

Perceptions of Crime, Fear, and Disorder:
An Analysis of a Small City in Central PA

Presented to the faculty of Lycoming College in partial fulfillment
of the requirements for Departmental Honors in Criminal Justice/Criminology

by
Madison Wineburg
Lycoming College
5/5/2023

Approved by:

Karey M. Ruland

Don M. Whelan Jr.

Gina Norton

JOO

**Perceptions of Crime, Fear, and Disorder:
An Analysis of a Small City in Central PA**

Madison E. Wineburg

Department of Criminal Justice-Criminology

Lycoming College

Abstract

The gap between public perceptions of crime and crime rates has continued to widen in recent years within the United States. Factors have been examined to see what influences a resident's perception of crime. Residents' perceptions can be altered by their own personal factors such as race and gender and outside factors that might take place within their given neighborhoods such as garbage or vandalism. Research has typically been focused in urban areas where large amounts of crime take place, while smaller cities have been left out. This study examines disorder, fear, and perceptions of crime in a small city in central Pennsylvania by surveying residents. Crime is always changing, and this study shows the importance of understanding what may impact how a resident feels about crime. Insight into how disorder and fear can impact residents' perceptions of crime in a smaller more rural city will be given.

Acknowledgments

This departmental honors project could not have been conducted without the assistance and support that I received. I wanted to take this to acknowledge those who helped me throughout this entire process.

First, I would like to express my gratitude and gratefulness to my project supervisor, Dr. Kerry Richmond. Dr. Richmond's support throughout this entire process was more than I could ever ask for, and she was always willing to go out of her way and provide me help and assistance in anything I needed. Not only was she a helping hand along the way, but she also strengthened me into a better writer and person. Next, I would like to acknowledge Dr. Yingling and Dr. Lopez-Medina for allowing me to use data from their own research project. I could not have done this project without their support.

I also would like to take a moment to thank my departmental honors project committee members, including Dr. Tina Norton, Dr. Julie Yingling, and Dr. John Whelan, for their expertise and help throughout my project. They all provided different areas of expertise and help which as result strengthened my final project. Finally, I would like to thank my family for all their support throughout all of my academic endeavors. I would not be where I am without my mom Mari, dad Robert, sister Morgan, and brother RJ, who have always been my biggest motivators.

Table of Contents

Introduction.....	7
Theoretical Foundation.....	8
Literature Review.....	9
Perception of crime.....	9
Fear of crime.....	13
Disorder.....	14
Limitations of prior research.....	15
Data and Methods.....	16
Data.....	16
Measures.....	17
Perceptions of crime.....	17
Fear of crime.....	17
Disorder.....	18
Williamsport crime data.....	18
Demographic variables.....	19
Hypotheses.....	19
Data analysis.....	20
Results.....	20
Relationship between disorder and fear.....	20
Race.....	21
Gender.....	21
Age.....	22
Socioeconomic Status.....	22
Relationship between disorder and perception of crime.....	23
Race and Gender.....	23
Age.....	24
Socioeconomic Status.....	24
Relationship between fear of crime and perception of crime.....	24
Race.....	25
Gender.....	25

Age	26
Socioeconomic Status	26
Relationship between perceived crime and crime rates.....	27
Discussion.....	28
Limitations.....	30
Future research.....	33
Conclusion.....	34
Bibliography.....	36
Appendix.....	40
Survey.....	40

List of Tables

Table 1. Descriptive Statistics	54
Table 2. Correlation between Fear and Disorder	55
Table 3. Correlation between Fear and Disorder by Race	55
Table 4. Correlation between Fear and Disorder by Gender	55
Table 5. Correlation between Fear and Disorder by Age	55
Table 6. Correlation between Fear and Disorder by Socioeconomic Status	56
Table 7. Correlation between Disorder and Perception	56
Table 8. Correlation between Disorder and Perception by Race	56
Table 9. Correlation between Disorder and Perception by Gender	56
Table 10. Correlation between Disorder and Perception by Age	56
Table 11. Correlation between Disorder and Perception by Socioeconomic Status	57
Table 12. Correlation between Fear and Perception	57
Table 13. Correlation between Fear and Perception by Race	57
Table 14. Correlation between Fear and Perception by Gender	57
Table 15. Correlation between Fear and Perception by Age	58
Table 16. Correlation between Fear and Perception by Socioeconomic Status	58
Table 17. Calls for Service	58

Introduction

Crime happens in all neighborhoods, towns, cities, states, and countries, but how the community perceives the type and amount of crime that takes place may be more important. The gap between public perceptions of crime and the crime rate is only continuing to widen and this is worrisome for communities (Manning & Fleming, 2017). This is an important concept to study to see whether citizens are fully aware of the amount of crime that takes place around them. There is extensive research on how the perception of crime in a community can have residents either worried or unconcerned about illegal activities that occur (Montolio & Planells-Struse, 2015). The residents that are “too sure” of the crime that happens in their neighborhood have become accustomed to it even though it would be seen as a problem by outsiders. Crime is something that will never go away, but it is very important that citizens feel comfortable where they live and that they are not too naïve or scared about the crimes that take place in their communities. When people live in fear, they spend more time focusing on all the bad things that may happen to them, rather than enjoying their life to the fullest. People also tend to engage less in their communities and with other residents, which can weaken bonds and cause more crime to happen (Zhang et al., 2021). This study examines public perceptions of crime by analyzing data from a survey administered to Williamsport, Pennsylvania residents to see if there are factors that may influence residents’ perceptions, fear, and view of disorder.

This study builds upon prior research in several ways. First, prior studies have mainly examined big urban cities (Zhang et al., 2021) and have not focused on smaller, more rural, cities. Williamsport is unique in that it is a smaller city, but it is located in a rural county, so this research offers a different perspective from prior research. Second, this study adds to previous literature because it examines fear of crime, perceptions of crime, and factors that influence both, such as community disorder, gender, race, and socioeconomic status. This study differs from

previous research as it examines many different factors at one time. Most studies have focused on disorder and perception or fear and perception, but none have combined all of them. Finally, past research has examined specific crimes and whether residents have accurate perceptions of those crimes (Hipp, 2013). This study compares perceptions of crime overall with actual crime rates. The research question this study seeks to examine is whether there is a gap between public perceptions of crime and actual crime rates and whether that gap is influenced by fear, disorder, and other personal factors.

Theoretical Foundation

There are a few theories that help to understand the relationship between perceptions of crime, fear and actual crime rates. Routine activities theory argues that crime occurs when three different elements come together at any time (Miró, 2014). Those three elements are motivated offenders, absence of guardianship, and a suitable target. This relates to perceptions and fear of crime because if an individual is concerned about crime in their area, then they are more inclined to do things to increase their level of guardianship. Zhang and colleagues (2021) found that people perceive more crime in an area with more nighttime visitors. This would relate to routine activities theory in the sense that a person will be less likely to go out at night because of the fear of possibly getting robbed or attacked. When a person is fearful of crime and perceive more crime in their area, they will do everything they can to prevent themselves from being a victim of crime.

Broken windows theory explains crime by suggesting that physical and social disorder in an area can lead to increased levels of crime (Maskaly & Boggess, 2014). Physical signs of disorder can be visible broken property, lots of garbage or vacant or debilitated buildings. When residents live in areas that have many visible problems, they associate this with fear and often

have more heightened perceptions of crime. Ren and colleagues found that the more disorder there is in a given area, the more negative perceptions people will have about crime (Ren et al., 2019). This influences residents' behavior because the more a neighborhood looks run down, the more uncomfortable residents will feel, which will cause them to engage less in the community. The current study looks at specific factors that affects residents' perceptions of crime and their levels of fear. Not only do these theories help to better understand the impact of disorder, fear, and perceptions of crime, but it also can be used to make recommendations for the future.

Literature Review

Prior research shows that a gap between public perceptions of crime and the actual crime rate does exist. The gap has only continued to widen over the years due to personal beliefs and other factors. For instance, the influence of the media can affect perceptions in a negative way (Lowry et al., 2003). Other factors, such as gender and race (Callanan, 2012), socioeconomic status (Mohan et al., 2011), the presence of police (Montolio & Planells-Struse, 2015), and daily visitors to a community (Zhang et al., 2021) can influence the public's perception of crime. Research shows that even though crime rates are relatively low compared to the previous decade, many Americans are still very fearful of crime (Manning & Fleming, 2017). The pandemic affected crime rates throughout the United States. Crimes that were committed in groups have dropped since the pandemic, but individual crimes have either stayed the same or increased since the beginning of the pandemic. This means that there are factors contributing to their fear and perceptions.

Perception of Crime

Safety is always the number one priority no matter where an individual lives, so public perception of crime is very important in seeing how a person views their safety. The crime rate

within the United States has been on a steady decline, but showed a sharp increase since the Covid-19 pandemic, but many residents' perceptions do not align with this (Manning & Fleming, 2017). The gap between perceptions of crime and crime rates continues to widen leaving residents more fearful than they should be (Duffy et al., 2008). This is important because residents should be less fearful if crime rates are falling, but something is still going on to make them scared. Large amounts of research have been done in urban and metropolitan areas where the crime rates are falling faster than the perceived crime rates (Ambrey et al., 2014). For example, Gramlich (2020) looked at voter data since 2008 and found that most Americans think that crime is a major problem despite the crime rate continuing to drop. This is a major problem across the United States because people want to feel safe where they live and if they feel large amounts of danger, they are more inclined to move somewhere else. The disconnect between perceptions and crime rates is crucial to understand as it affects how most people go about their daily lives.

While some research has focused on the gap between public perceptions and the actual crime rate, others have focused on looking at specific crimes. In a study done specifically on urban cities, Wickes and colleagues found that residents perceived that more hate crimes were being committed than actually are (Wickes et al., 2017). The researchers surveyed over 4,000 residents from 45 different urban cities and found that residents' perceptions were not accurate when it came to hate crimes. There was a low number of hate crimes being committed, but residents felt like this was a big issue. In a similar study, Hipp (2013) surveyed over 4,000 residents in large cities and found that residents' perceptions are the most accurate when it comes to violent crimes. On the other hand, resident perceptions were off when it came to crimes other than violent crimes. For example, Grohe and his colleagues examined specific crimes and how

residents' perceptions aligned with them. Perceptions were the most accurate when it came to drug crimes and burglary, but when it came to low level crimes, such as traffic violations, the public's perceptions were not consistent with the actual crimes (Grohe et al., 2012). Residents thought they were more likely to be victims of theft or robbery, rather than auto-related crimes and general disturbances, even though these latter two things were more likely to occur. This means that residents are more aware of serious crimes, but are less focused and aware of the less serious crimes. This is important because residents are more likely to be a victim of a less serious types of crime, rather than a more serious one.

The gap between public perceptions of crime and crime rates has continued to widen and media influences have led to this misperception of crime. The more media coverage there is in a given area, the more public perception of crime will be distorted (Warr, 1980). The media does a great job of publishing the biggest crimes that happen throughout the United States, but in reality, these crimes affect a small number of people. The media posts the biggest and most serious stories so that they can get viewership, but in return this puts many viewers in fear that they will be a victim of a similar crime. Some people will believe everything they see in the media which causes them to think they will be a victim of a serious crime and that they are not safe where they live. Citizens are very much influenced by the news, and the more they watch it and read it, the worse they perceive crime to be (Adriaenssen et al., 2020).

Clark and Michael (2013) examined public opinion polls and found that many Americans rely on the media for information about crimes, which ultimately creates a gap between perceptions of crime and crime rates. The study also found that citizens are more likely to have distorted views of crime when they have greater confidence in media sources (Clark & Michael, 2013). Violent crime is starting to fall in the United States, but more frequent media coverage

about these crimes has a greater impact on public perception (Lowry et al., 2003). The media influences people from all walks of life, but there are certain individual characteristics that can influence people's perception of crime.

Individual characteristics are important to study and certain types of people are more likely to perceive crime to be more severe than it actually is. This is important to study to see if certain groups or types of people feel more vulnerable to certain things. For example, research has found that women, blacks, and Latinos have higher levels of fear when it comes to perceptions of crime (Callanan, 2012). DeFrances and Smith (1998) found that 36 percent of blacks and only 20 percent of whites thought that crime existed in their neighborhood. Although race as an individual characteristic might not give a lot of information about how a person perceives crime, the status of a specific community might.

Socioeconomic status can influence an individual's or group's perceptions of crime and is based on previous educational and work experience, along with current income levels. According to Mohan and colleagues (2011), the strongest predictor of how an individual will perceive crime is their socioeconomic status. Rotarou (2018) found that individuals who have higher levels of education and income typically perceive lower levels of crime. This is because in school people learn about crime and how the criminal justice system works so they have a better understanding of what goes on. They may also typically live in wealthier communities where less crime occurs. Even though personal characteristics influence an individual's perception of crime, outside factors, such as police presence and different visitors, may influence them as well.

Another study looked at the number of visitors that came in and out of specific neighborhoods. Zhang and colleagues looked at the visitors that came in and out of Houston, Texas and what factors influenced people's perceptions bias (Zhang et al., 2021). Neighborhoods

that had more daytime visitors perceived lower levels of crime in comparison to areas with more nighttime visitors that perceived higher levels of crime (Zhang et al., 2021). People felt that daytime visitors were typical and usually not causing any harm, but nighttime visitors did not belong there, so they were perceived as doing something wrong. In regard to areas of development, those who live in cities of high development have the lowest levels of perceptions about crime even though those areas experience the highest levels of crime. The reason that this exists is because typically cities have the highest crime rates, so residents become accustomed to crime which in turn leads their perceptions to be lower. Residents' personal experiences influence their daily routines and how they view the world so that is why everyone's perceptions of crime are different. Past research has shown that both individual and situational factors can affect one's perception of crime, which has only continued to widen the gap between perceptions and crime rates.

Fear of Crime

A resident wants to not have to worry about the possibility of being a victim of a crime in their own neighborhood. Fear of crime directly ties in with how residents perceive crime where they live. The more time that people spend watching the news means the more likely they are to trust that source. This can lead them to have higher perceptions of crime, which can cause them to be more fearful about what occurs in their city (Clark & Michael, 2013). This stems back to the point of people believing everything they see and hear through the media. To get more viewership, the media has to show major crimes and those that will grab people's attention, but this also makes people more anxious about crimes.

Helfgott et al. (2020) found that females and minorities are more likely to fear crime. This can be related back to the media as it shows more crimes where women are specifically

targeted and are victims compared to men. Women walk around every day worried that something could happen to them, so it causes them to have an elevated sense of fear. In a study about different neighborhoods, found that whites who live in predominantly black neighborhoods tend to fear more crime, but blacks who live in white neighborhoods do not have the same levels of fear (Cho & Ho, 2018). This problem exists because whites are told to believe that blacks commit crimes at a higher rate. Even though race and gender are a small predictor of how an individual will fear being the victim of a crime, there is another factor that is an even stronger predictor.

Individual factors may cause certain groups of people to perceive more crime, but situational factors can influence all groups of people. Montolio and Planells-Struse (2015) studied the presence of police in a given area. They found that the closer in proximity police are to a given area, the less residents will fear crime and worry about crimes that might be committed. This idea follows routine activities theory. The more presence of police in an area increases guardianship so it makes it harder for someone to be able to commit a crime. Residents perceived there to be less crime the more they saw officers patrolling as it increased their feelings of safety (Montolio & Planells-Struse, 2015).

Disorder

When a problem in certain neighborhoods, disorder can lead to higher levels of fear and increased perceptions of crime. Physical disorder is classified as abandoned buildings, trash, and vacant lots, while social disorder is defined as loitering and public drinking (Chen & Rafail, 2022). Chen and Rafail (2022) found a direct association between disorder and an increase in crime rates. Residents who reported higher levels of disorder also reported and made more calls relating to drug violations, property crime, and violence. Hipp (2010) found that certain

individual factors influence perceptions of disorder. Both whites and women perceived disorder at a higher rate than their neighbors. Drakulich (2013) also found that disorder is seen through a racial lens. Residents that live in areas with greater numbers of ethnic and racial minorities notice disorder at higher levels. This means that they perceive disorder to be worse when they are surrounded by ethnically diverse people.

Limitations of Prior Research

This area of research provides great insight into the gap between perceptions of crime and crime rates and what factors are influencing perceptions. The importance of this topic allows residents and elected leaders to understand reasons why residents may feel unsafe where they live. One limitation of research on the perceptions of crime in the United States is the lack of studies that have been done in smaller, rural areas. The majority of past research has been done in big urban cities that have large populations. Another limitation of past research is that studies either focused on the gap between perceptions of crime and crime rates, or the factors that influence an individual's perception but never focused on the two together. It is difficult to understand the gap between perceptions of crime and crime rate if there are no factors to show why these perceptions might exist.

This study is different than any other research that has been done. First, Williamsport is a unique city in that is located in a rural county in central Pennsylvania. Williamsport has approximately 28,000 residents spread across nine square miles (United States Census Bureau, 2021). The current study is focusing on whether similar trends will be found in a more rural city compared to a larger urban area. The current study also examines fear and perceptions of crime and how they influence one another. As such, this study is one of the first to look at both the gap

between perceptions of crime and crime rates, as well as what factors may influence an individual's perception.

Data and Methods

Data

This study uses secondary data from a survey that is being conducted by two professors at Lycoming College to evaluate police and community relations in Williamsport. The city of Williamsport is located in central Pennsylvania inside of Lycoming County and has approximately 28,000 residents (United States Census Bureau, 2021). The population of Williamsport is majority white (79%), but there is also a population of African Americans (13%) and a smaller population of Latinos (2%). The data were collected through a survey administered to residents of Williamsport during the fall of 2022 and asked different questions about police and community relations, fear of crime, police legitimacy, and perception of crime. The survey consists of 34 questions focused on police activity and how residents view the police and the areas in which they live (see Appendix A for a copy of the survey). Four Census block groups were selected for the study and then 16 percent of the residents were randomly selected in each block group. The total sample size is 504 residents from the city of Williamsport. Out of the original 504 residents that were selected, there was a total of 72 responses (a 14.3% response rate). In order to be eligible for the survey, a resident must be at least eighteen years old, live within one of the chosen Census blocks and live in one of the random addresses that was selected. The survey was administered by student researchers who conducted the survey in-person to residents. Along with the data from this survey, data is used from the Williamsport Bureau of Police's monthly call for service report. Williamsport collects data on how many calls for service they receive per month and what types of calls they are receiving. This data is used to

compare specific crime trends to perceptions of Williamsport residents on crime in the community.

Measures

Perception of crime

In this study, a dependent variable is perception of crime. This is defined as an individual's view of crime in Williamsport. The dependent variable is measured in the survey by asking residents how they think crime has changed in Williamsport in the past year. This is a Likert scale response in which residents can answer that the crime rate has increased a lot (1), increased a little (2), stayed the same (3), decreased a little (4), decreased a lot (5). On a scale of 1-5, the average perception level was a 2.54, which means residents thought that crime stayed about the same in the past year (see Table 1).

Fear of crime

Fear of crime is included in this study as both a dependent and independent variable. This is defined as whether residents are worried about crimes being committed in their neighborhoods. This is measured in the survey in two separate ways. First, residents are asked if they are fearful about specific events happening to them, such as being the victim of a crime, crime occurring in one's neighborhood, seeing drug selling or use, and being stopped and questioned by the police. On a scale of 1-4, residents had to choose whether they were very fearful (1), somewhat fearful (2), a little fearful (3), or not fearful at all (4). The average score for residents on this scale who were fearful of being victim of a crime was 3.13, which means residents were either a little fearful or not at all fearful. On a scale of 1-4, the average score for residents who were fearful of crime occurring in their neighborhood was 2.90, which means residents were either somewhat fearful or a little fearful. Similarly, seeing drug selling or use

was measured on a 1-4 scale and the average score for residents was a 3.09, which means residents were a little fearful or not at all fearful.

The second way this variable is measured in the survey is by asking residents if they are fearful of walking in their neighborhood in different conditions that are given in each survey question, such as walking alone during the day and walking alone at night. On a scale of 1-4, the average score for fear of walking alone during the day was a 3.46, which means residents were a little fearful or not at all fearful. Similarly, fear of walking alone at night was a 1-4 with the average being 2.82, which means residents were somewhat fearful or a little fearful (see Table 1).

Disorder

The level of disorder is included in this study as an independent variable. This is defined as different problems that might occur in a given neighborhood. Some of these problems are loitering, vacant or dilapidated buildings, vandalism, and unkempt property and yards. In the survey, there are 29 different issues that a resident has to read and decide if they are a problem based on a Likert scale if it is a major problem, moderate problem, minor problem, or not a problem at all. The following items, garbage/litter, loitering, vacant buildings, vandalism, and unkempt property or yards, were combined to create a scale of disorder. Residents had to choose whether these types of disorder were a major problem (1), moderate problem (2), minor problem (3), or not a problem (4). On this 1-4 scale, the average for residents was 3.37, which means most residents felt like disorder was a minor problem or not a problem.

Williamsport crime data

The next variable is calls for service data collected by The Williamsport Bureau of Police. The Williamsport Police department collects data on overall calls per service each month

and the types of calls that they received. Data on calls for service are compiled for the months of December of 2021 to December of 2022.

Demographic variables

This study also examines demographic variables to see if individual characteristics affect how a person views crime. The demographic variables include race, gender, age, and socioeconomic status. Race is defined in the survey by White/Caucasian, Black/African American, Asian, Native Hawaiian/Pacific Islander, Native American or other. In the sample, 84 percent of respondents were white, while 16 percent were black. Gender is defined in the survey as male, female, or non-binary and 63 percent of respondents were female and 37 percent were male. Age is defined as how old the participant is. Age is broken down into five ranges, which are 20-29, 30-39, 40-49, 50-59, and 60 and older. Half (50%) of respondents were below the age of 50. Lastly, socioeconomic status is defined in the survey as total annual income. Total income is broken down into ranges within the survey. Those ranges are less than \$20,000, \$20,000-\$39,000, \$40,000-\$59,000, \$60,000-\$79,000, \$80,000-\$99,000, \$100,000 or more. The majority of residents had incomes between \$40,000 - \$79,000 (see Table 1).

Hypotheses

This study seeks to test four hypotheses. The hypotheses are as follows:

H1: The more residents perceive disorder to be a major problem the more fearful they will be of crime.

H2: The more residents perceive disorder to be a major problem, the more they will perceive crime to be worse.

H3: The more fearful residents are of crime, the more likely they are to perceive that crime is a major problem.

H4: Residents perceive that there is more crime than the actual amount of crime in Williamsport.

In addition to testing these hypotheses, these relationships are examined to determine whether there are differences by gender, age, socioeconomic status and race.

Data analysis

This study looks to analyze the hypotheses in a few different ways. A Pearson's correlation is used to analyze the first three hypotheses. A Pearson's correlation is being used due to the small sample size and to see whether there is an association between disorder and fear, disorder and perceptions, and fear and perceptions. Finally, for the last hypothesis, a comparison will be run to see whether the perception of crime aligns with the actual change in crime, as measured by calls for service.

Results

The current study relies on the use of bivariate correlations to test the first three hypotheses. The correlations are used to see what relationships exist between disorder and fear of crime, disorder and perceptions of crime, and fear and perceptions of crime (see Appendix B).

Relationship between disorder and fear

Disorder was measured by creating a scale that includes vacant buildings, garbage, loitering, unkempt property, and vandalism. This variable of disorder was then compared to the five different types of fear, which include fear of being victim of a crime, crime occurring in your neighborhood, seeing drug selling or use, walking alone during the day, and walking alone at night. When correlations were run between disorder and the different types of fear, significant and positive correlations were found for all five types, which includes fear of being victim of a crime, crime occurring in your neighborhood, seeing drug selling or use, walking alone during the day, and walking alone at night. All of these relationships were significant at the .01 level.

These results confirm the hypothesis. This suggests that the more residents perceive disorder as a major problem, the more fear they experience. Correlations were then run to test the relationships by race, gender, age, and socioeconomic status (see Table 2).

Race. After the correlations between disorder and fear were examined, these relationships were then analyzed by race. Race was split into two variables: white and black. There were significant and positive correlations found for disorder and all types of fear for whites. All of these relationships were significant at the .01 level. There was only one significant correlation for blacks, which was the relationship between disorder and fear of seeing or selling drug use ($r=.858$, $p < .01$). This means that when looked at by race, in most relationships disorder does not influence fear. (See Table 3). This means that disorder does impact fear for whites but it only impacts fear for blacks when it comes to seeing drug selling or use. It is important to note that disorder does impact how fearful residents are seeing drug selling or use when looked at by race because results were more significant for whites.

Gender. Following the correlations between disorder and fear by race, these variables were then examined by gender. Gender was split into two variables: female and male. There were positive and significant relationships found for disorder and the five types of fear, except for fear of walking alone during the day for females. The correlations were significant at the .01 level for fear of being victim of a crime ($r=.438$), crime occurring in the neighborhood ($r=.591$) and seeing drug selling or use ($r=.610$). The relationship between disorder and fear of walking alone at night was also significant for females ($r=.295$, $p < .05$). For males, there were significant and positive relationships found for disorder and all types of fear. All of these relationships were significant at the .01 level except for disorder and fear of walking alone during the day which was significant at the .05 level. This means that when looked at by gender, disorder impacts

residents' levels of fear for both females and males. Those who perceived disorder as a problem were more fearful of crime (see Table 4).

Age. The relationships between disorder and fear were then examined by age. Age was broken down into five categories, 20 to 29 years of age, 30 to 39 years of age, 40 to 49 years of age, 50 to 59 years of age and greater than 60 years old. For the age category 20-29, negative but insignificant relationships were found between disorder and all types of fear, except for fear of seeing drug selling or use. For the age category 30-39, positive and significant relationships were found between disorder and fear of crime occurring in neighborhood ($r=.635$, $p < .05$) and seeing drug selling or use ($r=.792$, $p < .01$). For ages 40-49, positive and significant relationships were found between disorder and all types of fear, except for fear of walking alone during the day. Only one positive and significant relationship was found between disorder and fear of being victim of a crime ($r=.550$, $p < .05$) for ages 50-59. For ages 60 and older, all of the relationships between disorder and fear were positive and significant. These findings suggest that based on age disorder influences fear for those who are middle aged and older than 60. This means that older residents are more likely to perceive disorder to be a problem, which makes them more fearful while the results for younger people suggest disorder results in less fear of crime (see Table 5).

Socioeconomic status. Lastly, the relationships between disorder and fear were examined by socioeconomic status. Socioeconomic status was broken down into 6 different categories which included less than \$20,000, \$20,000-\$39,000, 40,000-\$59,000, \$60,000-\$79,000, \$80,000-\$99,000, and greater than \$100,000. For residents that made less than \$20,000, there were negative but insignificant relationships found for disorder and all types of fear. For those that made between \$20,000-\$39,000, positive and significant relationships were found between disorder and fear of crime occurring in neighborhood ($r=.720$, $p < .01$) and fear of

walking alone at night ($r=.625, p < .05$). A negative but not significant relationship was found between disorder and fear of walking alone during the day. For residents that made between \$40,000-\$59,000, positive and significant relationships were found for all correlations. For residents that made between \$60,000-\$79,000, positive and significant relationships were found between disorder and fear of crime occurring in neighborhood ($r=.722, p < .01$) and seeing drug selling or use ($r=.831, p < .05$). Only one significant relationship was found between disorder and fear of crime occurring in neighborhood ($r=.890, p < .01$) for residents that made between \$80,000-\$99,000. For residents that made more than \$100,000, significant relationships were found for disorder and all types of fear. This means that for both middle class residents and upper-class residents who make over \$100,000 disorder influences levels of fear. This means that middle class residents and upper-class residents perceived disorder to be a problem which increased their level of fear (see Table 6).

Relationship between disorder and perception of crime

Next, the relationship between disorder and perception of crime was explored. Disorder was measured on a scale which included the following five types of disorder: vacant buildings, garbage, loitering, unkempt property, and vandalism. Perception of crime is defined as how residents viewed crime patterns over the past year. There was a significant correlation found between disorder and perception ($r=.259, p < .05$). This suggests that overall disorder influences residents' levels of perception, which means the more residents see disorder as a major problem, the more they will think crime is worse. Correlations were then run to test the relationships by race, gender, age, and socioeconomic status (see Table 7).

Race and Gender. After the overall relationships were examined by disorder and perception, correlations were then run by race and gender. There were no significant

relationships found for whites or black between perception and disorder or for males and females. This suggests that gender and race does not impact the relationship between disorder and perceptions of crime (see Tables 8 and 9).

Age. The relationships between disorder and perception were then examined by age. For residents ages 20-29, there was a significant correlation found between disorder and perception ($r=.837$, $p < .05$). There were no significant correlations found for residents ages 30-39 and 40-49 for disorder and perception. For residents ages 50-59, a negative but not significant relationship was found between disorder and perception. For those ages 60+, a significant relationship was found between disorder and perception ($r=.470$, $p < .05$). These findings suggest that disorder influences perception for those ages 20-29 and 60+ (see Table 10).

Socioeconomic Status. Lastly, the relationship between disorder and perception was examined by socioeconomic status. For residents who make less than \$20,000, a negative but not significant relationship was found between disorder and perception. No significant relationship was found for residents that make between \$20,000-\$39,000. For residents that make between \$40,000-\$59,000, a significant correlation was found between disorder and perception ($r=.692$, $p < .01$). A negative but not significant correlation was found between disorder and perception for residents that make between \$60,000-\$79,000. No significant correlations were found between disorder and perception for residents that make between \$80,000-\$99,000 and more than \$100,000. These findings suggest that disorder only influences perception for middle class residents who make between \$40,000-\$59,000 (see Table 11). This means that the more residents within this socioeconomic status perceive disorder as a problem, the more they perceive crime as being worse.

Relationship between fear of crime and perception of crime

Finally, the relationship between fear of crime and perception of crime was examined. Fear was broken down into five categories, which include fear of being victim of a crime, crime occurring in your neighborhood, seeing drug selling or use, walking alone during the day, and walking alone at night. Perception of crime is defined as whether residents felt crime had changed in the past year. When correlations were run between fear and perception, three positive and significant relationships were found between fear of being victim of a crime and perception of crime ($r=.269$, $p < .05$), crime occurring in neighborhood and perception ($r=.240$, $p < .05$), and seeing drug selling or use and perception ($r=.395$, $p < .01$). These findings suggest that fear influences residents' perceptions of crime. Correlations were then run to test the relationships by race, gender, age, and socioeconomic status (see Table 12).

Race. After the relationship between fear and perception was examined, differences by race were explored. The only significant relationship for whites came from the correlation between fear of seeing drug selling or use and perception ($r=.329$, $p < .05$). For blacks, significant and positive relationships were found between types of fear and perception, except for fear of walking alone during the day. These findings suggest that when looked at my race fear influences perception more for blacks than whites (see Table 13). This means that the more fearful residents were the more they perceived crime to be worse.

Gender. Following the correlations between fear and perceptions of crime by race, these variables were then examined by gender. There was only one significant relationship for female, which was between fear of seeing drug selling or use and perception ($r=.358$, $p < .05$). Similarly, to females, the only significant correlation for male was between perception and seeing drug selling or use ($r=.433$, $p < .05$). These findings suggest that fear influences perceptions for males

and females when it comes to drug use (see Table 14). This means both and females were fearful of drug use, which made them perceive crime to be worse.

Age. The relationships between fear and perceptions of crime were then examined by age. For residents ages 20-29, there were negative but not significant relationships found for all types of fear and perception, except for seeing drug selling or use. For ages 30-39, there were no significant relationships found. For residents ages 40-49, positive and significant correlations were found for all relationships, except for fear of seeing drug selling or use and perception. For ages 50-59, negative but not significant relationships were found between fear of being victim of crime and perception ($r = -.096$), crime occurring in neighborhood and perception ($r = -.033$) and walking alone during the day and perception ($r = -.152$). Two significant correlations were found for those residents over 60 for the relationships between fear of being victim of crime and perception ($r = .503$, $p < .05$), and seeing drug selling or use and perception ($r = .527$, $p < .05$). These findings suggest that fear influences perceptions of crime for those ages 40-49 and 60+ (see Table 15). This means that older individuals had greater levels of fear which made them perceive crime to be worse.

Socioeconomic Status. Lastly, the relationships between fear and perceptions of crime were examined by socioeconomic status. For residents who make less than \$20,000, negative but not significant correlations were found for the relationships between fear of being victim of a crime and perception ($r = -.145$), fear of crime occurring in neighborhood and perception ($r = -.174$) and seeing drug selling or use and perception ($r = -.122$). For residents that make between \$20,000-\$39,000, negative but not significant relationships were found between fear of crime occurring in neighborhood and perception ($r = -.100$) and walking alone during the day and perception ($r = -.039$). Positive and significant correlations were found for all relationships

between fear and perception for residents that make between \$40,000-\$59,000. For residents that made between \$60,000-\$79,000, negative but not significant correlations were found for all relationships except for fear of walking alone during the day and perception ($r = -.614$, $p < .05$). Positive and significant correlations were found for all relationships between fear and perception except for fear of crime occurring in neighborhood for those that made between \$80,000-\$99,000. For those that made more than \$100,000, one significant correlation was found between fear of walking alone at night and perception ($r = .844$, $p < .05$). These findings suggest that fear influences perception for both middle-class and upper-class residents (see Table 16).

Relationship between perceived crime and crime rates

The last relationship that was examined was between residents' perceptions of crime and the actual crime rate in Williamsport. Perception was defined as how residents felt crime has changed within the past year. Residents were able to select that crime increased a lot, increased a little, stayed the same, decreased a little, or decreased a lot. Overall, most residents (43.1%) states that crime has stayed the same, while 19.4 percent said crime increased a lot, 23.6 percent said crime increased a little, 8.3 percent said it decreased a little, and 4.2 percent said it decreased a lot. This study looked at police calls for service, which were found through the Williamsport Police Department website (Crimewatch, 2023). Monthly reports of calls for service were examined from December of 2021 to December of 2022 (see Table 17 for a complete chart of the calls for service over this year period). Throughout the year, there were spikes and drops for calls for service but overall, they remained pretty steady. There was a 1.2 percent decrease in calls for service from December of 2021 to December of 2022. These trends agree with what Williamsport residents were saying. Almost half of the residents surveyed felt like crime had stayed the same over the past year. This does not completely go against the

hypothesis because still 43 percent of residents felt like crime had increased to some extent. Although the hypothesis states that residents will think crime is higher than it actually is in Williamsport, many felt like it remained about the same (see Tables 1 and 17). This could be the case because residents might not have witnessed or been victim to any crimes which could make them think of crime less.

Discussion

The current study provides a deeper insight to perception of crime and different factors that may affect an individual's perception. This study aims to assess the relationship between perceptions of disorder and fear of crime, perceptions of disorder and crime, and fear and perception of crime. The findings provide a deeper understanding of these relationships and also identifies differences based on race, gender, age, and socioeconomic status.

The results of this study support the initial three hypotheses and help explain the fourth hypothesis. Results show that there is a relationship between disorder and levels of fear that residents possess. This indicates that the more that residents see disorder as a major problem, the more fearful residents are, which supports the first hypothesis. When it came to individual differences, disorder influenced fear more for whites than blacks. Males and females were very similar when it came to disorder influencing their levels of fear. Those 60 years old and older perceived disorder to be a problem which influenced their level of fear. Only those that made over \$100,000 saw disorder as a major problem, which affected their level of fear. Past research suggested that those with high levels of income would have lower levels of fear, but the results of this study go against that idea (Rotarou, 2018).

In addition, the results support the second hypothesis. The results indicate that the more residents perceived disorder as a major problem, the more likely they were to perceive crime

increased over the past year. Similar to previous literature, the results indicate that physical signs of disorder influence how residents view and perceive crime (Chen & Rafail, 2022). There were no significant findings when examined by gender and race. Older residents perceived disorder as a problem which made them perceive crime to be worse. Disorder also impacted perceptions for middle-class residents.

The results also support the third hypothesis. The results indicate that residents were more fearful of crime, which made them perceive crime to be worse. Previous research found that whites and women typically have more fear which was also shown through this study (Helfgott et al., 2020). When broken down by race, gender, age, and socioeconomic status, significant relationships were found between fear and perception. One common theme was the fear of seeing drug selling or use. The results indicate that residents had more fear of seeing drug selling or use than anything else. This suggests that residents see drugs as a problem in Williamsport. Current news articles coming out of Williamsport suggest this is a problem that the city continues to face. According to West Branch Drug and Alcohol, between 2020 and 2022, over 50 people have died because of drug overdoses in Williamsport (Keating, 2022). The Williamsport Bureau of Police has also created a unit specifically for drug crimes. On a weekly basis, someone is arrested for drug selling or having possession of illegal drugs. With the media constantly pushing out articles on drugs in Williamsport, many residents become more fearful. Previous literature shows that the media can influence residents' levels of fear by making them feel like crime is always happening and they have the potential to be a victim (Clark & Michael, 2013).

For the fourth hypothesis, the results were somewhat inconsistent. The hypothesis stated that residents would think crime is worse in Williamsport than it is, but the survey results do not

support this. Based on Williamsport calls for service, crime remained steady, which residents also perceived. Previous literature suggests that residents' perceptions do not align with actual crime rates, but this study shows otherwise. While other studies have been able to look at perceptions of specific crimes, this study was not able to. Residents were asked about their perceptions of crime overall in this study, which makes it hard to know if residents perceive different types of crime to be worse.

Both age and socioeconomic caused negative relationships between disorder and fear, disorder and perception, and fear and perceptions. A negative relationship means that an increase in one variable leads to a decrease in the other. For example, as perception of disorder increases, the level of fear decreases. Rotarou (2018) found that those with higher levels of income had lower levels of fear, which suggests they may have a deeper understanding of how and why crime happens. These results suggest that as people age and have higher levels of income, there perceptions and level of fear decreases as they develop a deeper understanding of crime.

Although most previous research has focused on large urban cities, this study focused on a small rural city, but many outcomes were similar. Zhang and colleagues (2021) found that disorder impacts how fearful residents are with crime. The results of this study suggest that physical signs of disorder impact of fearful residents are of crime. Typically, more crimes happen in larger cities, but it is important that residents in both large urban areas and small rural cities have the same views on disorder and fear of crime.

Limitations

Previous research examining residents' perceptions and how individual factors can affect views on crime is limited. This current study addresses some of these factors but is still subject to a few limitations. The main limitation to this current study is the number of residents that

completed the survey. There were only 72 respondents, which limited the types of analyses that could be conducted. The number of residents who participated in the survey was low and so the study could not look at as many individual differences, which might have better explained reasons for different perceptions. The numbers were too small to examine any intersectionality, such as by race and gender. This would have been important to do as previous literature has found both gender and racial differences that influence perceptions of disorder (Hipp, 2010). Future research should examine these relationships with a larger and more representative sample of residents in Williamsport.

The small number of participants from the survey can be associated with the fact that only about 20 percent of neighborhoods in Williamsport were being surveyed. The selection of neighborhoods affects the generalizability of the data. Although the neighborhoods were randomly selected, the response rate was very small for the given neighborhoods. Therefore, the data currently does not represent everyone who lives within the city limits. For example, based on Table 1, most residents that were surveyed fell in the middle-class, so there is not enough information on upper-class and lower-class residents. It would be important to examine relationships, such as differences in levels of fear or perceptions for white women or black men, to see how these distinctions impact the data. This data could also be used to analyze how perceptions may differ by neighborhood.

The research is also limited to where crime data could be accessed. The FBI's Uniform Crime Report, which is traditionally used to analyze crime rates, could not be used as there is no available data from 2021 and 2022 for Williamsport. For this reason, data had to be accessed from the Williamsport Police Department, which only provided calls for service over the past year. There was no data on crime reports within the past year due to the FBI's transition to the

National Incident Based Reporting System (NIBRS) to report crime rates. This hinders the study ability to examine whether the crime rate has changed. In addition, details were not available on the reason for each call of service or what type of crime it involved. It is also important to note that calls for service are not a true measure of crime instead it might be a better proxy for perceptions of crime. People who perceive there to be more crime might be more likely to call the police. Calls for service also include all nuance calls that the police get, which include calls for animal complaints and road hazards, which limits the ability to use these as a true measure of crime.

To add, there was no way of telling how specific crimes influence residents' perceptions. The data from the survey showed that drug use and drug selling affected how residents viewed crime, but the Williamsport Police data does not get into any specific crimes. In addition, the data only examined perceptions in one given year. This does not take into account events that might have happened during previous years or residents who are newer to the area. Using only one year of data does not allow for changes that might occur on a year-to-year basis. Residents may have different perceptions depending on how long they have been in the city or whether they have experienced or witnessed a major event involving crime.

Another limitation to this research is the data could only be analyzed through a Pearson's correlation. When correlations are used there is no way to tell if a causal effect is occurring. While a correlation can show whether there is a relationship between two variables it cannot show if one variable influences the other. In addition, correlations cannot show if other outside variables are influencing the relationship being analyzed. This means that there is no way of seeing if factors like gender or race have an intervening influence on how disorder influences fear.

Future Research

Despite these limitations, the current study provides a deeper understanding of perceptions and factors that could aid cities on how to make their residents feel safer. Future research within Williamsport should aim to survey all residents so that the sample size is larger. This will allow for more generalizable data. With a larger sample, scholars will be able to examine more in-depth relationships than this study was able to. Since the study could only look at very broad categories, it would be important to examine other factors that may lead to residents having different perceptions, such as the neighborhood where they live, political affiliations, and previous history with the law.

Scholarly explorations into perceptions of crime could also benefit from understanding events that happen within a given place. From the survey, there was no way to tell if any big events, such as a major homicide or arrest, might have altered a resident's perception. This goes back to how the media can influence how residents view crime in a certain area. Future scholars should take into account the media and how that can negatively affect people's outlook on crime. Adriaenssen and colleagues (2020) found that the media can negatively affect perceptions of crime, so it would be important to take this into account. While research traditionally focuses on the news media, future studies should also examine the role that social media, which is more commonly consumed by individuals, influences perceptions. It would also be important for future scholars to consider current events that might change how a resident feels about their community. Furthermore, it would be important for future scholars to consider more questions about factors that could influence an individual's perception of crime. This current study relied on very few questions in relation to perceptions of crime, so it would be vital to consider other ideas. It would be important to see whether perceptions change based on the type of crimes, such

as murder, drug dealing, thefts, etc. This could provide a deeper insight to other factors that might influence perception.

Although this study focused on very specific factors that influence perception, such as disorder and fear, future scholars should consider other factors. It would be important to see how the community feels about the police and how this might influence their perception of crime. Previous literature has shown that police presence can influence perceptions (Montolio and Planells-Struse, 2015), so it would be interesting to look at if this has any impact in a city like Williamsport.

As spoken about earlier, Williamsport is a diverse city, and each neighborhood has various demographics. Future scholars would benefit from seeing if they demographics within a given community affect how different race's view crime. Cho and Ho (2018) linked fear of crime with certain neighborhoods that individuals lived in. This study was unable to examine this connection although Williamsport is a diverse place.

Conclusion

Crime is always changing in every city, but how residents feel about those crime rates is important. This study examines physical factors, such as disorder, and psychological factors, such as fear, to see if it influences residents' perceptions of crime in Williamsport. This study adds to previous research by examining some individual factors that may affect how residents think about disorder, fear, and their perceptions of crime. Previous research on this topic focuses on bigger influences that may affect individual's perceptions like the media, police presence, and visitors in and out of neighborhoods. This study provides insight to neighborhood factors that could cause residents to have more fear. City officials should use this data to see how different areas within the city could use some cleaning up and revitalization. This study shows that

perceptions of disorder can influence residents' level of fear and how they perceive crime.

Improving physical disorder throughout the city of Williamsport will make residents have better perceptions about disorder in their neighborhoods, which will make them more comfortable where they live in. Based on routine activities theory, it should be recommended that in order for residents to have less fear, they need to not perceive disorder as a major problem. It would be important for city officials, such as the mayor and police chief, to recognize that they do not need to combat crime just through the criminal justice system. They might see less fear if they start to revitalize and improve individual neighborhoods throughout the city. The more the city lessens the amount of trash vandalism, graffiti and other types of disorder, there will be smaller amounts of suitable targets, which will make the residents feel safer. This study adds important data into why residents' perceptions matter and how they can be affected by different factors.

Bibliography

- Adriaenssen, A., Visschers, J., Van den Bulck, J., & Paoli, L. (2020). Public perceptions of the seriousness of crimes: To what extent are they driven by television exposure? *European Journal on Criminal Policy and Research*, 26(4), 481–500.
- Ambrey, C. L., Fleming, C. M., & Manning, M. (2014). Perception or reality, what matters most when it comes to crime in your neighbourhood? *Social Indicators Research*, 119(2), 877–896.
- Boman, J. H., & Gallupe, O. (2020). Has COVID-19 changed crime? Crime rates in the United States during the pandemic. *American journal of criminal justice*, 45, 537-545.
- Callanan, V. J. (2012). Media consumption, perceptions of crime risk and fear of crime: Examining race/ethnic differences. *Sociological Perspectives*, 55(1), 93–115.
<https://doi.org/10.1525/sop.2012.55.1.93>
- Chen, X., & Rafail, P. (2022). Physical disorder and crime revisited: New evidence from intensive longitudinal data. *Social Science Research*, 102.
<https://doi.org/10.1016/j.ssresearch.2021.102637>
- Cho, W., & Ho, A. T. (2018). Does neighborhood crime matter? A multi-year survey study on perceptions of race, victimization, and public safety. *International Journal of Law, Crime and Justice*, 55, 13–26. <https://doi.org/10.1016/j.ijlcj.2018.08.002>
- Clark April, K., & Michael, C. (2013). Mind the gap: Public attitudes on crime miss the mark. *International Research Journal of Social Sciences*, 2(3), 1-11.
- Comparative statistics: Crimewatch Search*. CRIMEWATCH. (2023). Retrieved from
https://crimewatch.net/search/comparative%20statistics?f%5B0%5D=og_group_ref%3A15317

- DeFrances, C. J., & Smith, S. K. (1998). *Perceptions of neighborhood crime, 1995*. US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Drakulich, K. M. (2013). Perceptions of the local danger posed by crime: Race, disorder, informal control, and the police. *Social Science Research*, 42(3), 611–632.
<https://doi.org/10.1016/j.ssresearch.2012.12.012>
- Duffy, B., Wake, R., Burrows, T., & Bremner, P. (2008). Closing the gaps - crime and public perceptions. *International Review of Law, Computers & Technology*, 22(1/2), 17–44.
<https://doi.org/10.1080/13600860801924899>
- Gramlich, J. (2020, May 30). *Voters' perceptions of crime continue to conflict with reality*. Pew Research Center. Retrieved April 5, 2022, from <https://www.pewresearch.org/fact-tank/2016/11/16/voters-perceptions-of-crime-continue-to-conflict-with-reality/>
- Grohe, B., DeValve, M., & Quinn, E. (2012). Is perception reality? The comparison of citizens' levels of fear of crime versus perception of crime problems in communities. *Crime Prevention and Community Safety*, 14(3), 196–211. <https://doi.org/10.1057/cpcs.2012.3>
- Helfgott, J. B., Parkin, W. S., Fisher, C., & Diaz, A. (2020). Misdemeanor arrests and community perceptions of fear of crime in Seattle. *Journal of Criminal Justice*, 69, 1-15
<https://doi.org/10.1016/j.jcrimjus.2020.101695>
- Hipp, J. R. (2010). Resident perceptions of crime and disorder: How much is bias, and how much is social environment differences. *Criminology*, 48(2), 475–508.
- Hipp, J. R. (2013). Assessing crime as a problem: The relationship between residents' perception of crime and official crime rates over 25 years. *Crime & Delinquency*, 59(4), 616-648.
- Keating, C. (2022). *Master P in Williamsport to discuss drug prevention after losing his daughter to an overdose*. wne.p.com. Retrieved from

- <https://www.wnep.com/article/news/local/lycoming-county/master-p-in-billtown-to-discuss-drug-prevention-percy-miller-tytyana-miller-lycoming-county-williamsport-carolyn-miele/523-2e868424-0aaa-4bff-a794-21339c0d66ed>
- Lowry, D. T., Nio, T. C. J., & Leitner, D. W. (2003). Setting the public fear agenda: A longitudinal analysis of network TV crime reporting, public perceptions of crime, and FBI crime statistics. *Journal of communication*, 53(1), 61-73.
- Manning, M., & Fleming, C. (2017). The economics of private security expenditure: The influence of perceptions of crime. *Security Journal*, 30(2), 401–416.
<https://doi.org/10.1057/sj.2014.24>
- Maskaly, J., & Boggess, L. N. (2014). Broken windows theory. *The Encyclopedia of Theoretical Criminology*, 1-4.
- Miró, F. (2014). Routine activity theory. *The Encyclopedia of Theoretical Criminology*, 1-7.
- Mohan, J., Twigg, L., & Taylor, J. (2011). Mind the double gap: Using multivariate multilevel modelling to investigate public perceptions of crime trends. *British Journal of Criminology*, 51(6), 1035–1053.
- Montolio, D., & Planells-Struse, S. (2015). When police patrols matter. The effect of police proximity on citizens' crime risk perception. *Journal of Economic Psychology*, 50, 73–93. <https://doi.org/10.1016/j.joep.2015.06.008>
- Ren, L., Zhao, J. S., & He, N. P. (2019). Broken windows theory and citizen engagement in crime prevention. *Justice Quarterly*, 36(1), 1-30.
- Rotarou, E. S. (2018). Does municipal socioeconomic development affect public perceptions of crime? A multilevel logistic regression analysis. *Social Indicators Research*, 138(2), 705–724. <https://doi.org/10.1007/s11205-017-1669-2>

United States Census Bureau. (2021). QuickFacts: Williamsport city, Pennsylvania.

<https://www.census.gov/quickfacts/williamsportcitypennsylvania>

Warr, M. (1980). The accuracy of public beliefs about crime. *Social Forces*, 59(2), 456-470.

Wickes, R., Sydes, M., Benier, K., & Higginson, A. (2017). Seeing hate crime in the community: Do resident perceptions of hate crime align with self-reported victimization. *Crime and Delinquency*, 63(7), 875–896.

Zhang, F., Fan, Z., Kang, Y., Hu, Y., & Ratti, C. (2021). “Perception bias”: Deciphering a mismatch between urban crime and perception of safety. *Landscape and Urban Planning*, 207, 104003.

APPENDIX

**RESIDENTS' PERCEPTIONS OF THE
WILLIAMSPORT BUREAU OF POLICE**

Police-Community Survey administered by Lycoming
College faculty and students.

This survey is completely voluntary and anonymous.

* What is the residence RID? (To be completed by the surveyor.)

* What is the group number? (To be completed by the surveyor.)

* Are you over 18 years of age?

☐ Yes. Please continue survey.

☐ No. (**Survey is ended.**)

* Do you reside within Williamsport limits?

☐ Yes

☐ No

Section 1: Perceptions and Attitudes of Williamsport Bureau of Police

7. How satisfied are you with the overall service provided by the Williamsport Bureau of Police?

☐ Very satisfied

☐ Satisfied

- ☐ Neutral
☐ Dissatisfied
☐ Very dissatisfied

8. How effective or ineffective do you think the Williamsport Bureau of Police is at:

	Very ineffective	Ineffective	Neutral	Effective	Very effective
Solving crime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preventing crime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responding to calls for service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. To what extent do you agree or disagree that Williamsport Bureau of Police officers are:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Trustworthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional in appearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transparent in their actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Honest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fair and objective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respectful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. To what extent do you agree or disagree with the following statement: The Williamsport Bureau of Police does a good job protecting me against crime.

- ☐ Strongly disagree
☐ Disagree

- ☐ Neutral
☐ Agree
☐ Strongly agree

11. To what extent do you agree or disagree with the following statement: There are enough police officers in my neighborhood to deal with crime.

- ☐ Strongly disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly agree

Section 2: Williamsport Bureau of Police's Engagement with the Community

12. In the past 12 months, have you seen a uniformed Williamsport Bureau of Police officer

	Yes	No
Talk to residents	<input type="checkbox"/>	<input type="checkbox"/>
Talk to local business owners or employers	<input type="checkbox"/>	<input type="checkbox"/>
Attend a community event	<input type="checkbox"/>	<input type="checkbox"/>
Attend a community meeting	<input type="checkbox"/>	<input type="checkbox"/>
Facilitate or attend a meeting specifically about crime or crime prevention	<input type="checkbox"/>	<input type="checkbox"/>

13. To what extent do you agree or disagree with the following statements about the Williamsport Bureau of Police:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Williamsport Bureau of Police is engaged in "community policing".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have confidence in the Williamsport Bureau of Police.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
They do a good job communicating with residents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Do you know any Williamsport Bureau of Police officer by name?

- ☐ Yes
☐ No

15. Thinking about the past 12 months, how would you describe your last interaction with a Williamsport Bureau of Police officer?

- ☐ Very friendly
☐ Friendly
☐ Neither friendly nor unfriendly
☐ Unfriendly
☐ Very unfriendly
☐ I have not had any police interaction in the past 12 months

16. In the past 12 months, have you

	Yes	No
Requested assistance from the Williamsport Bureau of Police	<input type="checkbox"/>	<input type="checkbox"/>
Been stopped by a Williamsport Bureau of Police officer	<input type="checkbox"/>	<input type="checkbox"/>

17. Thinking about the last 12 months, to what extent do you agree or disagree with the following statements about your last experience with a Williamsport Bureau of Police officer.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	No police contact in the last 12 months
I was treated fairly when I requested assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was treated fairly when I was stopped.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 3: Crime in your Neighborhood

18. In the past 12 months, how much of a problem are each of the following in your neighborhood?

	Major problem	Moderate problem	Minor problem	Not a problem
Animals and pets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automobile thefts and/or break-ins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Harassing phone calls / phone scams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate use of open / vacant land or public parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drug dealing / selling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drug use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drunk driving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Domestic or intimate partner violence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. In the past 12 months, how much of a problem are each of the following in your neighborhood?

	Major problem	Moderate problem	Minor problem	Not a problem
Gangs or gang activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noisy neighbors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gun violence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identity theft / fraud-related offenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Garbage and/or litter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loitering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fighting and/or physical assaults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parking related issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unsupervised juveniles and adolescents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vacant or dilapidated buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public drunkenness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trespassing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sexual assault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speeding drivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vandalism and/or graffiti	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic accidents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roads, signage, and sidewalk condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unkempt property and yards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential burglary and/or break-ins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Robbery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. In the past 12 months, have you been the victim of a crime (either reported or unreported to any police agency)?

☐ Yes
☐ No

21. Thinking about your neighborhood, how fearful are you about:

	Very fearful	Somewhat fearful	A little fearful	Not at all fearful
Being the victim of a crime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crime occurring in your neighborhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seeing drug selling or use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being stopped and questioned by the police	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. How fearful are you or would you feel when:

	Very fearful	Somewhat fearful	A little fearful	Not at all fearful
Walking alone in your neighborhood during the day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking alone in your neighborhood after dark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking alone along a major/busy road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking alone in a park, trail, or bike path	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 4: Williamsport Bureau of Police Response to Issues

23. How often do you see uniformed Williamsport Bureau of Police officers?

	Frequently	Somewhat frequently	Infrequently	Not at all
Driving in your neighborhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving in residential areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving in commercial areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving on the highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Idling or parked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outside their vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interacting with residents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inside local businesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. In your opinion, what is the most urgent crime-related problem that the Williamsport Bureau of Police should address?

25. What do you think is the most important action the Williamsport Bureau of Police can take to improve community life?

26. What physical location(s) would you like to see a visible police presence more often?



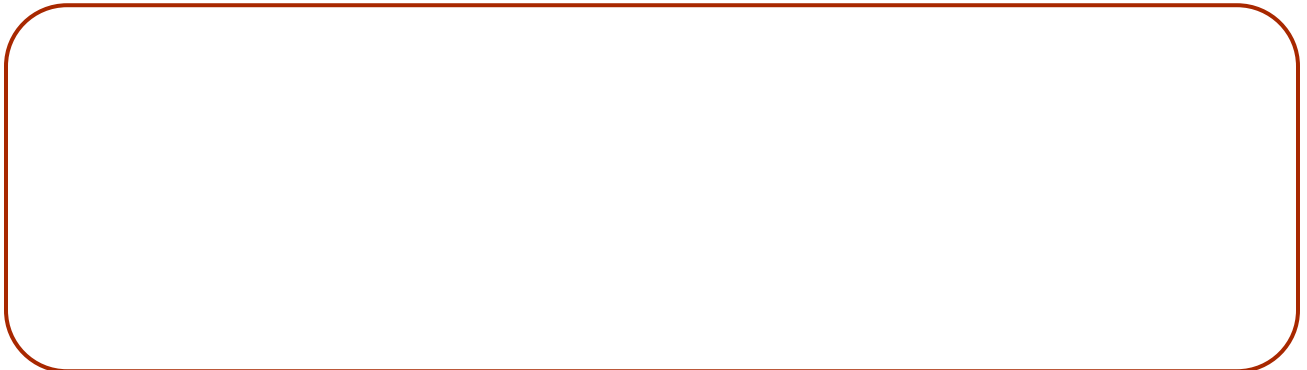
27. What time of day would like to see a visible police presence more often?



28. How could the Williamsport Bureau of Police best help local businesses or residents in your neighborhood respond to or prevent crime?



29. What would you like Williamsport Bureau of Police to know that was not included in this survey?



33. To what extent do you agree or disagree with the following statements about the Williamsport Bureau of Police:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
The Williamsport Bureau of Police takes domestic violence seriously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National and ongoing protests about police use of force against racial minorities influence my current attitude towards the Williamsport Bureau of Police.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 6: Participant Information

34. Do you own or rent your home?

☐ Own
☐ Rent

35. How long have you lived at your current residence?

- ☐ Less than a year
- ☐ 1-5 years
- ☐ 6-10 years
- ☐ 11-15 years
- ☐ 16-20
- ☐ 21+ years

36. What is your gender?

- ☐ Female
- ☐ Male
- ☐ Non-binary

37. With what racial group do you most closely identify?

- ☐ White / Caucasian
- ☐ Black / African American
- ☐ Asian
- ☐ Native Hawaiian / Pacific Islander
- ☐ Native American
- ☐ Other: _____

38. Are you of Hispanic, Latino, or of Spanish origin?

- ☐ Yes
- ☐ No

39. What is your age in years?

40. What is the highest level of education you completed?

- ☐ Less than high school
- ☐ High school diploma or GED
- ☐ Some college
- ☐ College degree
- ☐ Professional or higher degree

41. What is your current employment status?

- ☐ Retired
- ☐ Stay at home parent
- ☐ Part-time employment
- ☐ Full-time employment
- ☐ Unable to work / disabled
- ☐ Unemployed but looking
- ☐ Unemployed but not looking
- ☐ Other: _____

42. What is your total annual income?

- ☐ Less than \$20,000
- ☐ \$20,000-\$39,000
- ☐ \$40,000-\$59,000
- ☐ \$60,000-\$79,000
- ☐ \$80,000-\$99,000
- ☐ \$100,000 or more

THANK YOU.

Would you be interested in entering a raffle for a \$10 gift card by providing your name and contact information? If yes, please fill out the back of this form.

Fill out the following questions to be entered into a \$10 gift card raffle.

1. What is your name?

2. What is the best way to contact you?

☐

Email

☐

Phone

3. What is your telephone number?

4. What is your email address?

THANK YOU.

Appendix B

Table 1. Descriptive Statistics			
	Mean (SD)	Range	% (N)
Perception of Crime	2.54 (1.04)	1-5	
Disorder	3.37 (1.36)	1-4	
Fear of Crime		1-4	
<i>Being victim of a crime</i>	3.13 (.992)	1-4	
<i>Crime occurring in neighborhood</i>	2.90 (1.02)	1-4	
<i>Seeing drug selling or use</i>	3.09 (1.03)	1-4	
<i>Walking alone during the day</i>	3.46 (.825)	1-4	
<i>Walking alone at night</i>	2.82 (1.13)	1-4	
Perception of Crime			
<i>Increased a lot</i>			19.4% (14)
<i>Increased a little</i>			23.6% (17)
<i>Stayed the same</i>			43.1% (31)
<i>Decreased a little</i>			8.3% (6)
<i>Decreased a lot</i>			4.2% (3)
Race			
<i>White</i>			84% (58)
<i>Black</i>			16 % (11)
Gender			
<i>Female</i>			63% (45)
<i>Male</i>			37% (26)
Age			
20-29			10% (7)
30-39			21% (15)
40-49			19% (13)
50-59			21% (15)
60+			29% (20)
Socioeconomic Status			
<i>Less than \$20,000</i>			13% (9)
<i>\$20,000-\$39,000</i>			18% (12)
<i>\$40,000-\$59,000</i>			24% (16)
<i>\$60,000-\$79,000</i>			24% (16)
<i>\$80,000-\$99,000</i>			13% (9)
<i>\$100,000 or more</i>			9% (6)

Table 2. Correlation between Fear and Disorder

FEAR	DISORDER
Being victim of crime	0.520**
Crime occurring in neighborhood	0.638**
Seeing drug selling or use	0.638**
Walking alone during day	0.359**
Walking alone at night	0.423**

* p < 0.05
** p < 0.01

Table 3. Correlation between Fear and Disorder by Race

FEAR	DISORDER	
	White	Black
Being victim of crime	0.580**	0.338
Crime occurring in neighborhood	0.650**	0.582
Seeing drug selling or use	0.605**	0.858**
Walking alone during day	0.427**	0.404
Walking alone at night	0.485**	0.359

*p < 0.05
**p < 0.01

Table 4. Correlation between Fear and Disorder by Gender

FEAR	DISORDER	
	Female	Male
Being victim of crime	0.438**	0.718**
Crime occurring in neighborhood	0.591**	0.757**
Seeing drug selling or use	0.610**	0.702**
Walking alone during day	0.266	0.665*
Walking alone at night	0.295*	0.707**

*p < 0.05 level
** p < 0.01 level

Table 5. Correlation between Fear and Disorder by Age

Fear	DISORDER				
	20-29	30-39	40-49	50-59	60+
Being victim of crime	-0.296	0.349	0.614*	0.550*	0.752**
Crime occurring in neighborhood	-0.296	0.635*	0.761**	0.402	0.868**
Seeing drug selling or use	0.296	.0792**	0.825**	0.057	0.832**
Walking alone during day	-0.393	0.360	0.410	0.338	0.589**
Walking alone at night	-0.363	.0462	0.602*	0.372	0.535*

* p < 0.05
** p < 0.01

Table 6. Correlation between Fear and Disorder by Socioeconomic Status

FEAR	DISORDER					
	less than \$20,000	\$20,000- \$39,000	\$40,000- \$59,000	\$60,000- \$79,000	\$80,000- \$99,000	\$100,000+
Being victim of crime	-0.195	0.309	0.771**	0.448	0.636	0.988**
Crime occurring in neighborhood	-0.195	0.720**	0.807**	0.722**	0.890**	0.938**
Seeing drug selling or use	-0.028	0.537	0.880**	0.831**	0.529	0.871*
Walking alone during day	-0.328	-0.023	0.805**	0.360	0.186	0.924**
Walking alone at night	-0.477	0.625*	0.779**	0.146	0.636	0.937**

* p < 0.05

** p < 0.01

Table 7. Correlation between Disorder and Perception

PERCEPTION	
DISORDER	0.259*

* p < 0.05

** p < 0.01

Table 8. Correlation between Disorder and Perception by Race

PERCEPTION		
DISORDER	White	Black
	0.191	0.599

*p < 0.05

**p < .01

Table 9. Correlation between Disorder and Perception by Gender

PERCEPTION		
DISORDER	Female	Male
	0.191	0.361

* p < 0.05

** p < 0.01

Table 10. Correlation between Disorder and Perception by Age

PERCEPTION					
DISORDER	20-29	30-39	40-49	50-59	60+
	0.837*	0.168	0.490	-0.200	0.470*

* p < 0.05

** p < 0.01

Table 11. Correlation between Disorder and Perception by Socioeconomic Status

DISORDER	PERCEPTION					
	less than \$20,000	\$20,000- \$39,000	\$40,000- \$59,000	\$60,000- \$79,000	\$80,000- \$99,000	\$100,000+
	-0.185	0.149	0.692**	-0.114	0.262	0.656

* p < 0.05

** p < 0.01

Table 12. Correlation between Fear and Perception

FEAR	PERCEPTION
Being victim of crime	0.269*
Crime occurring in neighborhood	0.240*
Seeing drug selling or use	0.395**
Walking alone during day	0.139
Walking alone at night	0.195

* p < 0.05

** p < 0.01

Table 13. Correlation between Fear and Perception by Race

FEAR	PERCEPTION	
	White	Black
Being victim of crime	0.204	0.699*
Crime occurring in neighborhood	0.133	0.742**
Seeing drug selling or use	0.329*	0.763**
Walking alone during day	0.094	0.505
Walking alone at night	0.152	0.633*

*p < 0.05

**p < 0.01

Table 14. Correlation between Fear and Perception by Gender

FEAR	PERCEPTION	
	Female	Male
Being victim of crime	0.228	0.284
Crime occurring in neighborhood	0.134	0.386
Seeing drug selling or use	0.358*	0.433*
Walking alone during day	0.096	0.194
Walking alone at night	0.142	0.173

* p < 0.05

** p < 0.01

Table 15. Correlation between Fear and Perception by Age

FEAR	PERCEPTION				
	20-29	30-39	40-49	50-59	60+
Being victim of crime	-0.217	0.190	0.610*	-0.096	0.503*
Crime occurring in neighborhood	-0.217	0.153	0.656*	-0.033	0.416
Seeing drug selling or use	0.108	0.404	0.601	0.102	0.527*
Walking alone during day	-0.170	0.067	0.755**	-0.152	0.265
Walking alone at night	-0.228	0.250	0.565*	0.105	0.277

* p < 0.05

** p < 0.01

Table 16. Correlation between Fear and Perception by Socioeconomic Status

FEAR	PERCEPTION					
	less than \$20,000	\$20,000- \$39,000	\$40,000- \$59,000	\$60,000- \$79,000	\$80,000- \$99,000	\$100,000+
Being victim of crime	-0.145	0.085	0.499*	-0.086	0.716*	0.598
Crime occurring in neighborhood	-0.174	-0.100	0.549*	-0.198	0.387	0.685
Seeing drug selling or use	-0.122	0.357	0.631**	-0.095	0.775*	0.802
Walking alone during day	.000	-0.039	0.567*	-0.614*	0.763*	0.525
Walking alone at night	0.100	.000	0.553*	-0.493	0.767*	0.844*

* p < 0.05

** p < 0.01

Table 17. Calls for Service (December 2021- December 2022)

Months	Calls for service
December 2021	882
January 2022	944
February 2022	855
March 2022	1025
April 2022	933
May 2022	1114
June 2022	1074
July 2022	1063
August 2022	1123
September 2022	1038
October 2022	1024
November 2022	903
December 2022	871