



# CAMDEN COUNTY POLICE DEPARTMENT

Crime Analysis, Technical Assistance, and Consultation



**COPS**  
Community Oriented Policing Services  
U.S. Department of Justice

**RUTGERS**  
Senator Walter Rand Institute  
for Public Affairs

This project was supported by Cooperative Agreement Number 2013-CK-WX-K025 awarded by the Office of Community Oriented Policing Services, U.S. Department of Justice. The opinions contained herein are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice. Reference to specific agencies, companies, products, or services should not be considered an endorsement by the author(s) or the U.S. Department of Justice. Rather, the references are illustrations to supplement discussion of the issues.

The internet references cited in this publication were valid as of the date of publication. Given that URLs and websites are in constant flux, neither the author(s) nor the COPS Office can vouch for their current validity.

The U.S. Department of Justice reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use and to authorize others to use this resource for Federal Government purposes. This resource may be freely distributed and used for noncommercial and educational purposes only.

**Recommended citation:**

Swan, Tracy A., Gwendolyn L. Harris, Spencer T. Clayton, and Louis Tuthill. 2020. *Camden County Police Department: Crime Analysis, Technical Assistance, and Consultation*. Washington, DC: Office of Community Oriented Policing Services.

**Published 2020**



# **CAMDEN COUNTY POLICE DEPARTMENT**

**Crime Analysis, Technical Assistance, and Consultation**



# Contents

<b>Executive Summary</b> .....	<b>v</b>
<b>Acknowledgements</b> .....	<b>viii</b>
<b>Introduction. Crime in Camden</b> .....	<b>1</b>
<b>1. Community Policing and Partnerships</b> .....	<b>5</b>
<b>2. Analysis of Crime Types and Calls for Service</b> .....	<b>7</b>
Vice complaint (drugs) .....	<b>8</b>
Domestic incident involving two adults .....	<b>8</b>
Possession of a firearm .....	<b>9</b>
<b>3. Hot Spot Location Assessment</b> .....	<b>10</b>
Crime in relation to the citywide camera system .....	<b>10</b>
Crime in relation to liquor establishments checks .....	<b>12</b>
<b>4. Analysis of Crime Intervention Efforts</b> .....	<b>15</b>
Foot patrols .....	<b>15</b>
Interrupted time series analysis .....	<b>18</b>
Multijurisdictional taskforce efforts .....	<b>20</b>
Arrests vs. incidents. vs. clearance rate .....	<b>22</b>
<b>5. Training and Technical Assistance</b> .....	<b>25</b>
Street segment analysis .....	<b>25</b>
Predictive analysis .....	<b>25</b>
Risk terrain modeling analysis .....	<b>25</b>
<b>Conclusion</b> .....	<b>26</b>
Limitations .....	<b>26</b>
Recommendations .....	<b>26</b>
<b>References</b> .....	<b>28</b>
<b>About the Senator Walter Rand Institute for Public Affairs</b> .....	<b>30</b>
<b>About the COPS Office</b> .....	<b>31</b>

## Figures and Tables

<b>Table 1.</b> Number of violent crime offenses known by law enforcement, 2015 .....	<b>1</b>
<b>Figure 1.</b> Map of Camden City Police Department districts and sectors .....	<b>2</b>
<b>Table 2.</b> Crime offenses known by law enforcement, 2008-2014 .....	<b>3</b>
<b>Figure 2.</b> Top calls for service, May–August 2013–2016 .....	<b>7</b>
<b>Figure 3.</b> CCPD camera locations throughout Camden City .....	<b>11</b>
<b>Figure 4.</b> Reported incidents of violent crime by density of camera locations.....	<b>11</b>
<b>Figure 5.</b> Levels of drug crime arrests by camera density .....	<b>13</b>
<b>Figure 6.</b> Drug crime arrests before and after commencement of liquor establishment checks .....	<b>14</b>
<b>Figure 7.</b> Actual vs. predicted Part I crime arrests in foot patrol areas.....	<b>17</b>
<b>Table 3.</b> Crime reduction in foot patrol vs control areas over three month periods .....	<b>18</b>
<b>Table 4.</b> Multijurisdictional taskforce operations, 2011–2014 .....	<b>21</b>
<b>Figure 8.</b> Map of major police operations .....	<b>22</b>
<b>Figure 9.</b> Violent crime arrests vs. incidents. vs. clearance rate .....	<b>23</b>
<b>Figure 10.</b> Property crime arrests vs. incidents. vs. clearance rate .....	<b>24</b>



## Executive Summary

**Camden, New Jersey, a city with nearly 78,000 residents,** has seen its fair share of violence over the years; more recently, however, it has experienced a drop in crime. From 2008 to 2014 (the most recently available Uniform Crime Report data), the violent crime rate in Camden City decreased 11.4 percent; while its nonviolent crime rate decreased 40.1 percent. This is welcome news to residents.

Even with this decrease in crime, the city was still ranked as one of the most dangerous in America by both Neighborhood Scout and CQ Press / Morgan Quitno Corp. from 2004–2014. These ranking organizations look at crimes such as murder, rape, robbery, aggravated assault, burglary, and auto theft to determine levels of danger in cities with a population of 75,000 or more. Camden reached an all-time high of violent crime in 2012 when it experienced 67 murders, an increase of 235 percent over the previous year.

Faced with high crime and state budget constraints, Camden needed a new policing structure. In May, 2013, Camden County agreed to decommission the Camden City Police Department, transitioning to a county police department. The goal of this changeover was to create a larger, less expensive, and more streamlined county force.

Residents experienced a new level of police presence with a 75 percent increase in “boots on the ground.” The new county force addressed Camden’s public safety and fiscal challenges through a series of structural, technological, and policy shifts. The police chief’s ‘Service before Self’ policing philosophy permeated the ranks and, when coupled with innovative crime suppression techniques, realized declining incidents of violent crime, an increase in arrests, and an increase in clearance rates, a common measure of crimes solved.

Analyzing the success of the department’s crime reduction interventions, as well as further building the capacity of its analytics staff, seemed the next logical step in the development of the “new” county force. The Camden County Police Department (CCPD) received a grant from the Office of Community Oriented Policing Services (COPS Office) at the Department of Justice to partner with the Senator Walter Rand Institute for Public Affairs (WRI) at Rutgers University in Camden to provide capacity building for the CCPD’s crime analysts and an assessment of the department’s major crime-reduction strategies. Through the grant, WRI provided analytics, training, and research support to the CCPD. WRI worked primarily with the Director of Criminal Intelligence and Analysis, who liaised with command staff on behalf of WRI. The CCPD provided data on arrests, crime incidents, and calls for service from 2010 through the fall of 2016.

The project consisted of four main components:

1. Analysis of crime types and calls for service
2. “Hot spot” location assessment
3. Analysis of crime intervention efforts
4. Training and technical assistance

The analysis of crime types and calls for service looked at the following data:

- Top calls for service citywide
- Calls for service by district and sector

The purpose of this analysis was to understand the scope of crime in Camden, the geographic distribution of service calls to the police department, and police response times.

## Executive Summary

The “hot spot” location assessment looked at the following data:

- Crime in relation to the citywide camera system
- Crime in relation to liquor establishments checks

The purpose of these assessments was to understand the effectiveness of cameras on crime in the city and the effectiveness of police-initiated liquor establishment checks on crime in the immediate vicinity and two-block radius of the establishments.

The crime intervention efforts analyzed as part of this evaluations included the following:

- Foot patrols
- Multijurisdictional taskforce efforts

The purpose of these analyses was to understand the effectiveness, in both the short and long term, of the department’s major crime-reduction strategies. The specific “multi-jurisdictional” taskforce efforts analyzed include five law enforcement task force operations (Operation Yogi Bear, Operation Billboard, Operation North Pole, Operation Southern District, and Operation Beanstalk).

Additionally, WRI examined overall arrests and compared them to reported incidents and clearance rates.

For the various analyses, WRI defined violent and property crime using the following arrest/reported incident offense types:

- Violent Crime – Robbery, Aggravated Assault, and Homicide
- Property Crime – Burglary, Larceny Theft, and Motor Vehicle Theft

WRI also included drug and weapon crime as part of its analyses. Drug crime is defined as both possession and distribution.

Through consultation meetings with CCPD’s Strategic Analysis Unit and select members of the CCPD command staff, the following gaps in the crime analysts’ skills were identified:

- Street Segment Analysis
- Predictive Analysis
- Risk Terrain Modeling Analysis

Training was provided on each of these analytical methods at the department in the analysts’ workspace. The purpose of these trainings was to build the investigative capacity of the department’s crime analysts and teach alternative methods not previously used by the department.

This report is organized in the following sections:

- Introduction: Crime in Camden
- 1. Community Policing Philosophy in the Camden County Police Department
- 2. Analysis of Crime Types and Calls for Service
- 3. “Hot Spot” Location Assessment
- 4. Analysis of Crime Intervention Efforts
- 5. Training and Technical Assistance

Each individual section describes the analysis or training conducted, the results, a discussion of the results, and the recommendations of the contracted partner.

For the most part, the CCPD’s crime-reduction strategies impacted crime in a positive manner by increasing arrests and reducing reported incidents of both violent

## Executive Summary

and property crime. Having significant, lasting impact on drug crime, however, seems to be a challenge for the department (at least up until the time the data was analyzed). Most impressive, the CCPD's clearance rates have significantly increased starting in 2014, while reported crime has dropped. In other words, more crimes are being solved, while less crime is occurring. Given the success of the CCPD's crime intervention efforts, WRI recommends that the department continue with its joint task force efforts and community policing strategies such as foot patrols.

In addition to using hot spot analysis and mapping, WRI recommends that the CCPD's analysts continue to use various other ways to analyze, and even predict, crime. Further, WRI recommends that the department continue to identify gaps in the skills of their analysts and provide training whenever possible.

The Camden County Police Department hosts, sponsors, and participates in various community outreach initiatives to ensure that its officers build strong ties with the communities they serve. Examples include Movies with Metro, bike rodeos, pop-up block parties, carnivals, barbecues, masquerades, basketball games, and an established, integral presence at churches, parks, recreational centers, and other public domains. The CCPD should continue these outreach initiatives and its partnerships, especially with residents, to identify and address quality-of-life and crime problems. These partnerships can only help augment and prolong the positive impacts the CCPD is having on violent, property, and drug crime in the city.

WRI also recommends that the department document its crime-reduction strategies from the onset of planning through implementation. This way, there is a record, not only for researchers, but for command staff to reference when attempting to replicate the efforts that had positive results. Researchers also suggest that by partnering with evaluators at the planning stages of a strategy, more rigorous research designs can be put into place to better understand the impact of the specific crime reduction and prevention strategies.

# Acknowledgements

**The Camden County Police Department** benefited greatly from collaboration with the Walter Rand Institute of Public Affairs. The Camden County Police Department wishes to thank the following individuals for their assistance in this evaluation:

**Louis Tuthill, Ph.D., Principal Investigator at the Walter Rand Institute for Public Affairs**, made important contributions to the implementation and evaluation of violence reduction strategies for the City of Camden. He met with our strategic analysis team and introduced new concepts to help our understanding of how to predict crime, such as time series analysis, risk terrain modeling, and street segment analysis. The analytical support he provided to our staff members will help us continue to reduce violence and crime for years to come.

**Gwendolyn L. Harris, Co-Principal Investigator and Executive Director at the Walter Rand Institute for Public Affairs**, oversaw the administration of this cooperative agreement. She brought a wealth of information with her, drawing on her extensive career in human services and public administration that provided resources for training that increased our crime analysis capacity.

**Tracy A. Swan, Senior Project Coordinator at the Walter Rand Institute for Public Affairs**, provided considerable assistance in the research design, execution,

and summarization. Throughout the project, she contributed active support and insight to the department. She provided valuable research and data analysis and extended our assessment to include general crime solutions such as building local partnerships.

**Spencer Clayton, Ph.D. student at the Walter Rand Institute for Public Affairs**, provided substantial quantitative and analytical support. His statistical and spatial analysis provided the police department with a foundation for future analyses.

**Gregory Carlin, Captain at the Camden County Police Department**, served as commander of the department's Strategic Deployment Division. His unit provided significant raw data for this project. He provided informative briefings on the police department efforts to improve public safety.

**Dannielle Sesay, Grant Manager at the Camden County Police Department**, provided editorial and communications support.

Finally, we wish to thank the grants management and publishing teams of the U.S. Department of Justice's Office of Community Oriented Policing Services for their guidance in shepherding this document through development, design, and publication.

# Introduction

## Crime in Camden

**The County of Camden, New Jersey** has 37 municipalities, eight of which have a crime rate above the national average. The largest and most well-known city is Camden, which historically has had high levels of violent crime. The Camden City violent crime rate is more than 525 percent of the national crime rate. Table 1 breaks down the rates of violent crime in Camden and New Jersey as a whole.

Camden, a city with nearly 78,000 residents, has been in an economic downturn for decades. As a post-industrial American city, Camden has struggled with issues ranging from blight to diminished employment opportunities, a collection of ills dubbed “Camden Syndrome” (Smith, Caris, and Wyly 2001). From 1960 to 2010, Camden’s population declined more than 37 percent, emptying neighborhoods and leaving them to descend into physical decay. Between 2012 and 2016, the U.S. Census Bureau reported high poverty (38.4 percent), low median household income (\$26,214), and low educational attainment (68.8 percent with a high school degree or higher) (U.S. Census Bureau 2018).

These economic and social woes have been accompanied by violent crime, which peaked in 2011, with homicide peaking in 2012 (CamConnect n.d.). Sampson (2012)

proposed that neighborhoods characterized by social and physical disorder suffer from a variety of deficits that influence neighborhood conditions, such as poor health, high rates of school dropout, lack of trust, lack of civic engagement—even vacant structures, which a Camden community organization linked to higher crime rates (Schmitt 1997). Such conditions present many challenges for public safety; law enforcement has traditionally responded to neighborhood disorder with enforcement and prosecution, but without addressing the deeper social and public health issues that cause disorder.

According to the New Jersey Uniform Crime Reports, from 2008 to 2014, the violent crime rate in Camden City decreased 13.12 percent. During that same period, the nonviolent crime rate decreased 41.39 percent, as shown in table 2. This period saw two major changes in police leadership and structure. In 2008, Chief J. Scott Thomson was appointed by the New Jersey Attorney General to reduce violence in Camden. State budget constraints in 2010, however, significantly reduced funding for law enforcement and public safety. Camden experienced a 27 percent drop in its police force, from 366 in 2010 to 265 in 2011. Following the layoffs, Camden experienced an increase in crime (Summerton 2015), with violent

**Table 1. Number of violent crime offenses known by law enforcement, 2015**

Location	Population	Total Violent Crime	Crime Rate per 1,000 inhabitants	Homicide/ Manslaughter	Rape	Robbery	Aggravated Assault
Camden	77,344	1,520	19.65	32	75	483	930
New Jersey	8,958,013	22,879	2.55	363	1,373	9,729	11,414

## Introduction. Crime in Camden

**Figure 1. Map of Camden City Police Department districts and sectors**



## Introduction. Crime in Camden

crime increasing by 17 percent and nonviolent crime by 23 percent. In 2012, Camden experienced the highest number of homicides in its recent history with 67 murders, an increase of 235 percent over the previous year.

Faced with high crime and a fiscal crisis, Camden needed a new policing structure. In May of 2013, the County of Camden agreed to decommission the Camden City Police Department and transition to a county-level department, still led by Chief Thomson. The goal of this changeover was to create a larger, less expensive, and more streamlined force. The county-level department has jurisdiction throughout the county, but is only responsible for policing within the 10 square miles of Camden City.

The city is divided into four police districts, 1N and 3N in the north and 2S and 4S in the south. Each district is further divided into three to five sectors (figure 1).

Just before the changeover in May 2013, the Camden City Police Department had about 200 officers. In May of 2013, the new Camden County Police Department hired an additional 50 officers, and one year later added 100 more, surpassing the numbers of the previous city agency.

Following the changeover, residents experienced a new level of police presence, with a 75 percent increase in boots on the ground. In addition to increasing staffing, the new county police department also addressed Camden's public safety and fiscal challenges through a series

**Table 2. Crime offenses known by law enforcement, 2008–2014**

Crime Type	2008	2009	2010	2011	2012	2013	2014	2008 vs 2014
Murder/ Manslaughter	54	34	37	47	67	57	33	-38.88%
Rape	70	60	73	67	74	55	52	-25.71%
Robbery	820	767	713	859	759	737	534	-34.87%
Aggravated Assault	847	1,024	1,025	1,193	1,106	1,111	937	10.62%
Total Violent Crime	1,791	1,885	1,848	2,166	2,006	1,960	1,556	-13.12%
Burglary	1,254	1,050	1,028	1,451	1,100	861	863	-31.18%
Larceny-Theft	2,809	2,377	2,119	2,331	2,299	2,039	1,785	-36.45%
Motor Vehicle Theft	1,003	650	522	801	708	465	321	-67.99%
Total Nonviolent Crime	5,066	4,077	3,669	4,583	4,107	3,365	2,969	-41.39%
Total Crime Reduction								-34.00%

## Introduction. Crime in Camden

of structural, technological, and policy shifts. By hiring more civilian staff to handle tasks once manned by police, such as central booking and records and identification, Chief Thomson was able to dedicate more officers to walk the streets. Additionally, by coordinating and conferring with command staff, including deputy chiefs, captains, and lieutenants, as well as with outside consultants, Thomson established new policies for handling calls for service, establishing a baseline to measure officer efficiency.

Analytics were also integrated to track and measure how officers were spending their time through digital and interactive resource management technology on both a macro and micro perspective. The Camden City Police Department had installed its first, non-real-time crime-mapping system in 1998 and computer-based crime tracking in 2005. Its other technological assets, introduced or enhanced under the county department, include the “Eye in the Sky” program, which greatly increased city-wide video surveillance capabilities; “ShotSpotter,” which triangulates the location of gunshot fire; license plate readers, which allow real-time analysis of vehicles and their occupants; body-worn cameras; and the monitoring of social media.

Finally, Chief Thomson, in an initiative joined by Mayor Dana Reid, established policies that institutionalized the new departmental philosophy of Service before

Self, requiring all officers to acknowledge and comply with it. Since then, the community policing philosophy has permeated all ranks, along with innovative crime-suppression techniques.

In 2013, the Camden County Police Department (CCPD) received a grant from the Office of Community Oriented Policing Services (COPS Office) at the Department of Justice to partner with the Senator Walter Rand Institute for Public Affairs (WRI) at Rutgers University in Camden to provide analytics, training, and research support to the crime analysts within the department and to evaluate some of its major crime-reduction strategies. WRI worked primarily with the Director of Criminal Intelligence and Analysis, who liaised with command staff on WRI’s behalf. This report is the result of that study. It is organized according to the services provided by WRI to the police department:

1. Analysis of crime types and calls for service
2. “Hot spot” location assessment
3. Analysis of crime intervention efforts
4. Training and technical assistance

Each section describes the main purpose of the technical assistance or evaluation provided by WRI, details the services provided and the data used, discusses the results of the analysis or training, and offers recommendations.

# 1 | Community Policing and Partnerships

According to the COPS Office, “community policing is a philosophy that promotes organizational strategies that support the systematic use of partnerships and problem-solving techniques to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime” (COPS Office 2014). Community-oriented policing focuses on a common-sense approach to building trust. Its pillars are collaborating with multiple individuals and organizations to co-produce public safety; infusing community policing throughout the police organization; ensuring all members of society—particularly those who are vulnerable—are treated with dignity and respect; reducing the marginalization of at-risk youth and ensuring youth have a voice in community processes; and reducing law enforcement involvement in school discipline and enhancing school, community, and youth-led responses (Lum et al. 2016).

Research has begun to bear out the efficacy of these approaches. One recent study suggests, based on pre-post changes in outcomes between treatment and comparison areas following the implementation of new strategies, that community-oriented policing strategies which involve community collaboration or consultation have positive effects on citizen satisfaction, perceptions of disorder, and police legitimacy, though their effects on crime and fear of crime are limited (Gill et al. 2014).

The success of the CCPD relies on such community collaboration, and on building highly engaged partnerships with local stakeholders and community members. In line with the shifting paradigm of policing, the department embraces the philosophy of Service before Self in order to engage residents, business owners, and youth.

The CCPD hosts and participates in various community outreach initiatives to ensure that its officers build strong ties with the communities they serve. In 2012, Camden City created a broad-based collaboration, in which the CCPD participated, called Cure4Camden to develop plans for the reduction and prevention of violence through a service delivery continuum grounded in a public health approach. Some of the partners include the Office of the Mayor, the Camden County Board of Chosen Freeholders, the Camden City Board of Education, and the Department of Health and Human Services; each is uniquely positioned to execute and deliver public safety, education, and service provisions to create significant improvements in the Camden community.

The CCPD works with many partners in order to address issues beyond the traditional scope of policing. The department’s success can be attributed to some of the following organizations: Camden Corporate Watch, Camden Sophisticated Sisters, Center City Security Group, Center for Family Services, Cooper Grant Neighborhood Association, Dare to Dance, District Council Collaborative Board, Elks Lodge, Fairview Neighbors, Guadalupe Family Services, Haddon Avenue Business Association, Hispanic Family Center, Hopeworks, Parents for Great Camden Schools, Parkside Business & Community in Partnership, Saint Anthony’s Church, Save Our Waterfront, She Has a Name, Sword of the Covenant Church, United Neighbors of Whitman Park, and Volunteers of America.

## 1 | Community Policing and Partnerships

Collaboration with these and other groups has produced the following initiatives:

- In 2013, the CCPD revamped its working relationship with Seeds of Hope Ministries, a faith-based Camden nonprofit. One of its initiatives, “She Has a Name,” is an outreach program that provides different types of aid to women who turn to prostitution to support their drug addictions. This initiative offers these women the opportunity to avoid misdemeanor charges by completing a diversionary program at a local rehabilitation center or at an out of state facility.
- In 2013, the City of Camden was selected by the Department of Justice’s (DOJ) Violence Reduction Network (VRN) to join a collaborative aimed at combating persistent crime issues. As the criminal justice community learns more about crime and disorder trends, it has become clear that the drivers of violent crime are beyond the scope of traditional law enforcement. Increased exposure to alternative and emerging policing practices, such as training and technical assistance provided by the VRN, has proven beneficial for the CCPD in creating innovative, data-driven approaches to Camden’s violent crime issues. In 2015, the CCPD participated in peer exchange visits with the New York City and Chicago police departments to explore technology and intelligence capabilities that might contribute to current efforts in Camden City.
- In 2014, the CCPD partnered with the Mayor’s Office and the Camden City School District to implement the Bookmates program. Students are paired as reading partners with police officers, who go into city schools and read to children during the day. This fosters relationships between students and police while helping to improve reading.
- In 2016, members of the CCPD were trained to integrate internal data from the Camden Coalition of Healthcare Providers, such as geocodes of hospital and emergency admissions and overdose incidents, and correlate this information with crime statistics. The CCPD also met with patient care experts and providers from Camden’s two licensed Suboxone clinics, Project H.O.P.E., and Cooper Hospital’s Urban Health Institute (UHI), to focus on heroin overdose victims.
- In the same year, the CCPD launched a partnership with Nextdoor ([www.nextdoor.com](http://www.nextdoor.com)), the private social network for neighborhoods, to improve citywide and neighbor-to-neighbor communications. With Nextdoor, Camden residents can create private neighborhood websites to share information, including neighborhood public safety issues, community events and activities, local services, and even lost pets. The police department will be able to post information such as important news, services, programs, free events, and emergency notifications to the Nextdoor websites.

Chief Thomson believes that policing efforts can be augmented and improved through partnerships, training and technical assistance, applied research, and best practices. Research agrees; according to current recommendations, the future of law enforcement should follow a multi-tiered approach including engagement, technology, education, and other progressive tactics. To further this approach, police should focus on a number of trust-building activities, including emphasizing non-enforcement activities in communities and schools and increasing transparency through information sharing. They should also consider the potential consequences of crime-fighting strategies for resident trust (Lum 2016).

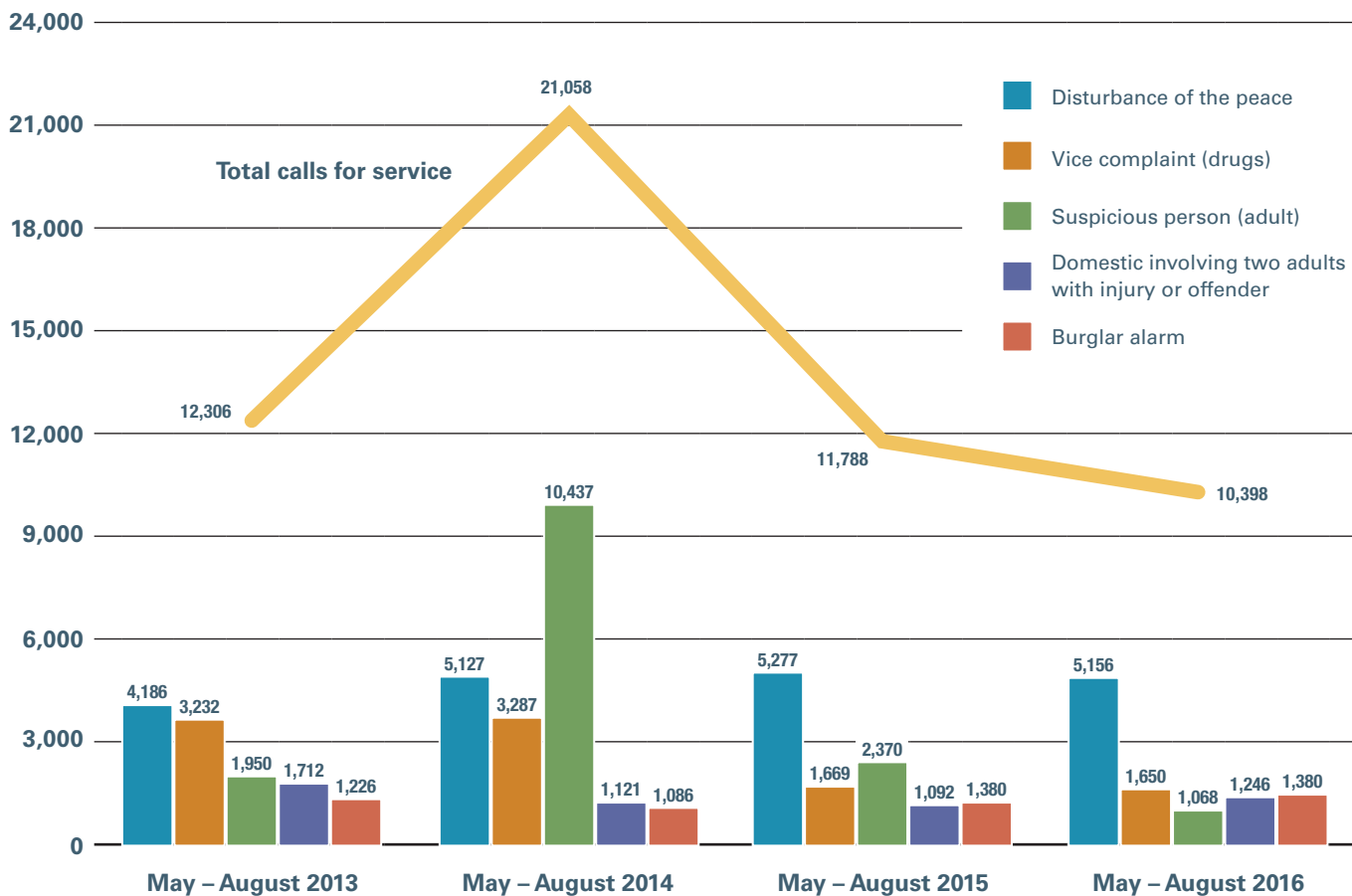
## 2 | Analysis of Crime Types and Calls for Service

To understand the scope of crime in Camden, WRI examined CCPD's calls for service, particularly for the summer months when the weather gets warmer and crime typically increases. WRI reviewed the calls made from May through August for each year from 2013 through 2016, paying special attention to the top calls for service from year to year. In order to determine CCPD response time, WRI excluded those calls (less than 400) from the analysis that contained negative time calculations—that is, where a call was placed after police were already on the scene.

Across all four years, the top categories of service call were disturbance of the peace, vice complaint (drugs), suspicious person (adult), domestic disturbance, and burglar alarm. The ranking of these top calls relative to each other does change from year to year (see figure 2). Over the time period examined, there are a total of 55,550 of these calls during the summer months.

Friday averaged the most calls. The highest number of calls came between the hours of 1:00 p.m. and 10:00 p.m. The district generating the most calls was 2S, with the

**Figure 2. Top CCPD calls for service, May–August 2013–2016**



## 2 | Analysis of Crime Types and Calls for Service

exception of 1N in 2013. The sector with the most calls changed from year to year: 102 (North Camden) in 2013; 403 (Whitman Park) in 2014; 202 (South Waterfront) in 2015; 104 (Central Waterfront) in 2016.

CCPD's mean response time for these top service calls is nearly 5.5 minutes, when measured from the time the officer is dispatched by 911. However, this mean response time was less than half the mean time—13 minutes—between a call's reception by 911 and officer arrival. Officers completed calls, on average, nearly 35 minutes after dispatch and nearly 42 minutes after call reception; for statistical purposes, completion time is measured as the time from reception to completion.

Improving response time is an effective way to improve citizen perceptions of the police. "Citizens have overwhelmingly ranked responding to emergency calls for service as the number one priority of police services. In one such study, 56 percent ranked response time number one with another 23 percent ranking it either second or third in terms of importance. In total, 79 percent of residents ranked response time to all calls for service as the top three priorities of police agencies" (ICMA 1997). Response time is also the part of a service call that is entirely within the police department's control, and can most easily be improved by changes to personnel or operations.

### **Vice complaint (drugs)**

Since drug networks are a particular challenge for Camden, WRI conducted additional analyses of the vice complaint (drugs) calls. Over the time period examined, there were a total of 9,838 calls in this category during the summer months. The calls decreased from 2013 to 2016 by 49 percent. The day of the week receiving the most calls of this type was Wednesday in 2013 and Tuesday in 2014–2016. The highest volume of calls per hour came

between 9:00 p.m. and 2:00 a.m. The district receiving the most vice-drug calls was 1N in 2013, when it had more than twice the call volume of the next-highest district. In 2014 it was overtaken by 2S and 4S, which differed only by one call; in 2015 and 2016, 2S was solidly the highest-volume district.

The average response time for this type of call is a little over four minutes, with the mean time between call reception and officer arrival of 22 minutes. WRI could not find information on the average police response time for this type of call to which to compare the CCPD's response time. Time between call reception and completion averaged over 41 minutes, while the time between dispatch and completion averaged a bit over 22 minutes.

### **Domestic incident involving two adults**

Command staff at CCPD are proud of their accomplishments in reducing domestic violence and holding offenders accountable. In the specific category of domestic incidents involving two adults with injury or offender, there were a total of 5,171 calls in the time period examined. This type of call decreased in frequency from 2013 to 2015 by 36 percent, but increased by 14 percent from 2015 to 2016. Calls were most frequent on Saturday or Sunday; many of these Sunday calls may functionally have been Saturday night calls, received after midnight. The highest hourly call volume was between 8:00 p.m. and 1:00 a.m. District 2S received the most calls in this category, and 1N the fewest. Sectors 403 and 203 (Center-ville/Liberty Park) alternate in the top two spots over the years examined. The average response time for this type of call is marginally slower than for the other top calls, at just over six minutes from call dispatch to officer arrival, but the average completion time is much longer, at nearly 90 minutes from call reception.

## 2 | Analysis of Crime Types and Calls for Service

### Possession of a firearm

Though it was not one of the top categories by call volume, WRI also examined calls for possession of a firearm, as firearms are used in most of Camden's homicides.

Over the time period examined, there were a total of 2,900 calls in this category during the summer months (May–August). These calls decreased between 2013 and 2016 by 32 percent, falling from 322 to 252. Calls came most commonly on Saturday, except for in 2014, when more calls were received on Fridays. The highest hourly call volume came between 9:00 p.m. and midnight.

District 2S received the most calls in all four years, with sectors 403 and 203 alternating in the number one and number two spots. As can be expected, the average response time for these types of calls is fairly fast, at just over three minutes from call dispatch to officer arrival. The average completion time is longer than for the top three calls—disturbance of the peace, vice complaint (drugs), domestic incident, and burglar alarm—at 58 minutes from call reception to completion.

The police department's ShotSpotter technology has been an asset in guiding its gun violence targeting efforts. Throughout the city, there are microphones that record and locate gunshots. This allows the department's Shooting Response Team to respond to the scene of shootings promptly, and allows command staff to adjust police operations to more effectively cover hot spot areas. In 2016, ShotSpotter was activated 722 times. 393 of these activations identified a firearm-related event; of these, 50 were in response to two firearm-related events and 16 to three or more events.

The CCPD continues to be vigilant in its efforts to reduce gun violence in the city. In 2016, it seized 225 firearms and made 308 total gun-related arrests.

### 3 | Hot Spot Location Assessment

#### Crime in relation to the citywide camera system

The CCPD has hundreds of cameras throughout the city as part of its Eye in the Sky Program. Mounted video cameras monitor events on the streets in real time. The video images are transmitted on a video line to the police radio dispatch room, which is monitored 24 hours a day. Eye in the Sky reduces public disorder and provides additional oversight of public spaces, streets, and parks throughout the city. These cameras can be monitored 24/7 by Camden's police, not only from headquarters, but also from patrol cars. Further, residents can also help the police by virtually manning these cameras and alerting authorities when crime occurs.

WRI examined arrests and incidents of crime near the various police camera locations throughout the city. The measure of space is the Camden block group. A block group is made up of approximately 35 to 40 city blocks. Camden City has 1,591 blocks. WRI mapped the CCPD camera locations in the city (see figure 3 on page 11). It is important to note that the CCPD had at least 200 more cameras throughout the city in 2015 than are shown in the figure 3 map.

WRI's analysis of the camera location data focused on two questions:

- Is camera location correlated with arrests and reported incidents?
- Does there appear to be a spillover effect to neighboring communities?

Since the commonly accepted operationalization of crime is arrests, these analyses used arrests as a proxy for crime, in the following categories:

- Violent crime – aggravated assault, robbery, homicide/murder
- Property crime – burglary, larceny/theft, motor vehicle theft
- Drug crime – possession, distribution
- Firearm crime – having or using a firearm in the commission of a crime

WRI also examined reported crime incidents without arrests in the following categories:

- Violent crime – robbery, aggravated assault, and homicide
- Property crime – burglary, larceny theft, and motor vehicle theft

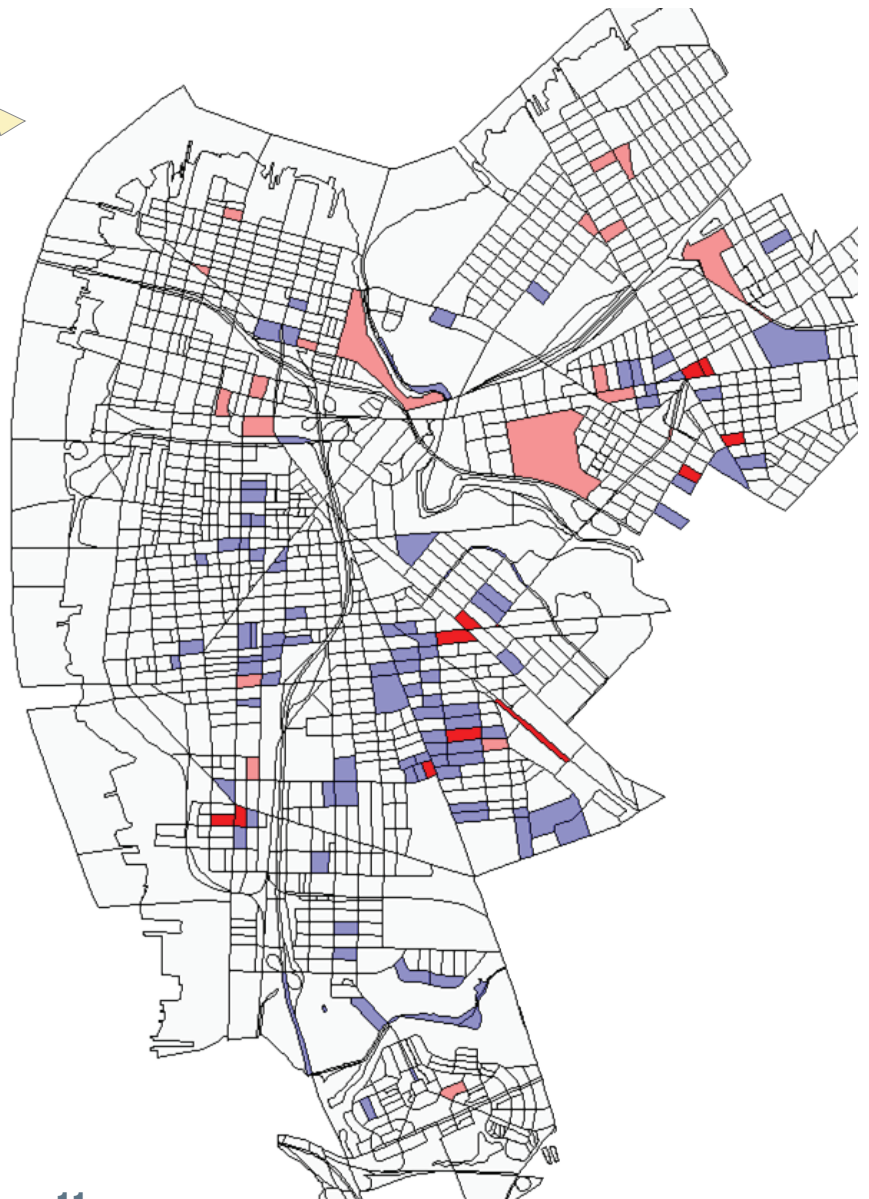
WRI conducted a bivariate analysis to examine the relationship between cameras and arrests and reported incidents, defining four categories by the density of crime and cameras: High High (high crime density, high camera density); Low High (low crime density, high camera density); High Low (high crime density, low camera density); and Low Low (low crime density, low camera density).

WRI mapped the statistically significant areas for each category in the city (see figure 4 on page 11). WRI found a low-high correlation between the reporting of violent and property crime and the presence of cameras. In other

### 3 | Hot Spot Location Assessment



**Figure 3.** CCPD camera locations throughout Camden City



**Figure 4.** Reported incidents of violent crime by density of camera locations

Reported incidents of violent crime—camera density

- High-High
- Low-High
- High-Low
- Not significant
- Low-Low (none)

### 3 | Hot Spot Location Assessment

words, where there is a high density of cameras, there tends to be low reporting of crime. The reverse—that low crime reporting tends to occur in areas with higher camera density—is also true: in fact, there are far more blocks with high camera density but high crime reporting than there are with low camera density but low crime reporting.

It is unclear from the data whether cameras serve a deterrent to crime, or as an alternative to reporting—that is, whether the lower level of reporting indicates that fewer crimes are taking place, or that a smaller percentage of crimes are being reported

Crime reporting and camera density ratios are plotted on the map in figure 4 on page 11.

WRI conducted an additional analysis with neighborhood value, finding a link between low neighborhood value and a high number of violent crime incidents reported. Neighborhood value is defined as the relative value of housing stock, based on city assessment data. It is used here as a proxy for resident income, on the assumption that people will live in a place that they can afford.

WRI found that arrest data mirrors the data for crime reporting. Arrests for both violent and property crime varied inversely to the density of cameras in a neighborhood. For property crimes, this variation spilled over to the contiguously neighboring blocks, which also tended to have low arrest rates even when their camera density was lower.

Arrest rates for drug crimes do not show as strong a correlation to camera density. While there are some neighborhoods where high camera density accompanies low drug arrest rates, there are also blocks where drug arrests remain high despite a high number of cameras. We postulate that, where cameras do correlate to lower arrests, it is likely to be a deterrent to crime rather than to reporting, as drug crime in general tends to be underreported. Drug arrest rates and camera densities are plotted on the map in figure 5 on page 13.

Drug crime was also found to have a spillover effect into the surrounding neighborhood, with both crime rates, and their correlations with camera density, tending to spread into adjacent blocks. Contiguously neighboring blocks with High High, Low Low, Low High, or High Low designations were likely to border blocks with similar characteristics.

Firearms crime also varies inversely with camera density. This also appears to be a deterrent effect—and a deterrent to carrying weapons as well as to using them. It seems reasonable to conclude that the ShotSpotter program may increase the perceived chances of apprehension for carrying a weapon.

#### *Recommendations*

The CCPD may want to move cameras around to evaluate their impact on reported crime—with more data, it may be possible to determine more fully whether cameras deter crime, or curb crime reporting by residents. As a further experiment, the CCPD might want to move even more cameras to the high-high areas to see if this deters crime, especially violent crime.

#### **Crime in relation to liquor establishments checks**

The CCPD implemented a liquor establishment check as part of its patrol operations in January 2014. WRI mapped the location of each liquor establishment, defined as any establishment selling alcoholic beverages, with the exception of restaurants with liquor licenses, and conducted a time series analysis using a street network model. WRI examined arrests and reported incidents from January 2011 through April 2015 on the street of the liquor establishment, the area one connected street segment away from the liquor establishment, and the area two street segments away from the liquor establishment; these can be thought of as primary, secondary, and tertiary distances. WRI examined the same types of arrest as in the camera evaluation: violent, property, drug, and

## 3 | Hot Spot Location Assessment

**Figure 5. Levels of drug crime arrests by camera density**

Crime density–Camera density

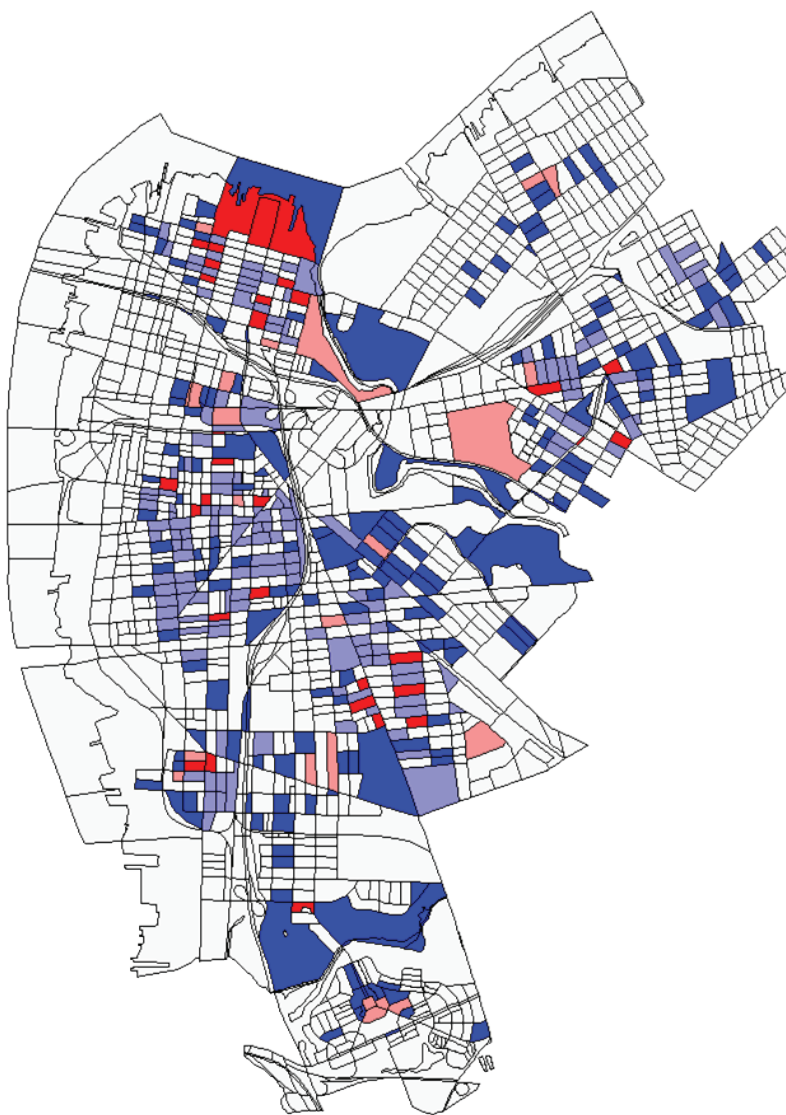
High–High

Low–High

Low–Low

High–Low

Not significant



firearm). WRI examined the arrest data for all hours and then, at the request of members of the CCPD command staff, conducted a more in-depth analysis of data for the 11 p.m. to 3 a.m. timeframe; the results of this examination mirrored those of the initial analysis.

WRI's analysis of the liquor checks' impact assumes that this crime-reduction strategy was the only one employed around the liquor establishments at the time. This is a slight simplification, as seven of the establishments were located in high-camera zones.

The analysis shows that most of the arrests at and near the liquor establishments are robberies. Since the liquor checks began, robberies have decreased in the primary and secondary street segments but increased in the tertiary street segments.

Regarding property crime, the primary street segment saw a small uptick after liquor establishment checks commenced, then a flattening out of arrests, while the secondary street segments saw a decrease in arrests and the tertiary street segments saw an increase. The pattern

### 3 | Hot Spot Location Assessment

was similar for drug crime and firearm possession arrests, which also decreased on the secondary segments and increased on the primary and tertiary. All told, arrests decreased on the secondary street segments for all four crime types, while both the primary and tertiary street segments saw statistically significant increases in two types of arrests—violent and drug crimes in the primary street segments and property and drug crimes in the tertiary.

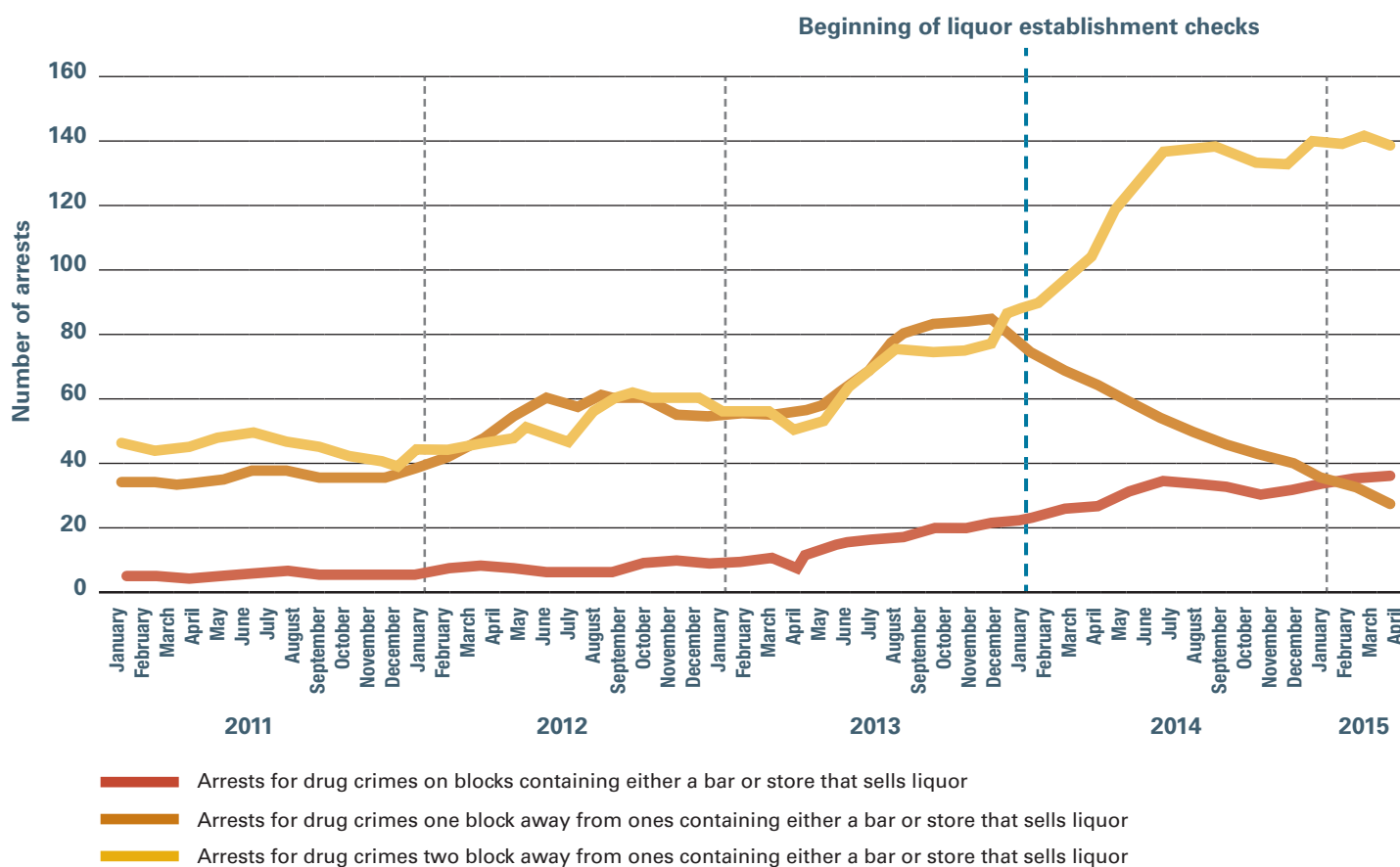
Drug arrests in particular seem to be strongly linked to proximity to liquor establishments. The increase in drug arrests on the primary and tertiary street segments can be viewed as a positive: while some criminal drug activity is being pushed out from the immediate radius of the liquor establishments, those engaging in it are being caught and arrested.

#### Recommendations

WRI suggests that the CCPD further investigate what additional tactics could be employed to attain the same results in the tertiary street segments as seen in the primary and secondary street segments, such as lighting or increased foot patrols.

Additionally, the police department may want to randomize where and when the liquor establishments' checks occur and to track this information so that continuing analysis can provide feedback. Showing up at the same time and same place creates continuous reinforcement; this has less impact on behavior than a varied schedule of sanction enforcement.

**Figure 6. Drug crime arrests before and after commencement of liquor establishment checks**



## 4 | Analysis of Crime Intervention Efforts

As part of the CCPD's community policing strategy, Chief Thomson initiated a Community Policing Division. The division is composed of Neighborhood Response Teams (NRT) which engage with their neighborhoods and community to address quality-of-life issues. The Community Policing Division is commanded by a captain who is the central coordinator and responsible authority for each district. Under each captain are two lieutenants, each assigned to a particular geographical territory. Sergeants and officers assigned to specific districts are charged to familiarize themselves with the people in their community and any issues facing their assigned geographical area. NRT officers report crime conditions to their sergeants to ensure continuity of strategic operations. They are expected to work effectively with neighborhood and community leaders and groups, and approach that has led to the development of strong and integral community partnerships.

### Foot patrols

A common component of community policing is foot patrols. Many police departments implement foot patrols less to reduce crime than to address community fear of crime. While an effective community relations tool, the evidence on whether the practice of foot patrol actually deters crime has been weak (Ratcliffe, Taniguchi, Groff, and Wood 2011).

The 1981 Newark foot patrol experiment found that varying the dosage of uniformed patrol had no quantifiable impact on crime (Utne et al. 1981). Specifically, varying foot patrol levels across 12 Newark beats resulted in no significant differences between treatment and control beats in recorded crime or arrest rates. Treatment areas did, however, show improvements in community fear of crime (Pate 1986). A 2004 review by the National Research Council likewise found foot patrols to be an unfocused community policing strategy with

statistically weak to moderate evidence of reducing crime. However, Nagin (2010) finds that general and specific deterrence may occur if the presence of law enforcement increases a potential offender's perceived risk of apprehension.

Countering this research, the results of a study in Philadelphia, which is adjacent to Camden, suggest that targeted foot patrols in violent crime hot spots can significantly reduce violent crime, provided the initial crime level is over a certain threshold. Areas with foot patrol experienced a significant reduction in violent crime after 12 weeks, outperforming the control sites by 23 percent, for a total net effect (once displacement was considered) of 53 violent crimes prevented. (Ratcliffe, Taniguchi, Groff, and Wood 2011). These findings contribute to a growing body of evidence on the contribution of hot-spot and place-based policing to the reduction of crime, and especially violent crime. The research indicates that intensive foot patrol efforts in violent hot spots may achieve deterrence at a microspatial level, primarily by increasing the certainty of disruption, apprehension, and arrest (Ratcliffe, Taniguchi, Groff, and Wood 2011).

The Camden County Police Department launched its foot patrol strategy in mid-April of 2013, during the transition into a countywide police department. It was a great opportunity for the new county department to introduce itself and its new officers to the residents of Camden. The overarching goal of the foot patrol was to create a trusting partnership with community residents—to make officers more approachable by getting them out of their cars and interacting with the public.

Police and county leadership were sensitive to how the transition to a county department was perceived by Camden City residents and wanted to assure the public the change would increase not only boots on the ground, but also the department's transparency and accountability.

## 4 | Analysis of Crime Intervention Efforts

The department wanted the officers, many of whom were new to the force, to know the city and manage any negative perceptions about its residents.

The department began foot patrols in the Parkside neighborhood—specifically, in the arch of Park Boulevard and all streets inside the arch, as well as the main corridors of Haddon and Kaighn Avenues. In June 2013, the department added Yorkship Square in the Fairview neighborhood to the foot patrol initiative.

Both of these neighborhood foot patrols were reduced in January 2014, when the department expanded the program to North Camden, Whitman Park, Broadway, and the Center City area. The foot patrol strategy, however, covers the entire jurisdiction: officers, as part of every shift, are expected to personally interact with residents, business owners, and individuals on the street for at least 15 minutes out of each hour. Further, the CCPD has acted on lessons learned by the foot patrols to designate ‘Guardian Zones,’ or hot spots—areas where crime is up and predicted to be up. In these zones, the department employs a tri-police presence strategy of walking, roving (vehicle), and bike patrols.

In interviews, the lieutenants said that residents responded extremely positively to the foot patrols, appreciating the personal contact. Officers received many thank yous from residents; over time, they began to see children riding bikes and playing ball outside and residents sitting on porches and stoops, feeling a sense of safety and protection.

Every officer rotated through foot patrol assignment, from new hires to seasoned veterans. One veteran, who assumed the role of a training officer, teamed up with five county officers, a majority of whom were new to the department. These teams were assigned to small geographical areas of about three blocks within the target neighborhood. Two officers from the team walked down each side of the street knocking on doors and interacting with citizens; alternatively, teams also patrolled together as a group. Teams were monitored by their training officers. Neighborhood canvassing began between 10:00

and 11:00 a.m. and ended around 8:00 to 9:00 p.m.

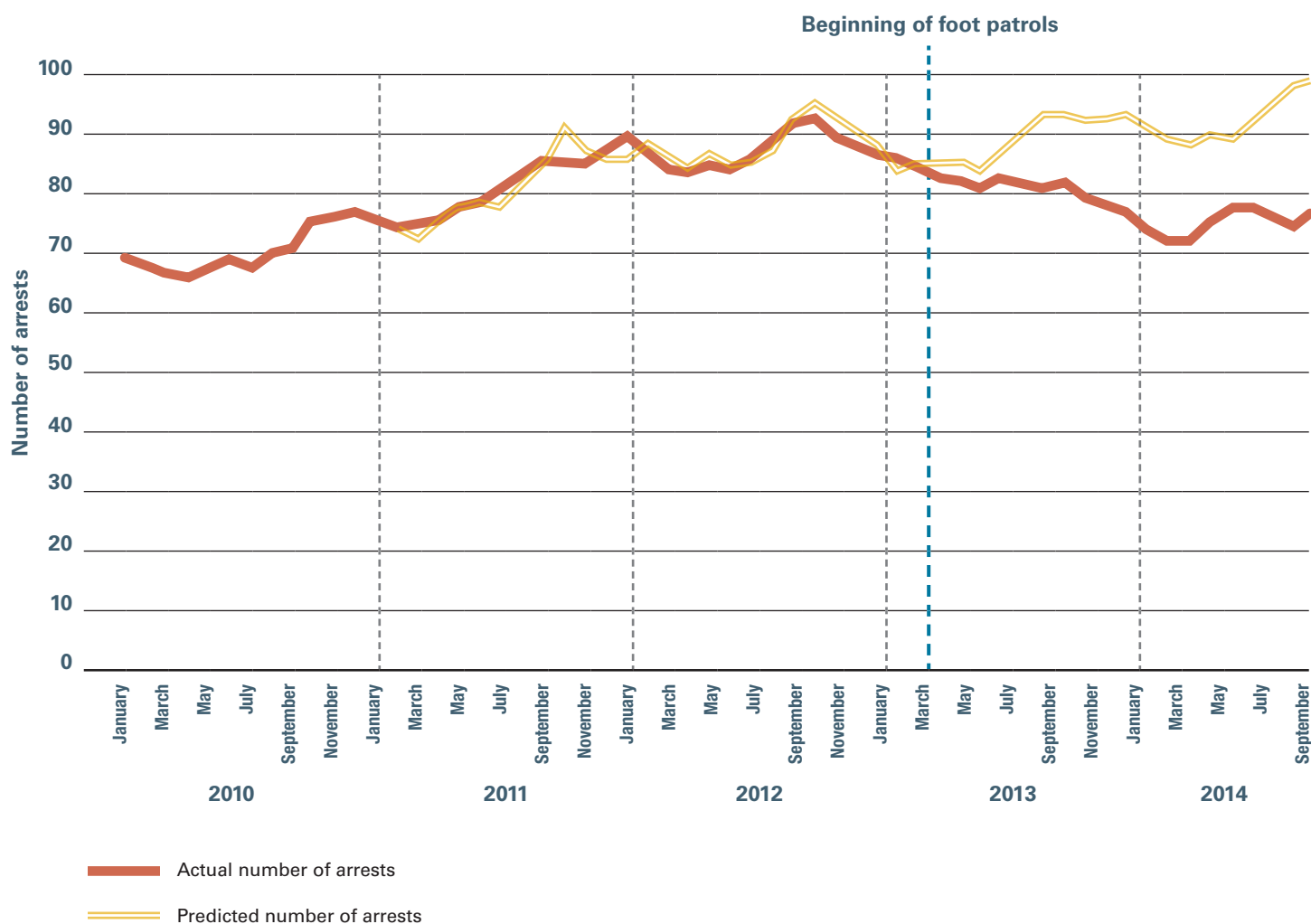
Officers on foot patrol were tasked with knocking on every business and residential door in their target area—or as many as they could cover—and conversing with every person out in public. They asked the community what they expected or needed from the CCPD and its officers and what concerns they had about their neighborhood. Since officers were expected to go beyond a simple introduction and have deep conversations with residents, often only a small percentage of the three-block area would be completed in one ten-hour shift.

At their discretion, officers documented what residents shared with them in a Community Information Report, which the reporting resident could make anonymously. Many positive comments and usually all the negative comments and crime or quality-of-life comments were reported. These reports were sent to supervisors, who in turn forwarded them to command staff who would then decide how to rectify the negative situations. Since supervisors and training officers were also a part of these walking beats, they would also interact with residents and could then quiz officers on how well they were actually getting to know the residents, asking questions like, “How long has Mrs. Smith lived in the neighborhood?” or “Does she have any children?” Supervisors would also take note of the number of community and neighborhood events, such as barbecues, that officers were invited to.

WRI conducted four different types of analysis on the impact of foot patrols:

- Predictive analysis comparing control (no foot patrols) to treatment (foot patrols) in the foot patrol areas
- Interrupted time series analysis comparing crime pre- and post-foot patrols in the assigned areas
- Quasi-experimental design comparing the foot patrol areas to control areas
- Street segment analysis examining the impact of foot patrols to the street level

## 4 | Analysis of Crime Intervention Efforts

**Figure 7. Actual vs. predicted Part I crime arrests in foot patrol areas**

Each analysis showed positive results. The foot patrols had the most impact on severe violent crime (Aggravated Assault with a Firearm and Robberies with a Firearm), with reductions ranging from 15 percent to nearly 63 percent, but also had an impact on property crime (Residential Burglaries), although a much weaker one, with decreases ranging from 1 percent to 2 percent. These crime reduction percentages are statistically significant, meaning they did not happen by chance and are correlated with the intervention of the foot patrols.

### *Predictive analysis*

When comparing actual to predicted arrests for Part I crimes (Homicide/Murder, Rape/Sexual Assault, Aggravated Assault, Robbery, Arson, Burglary, Larceny-Theft, Motor Vehicle Theft) in the foot patrol areas, we see a significant divergence. Actual arrests decline—in areas where they were predicted to increase, and even to reach higher levels than seen in the recent past (see figure 7).

## 4 | Analysis of Crime Intervention Efforts

### Interrupted time series analysis

This analysis reveals that crime (both arrests and reported incidents) continued to decline quarter after quarter after the implementation of the foot patrols (see table 3). These percentage decreases are statistically significant.

#### *Quasi-experimental design*

When we look at the control areas, we see a much less dramatic change in crime levels than in the foot patrol areas: a quarter to quarter change of less than 1 percent, with the first quarter after the implementation of the foot patrols realizing a .04 percent increase in crime (see table 3). This difference further indicates that the foot patrols had a positive impact on crime in the neighborhoods targeted. (This analysis assumes all areas of the city received the normal level of policing as a baseline, and that the treatment areas received the additional intervention of the foot patrols.)

### *Street segment analysis*

Crime also decreases in non-foot patrol areas. These buffer areas totaled .01 square miles—roughly five football fields, or a tenth of a percent of the city’s area. Since street segment analysis examines why specific streets in a place have specific crime trends, WRI included in this analysis tax record data about the properties in the foot patrol areas, to identify vacant, abandoned, and foreclosed properties; owner- and non-owner-occupied properties; commercial and public spaces; parking lots; and parks. WRI also included the liquor establishment and camera locations from previous analyses. This information contextualized crime trends on specific streets.

The analysis used ARIMA (Autoregressive Integrated Moving Average) to assess street-level crime change. By employing a moving average over time, ARIMA controls for unexpected spikes or drops in crime averages, controls for seasonal trends, and predicts what would have happened without foot patrol implementation in the targeted neighborhoods.

**Table 3. Crime reduction in foot patrol vs control areas over three-month periods**

Three-month period	Percent reduction of all crime per three-month period based on the foot patrol treatment area	Percent reduction of all crime per three-month period based on the control area
<b>P1:</b> August, September, and October 2013	–10.55%	–0.04%
<b>P2:</b> November and December 2013, and January 2014	–12.53%	–0.07%
<b>P3:</b> February, March, and April 2014	–14.77%	–0.21%
<b>P4:</b> May, June, and July 2014	–18.23%	–0.43%
<b>P5:</b> August, September, and October 2014	–19.17%	–0.67%

## 4 | Analysis of Crime Intervention Efforts

The analysis reveals that foot patrols' impact on arrests extended beyond the streets patrolled and into the surrounding blocks. Arrests for both violent and property crimes in both of the foot patrol areas' 300-foot buffer zones increased during the operation of the walking beats. In Yorkship Square, the violent crime arrests decreased in the 600-foot buffer zone, while the property arrests increased, but not as dramatically as they did in the 300-foot zone. In Parkside, the property crime arrests initially rose, and then fell in both buffer zones; violent crime arrests increased in both zones, but more dramatically in the 300-foot buffer.

Reported incidents of both violent and property crime also decreased in both of the foot patrols areas' 300-foot buffer zones during the operation of the walking beats. A 600-foot analysis was not included because reported crime incidents decline so significantly within the 300- to 600-foot buffer area that time series analysis would not make sense. In interviews, foot patrol lieutenants attributed some of this drop-off to the significant increase in police presence, stating it 'displaced a lot of the street crime,' forcing the criminal element into houses and eliminating opportunity for crime.

It is important to note, however, that although the foot patrols' buffer zones show an initial drop-off in reported incidences of both property and violent crime, reported incidents begin to creep up after the citywide redistribution of the foot patrols. This is most evident in violent incidents in Yorkship Square. The foot patrols seem to have had the longest effect on property crime in Parkside, which did not show a significant uptick in reported incidents until September 2014, eight months after the citywide foot patrols went into effect.

The decline in policing resources in the target neighborhoods correlates with an increase in reported crimes in the buffer zones. The lieutenants indicated that one-third to one-half of the officers were moved from the foot patrols in Parkside and Yorkship Square to begin foot patrolling in other neighborhoods in January 2014 as the foot patrol program was expanded to the rest of the city.

Another possibility for the increase in reported crimes in the target neighborhoods could be the high turnover of law enforcement officers in the CCPD's first year of its operation. According to an October 2015 news report, "Since the creation in May 2013 of the Camden County Police Department, which patrols only the City of Camden, more than 100 officers have resigned. At least 50 have taken jobs with other departments, most of them at the Jersey Shore" (Wood and Boren 2015). Nor were all these officers replaced quickly; total CCPD staffing in May 2014 was 37 percent below the department's target staffing levels. It may be that foot patrol is only effective with a higher level of personnel continuity; perhaps the strategy must be reinvigorated to introduce new officers to the community whenever there is large turnover in the department.

### *Recommendations*

WRI recommends that CCPD reestablish the foot patrol strategy to introduce new officers to the community whenever there is a large turnover of police. WRI supports CCPD's strategy of designating 'Guardian Zones' (areas where crime is up and predicted to be up) and employing the tri-police presence strategy of walking, vehicle, and bike patrols.

## 4 | Analysis of Crime Intervention Efforts

### Multijurisdictional taskforce efforts

WRI evaluated five multijurisdictional taskforce operations, all of which targeted major drug networks (see table 4 on page 21).

WRI's analysis posed the following questions:

- Do police operations such as criminal organization dismantlement or targeted community engagement have an impact on crime?
- If so, how does this impact look at the city level?  
How does it look at the neighborhood level?
- How long does the effect last?
- Do police operations occurring over a longer period of time have an increased effect?

Arrest data from 2010 through the first quarter of 2015 were used in the evaluation. WRI examined the same types of arrests analyzed in the previous evaluations (violent, property, drug, and firearm). The analysis consisted of an interrupted time series evaluation of arrests in the geographical area targeted by each operation. This type of analysis provides a picture of what crime looked like before, during, and after the operation. Based on this limited research into multijurisdictional task forces and their impacts on crime, we conclude that takedowns of criminal organizations have at least a 3–6 month effect.

Further, since some operations overlapped with other operations, WRI examined arrests in the geographic areas targeted for a four- or five-year span, so as to cover not only the time immediately surrounding each operation, but several months, even up to a year, after the last operation was completed. WRI also used secondary-area street segment analysis to assess spillover or diffusion of benefits from the operations.

WRI found that all of these operations increased arrests and provided short-term reductions in crime and violence. After these short term reductions, there was a steady increase in violent and property arrests. Drug arrests are more problematic: it appears that sellers and their networks moved to secondary areas to continue their business. This pattern holds true for the North Pole and Billboard Operations and for the primary area of the Southern District operation. This movement is especially troublesome, as the operations were launched to take down major drug networks, not merely to move them across the city. However, according to CCPD Command Staff, these major drug disruption efforts have transformed North Camden, and the neighborhood has far less drug activity today than at the time of these operations.

The specific arrest rate changes for each operation are as follows:

- Operation North Pole: Arrests for violent, drug, weapons, and property crime increased in the primary area. Arrests for drug crime increased in the secondary area.
- Operation Billboard: Arrests for violent, weapons, and property crime increased in the primary area, while arrests for drug crime decreased. In the secondary area, arrests for violent crime decreased while property and drug crime arrests increased.
- Operation Southern District: Arrests for violent crime were flat, with a slight increase in the primary area; property crime arrests decreased; and weapons and drug crime arrests increased dramatically.
- Operation Beanstalk: Arrests for violent crime decreased then increased in the primary area; property crime arrests steadily ticked upward; drug crime arrests increased and then decreased.

## 4 | Analysis of Crime Intervention Efforts

**Table 4. Multijurisdictional taskforce operations, 2011–2014**

Operation	Start date	End date	Location	Outcome
Operation Billboard	Aug. 2011	May 2012	4th/Royden Streets, West/Royden Streets, Royden/Henry Streets, 4th/Spruce Streets	Forty-one charged in takedown of major drug network with ties to Latin street gangs that distributed heroin in Camden.
Operation Beanstalk	Aug. 2011	May 2014	Whitman Park/ Sheridan Street/ Liberty Street	Charged 21 people in two drug-trafficking organizations after using wiretaps, confidential informants, and tracking devices hidden on vehicles driven by suspects.
Operation North Pole	Feb. 2013	Nov. 2013	4th/York Streets and 3rd/Erie Streets in North Camden	Division of Criminal Justice and partners executed largest drug bust in Camden in a decade, dismantling violent criminal enterprise that sold millions of dollars in heroin and cocaine. Forty-seven alleged Camden drug dealers charged with first-degree racketeering.
Operation Yogi Bear	Nov. 2013	Oct. 2014	Camden and surrounding areas	Four members of a drug-trafficking organization allegedly responsible for distributing heroin and crystal methamphetamine in the Camden area were arrested by federal, state, and local law enforcement officers
Operation Southern District	Sep. 2014	Oct. 2014	Morgan Village	A Camden County Police Department officer is among 40 people charged in a \$1.2 million drug ring; authorities reportedly seized more than 8,000 bags of heroin, 1,000 bags of cocaine, and 10 pounds of marijuana

## 4 | Analysis of Crime Intervention Efforts

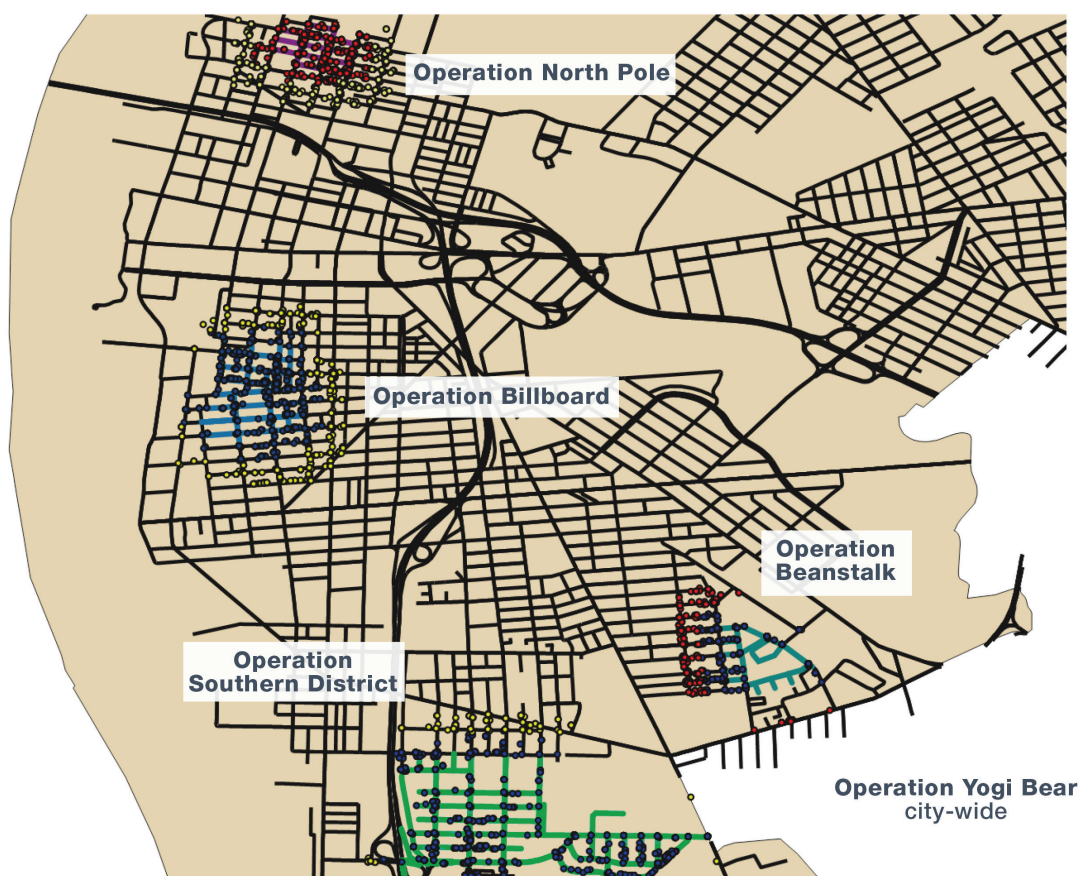
- Operation Yogi Bear: Citywide arrests for violent, drug, and property crime increased; weapons arrests fluctuated but started and ended at the same level.

### Arrests vs. incidents. vs. clearance rate

After viewing the WRI's evaluation of these police operations, CCPD analysts requested an examination of comparing arrests, reported crime incidents, and clearance rates for both violent and property crimes. (Clearance rates were calculated by dividing the number of crimes cleared by the total number of crimes recorded over the same time span.)

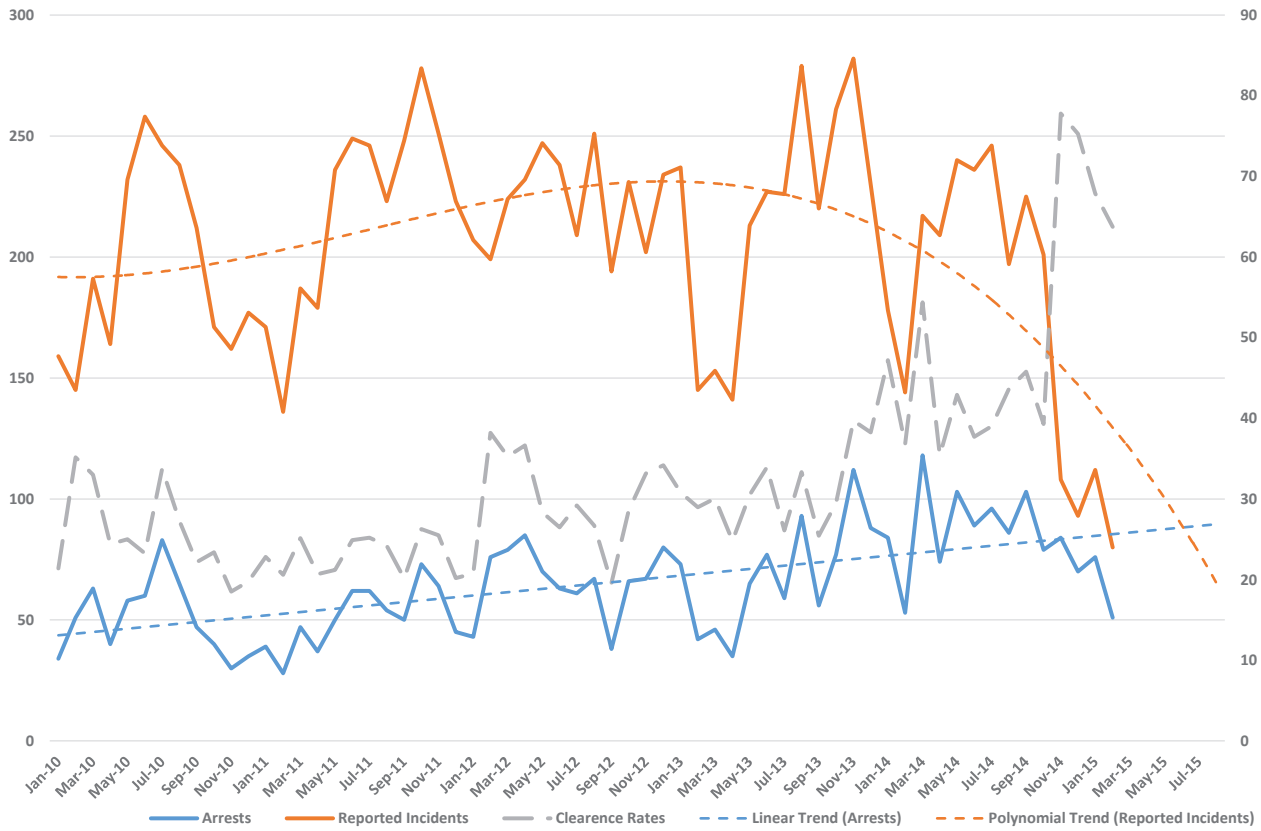
This analysis confirmed the analysts' suspicion that CCPD's clearance rates have increased significantly since 2014, while reported crime has dropped and arrests have increased (see figure 9). However, property crime incidents are projected upward, and although clearance rates have significantly increased since 2014, the overall rate is still low (see figure 10).

**Figure 8. Map of major police operations**



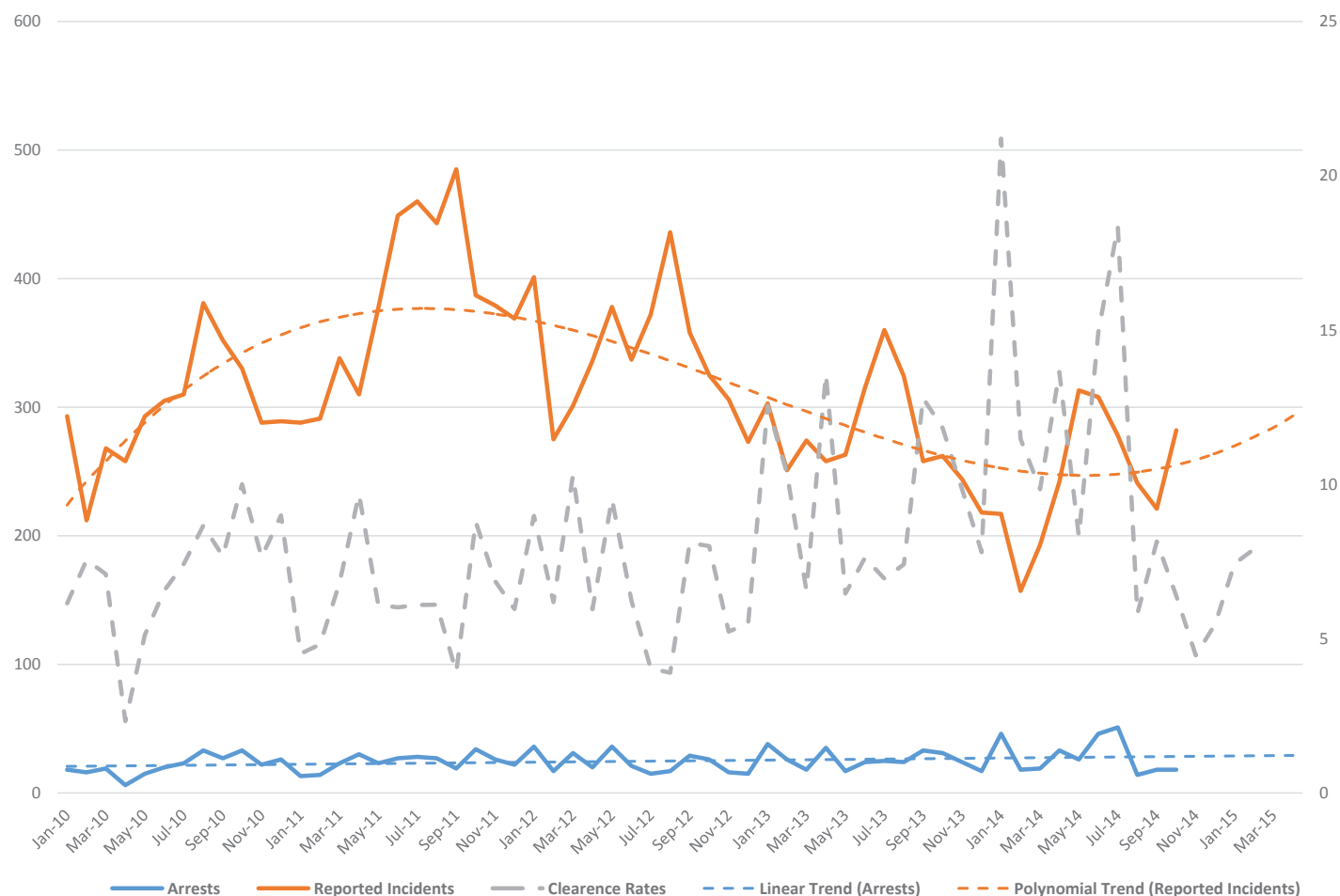
## 4 | Analysis of Crime Intervention Efforts

**Figure 9. Violent crime arrests vs. incidents. vs. clearance rate**



## 4 | Analysis of Crime Intervention Efforts

**Figure 10. Property crime arrests vs. incidents. vs. clearance rate**



## 5 | Training and Technical Assistance

The CCPD's **Strategic Analysis Unit** is responsible for analyzing crime data, performance data, and criminal intelligence to predict and advise law enforcement assets in planning and executing the department's crime-fighting efforts. The Strategic Analysis Unit also completes analysis reports for after-action reviews, provides comparative statistics or COMPSTAT functions, and submits Uniform Crime Reporting data. The unit works closely with the Tactical Operation Information Center, where real-time information is relayed via the city's Eye in the Sky cameras, its ShotSpotter gunfire sensors, and officers out on patrol.

As a capacity building measure, WRI trained the analysts of the Strategic Analysis Unit in street segment analysis, predictive analysis, and risk terrain modeling analysis.

### Street segment analysis

The street segment analysis training, provided on June 5, 2015, taught the basics of the approach, the difference between hot spot and street segment analysis, and an overview of the basics of analysis and GIS. To make the process easier to remember, the instruction related necessary steps to analytical processes already known to the analysts, using data relevant to their work.

Since the training, the CCPD's Strategic Analysis Unit has continued to use street segment analysis on a regular basis. It has been used multiple times to analyze violent street crimes and armed person service calls in order to assist district lieutenants in deploying officers. It has also been used to help identify and map specific social and physical settings for drug activity (drug sets) throughout the city, and for multiple analyses related to shooting (hit and miss) and criminal mischief incidents.

### Predictive analysis

Predictive analysis training was conducted on August 5, 2015. Predictive analysis uses software's capabilities rather than a police officer's instincts to predict where crime might occur. When used in conjunction with mapping, it can identify early warning signs across time and space and inform a proactive approach to crime prevention and reduction and problem solving. WRI delivered the predictive analysis training using Excel, as this software is accessible to the analysts.

### Risk terrain modeling analysis

Risk terrain modeling analysis training was conducted on January 28, 2016. Risk terrain modeling (RTM) takes an ecological approach to crime prediction—in other words, it identifies the risks that arise from features of a landscape and model how they co-locate to create unique behavior settings for crime. According to the Rutgers Center on Public Security (2018), which developed the model, "The RTM process begins by selecting and weighting factors that are geographically related to crime incidents. Then a final model is produced that basically 'paints a picture' of places where criminal behavior is statistically most likely to occur." Essentially, location is a crucial element of crime prediction.

Trainers stressed that RTM needs to be part of a comprehensive public safety effort, given that law enforcement may not have influence, or even jurisdiction, over certain factors in a location that could be contributing to crime—for example, abandoned properties, lighting, or alcohol licensing.

## Conclusion

The CCPD's crime-reduction strategies have successfully reduced crime. The liquor establishment checks reduced crime in the primary and secondary areas around the establishments, and pushed drug crime out by two blocks. The foot patrols significantly reduced violent crime and also had a small effect on property crime. The multi-jurisdictional taskforce efforts also reduced crime for the expected three to six months after completion of the operation.

Most impressively, the CCPD's clearance rates have significantly increased since 2014, while reported crime has dropped. This means that the department is having greater success at solving and closing cases and experiencing an overall decrease in reported crime.

At the time of WRI's evaluations, the greatest challenge for the department was drug crime. What impact crime-reduction efforts have had on drug crime appears short-lived. In areas where there are a high density of cameras, drug transactions still seem to continue at a high rate. Since crime does not occur in a vacuum, a comprehensive public safety plan should be implemented to address crime in the city of Camden, including strategies beyond what the CCPD can employ. Crime can be influenced by many factors, such as poverty, economic development, family dynamics, school success, neighborhood culture, employment opportunities, and a healthy social service system. Many of these factors are not in the purview of a police department.

### Limitations

It is important to note that a limitation of this evaluation is the use of arrest data. The CCPD does not measure crime reduction by arrest totals or percent changes in arrests; rather it uses reports of crime incidents as a measure for crime levels. The department has also invested in surveys that gauge residents' perception of crime-reduction efforts and the efficiency of public safety services. The WRI evaluators included reported crime incidents in their analyses of only some of CCPD efforts, relying instead on arrest data, which does not necessarily paint the same picture as the CCPD's internal metrics.

Also, a caveat when reading this report: the specific police operations evaluated are several years old, going back to 2011, with the most recent effort analyzed occurring in 2013. The landscape of crime has changed considerably in the city since then. Statements made in this report reflect the data of the time period under investigation, but may not accurately reflect the crime picture today.

### Recommendations

WRI recommends that the department continue with its joint task force efforts and dynamic community policing strategies such as foot patrols. In addition to using hot spot analysis and mapping, WRI recommends that CCPD analysts continue to use other ways to analyze, even predict, crime. Further, WRI recommends that the department continue to identify gaps in the skills of its analysts and provide training whenever possible.

## Conclusion

The CCPD should continue to partner with county and city government, major medical and educational institutions in Camden, and local residents to identify and address quality-of-life and crime problems. These partnerships can only help prolong and augment the CCPD's positive impacts on violent, property, and drug crime in the city.

WRI also recommends that the department document its crime-reduction strategies from the onset of planning through implementation. This way, there is a record, not only for researchers, but for command staff to refer back to when wishing to replicate the efforts that had positive results. Researchers also suggest that by partnering with evaluators at the planning stages of a strategy, more rigorous research designs can be put into place to better understand the impact of the specific crime-reduction and -prevention strategies.

## References

- CamConnect. n.d. *Know Your City: Camden City Crime Trends from 1989 to 2014*. Camden, NJ: CamConnect. <http://www.camconnect.org/datalogue/2015CrimeAnalysis.pdf>.
- CQ Press. 2014. "City Crime Rankings 2014: Rankings by Population Categories." n.p.: CQ Press. [http://os.cqpress.com/citycrime/2013/2014\\_CityCrimeRankingsbyPopulation.pdf](http://os.cqpress.com/citycrime/2013/2014_CityCrimeRankingsbyPopulation.pdf).
- Gill, Charlotte, David Weisburd, Cody W. Telep, Zoe Vitter, and Trevor Bennett. 2014. "Community-Oriented Policing to Reduce Crime, Disorder and Fear and Increase Satisfaction and Legitimacy among Citizens: A Systematic Review." *Journal of Experimental Criminology* 10 (4), 399–428. DOI: 10.1007/s11292-014-9210-y.
- Gorman, Dennis M., Paul W. Speer, Paul J. Gruenewald, and Erich W. Labouvie. 2001. "Spatial Dynamics of Alcohol Availability, Neighborhood Structure and Violent Crime." *Journal of Studies on Alcohol* 62 (5): 628–636.
- ICMA (International City/County Management Association). 1997. *Customer Perspectives Report: How Customers of the Police Department Feel*, Long Beach, CA. Washington, DC: ICMA.
- Kingsley, G. Thomas. 1998. *Neighborhood Indicators: Taking Advantage of the New Potential*. Washington, DC: The Urban Institute. <https://www.urban.org/sites/default/files/publication/27466/412380-Neighborhood-Indicators-Taking-Advantage-of-the-New-Potential.PDF>.
- Laday, Jason. 2013. "New Camden Police Officers Get to Know Their Neighborhood." *South Jersey Times*. April 20, 2013. [http://www.nj.com/camden/index.ssf/2013/04/new\\_camden\\_police\\_officers\\_get.html](http://www.nj.com/camden/index.ssf/2013/04/new_camden_police_officers_get.html).
- Lum, C., C.S. Koper, C. Gill, J. Hibdon, C. Telep, and L. Robinson. 2016. *An Evidence-Assessment of the Recommendations of the President's Task Force on 21st Century Policing — Implementation and Research Priorities*. Fairfax, VA: Center for Evidence-Based Crime Policy, George Mason University. Alexandria, VA: International Association of Chiefs of Police.
- National Research Council. 2004 *Fairness and Effectiveness in Policing: The Evidence*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/10419>.
- Office of Community Oriented Policing Services. 2014. "Community Policing Defined." Washington, DC: Office of Community Oriented Policing Services. <https://cops.usdoj.gov/RIC/Publications/cops-p157-pub.pdf>.
- Pate, Anthony M. 1986. "Experimenting with Foot Patrol: The Newark Experience." In *Community Crime Prevention: Does It Work?*, edited by D.P. Rosenbaum: 137–156. Beverly Hills, CA: Sage Publications.
- Ratcliffe, Jerry H., Travis Taniguchi, Elizabeth R. Groff, and Jennifer D. Wood. 2011. "The Philadelphia Foot Patrol Experiment: A Randomized Controlled Trial of Police Patrol Effectiveness in Violent Crime Hotspots." *Criminology* 49 (3): 795–831. <https://doi.org/10.1111/j.1745-9125.2011.00240.x>.

## References

- Rutgers Center on Public Security. 2018. "RTM: Spatial Risk Analysis," accessed April 24, 2018, <http://www.riskterrainmodeling.com/about.html>.
- Sampson, Robert J. 2012. *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago: University of Chicago Press.
- Sarubbi, Vincent P. 2003. "Supercession of the Camden City Police Department – 2003." Letter from Camden County Office of the Prosecutor to Camden City Council, September 9, 2003. <http://www.camconnect.org/datalogue/PDsupercessionSep92003.pdf>.
- Schmitt, Brian. 1997. *Community Organizations and GIS Implementation: From Experience to Theory*. Piscataway, NJ: Center for Social and Community Development, Rutgers University.
- Smith, N., P. Caris, and E. Wyly. 2001. "The Camden Syndrome and the Menace of Suburban Decline: Residential Disinvestment and the Discontents in Camden County, New Jersey." *Urban Affairs Review* 36 (4): 497–531.
- Summerton, David. 2015. *Did the 2011 Police Budget Cuts Have a Significant Impact on Violent Crime Rates in New Jersey Urban Centers?* Self-published white paper. <https://eco-pol-305.pages.tcnj.edu/files/2016/03/305.-Summerton.Fall-2015-Templated.pdf>.
- U.S. Census Bureau. "Demographic Trends." 2012-2016 American Community Survey 5-Year Estimates. Accessed May 21, 2018. [factfinder.census.gov](http://factfinder.census.gov).
- Utne, Mary, Anthony Pate, Amy Ferrara, George L. Kelling, and Charles E. Brown. 1981. "Effects on Officers' Attitudes and Performance." *The Newark Foot Patrol Experiment*. Washington, DC: Police Foundation.
- Weisburd, David, Elizabeth R. Groff, and Sue-Ming Yang. 2012. *The Criminology of Place: Street Segments and our Understanding of the Crime Problem*. Oxford: Oxford University Press.
- Wilson, James Q., and George L. Kelling. 1982. "Broken Windows." *Atlantic Monthly* 249 (3): 29–38.
- Wood, Sam, and Michael Boren. 2015. "Losing Recruits, Camden County Police Billing Towns That Hired Them." *The Philadelphia Inquirer*. 22 October 22, 2015. [http://www.philly.com/philly/news/20151022\\_Losing\\_recruits\\_Camden\\_police\\_bill\\_towns\\_that\\_hired\\_them.html](http://www.philly.com/philly/news/20151022_Losing_recruits_Camden_police_bill_towns_that_hired_them.html).
- Zhang, Haifeng, and Wei Song. 2014. "Addressing Issues of Spatial Spillover Effects and Non-stationarity in Analysis of Residential Burglary Crime." *GeoJournal* 79.1: 89–102.

## About the Senator Walter Rand Institute for Public Affairs

### **The Senator Walter Rand Institute for Public Affairs (WRI)**

addresses public policy issues impacting Southern New Jersey, through applied research, community engagement, and organizational development. Established in 2000, the Walter Rand Institute was organized to honor Senator Rand's legacy of public service to southern New Jersey and to his hometown of Camden. Launched with a legislative appropriation from the State of New Jersey and matching funds from Rutgers University, WRI serves as a research and public service center for Rutgers-Camden, the southern campus of the state's land grant university.

## About the COPS Office

**The Office of Community Oriented Policing Services (COPS Office)** is the component of the U.S. Department of Justice responsible for advancing the practice of community policing by the nation's state, local, territorial, and tribal law enforcement agencies through information and grant resources.

Community policing begins with a commitment to building trust and mutual respect between police and communities. It supports public safety by encouraging all stakeholders to work together to address our nation's crime challenges. When police and communities collaborate, they more effectively address underlying issues, change negative behavioral patterns, and allocate resources.

Rather than simply responding to crime, community policing focuses on preventing it through strategic problem-solving approaches based on collaboration. The COPS Office awards grants to hire community policing officers and support the development and testing of innovative policing strategies. COPS Office funding also provides training and technical assistance to community members and local government leaders, as well as all levels of law enforcement.

Since 1994, the COPS Office has invested more than \$14 billion to add community policing officers to the nation's streets, enhance crime fighting technology,

support crime prevention initiatives, and provide training and technical assistance to help advance community policing. Other achievements include the following:

- To date, the COPS Office has funded the hiring of approximately 130,000 additional officers by more than 13,000 of the nation's 18,000 law enforcement agencies in both small and large jurisdictions.
- Nearly 700,000 law enforcement personnel, community members, and government leaders have been trained through COPS Office-funded training organizations.
- To date, the COPS Office has distributed more than eight million topic-specific publications, training curricula, white papers, and resource CDs and flash drives.
- The COPS Office also sponsors conferences, roundtables, and other forums focused on issues critical to law enforcement.

COPS Office information resources, covering a wide range of community policing topics such as school and campus safety, violent crime, and officer safety and wellness, can be downloaded via the COPS Office's home page, [www.cops.usdoj.gov](http://www.cops.usdoj.gov). This website is also the grant application portal, providing access to online application forms.



In 2013, facing high levels of crime, Camden, New Jersey transferred policing responsibilities to their surrounding county agency. The Camden County Police Department (CCPD) received a grant from the Office of Community Oriented Policing Services (COPS Office) to explore the impact of this transition and identify lessons learned for other agencies. The Senator Walter Rand Institute for Public Affairs (WRI) at Rutgers University conducted this assessment and provided technical assistance to the department. This publication reports their findings on topics including arrest and clearance rates, “hot spot” crime locations, citywide distribution of service calls, and the effects of camera surveillance, liquor establishment checks, foot patrols, and multijurisdictional task forces.



U.S. Department of Justice  
Office of Community Oriented Policing Services  
145 N Street NE  
Washington, DC 20530  
To obtain details about COPS Office programs, call  
the COPS Office Response Center at 800-421-6770.  
Visit the COPS Office online at [www.cops.usdoj.gov](http://www.cops.usdoj.gov).



Senator Walter Rand Institute  
for Public Affairs  
Rutgers University–Camden  
411 Cooper Street  
Camden, NJ 08102