



*City of Pittsburgh Bureau of Police*

# **Violence in the City of Pittsburgh: 2010 through 2014**

AUGUST 2015

## DEFINITIONS

- **Aggravated Assault with a Firearm** — An attempt to cause serious bodily injury to another with a firearm; used interchangeably (in this report) with aggravated assault with a gun
- **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; used interchangeably (in this report) with murder
- **Shooting** — Aggravated assault (with a firearm) that resulted in injury
- **Violence** — For purposes of this report, violence includes homicides, shootings, aggravated assaults with a gun and calls for shots fired

## KEY FINDINGS

This report examines violence that occurred between 2010 and 2014 in the City of Pittsburgh.<sup>1</sup>

<sup>1</sup> For trend data back to 1997, see *Homicides in Allegheny County*, <http://www.alleghenycounty.us/WorkArea/DownloadAsset.aspx?id=39671>

In 2014, the homicide rate in Pittsburgh was higher than the national rate. Unlike the national rate, which had decreased, Pittsburgh's rate increased by 49 percent compared to 2013 and 27 percent compared to 2010.

However, compared to 13 benchmark cities, Pittsburgh's homicide rate was below the average.

While Pittsburgh is widely considered to be a safe city, it is not equally safe for all of its residents. During this five-year time period, compared to Pittsburgh's average homicide rate of 17 per 100,000, the rate for African American men was 117 per 100,000. For African American men ages 18 through 24, the rate was 311 per 100,000, or roughly 69 times the national rate.

Offender demographic characteristics follow the same trends as victim demographic characteristics; overwhelming male, African American and young adults.

Over the five-year period, 87 percent of homicides in Pittsburgh were committed with a firearm. This is higher than the national average of about two-thirds.

From 2010 through 2014, there were three shootings for every homicide, nearly four aggravated assaults with a gun without injury, and more than 48 calls for shots fired. These ratios are lower than national ratios, but follow the same general trend.

The City of Pittsburgh homicide clearance rate in 2013 was 53 percent and ranged over the five-year period from a low of 30 percent in 2012 to a high of 58 percent in 2010. This is consistently lower than the national average rate, which was 64 percent in 2013. Homicides of men and African Americans in Pittsburgh are cleared at a lower rate than those of women and white victims. Future analysis will explore how factors such as the relationship between victim and offender, homicide motive, and location of homicide (whether it occurred inside or outside), among other factors, impacts clearance rates.

Homicide hotspots in Pittsburgh include neighborhoods in the East End of the city, the Hill District and neighborhoods in South Pittsburgh.

Homicides in Pittsburgh are somewhat more likely to occur in the warmer months and on the weekend.

In the City of Pittsburgh, the most common motive listed for homicides was arguments, followed by robbery or burglary.

### ABOUT THE CITY OF PITTSBURGH

The City of Pittsburgh is the second largest city in the Commonwealth of Pennsylvania, and is the county seat and urban core of Allegheny County. With a population estimate of 305,702<sup>2</sup>, Pittsburgh accounts for 25 percent of the county's population. Economic transformation has shaped the demographics of the Pittsburgh region over several decades. Historically low migration rates into the Pittsburgh region have resulted in low overall diversity rates and a small Hispanic population.<sup>3</sup> Twenty-six percent of city residents are African American, 66 percent are white and eight percent are another single race or bi/multiracial.

<sup>2</sup> U.S. Census, 2010

<sup>3</sup> <http://pittsburghtoday.org/Demographics.html>

Pittsburgh is also one of the oldest cities in the country. Pittsburgh has a higher percentage of people over 65 (14 percent) than any of the *PittsburghToday* benchmark cities.<sup>4</sup>

<sup>4</sup> *ibid*

Pittsburgh is made up of 90 unique neighborhoods, each with its own distinct character. Because of its topography, Pittsburgh functions much like a series of interconnected urban villages. At just over 55 square miles, the City of Pittsburgh is compact as well.<sup>5</sup>

<sup>5</sup> [http://apps.pittsburghpa.gov/dcp/PGHSNAP\\_v0.91\\_Beta\\_\(Jan\\_2010\).pdf](http://apps.pittsburghpa.gov/dcp/PGHSNAP_v0.91_Beta_(Jan_2010).pdf)

### ABOUT THE BUREAU OF POLICE

The City of Pittsburgh was incorporated in 1816 when the population was 9,000. In 1857, an ordinance was adopted that established the police department for Pittsburgh, to consist of one chief and not more than nine constables. Today, the Bureau of Police is organized into six zones and is comprised of approximately 850 sworn law enforcement officers who serve the residents and visitors of Pittsburgh.

### Mission of the Bureau of Police

“Our mandate is the continued protection and enhancement of our diverse neighborhoods by working in partnership with our citizens to creatively solve problems, always remaining sensitive to the authority to which we are entrusted. It is our challenge to provide committed service through accountability, integrity and respect”

### Values of the Bureau of Police

We believe in the value and worth of all members of the Bureau of Police.

We believe our integrity is not negotiable.

We believe we are individually accountable for upholding the values of our organization.

We believe we can best earn respect by first respecting the rights of others.

We believe in striving to achieve the highest moral, ethical and professional standards.

We will adapt to the changing future by maintaining partnerships built upon accountability, integrity and respect

## **DATA SOURCES**

### **Allegheny County 911 Communications Center**

This report utilizes data about Calls for Service for Shots Fired in the City of Pittsburgh for the years 2010 through 2014. Analyzing these data allows us to provide a more complete picture of the prevalence of gunfire in the City of Pittsburgh. All Calls for Service are collected by the Allegheny County 911 Communications Center. These data were accessed by the Pittsburgh Bureau of Police.

### **City Of Pittsburgh Bureau of Police**

This report includes Incident data from 2010 through 2014 for all homicides and aggravated assaults with a firearm recorded by the City of Pittsburgh Bureau of Police. Homicide data include date and time of offense; location of offense by address and census tract; victim's race, gender and age; offender's race, gender, and age (where known); weapon used; and clearance status. Aggravated assault with a firearm data include offense (categorized as either firearm assault with injury, without injury, drive-by aggravated assault resulting in injury, or drive-by assault without injury); date and time of offense; and location of offense by address, census tract and neighborhood.

### **Pennsylvania State Police**

The Pennsylvania State Police collect Uniform Crime Reporting (UCR) data from participating police departments. These data are available for query from their website. UCR data for this report were downloaded on August 1, 2015. These data include information on incidents, victims, offenders, relationships, weapons and motives, and were used primarily to provide information on offenders.

### **Pittsburgh Today**

This report uses Pittsburgh Today "benchmark cities" to make comparisons between local violence and violence in similar cities. Pittsburgh Today compares Pittsburgh to 14 cities: Cleveland, Boston, Denver, Charlotte, Minneapolis-St. Paul, Indianapolis, Philadelphia, Milwaukee, Richmond, Kansas City, Cincinnati, Baltimore, St. Louis, and Detroit. Cities may be excluded from analysis if there is incomplete violence data. For example, the City of Cleveland was excluded from the 2013 FBI Crime in the United States report due to incomplete reporting.

**U.S. Census Bureau**

Population data for City of Pittsburgh neighborhoods were obtained from the U.S. Census Bureau website. According to population estimates from the 2010 census, a total of 305,704 people live in the City of Pittsburgh. Victimization rates were calculated by studying the city’s demographic composition based on the 2010 census data.

When appropriate and possible, the tables and figures in this report represent information as rates (i.e., the number of episodes per 100,000 people).

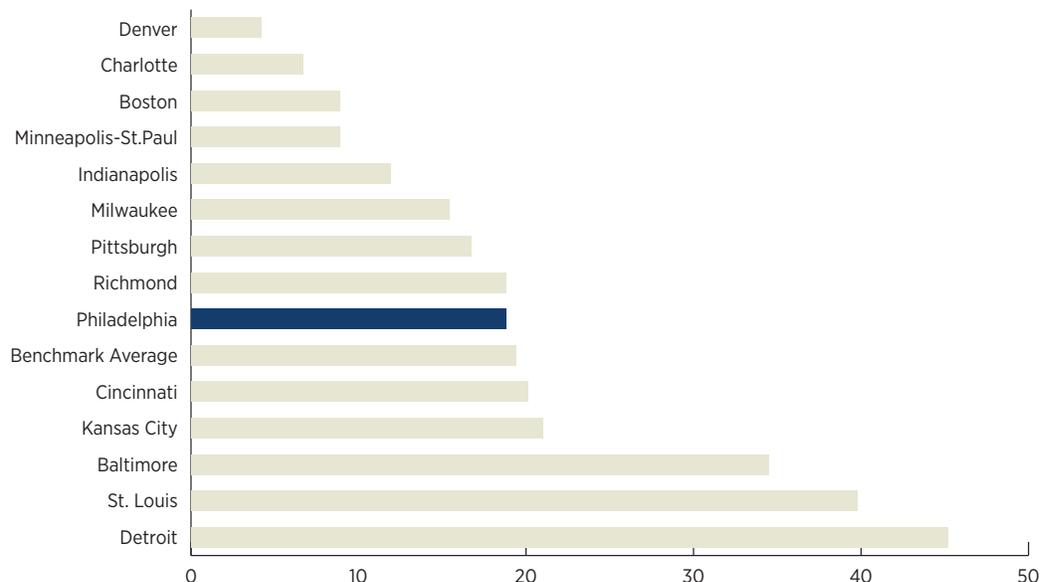
**VIOLENCE NATIONALLY AND LOCALLY WITH COMPARISON TO BENCHMARK CITIES**

In 2014, the homicide rate in the United States was 4.5 per 100,000. The rate represented a 0.5 percent decrease compared with the 2013 rate and an 3.2 percent decrease compared to 2010. Homicide rates tend to be higher in urban areas when they are compared to the rest of the country. In the City of Pittsburgh, the homicide rate in 2014 was 22.9 per 100,000 and, unlike the national trend, was up 49 percent compared to 2013 and 27 percent compared to 2009.

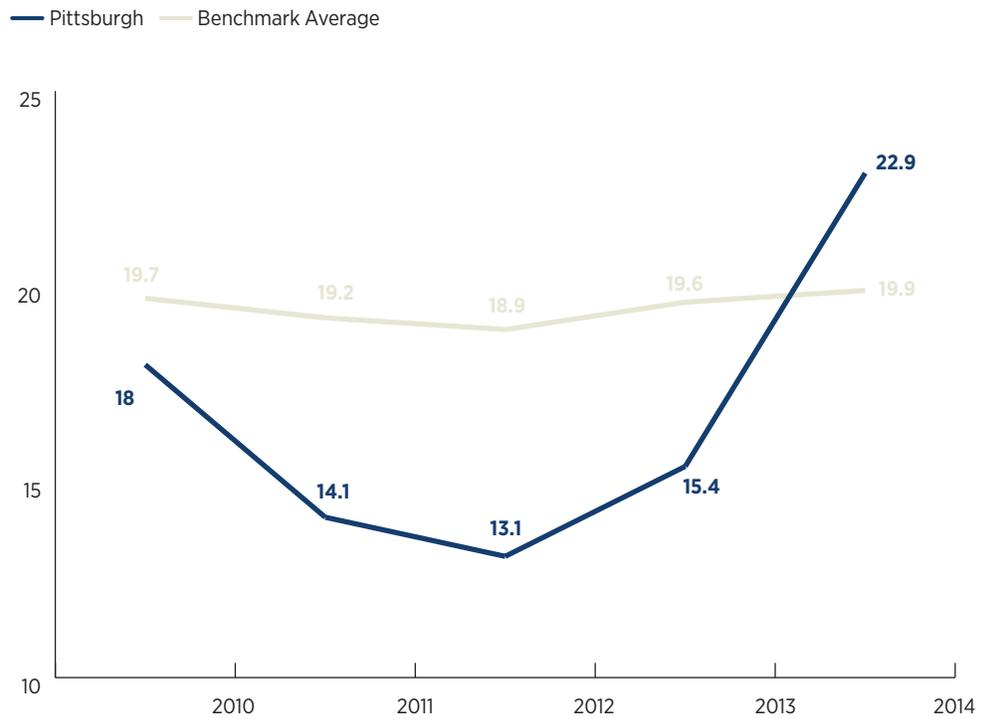
<sup>6</sup> <http://www.pittsburghtoday.org>

Compared with the 13 *PittsburghToday*<sup>6</sup> benchmark cities during the period 2010 through 2014 (see **Figure 1**), the City of Pittsburgh’s average homicide rate over the five-year period (16.7 per 100,000 people) is below the average homicide rate of 19.4 murders per 100,000 people. Pittsburgh’s rate is less than half that of Detroit and St.Louis; comparable to Milwaukee; and more than twice that of Denver and Charlotte. Over the most recent five years available, Pittsburgh’s homicide rate has always been below the benchmark average, except for 2014 (see **Figure 2**).

**FIGURE 1: Average Annual Homicide Rate, Benchmark Cities, 2010 through 2014**



**FIGURE 2: Pittsburgh and Benchmark Cities Average Homicide Rate, 2010 through 2014**

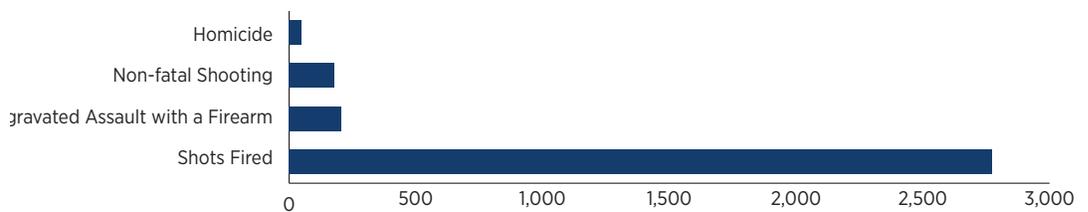


**TOTAL VIOLENCE**

Although homicides are most likely to receive media attention, national data show that aggravated assaults with a firearm were 11 times<sup>7</sup> more likely to occur than homicides; shootings were six times more likely to occur. While Pittsburgh’s ratios are lower, the trend is similar to national trends; from 2010 through 2014, there were three shootings for every homicide, nearly four aggravated assaults with a gun without injury, and over 48 calls for shots fired (**Figure 3**).

<sup>7</sup> [UCR FBI 2014, Table 1.](#)

**FIGURE 3: Average of Incidents 2011 through 2014**



**TRENDS**

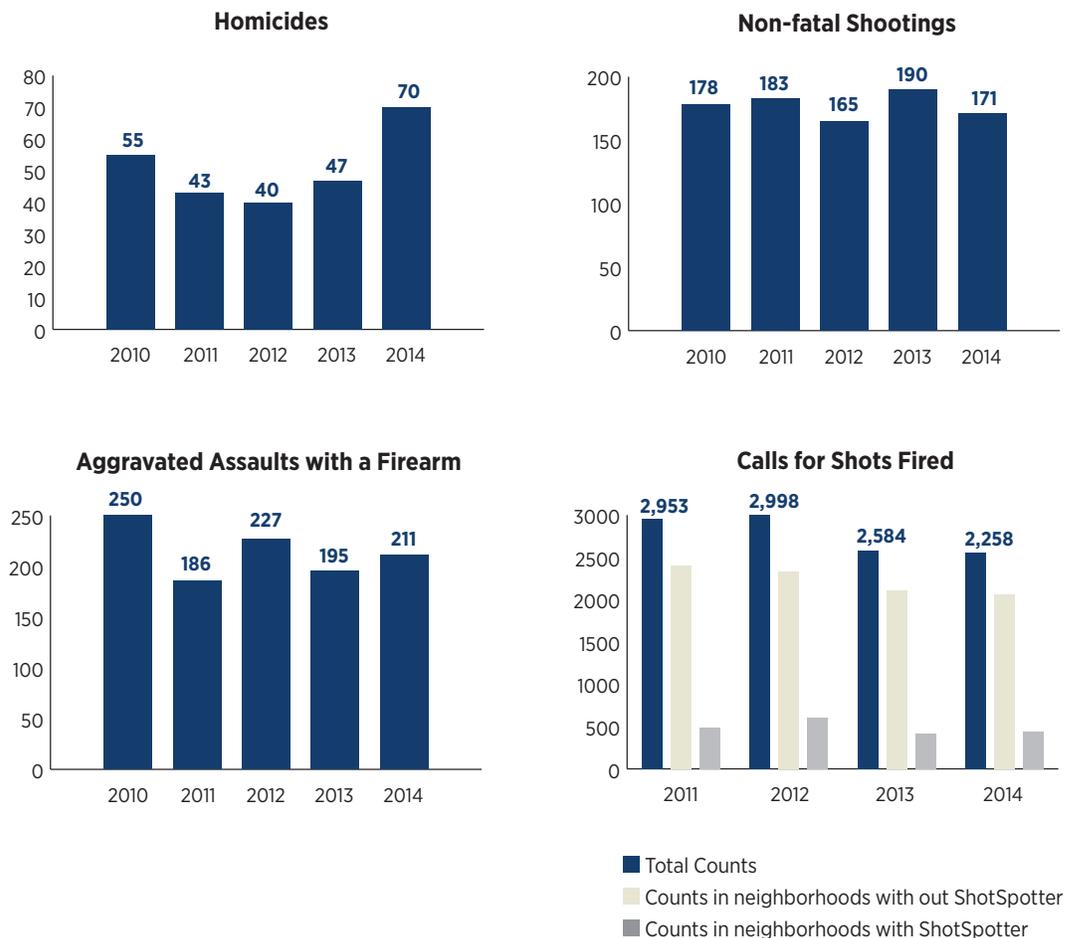
There is not a consistent trend across all violence types examined in this report: in 2014, homicides and aggravated assaults with a gun (without injury) were up, shootings and calls for shots fired were down. Future analysis can examine which crime types are better correlated (or could be viewed as leading indicators) for homicide.

As seen in **Figure 4**, homicides increased in 2014 after several years of fewer than 50 homicides per year. The average number of homicides over the four-year period (2010-2013) was about 46 per year, up 51 percent in 2014.

On average over the same period, there were:

- 179 shootings per year with a four percent decrease, to 171 shootings, in 2014.
- 215 gun assault, down two percent (to 211) in 2014.
- 2,845 calls for services for shots fired between 2011 and 2013; the average over the two most recent years (2013-2014) was down 14 percent from the average of 2010 through 2012.

**FIGURE 4: Five Year Trend, all Violence Types, Pittsburgh, 2010 through 2014.**

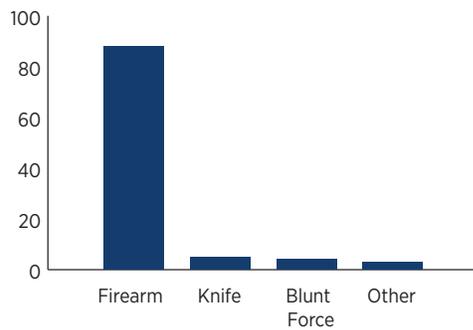


### WEAPON USED IN HOMICIDES

<sup>8</sup> [FBI 2014 Uniform Crime Reports \(UCR\)](#)

Nationally, about two-thirds of homicides are committed with a firearm.<sup>8</sup> The Pittsburgh average over the five-year time period, at 87 percent, was higher than the national average.

FIGURE 5: Homicide by Weapon, Pittsburgh, 2010 through 2014



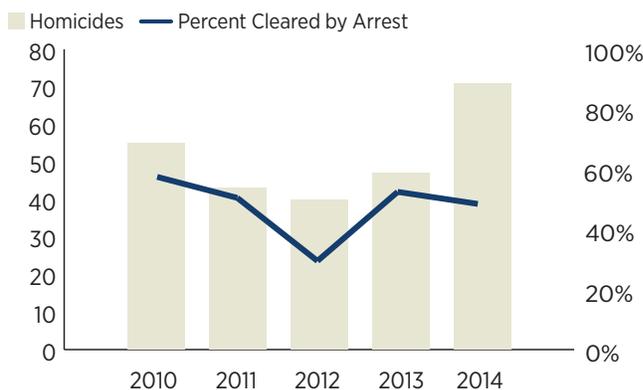
### CLEARANCE RATES

<sup>9</sup> [FBI 2013 Uniform Crime Reports \(UCR\)](#)

Nationally, the clearance rate for homicides in 2013 was 64 percent.<sup>9</sup> The City of Pittsburgh homicide clearance rate in 2013 was 53 percent and ranged over the five-year period from a low of 30 percent in 2012 to a high of 58 percent in 2010. Homicide clearance rates differ by the gender and race of the victim. Over the time period, 64 percent of homicides of women were cleared, while only 45 percent of men had their homicides solved. Only 41 percent of homicides of African American victims were solved, as compared to 91 percent of homicide of white victims.

There are other variables that may help to explain these differences, including the motive of homicide, relationship between victim and offender, and location of the homicide (inside or outside). For example, looking at the motive of the homicide (domestic violence, robbery or gang-related homicide) might help to explain differences by gender and race.

FIGURE 6: Homicides and the Percent Cleared by Arrest, 2010–2014



## WHO WERE THE VICTIMS OF HOMICIDE?

### Gender of Victims

Men were at higher risk of being a victim than women. Over the five-year time period, men were nearly seven times more likely than women to be victims of homicide. On average, men were 87 percent of all homicide victims (ranging from a low of 83 percent in 2013 to a high of 93 percent in 2012).

### 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<sup>10</sup> population, an average of more than 85 percent of homicide victims over the five-year period were African American (81 percent in 2013 to 89 percent in 2014). From 2010 through 2014, African Americans living in Pittsburgh experienced an average homicide victimization rate that was 15 times greater than the rate for white residents.

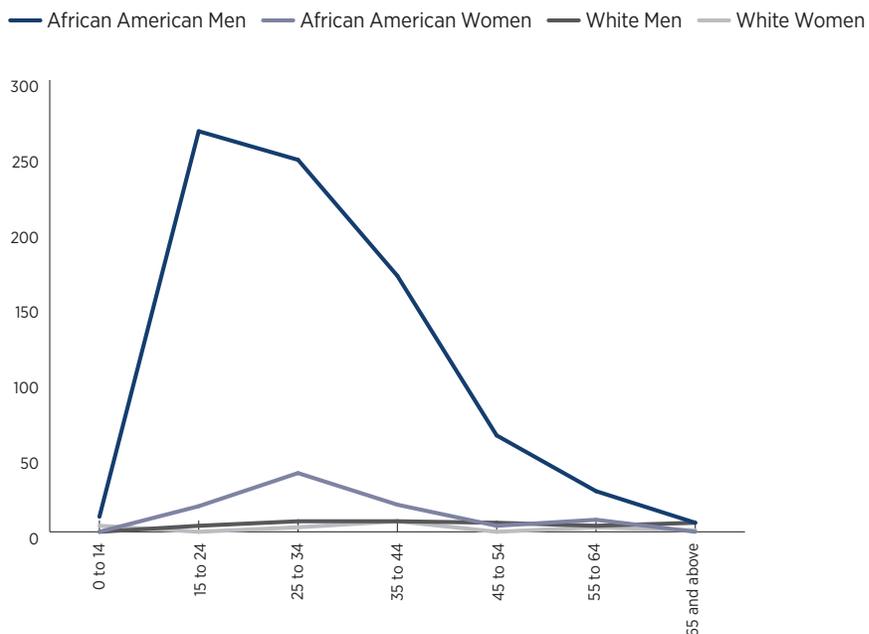
<sup>10</sup> United States Census Bureau

### Age of Victims

Young adults were much more likely to be homicide victims than the rest of the population. The median age of a homicide victim was 27. Individuals ages 18 through 24 accounted for 33 percent of all victims in the City of Pittsburgh. Adults ages 25 through 34 accounted for an additional 26 percent of victims

Figure 7 provides a visual representation of the demographic characteristics of local homicide victims and demonstrates that, although the rates are higher for African American males in almost every age range, the critical ages for homicide victimization were the late teens through the late thirties.

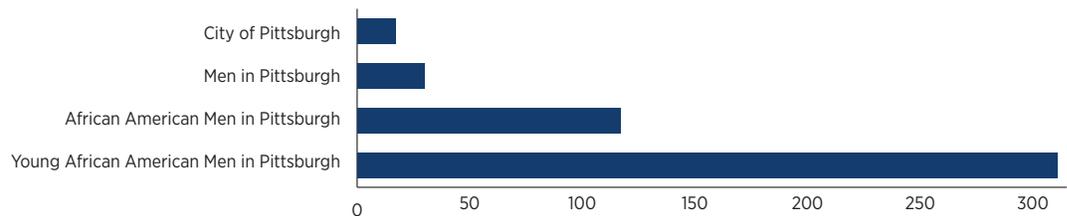
FIGURE 7: Homicide Rates by Race, Gender & Age, City of Pittsburgh, 2010 through 2014



### Population at Highest Risk of Victimization

When considering age, race and gender together, a stark picture emerges in which risk of victimization for young African-American men is far out of proportion to their numbers. The average homicide rate in Pittsburgh from 2010 through 2014 was 17 per 100,000 people. For African American males in Pittsburgh, the rate was 117 per 100,000. For African-American men ages 18 through 24, the homicide rate in Pittsburgh was 311 per 100,000. This is 19 times the rate for the City of Pittsburgh as a whole (**Figure 8**).

**FIGURE 8: Comparative Homicide Rates, 2010 through 2014**



### WHO WERE THE OFFENDERS?

From 2010 through 2014, there were 125 cases with at least one offender identified. In total, there were 158 offenders identified. Victims and offenders were the same race in 64 percent of incidents, the same race and gender in 53 percent of incidents, and the same race, gender and age group (within 10 years) in 24 percent of incidents.

#### Gender

Over the time period, there were 158 offenders whose gender was identified. Of those, 94 percent were men and six percent were women.

#### Race

There were 158 offenders whose race was identified. Of those, 84 percent were African American, 15 percent were white and two percent were another race.

#### Age

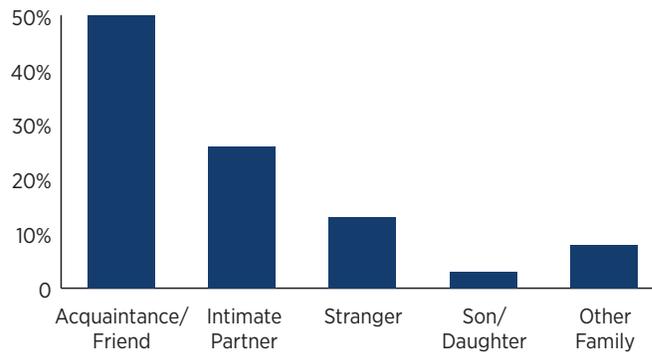
There were 156 offenders whose age was identified. Of those, individuals ages 15 through 24 accounted for 53 percent of all homicide perpetrators in the City of Pittsburgh. Adults ages 25 through 34 accounted for an additional 24 percent of perpetrators.

### What Was the Relationship between Victim and Offender?

Relationship between victim and offender was identified using data reported by the City of Pittsburgh but available from the Pennsylvania State Police. In those cases where the relationship between victim and offender was known (only 20 percent of cases), half of the victims and offenders in Pittsburgh were acquaintances or friends. Twenty-six percent of

victims were intimate partners of the offenders. The offender was a stranger to the victim in only 13 percent of homicides for which data were available. Better data completeness is needed to more accurately assess this important dynamic.

**FIGURE 9: Relationship of Homicide Victim to Offender, Pittsburgh, 2010 through 2014**



### FUTURE ADDITIONAL ANALYSIS

There is a lot more work to be done to understand homicide victims and offenders. Future analysis will look at where victims and offenders live, their prior involvement in human services and prior criminal justice involvement. This type of analysis can add context and richness to our understanding of the violence issues impacting our communities.

### WHERE DID VIOLENCE OCCUR?

**Figure 10** shows the density of homicides that occurred from 2010 through 2014 in the City of Pittsburgh. There were hotspots in the East End of Pittsburgh as well as in the Hill District and South Pittsburgh. The Northside is showing signs of cooling off a bit, particularly compared to the early 2000s; none of the Northside neighborhoods was ranked in the top 10 by total number and only one neighborhood was ranked in the top 10 by rate. This is in contrast to a 2000 through 2012 analysis that found three Northside neighborhoods among the top 10 (by total number or rate).<sup>11</sup>

Homewood South had both the highest number of homicides and the highest average homicide rate over the period. Homewood North and nearby neighborhoods also had homicide rates in the top 10 over the five-year period. The neighborhood of West End, not typically viewed among the most violent, did not appear in the top ten for the number of homicides, but had the tenth highest homicide rate during the period. Forty-four percent of all homicides from 2010 through 2014 occurred in the 10 neighborhoods listed in **Table 1**.

<sup>11</sup> *Homicides in Allegheny County, 1997-2012*, <http://www.alleghenycounty.us/WorkArea/DownloadAsset.aspx?id=39671>

Although violence in Pittsburgh is concentrated in a few communities, national and local research confirms that the vast majority of people living in these communities are not involved in the crime or violence. This is because street groups operating in these communities are dramatically overrepresented as victims. For example, research from Cincinnati, Ohio, identified 60 criminal groups composed of 1,500 individuals (less than 0.5 percent of the city’s population) who were associated with 75 percent of homicides in the city—as victim, perpetrator, or both.<sup>12</sup> Research replicated in Pittsburgh in 2010 finds a similar dynamic. During the years examined, less than 1 percent (0.4 percent) of Pittsburgh’s population is associated with a violent gang but members of these violent gangs are involved in 69 percent of all homicides.<sup>13</sup> Similar ratios have been found scores of communities, large and small, across the country.

<sup>12</sup> John Jay College of Criminal Justice, <http://nnscommunities.org/our-work/faqs#2>

<sup>13</sup> Unpublished research conducted by the University of Cincinnati Policing Institute, March, 2010.

Figure 10: Density Map of Homicide, City of Pittsburgh, 2010 through 2014

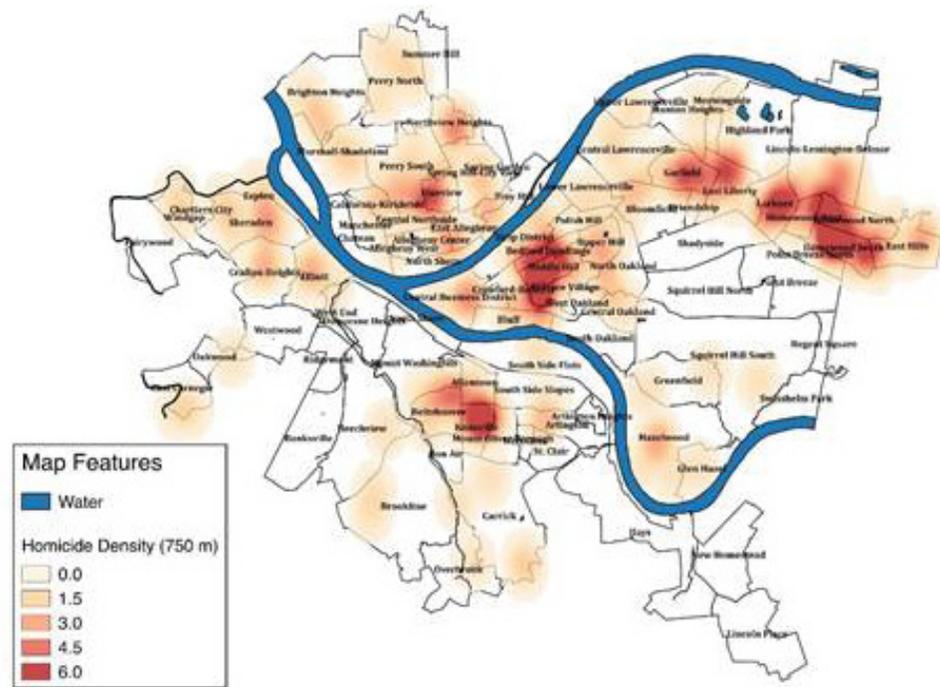


TABLE 1: Top Ten Pittsburgh Neighborhoods by Homicides &amp; Homicide Rate, 2010 through 2014

NEIGHBORHOOD	TOTAL HOMICIDES 2010-2014	NEIGHBORHOOD	AVERAGE HOMICIDE RATE (PER 100,000)
Homewood South	21	Homewood South	179
Homewood North	12	Homewood West	147
Knoxville	12	Bedford Dwellings	133
East Liberty	11	Larimer	127
Larimer	11	Middle Hill	105
Garfield	11	Strip District	97
Terrace Village	10	Fineview	93
Middle Hill	9	Beltzhoover	83
Bedford Dwellings	8	Northview Heights	82
East Hills <sup>14</sup>	8	West End	79

<sup>14</sup> Lincoln-Lemington-Belmar, Sheraden and Beltzhoover also had eight homicides during this time period.

Homicides by Police Zone are shown in **Table 2**. Overall, Zone 5 consistently records the most homicides (37 percent), followed by Zones 2 and 1. However, there is variation across years. For example, in 2011, incidents in Zones 1 and 2 drove the homicide problem (58 percent), where in 2013, incidents in those zones only accounted for 17 percent of all homicides.

TABLE 2: Homicides by Police Zone, City of Pittsburgh, 2010 through 2014

POLICE ZONE	HOMICIDES (2010-2014)	PERCENT OF TOTAL
Zone 1	42	16%
Zone 2	50	19%
Zone 3	32	12%
Zone 4	14	6%
Zone 5	91	37%
Zone 6	24	9%

## WHEN DID VIOLENCE OCCUR?

### Month of the Year

More than half (52 percent) of the violence in Pittsburgh took place between May and September. This was slightly less true for homicides, of which 47 percent occurred during these months

Thirty-six percent of violence took place on Saturday or Sunday.

FIGURE 11: Violence by Month, City of Pittsburgh, 2010 through 2014

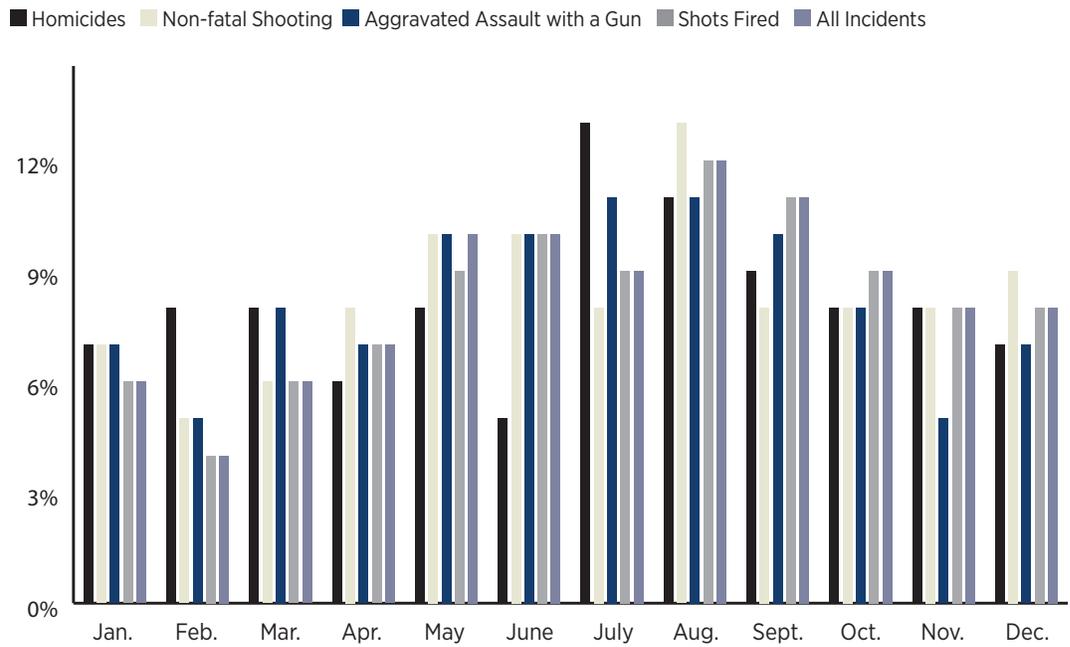
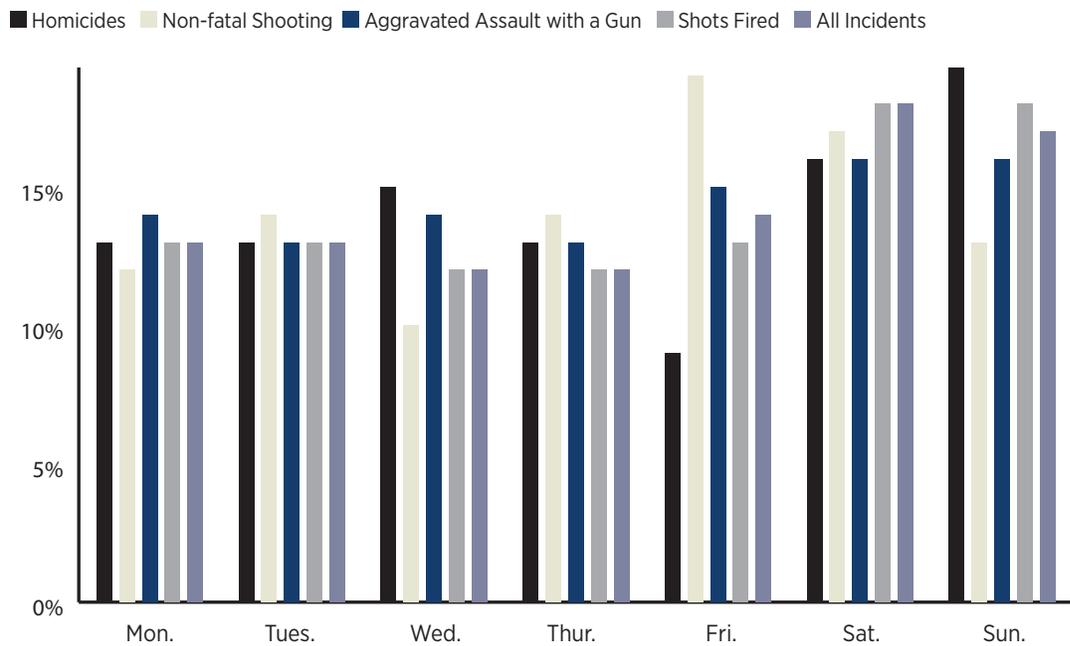
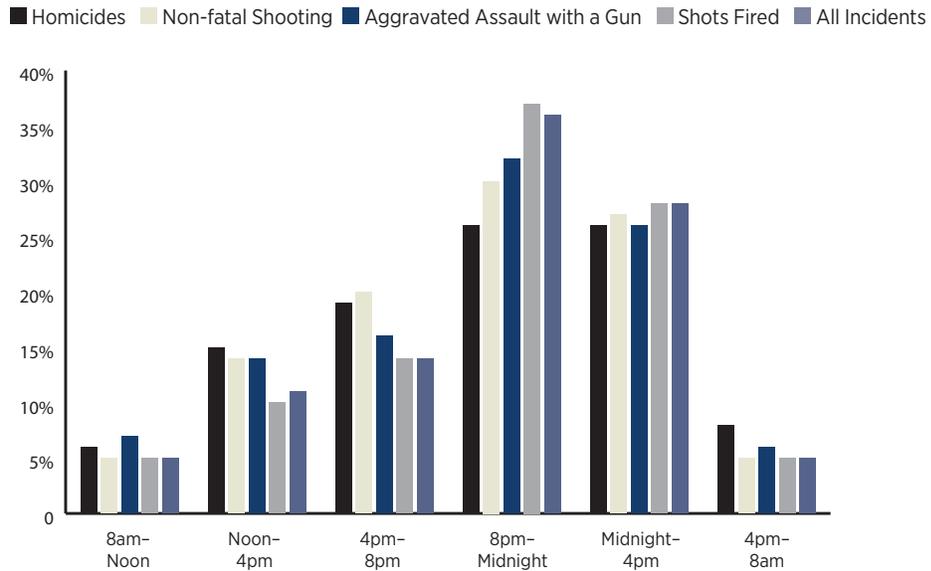


FIGURE 12: Violence by Day of Week, City of Pittsburgh, 2010 through 2014



**FIGURE 13: Violence by Time of Day, City of Pittsburgh, 2010 through 2014**



The majority of violence (64 percent) from 2010 through 2014 occurred between 8pm and 4am. However, there was variation by type of violence; 52 percent of homicides occurred during this time, while 66 percent of calls for shots fired were recorded during these hours.

**Future Additional Analysis**

Patterns of violence and victimization differ by age, and additional analysis can examine age variation in when violence is occurring. To better predict when people are at greatest risk of victimization, future analysis can use methods developed by Caterina Gouvis Roman in her analysis of crime in Washington, D.C.<sup>15</sup> 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.

<sup>15</sup> <http://www.urban.org/research/publication/violence-district-columbia>

**WHY DID VIOLENCE OCCUR?**

**Motive**

Understanding why violence occurs provides important information for developing methods to prevent and mitigate potentially violent situations. Using data from the Pennsylvania State Police, the following section details offenders’ reported motives. Motives were reported in only 56 percent of all homicides from 2010 through 2014.

In the City of Pittsburgh, the most common motive listed for homicides was arguments, followed by robbery or burglary. While these are the data categories reported to the federal government, the Bureau of Police will examine the possibility of releasing more meaningful analysis of homicide motives, particularly focusing on group-related violence.

FIGURE 13: Homicide Motive, City of Pittsburgh, 2010 through 2014

