justice system or the criminal justice system at some point.

Gender of Victims

Men were at higher risk for being a victim than women throughout the region. In Allegheny County, men were five times more likely to be victims of homicide than women and six times more likely in the City of Pittsburgh. Males made up 84 percent of all homicide victims in the county and 85 percent of all victims in the City of Pittsburgh.

Race of Victims

African American residents were at a much higher risk of being victims of homicide than white residents. Although African Americans comprised only 26 percent of the City of Pittsburgh's

population, more than 86 percent of homicide victims were African American. From 1997 through 2012, African American residents in Pittsburgh experienced an average homicide victimization rate that was 15 times greater than the rate for white residents. African Americans comprise 13 percent of all Allegheny County residents, but represent 79 percent of all homicide victims. County-wide, the victimization rate of African Americans is 24 times greater than that of white residents.

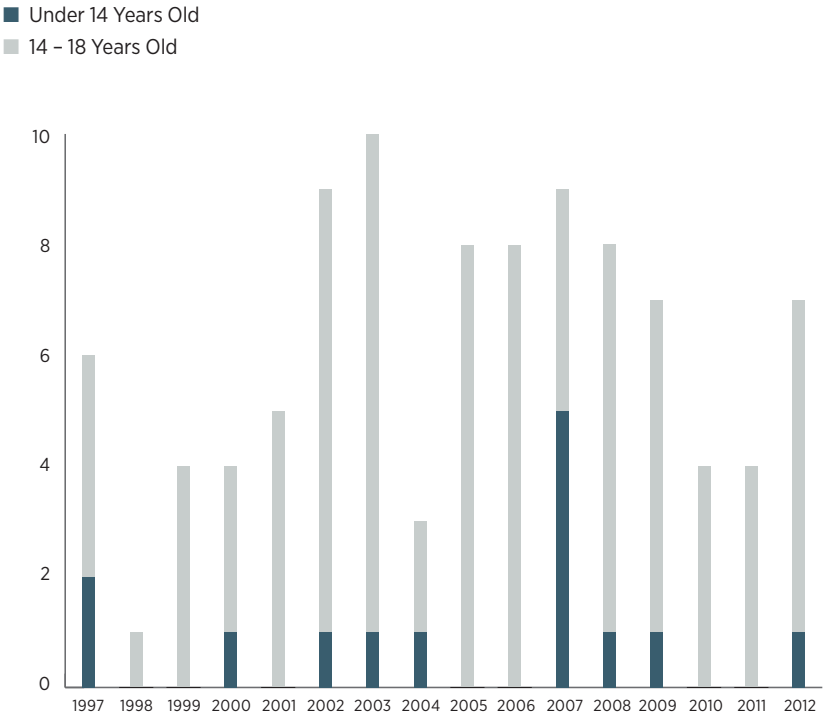
Age of Victims

Young adults were much more likely to be homicide victims than the rest of the population. Individuals ages 18 through 24 accounted for 34 percent of all victims in the City of Pittsburgh and 33 percent of victims throughout Allegheny County. Adults ages 25 through 34 accounted for an additional 28 percent of victims in both Pittsburgh and county-wide.

School-Age Youth

On average from 1997 through 2012, in the City of Pittsburgh, school-age youth (ages four through 18) accounted for 10 percent of all homicide victims, and 86 percent of these were ages 14 through 18. Although there were yearly fluctuations, on average there were seven homicides of school-age youth every year.

FIGURE 6: **Homicide Count by Year, School-Age Youth, City of Pittsburgh, 2000 through 2012**



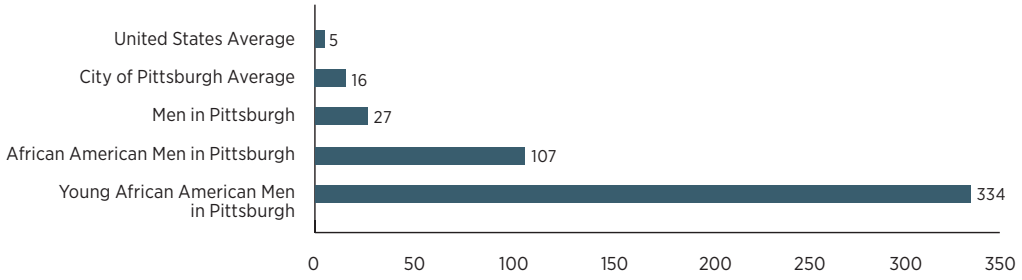
The demographics of these young homicide victims were similar to all victims. Ninety-one

percent of victims were African American and 84 percent were male. Seventy-eight percent of all school age victims were African American boys. About three-quarters of these homicides were committed with a firearm.

Population at High Risk of Victimization

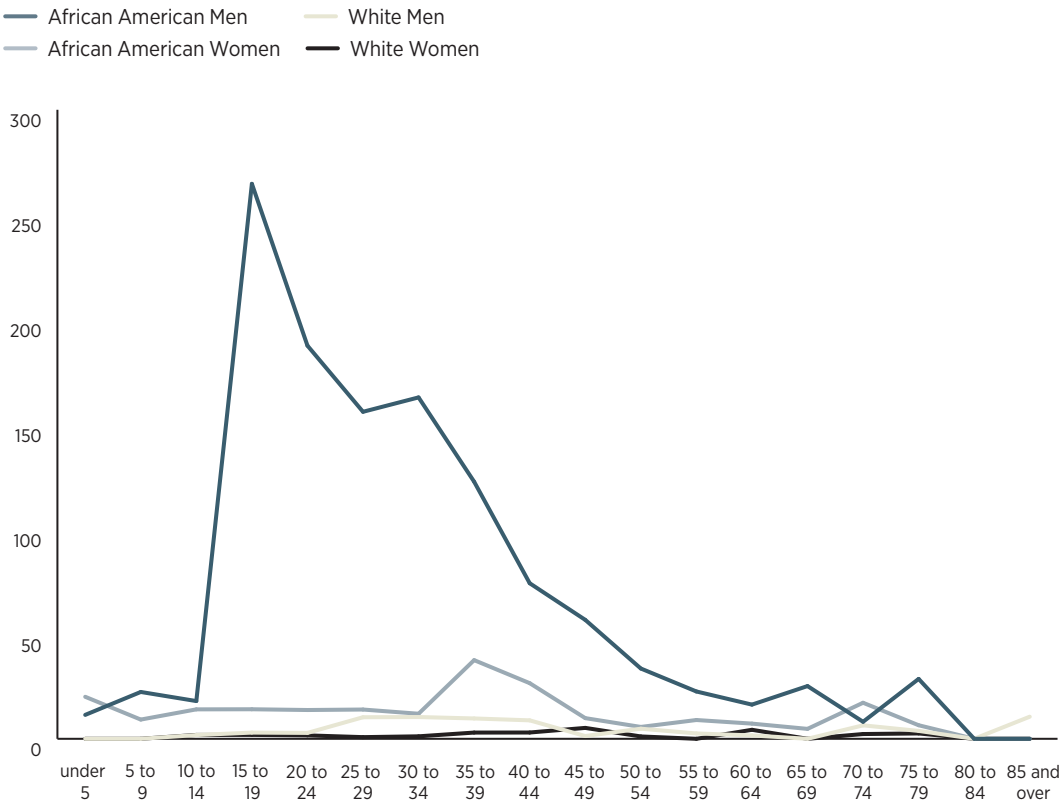
When considering age, race and gender together, a stark picture emerges in which violence is a significant problem for young African American men, far out of proportion to their numbers. The average homicide rate in Pittsburgh is 16 per 100,000 people. For African American males in Pittsburgh, the rate is 107 per 100,000. For those African American males who are young, the homicide rate in Pittsburgh is 334 per 100,000. This is over 65 times the average homicide rate in the United States.

FIGURE 7: **Homicide Victimization Rates (per 100,000), 2010**



The figure below provides a visual comparison of local homicide demographics and demonstrates that, although the rates are higher for African American males in almost every age range, the critical ages for homicide victimization is the late teens through the late thirties.

FIGURE 8: **Homicide Rates by Age, Gender and Race of Homicide Victims, 2000 through 2012**



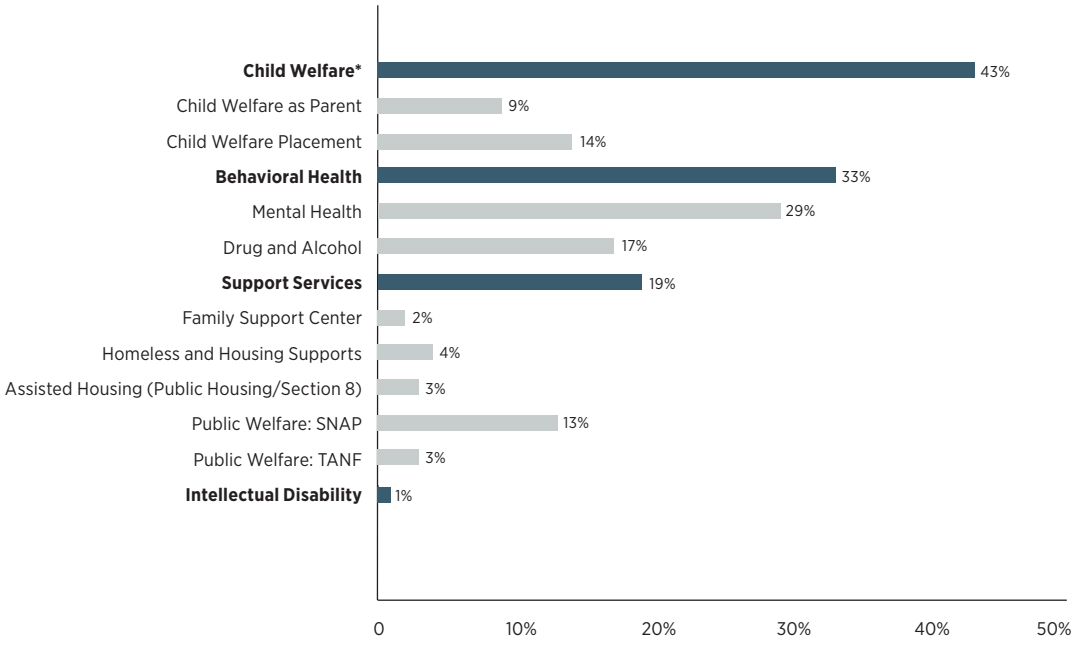
Human Services Involvement of Victims

DHS compared the personal identification information of 970 homicide victims (from July 2002 through December 2012) with the information stored in the Data Warehouse. As shown in **Figure 9**, 46 percent (444) had been involved in a DHS service since 2002. Seventy-seven percent of victims age 65 or over (30) were involved in aging services.[3] Forty-three percent of victims were involved in child welfare services.[4] The next highest level of involvement was in behavioral health services (33 percent, 318). Forty-three percent (413) of the victims were involved in behavioral health or child welfare services (as a child or as a parent) at some point. Almost half (48 percent, 461) of the victims were involved in a DHS service and/or public housing or public benefits. Because data are only available from 2002, estimates are most likely low.

[3] Only four percent (39) of homicide victims were age 65 or older at the time of death. Involvement in aging services was only examined for this qualifying group.

[4] Data about children's involvement in child welfare services were only available as of 2002 and was available for victims who were under age 18 at any point between 2002 and 2013 (56 percent of victims).

FIGURE 9: **Percent of Homicide Victims Historically Involved in Human Services, by Service**



Data Source: Allegheny County Data Warehouse – Medical Examiner

**Data only was available for victims who were under age 18 at any point between 2002 and 2013 (56 percent of victims).*

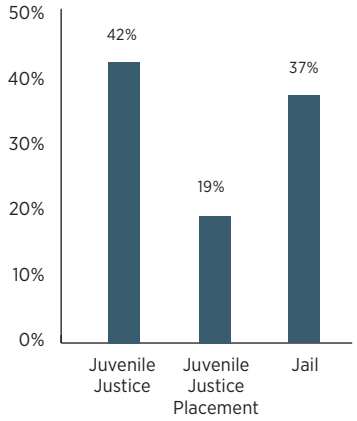
There were no significant differences in overall service usage by gender, but differences did emerge by race. Fifty-one percent (203) of African American victims accessed DHS services, compared to 29 percent (61) of white victims.

Juvenile Justice and Criminal Justice System Involvement of Victims

Forty-two percent (248) of victims for whom data are available had prior history with the juvenile justice system.[5] Forty-eight percent (465) of homicide victims in Allegheny County either had prior involvement with the juvenile justice system or had a prior jail booking. Of the total jail age population (>17), 37 percent (331) had a previous jail booking. Jail bookings are a proxy for criminal justice system involvement since not all jail bookings result in convictions. More than half of victims age 17 through 44 had prior criminal justice system involvement, either through involvement in the juvenile system or through a jail booking (428 of 792 victims).

[5] Sixty-two percent (597) of the victims were under age 18 at some point between 2002 and 2013 and had available juvenile justice data.

FIGURE 10: **Justice System Involvement of Homicide Victims**



Data Source: Allegheny County Data Warehouse – Medical Examiner, DHS Data Warehouse

Male homicide victims are more likely to have been involved in the criminal justice system than female victims. Most of the homicide victims with jail booking were booked more than one time. Only 18 percent (61) of the homicide victims were booked just once. Sixty-eight percent (224) of the victims were booked three or more times, with 19 percent (63) booked 10 or more times.

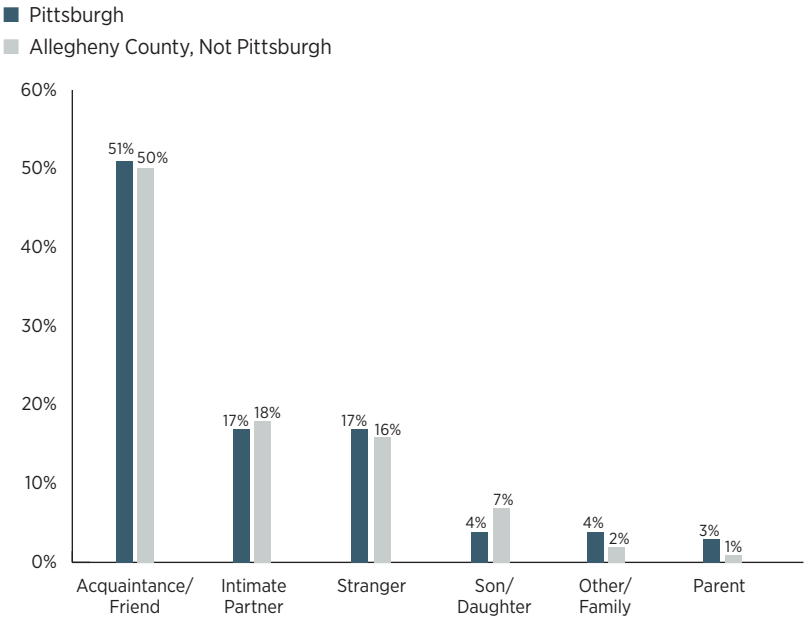
Who Are the Offenders?

Of the cases in which the offender is known (about half of the cases), 93 percent of offenders were males and 75 percent were African American. Sixty-nine percent of all offenders were African American males.

What Was the Relationship between Victim and Offender?

In those cases where the relationship between victim and offender was known (about 30 percent of the cases), half of the victims and offenders in Allegheny County and Pittsburgh were acquaintances or friends. Eighteen percent of all victims were intimate partners of the offenders. The offender was a stranger to the victim in only 16 percent of homicides for which there are available data.

FIGURE 11: Relationship of Offender to the Victim, Allegheny County including City of Pittsburgh, 2000 through 2012 (when Relationship is known)



Data Source: Uniform Crime Report submitted to PSP — http://www.paucrs.pa.gov/UCR/ComMenuUI.asp

When the offenders were known, most often they were young, male and African American. In 75 percent of cases in which the offender was known, both the victim and the offender were men. In 61 percent of cases, both were under the age of 30. For the remainder, offenders were under 30 and their victims were over 30 in 27 percent of cases; in only three percent of cases were both the victim and the offender over 30.

In 77 percent of cases with a known offender, both victim and offender were African American. Both were white in 13 percent of cases; in seven percent of other cases, the offender was African American and the victim was white. In the remaining three percent of cases, the offender was white and the victim was African American.

Where Did Violence Occur?

Half of all homicides occurred outside of the City of Pittsburgh in 2012. Though uneven, since 2005 there has been an increase in the proportion of homicides occurring outside the city. For the most part, these homicides are occurring in areas directly bordering the city (e.g., Wilkinsburg) and in the Mon Valley (e.g., McKeesport, Duquesne and Clairton).

FIGURE 12: **Share of Allegheny County's Homicides Occuring Outside the City of Pittsburgh, 2000 through 2012**

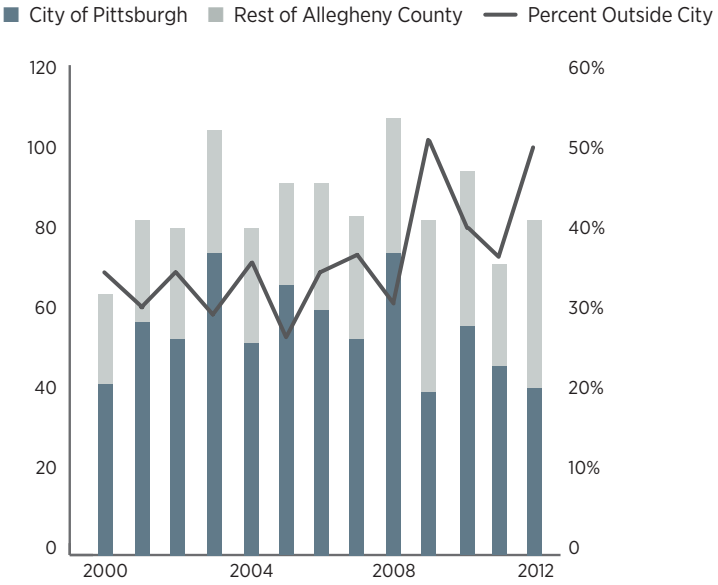


Figure 13 shows the density of homicides that occurred from 2005 through 2011 in Allegheny County. There were hot-spots within the City of Pittsburgh (highlighted within the figure) as well as clusters outside of the city. For the most part, the clusters occurred in southeastern Allegheny County, known as the Mon Valley. This includes McKeesport and Duquesne, severely distressed neighborhoods (as per Annie E. Casey Foundation's criteria), and the City of Clairton, Homestead, Braddock and North Braddock.

When examining homicide rates (number of homicides per 100,000 people), a few additional areas emerge, including Mount Oliver, a borough completely surrounded by the City of Pittsburgh, and Elizabeth, a small, densely populated area in the southeastern-most corner of Allegheny County. Finally, Wilkinsburg, directly bordering the City of Pittsburgh, has both high rates and numbers of homicide victims.

FIGURE 13: **Density of Homicides in Allegheny County, 2000 through 2012**

Homicide Distribution High Homicide Concentration

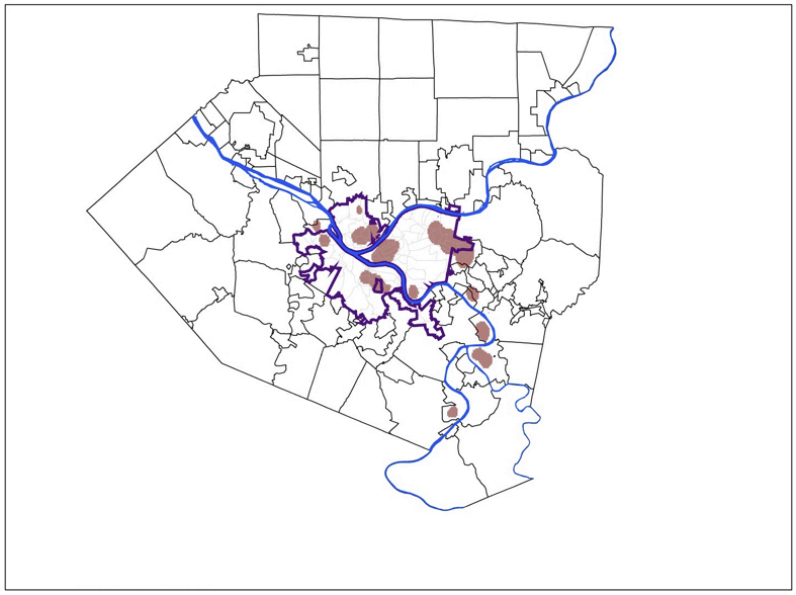


TABLE 1: **Allegheny County Municipalities with the Highest Numbers and Rates of Homicides, 2005 through 2011**

ALLEGHENY COUNTY MUNICIPALITY	AVERAGE NUMBER OF HOMICIDES PER YEAR, 2005 THROUGH 2011	ALLEGHENY COUNTY MUNICIPALITY	AVERAGE HOMICIDE RATE PER 100,000 PER YEAR, 2005 THROUGH 2011
Wilkinsburg*	5	Braddock	8
Penn Hills	4	Duquesne*	7
McKeesport*	3	Homestead	6
Duquesne*	3	Clairton	5
Clairton	2	Wilkinsburg*	5
McKees Rocks*	>1	Mount Oliver	4
Braddock	>1	McKees Rocks	4
Homestead	>1	Elizabeth	4
North Braddock	1	North Braddock	3
West Mifflin	1	McKeesport*	3

**Severely Distressed Neighborhood per Annie E. Casey Foundation Criteria*

Homicides outside of the city tend to be less concentrated in area than within the city. There are additional areas throughout the county where homicides have occurred (like Penn Hills), but they are more dispersed. Although approximately the same numbers of homicides occurred outside the city as in the city, homicides were much more concentrated in the city, as reflected by the homicide rates. In addition, eight of the top 10 neighborhoods with the highest homicide rates are also considered severely distressed communities.

Homicides are concentrated in the East (Larimer, East Liberty, Garfield and Homewood South, which directly borders Wilkinsburg), the Hill District (Terrace Village, Middle Hill, Bedford Dwellings), the Northside (Perry South, North Shore, Northview Heights, California-Kirkbride), the Southside (Beltzhoover and Saint Clair), Hazelwood, and the western part of the city (Sheraden, which borders McKees Rocks).

FIGURE 14: **Density of Homicides in the City of Pittsburgh, 2000 through 2012**

Homicide Distribution High Homicide Concentration

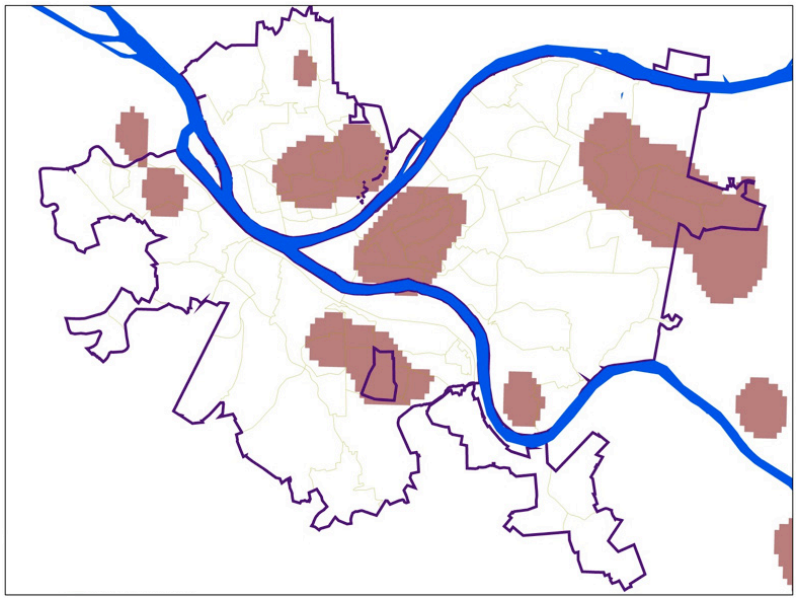


TABLE 2: **City of Pittsburgh Neighborhoods with the Highest Numbers and Rates of Homicides, 2000 through 2012**

CITY OF PITTSBURGH NEIGHBORHOOD	NUMBER OF HOMICIDES	CITY OF PITTSBURGH NEIGHBORHOOD	AVERAGE HOMICIDES PER 100,000 PEOPLE
Homewood South*	47	Saint Clair	84
Bedford Dwellings*	30	Bedford Dwellings	25
Terrace Village*	29	Homewood South*	19
Larimer*	26	Strip District	19
Middle Hill*	26	California-Kirkbride	18
Perry South	26	Homewood West	16
Lincoln-Lemington-Belmar*	24	Northview Heights	15
Hazelwood	23	Middle Hill	14
Garfield*	22	Larimer	12

**Severely Distressed Neighborhood per Annie E. Casey Foundation Criteria*

Shootings

Shootings and homicides tend to occur in the same neighborhoods and areas within the City of Pittsburgh. The eastern part of the city (Homewood North, Homewood South, Homewood West, East Liberty, Garfield and Larimer) experienced both the most frequent number of homicides and the most frequent shootings. Forty-one percent (881) of all shootings from 2000 through 2012 occurred in the nine neighborhoods listed in **Table 3**, below.

TABLE 3: **Shootings by Pittsburgh Neighborhood, 2000 through 2012**

CITY OF PITTSBURGH NEIGHBORHOOD	NUMBER OF SHOOTINGS	CITY OF PITTSBURGH NEIGHBORHOOD	MEAN SHOOTINGS PER 100,000 PEOPLE
Homewood North*	177	Saint Clair*	1,340
Homewood South*	140	Homewood South*	597
Perry South	102	Homewood North*	540
Garfield	88	Middle Hill*	504
Middle Hill*	86	Strip District*	503
Beltzhoover	80	Beltzhoover	416
East Liberty	73	Homewood West	403
Larimer*	68	Larimer*	394
Knoxville	67	Bedford Dwellings*	391

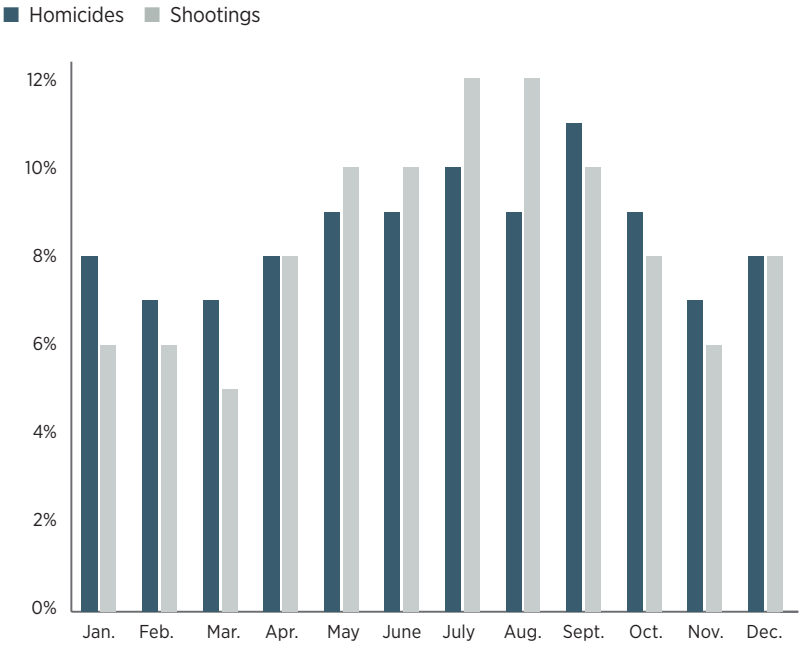
**Severely Distressed Neighborhood per Annie E. Casey Foundation Criteria*

When Did Violence Occur?

Month of the Year

The frequency of homicides tended to increase from spring through early fall, then decline during the winter months. This was also true of shootings in the city, with an even higher percentage of shootings occurring in the warmer months than homicides (61 percent of all shootings occurred between April and September).

FIGURE 15: **Percent of Homicides and Shootings by Month, City of Pittsburgh, 2000 through 2012**

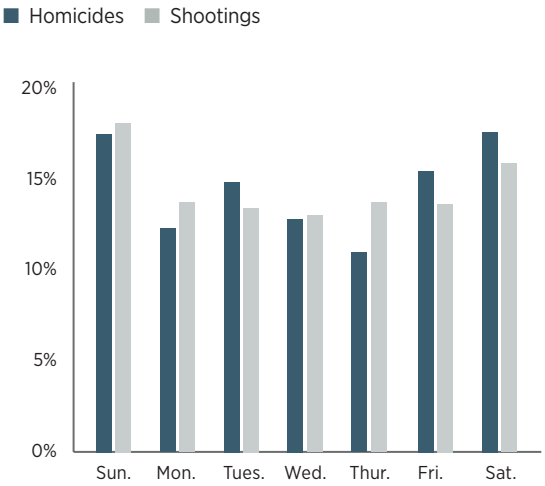


Data Source: City of Pittsburgh Bureau of Police

Day of the Week

Both homicides and shootings occurred more often on the weekends than during the week, with the most violent day being Sunday (this includes early Sunday morning between midnight and 6 a.m.). Thirty-five percent (277) of homicides occurred on Saturday or Sunday, and 50 percent (399) occurred from Friday through Sunday. Thirty-four percent (727) of all shootings occurred on Saturday or Sunday, and 49 percent (1,019) occurred from Friday through Sunday.

FIGURE 16: **Percent of Homicides and Shootings by Day of the Week, City of Pittsburgh, 2000 through 2012**

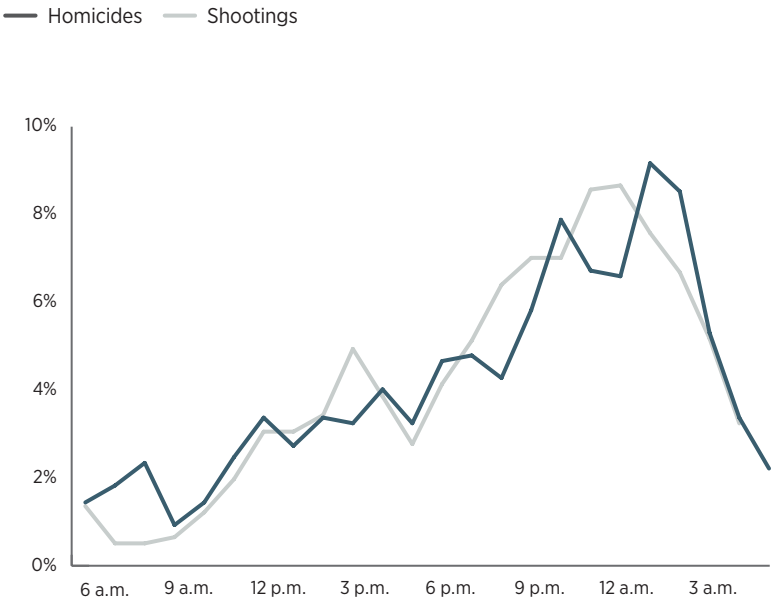


Data Source: City of Pittsburgh Bureau of Police

Time of Day

Homicides and shootings occurred more often during late night, with homicides occurring most frequently at 2 a.m. and shootings occurring most often at midnight. Shootings include all attacks with a firearm that result in injury, and occur more frequently than homicides.

FIGURE 17: **Percent of Homicides and Shootings by Time of Day, City of Pittsburgh, 2000 through 2012**



Data Source: City of Pittsburgh Bureau of Police

Variation by Age in Time-of-Day Trends

Using Routine Activity Theory to Understand Patterns

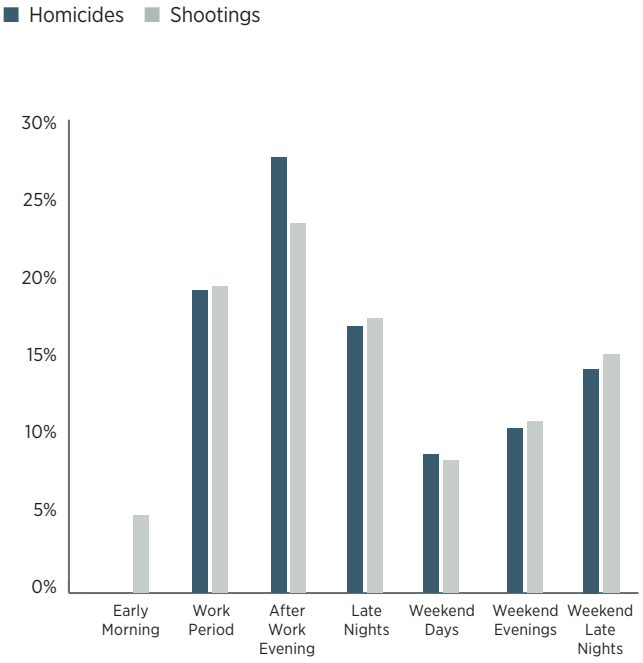
To better predict when people are at greatest risk of victimization, this report used methods developed by Caterina Gouvis Roman in her analysis of crime in Washington, D.C.[6] This method combines the analysis above into one view (of both time and day of the week), presenting a more nuanced picture of when violence is occurring.

[6] Caterina Gouvis Roman. (2005). *Routine Activities of Youth and Neighborhood Violence: Spatial Modeling of Place, Time and Crime.* Washington, DC: The Urban Institute.

Patterns of violence and victimization differ by age. When examining all violence, homicides and shootings most often occur during weekday evenings and weekdays. The pattern of violence for young adults (18 through 24) mirrors this overall trend. Children ages five through 17 are most often victimized during weekday and weekend evenings during the school year and during weekday late nights over the summer.

In the City of Pittsburgh, violence was more dispersed on the weekends than during the week. During the week, violence was much more concentrated in the period after work in the evenings. During the weekends, violence occurred most often during late-night hours.

FIGURE 18: **Patterns for All Homicide and Shooting Victims, City of Pittsburgh, 2000 through 2012**



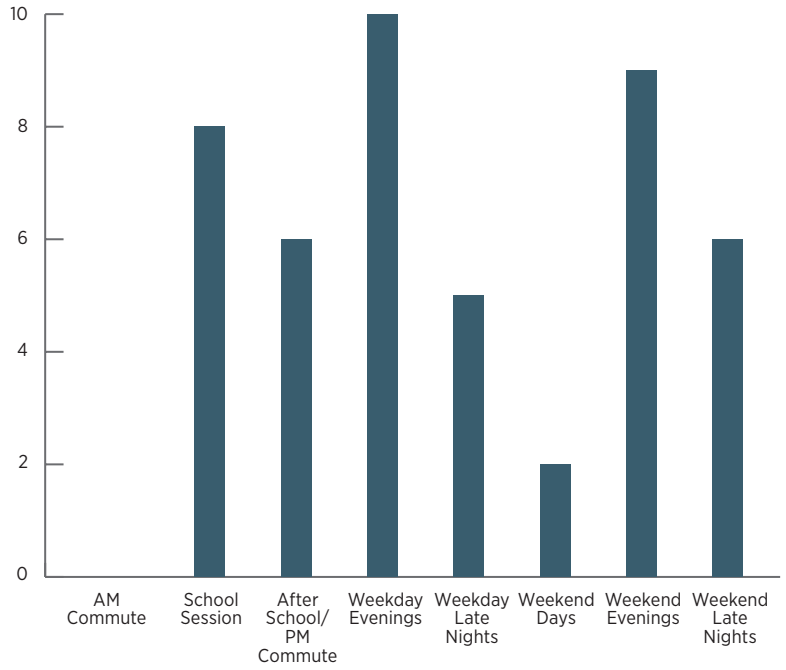
Data Source: City of Pittsburgh Bureau of Police

Routine activity theory is most useful to better predict when children and young adults are at greatest risk of victimization. Roman categorized every hour of the week into one of eight temporal categories to correspond to the daily routine of youth ages five through 17 years and of young adults ages 18 through 24. For those ages five through 17, the summer months were analyzed separately using a six-category scheme. More information on the specific time categories and corresponding activities can be found in Appendix B on page 34.

During the school year, victims age 17 and younger were most susceptible to violence during weekday and weekend evenings (6:00 p.m. through 11:59 p.m.). The next most common time for homicide victims occurred during school hours. This could be because these students were not in school at the time of their murders, either because they were not attending or because they were not enrolled.

FIGURE 19: School Year Homicide Victimization Patterns, City of Pittsburgh, 2000 through 2012

School Year Victimization: 5- to 17-Year-Olds (N=46)

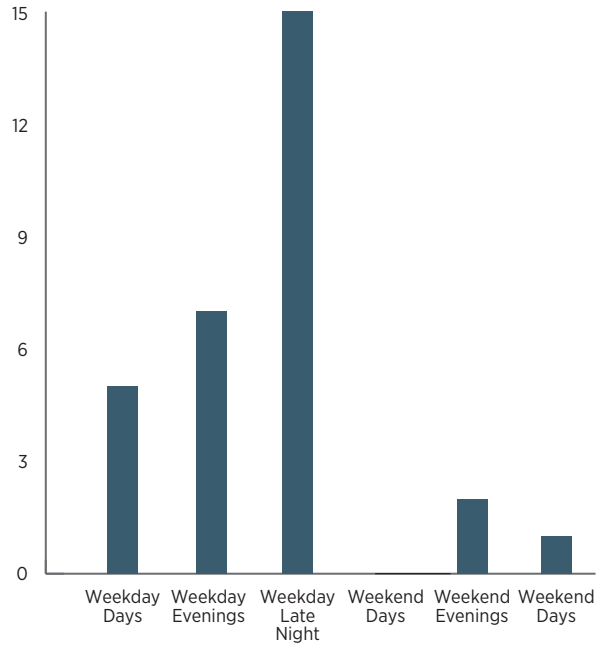


Data Source: City of Pittsburgh Bureau of Police

Over the summer, half of the young homicide victims were killed on a weekday late night (12:00 a.m. through 5:59 a.m.), with the next most common time being weekday evening (from 6:00 p.m. through 11:59 p.m.). About three quarters of all homicide victims ages five through 17 in the summer were killed during weekdays from 6:00 p.m. through 5:59 a.m.

FIGURE 20: **Summer Victimization Patterns, City of Pittsburgh, 2000 through 2012**

Summer Victimization: 5- to 17-Year-Olds (N=46)



Data Source: City of Pittsburgh Bureau of Police

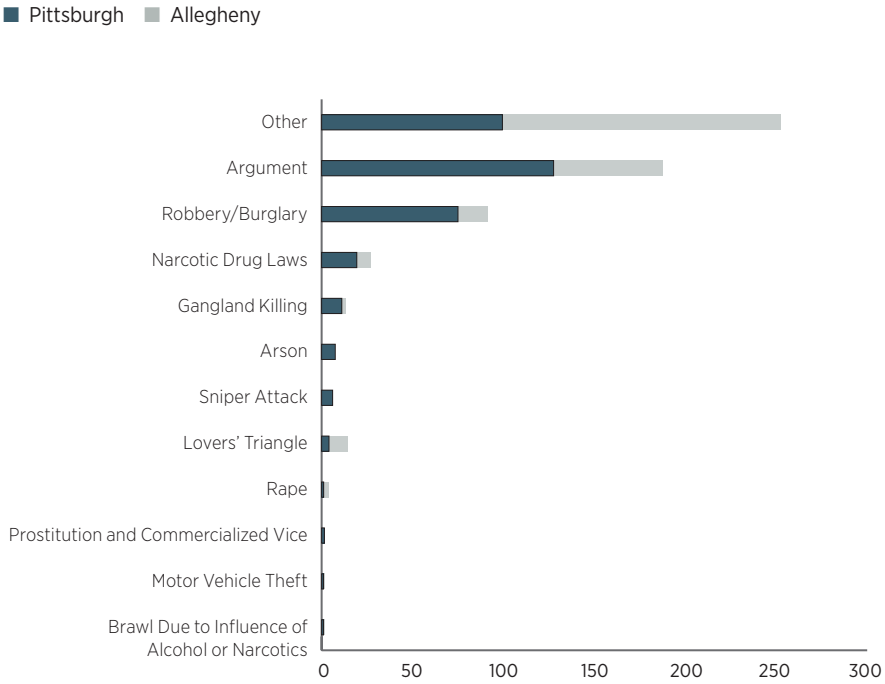
Why Is Violence Occurring?

Motive

Understanding why violence occurs is important in developing methods to prevent and mitigate potentially violent situations. Using data from the Pennsylvania State Police, the following section details the offenders' reported motives. Motives were reported in 621 incidents (43 percent of all homicides reported). It was less common to know the reason for homicides in municipalities outside of the City of Pittsburgh.

In the City of Pittsburgh, the most common motive listed for homicides was arguments, followed by robbery or burglary. Because the most commonly-reported motive for homicides throughout the rest of Allegheny County was "other," no conclusions can be drawn.

FIGURE 21: **Motive by Homicides, Allegheny County, 2000 through 2012**



Data Source: Uniform Crime Reporting for City of Pittsburgh and Allegheny County

CONCLUSION AND RECOMMENDATIONS

Local Response

Violence has been declining in Pittsburgh and the rest of Allegheny County, in part through the coordinated efforts of law enforcement, DHS, community providers and community members, who have been delivering prevention and intervention services for youth at risk of witnessing or engaging in violence:

- **Safe Start:** The Safe Start program works with children who have witnessed a violent act in their home or community. The program helps those children process the experience and links them and their family with any additional services that are needed.
- **Family Support Centers:** These centers, located in most communities throughout the county, provide services to improve the growth and development of children and parents. A variety of services are provided at the centers, including education (for both children and adults), child care, after-school and summer youth programs, and parenting classes.
- **After-school programs:** DHS supports the Beverly Jewel Wall Lovelace Program, which provides after-school and summer activities for children in 23 public housing communities. DHS also supports many faith-based institutions in their provision of after-school programs for at-risk children in high-poverty communities. These programs provide community-based support and resources, strengthening families and preventing costly interventions in the future.
- **Truancy prevention:** DHS provides clients with intensive truancy interventions and works with the Allegheny Intermediate Unit through the Truancy Prevention Program, a coordinated early intervention program. Truancy intervention services are provided, through contracted providers, to youth referred to child welfare for truancy. DHS is also working closely with the magisterial courts and local school districts (including Pittsburgh Public Schools) to identify interventions that may help reduce truancy for youth who are referred to court. In addition, through its partnership with Pittsburgh Public Schools, DHS is operating an early intervention program within two schools to address causes of truancy early to improve child educational outcomes, reduce future child welfare service utilization and increase overall child well-being.
- **Youth workforce investment:** Youth employment and training services are offered through a number of in-school and out-of-school providers. In-school services provide education and career preparation for teenagers 14 through 18 years old; out-of-school providers give youth a hands-on educational experience through vocational training. Classes such as machining and computer repair are taught with the focus on gaining valuable skills that lead to training-related employment. Another program serves pregnant and parenting youth who left high school before graduating.
- **Transition-age youth services:** DHS is investing numerous resources in its services for transition-age youth. The Independent Living Initiative addresses the needs of transition-age youth ages 16 through 24 by providing academic, career and life skills preparation

as they prepare to transition from placement to independence. Staffed with a network of DHS caseworkers, Independent Living provider agencies and education specialists, the Independent Living Initiative also offers a Youth Engagement Specialist who works with the youth and several Youth Support Partners (young adults who have been involved in DHS systems) to carry out these activities. Youth are also able to participate in Embark, a mentoring program that was developed to help connect former and current foster youth pursuing post-secondary education with professional adult mentors.

DHS also operates several prevention and intervention services that more broadly address the issues of violence:

- **Emergency shelters:** DHS operates emergency shelters for people who are in immediate need of housing and are homeless (i.e., have no permanent legal residence of their own). Reasons for seeking shelter may include fleeing from domestic violence and/or loss of housing due to loss of income, physical health and other related issues.
- **Domestic violence supports:** DHS is partnering with the Allegheny County Courts to monitor, evaluate and improve the effectiveness of the county's Batterers' Intervention Programs. DHS also supports a number of domestic violence shelters.

DHS also supports services for individuals who are currently, or have previously been, involved with the criminal justice system.

- Individuals currently incarcerated can receive services from a variety of social service providers stationed in Allegheny County Jail. The primary goal is to provide offenders with services (e.g., employment, education and housing assistance) that will benefit them upon release from the jail and reduce the likelihood of recidivism.
- **Justice Related Services:** The unit of Justice Related Services (JRS) within the Office of Behavioral Health provides additional services to criminal justice–involved individuals who have mental health and/or substance abuse issues. The JRS unit ensures that those offenders receive appropriate treatment during and following incarceration. JRS services include: training law enforcement officers and emergency services personnel about the characteristics of mental disorders; an array of supports to assist people who have mental illness and/or co-occurring mental illness and substance use disorder who encounter the criminal justice system; and case management for all people with mental illness referred from the point of formal arraignment to the time of sentencing. In addition, JRS supports Allegheny County's Mental Health Court and Drug Court by providing case management and support programs in lieu of incarceration (if appropriate).
- **Jail Collaborative:** DHS participates in the Jail Collaborative, which is working to improve public safety and reduce recidivism by building a better system of re-entry for people coming out of the ACJ. Re-entry programs include employment assistance, addiction counseling, housing services, service coordination, family support and mentoring. These programs begin while inmates are still in jail and continue through their transition back to their communities.

Finally, there are a variety of other community organizations and programs, actively supported by DHS, to prevent violence, provide intervention services for those at risk of violence and reduce crime within communities. Examples include the Family Acceptance Project, which works to decrease violence toward lesbian, gay, bisexual and transgender (LGBT) youth, and the Center for Victims, which operates a 24-hour hotline and provides crisis intervention, support and counseling for victims, witnesses and survivors of violent crime.

These programs indicate the depth of the commitment to ending violence in this county. But despite these vigorous and widespread programs, violence continues to be a serious concern. In some communities, shootings are an epidemic. In addition, more work is needed to understand the motives behind violence and the networks of offenders that perpetuate it. It is only with this information that we can develop interventions that more predictably interrupt the cycle of violence.

APPENDIX A: CITY OF PITTSBURGH 2010 CENSUS DATA

TABLE 1: **Pittsburgh Population by Age, 2010**

AGE	TOTAL	% OF TOTAL POPULATION
Under 18	49,799	16%
18 & over	255,905	84%
20 – 24	42,212	14%
25 – 34	51,740	17%
35 – 49	49,795	16%
50 – 64	54,474	18%
65 & over	42,151	14%
Total	**305,704**	**100%**

TABLE 2: **Pittsburgh Population by Gender and Race, 2010**

POPULATION BY GENDER		
GENDER	POPULATION	PERCENT OF TOTAL
Male	148,101	48%
Female	157,603	52%
RACE		
African American	79,710	26%
Non–African American	225,994	73%

APPENDIX B: ROUTINE ACTIVITY THEORY

Routine Activity Time Categories, Youth Ages 5–17

SCHOOL YEAR		
AM Commute	Monday – Friday	7:00 a.m. – 8:59 a.m.
School Session	Monday – Friday	9:00 a.m. – 2:59 p.m.
After School/PM Commute	Monday – Friday	3:00 p.m. – 5:59 p.m.
Weekday Evenings	Sunday – Thursday	6:00 p.m. – 11:59 p.m.
Weekday Late Nights	Sunday – Thursday	12:00 a.m. – 6:59 a.m.
Weekend Days	Saturday – Sunday	7:00 a.m. – 5:59 p.m.
Weekend Evenings	Friday – Sunday	6:00 p.m. – 11:59 p.m.
Weekend Late Nights	Friday – Sunday	12:00 a.m. – 6:59 a.m.
SUMMER		
Weekday Days	Monday – Friday	7:00 a.m. – 5:59 p.m.
Weekday Evenings	Sunday – Thursday	6:00 p.m. – 11:59 p.m.
Weekday Late Nights	Sunday – Thursday	12:00 a.m. – 6:59 a.m.
Weekend Days	Saturday – Sunday	7:00 a.m. – 5:59 p.m.
Weekend Evenings	Friday – Sunday	6:00 p.m. – 11:59 p.m.
Weekend Late Nights	Friday – Sunday	12:00 a.m. – 6:59 a.m.

Routine Activity Time Categories, Adults Ages 18–24

Weekday Early Morning	Monday – Friday	5:00 a.m. – 8:59 a.m.
Weekday Work Period	Monday – Friday	9:00 a.m. – 5:59 p.m.
After Work / Evening	Monday – Friday	6:00 p.m. – 9:59 p.m.
Weekday Late Night	Monday – Thursday	10:00 p.m. – 4:59 a.m.
Weekend Early Morning	Saturday – Sunday	5:00 a.m. – 8:59 a.m.
Weekend Days	Saturday – Sunday	9:00 a.m. – 5:59 p.m.
Weekend Evenings	Saturday – Sunday	6:00 p.m. – 9:59 p.m.
Weekend Late Night	Friday – Sunday	10:00 p.m. – 4:59 a.m.