

# Bureau of Justice Assistance

## *Smart Policing Initiative*

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### **Final Report**

## **Portland's Neighborhood Involvement Locations Project (NI-Loc)**

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Other research reports and presentations that were generated through the NI-Loc program are documented in Appendix A.

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### ABSTRACT

A growing body of literature finds that crime is heavily concentrated in small geographic “hotspots” and that directing supplemental police resources to these locations reduces crime (Braga, Papachristos, & Hureau 2012). Less is known about how varying dosages of supplemental patrol affects outcomes, the impact of different police activities during these patrols, and what impact the additional police presence has on community members’ attitudes regarding public safety. This report summarizes findings from the Portland Police Bureau’s (PPB) randomized field experiment, called the Neighborhood Involvement Locations (NI-Loc) program, which sought to address some of these issues. The agency’s Computer Aided Dispatch (CAD) system was used to front-load 16,200 dispatch calls directing street officers to conduct community engagement patrols (CEPs) in high crime areas (NI-Locs). The goal of the program was to improve police-community relations while also deterring crime via additional police presence. Ninety high crime areas were randomly assigned to receive none, two, or four 15-minute supplemental CEPs a day for a three month period. More than 13,000 CEP patrols were successfully delivered. Offense reports, CAD data, resident surveys, officer focus groups, and officer surveys were used to conduct process and outcome evaluations of the NI-Loc program. Results indicate that the NI-Loc intervention did not affect crime or calls for service in treatment areas compared to controls. And, while the CEPs increased positive contacts with residents in the targeted areas, they did not impact residents’ overall attitudes toward police. There was also little difference across outcomes based on the dosage of CEPs (2 vs. 4 per day). The process evaluation highlighted key aspects about the implementation of the program, including the success of using the CAD system to direct patrols and measure the patrol dosages delivered during the study. Key lessons learned for policing in high crime areas and promoting community engagement are discussed.

### INTRODUCTION

Crime is a distinctly geographic phenomenon that involves motivated offenders coming into contact with a suitable victims (or targets) in the absence of a capable guardians (Cohen & Felson, 1979). Given that potential offenders, victims, and guardians are unequally distributed in space, it should come as no surprise that crime is geographically concentrated in most cities and that offending rates in many “hotspots” remain stable over time (Groff, Weisburd & Yang, 2010). Law enforcement agencies are increasingly responding to these locations by directing supplemental patrols and prevention resources to the blocks, street segments, or individual buildings that account for a disproportionate number of crimes. Evaluations of these efforts using experimental designs find that so called “hotspot policing” is associated with a statistically significant reduction in crime (Braga, Papachristos, & Hureau, 2012) without displacement to surrounding areas (Bowers, Johnson, Guerette, Summers, & Poynton, 2011).

These results have generated considerable excitement among law enforcement administrators and academics, particularly in light of past research showing little, if any benefits from traditional forms of policing (e.g., random patrols in large areas, rapid response, investigation). There is still much to learn, however, about policing crime hotspots. For example, we know relatively little about the appropriate dosage of supplemental policing that is needed to achieve a reduction in crime. This is an important issue for police administrators, most of whom are facing increasing demands on their agency in the face of dwindling resources. Questions also remain about the potential for certain forms of policing to negatively impact police-community relations and exacerbate racial/ethnic disparity in police contacts (Rosenbaum, 2006; e.g., “Stop & Frisk” in New York). We need to know whether hotspot policing invariably reduces crime at the cost of longer-term relationships with the residents, or, whether as Engel and Eck (2015) argue, crime reduction and improved relationships can be simultaneously achieved through alternative policing practices in hotspots.

The Portland Police Bureau’s (PPB) 2014 Smart Policing Initiative (SPI) project sought to address these two broad questions regarding hotspot policing. Specifically:

1. Are residents’ perceptions about the police and local public safety positively or negatively impacted by supplemental patrols in crime hotspots?
2. Do supplemental patrols in crime hotspots reduce crime and calls for service and do we see bigger reductions when officers visit these locations more frequently?

### Background Research

Hotspot policing typically involves the delivery of additional police patrols and/or problem-solving resources to small geographic areas with higher crime. Studies find that crime is heavily concentrated in most cities and offending rates in these areas remain stable over time in the absence of intervention (Groff, Weisburd & Yang, 2010; Weisburd, Bushway, Lum & Yang, 2004). Other research has found that increased officer presence in hotspots reduces crime and calls for service (Braga, Papachristos, & Hureau, 2012) without any appreciable displacement to

surrounding areas (Bowers, Johnson, Guerette, Summers, & Poynton, 2011). In Sacramento CA, for example, officers were assigned to randomly patrol high crime areas in 15-minute increments. These supplementary patrols were associated with a 25% reduction in Part I crimes and an 8% reduction in calls for service over baseline data (Telep, Mitchell & Weisburd, 2012).

Major theoretical support for hotspot policing comes from several lines of work addressing opportunities for crime in certain physical locations (e.g., Brantingham & Brantingham 1993; Cohen & Felson, 1979; Clarke 1995). Factors that impact the geographic concentration of crime include an absence of capable guardians, availability of suitable targets, and the presence or importation of motivated offenders. Reductions in crime resulting from increased police presence in hotspots probably result from potential offenders perceiving an increased risk of apprehension at these locations. Additionally, it appears that problem-oriented interventions in hotspots may produce larger reductions in crime than enforcement-based strategies (see Braga, Papachristos, & Hureau, 2012).

While existing experimental studies highlight the potential benefits of hotspot policing for crime prevention, important operational questions remain regarding the longer term sustainability and effectiveness of this practice. First, most law enforcement agencies have experienced significant staffing and resource reductions over the past decade. Portland for example had a 10% reduction in sworn officers between 2009 and 2013 and non-sworn positions declined by nearly one-third during this period. Interventions that require doubling patrol levels in hotspots (e.g., Sherman & Weisburd, 1995) or deploying officers to a hotspot for their entire shift (e.g., Ratcliffe, Taniguchi, Groff, & Wood, 2011) may not be feasible under these conditions. Further research is needed to identify the minimum patrol dosage necessary to achieve a deterrent effect. Koper (1995) found patrol durations of 14-15 minutes maximize crime reduction, but the influence of patrol frequency remains unclear.

Second, in order to be sustained over time, hotspot patrols need to be fully integrated into an organization's culture and operating procedures (Sherman et al., 2014). Sherman and Weisburd (1995) found significant resistance to directed patrols in one of the first studies on this practice. Likewise, most subsequent field experiments have experienced challenges in obtaining full cooperation with treatment and reporting protocols (e.g., Sorg, Wood, Groff, & Ratcliffe, 2014). Some of the problems with securing and maintaining compliance in these studies may have resulted from the ways that supplemental patrols were administered. For example, patrol assignments in Telep and colleagues' (2012) study with the Sacramento Police Department were generated centrally, distributed weekly to sergeants via printed reports, and then shared directly with patrol officers during "roll call." Street officers were granted considerable discretion in how they carried out the work, including what they did in target locations, how often they visited, and when during the day they completed the patrols. Efforts are needed to develop and evaluate alternative strategies for getting officers to hotspots and for accurately measuring patrol dosages in these locations.

Finally, important questions remain about potential negative outcomes associated with traditional hotspot policing practices. Of particular concern is a harmful impact of hotspot patrols on police-community relations (Rosenbaum, 2006). If officers assigned to these patrols interact with

citizens in ways that degrade trust and legitimacy, people may be less willing over time to cooperate with law enforcement in efforts to control crime and disorder (Tyler, 2003). While the available hotspot policing studies addressing this possible “backfire effect” have not shown harmful, or beneficial, effects on public opinion (Weisburd, Hinkle, Famega & Ready, 2011; Ratcliffe, Groff, Sorg, & Haberman, 2015), the recent outcry surrounding NYPD’s “stop & frisk” patrols illustrates the potential social consequences that may result when enforcement-focused policing strategies are used (La Vigne, Lachman, Rao, & Matthews, 2014; Fratello, Rengifo, & Trone, 2013). Additional research is needed to determine whether public attitudes toward the police in hotspots might actually be improved using non-investigatory patrols that also, hopefully, reduce crime.

In summary, the available research finds that supplemental police patrols directed to narrowly defined crime hotspots result in small but statistically significant short-term reductions in crime and calls for service (Braga, Papachristos, & Hureau, 2012). At the same time, it is widely recognized that our current knowledge base regarding hotspot policing remains severely limited (Weisburd & Telep, 2014). We know relatively little about the impact of patrol dosage in hotspots, the outcomes for different behaviors by officers (e.g., investigatory vs. non-investigatory actions), whether community attitudes about law enforcement are impacted, and how to achieve high levels of compliance among officers assigned to supplemental patrols.

### Local Context

In 2013 the City of Portland, following more than a decade of declining crime rates, was experiencing a significant rise in crime and calls for service. Uniform Crime Report (UCR) Part I crimes rose 8.8% between 2009 and 2013. This increase was largely accounted for by a substantial rise in property crimes, which were up 10.5%. Over this same period, the PPB experienced a 7.7% increase in dispatched calls for service. This amounted to nearly 15,000 additional calls per year in 2013 as compared to 2009.

Unfortunately, these increases in crime and calls for service came at a time of diminishing resources for the City of Portland and the PPB more specifically. Data from the U.S. Census Bureau show that Portland’s population grew by 27,326 residents from 2009 to 2013, an increase of 4.7%. Over this same period, the number of uniformed patrol officers in the bureau declined by 5.9%. The remaining patrol officers along with their supervisors and PPB’s command staff were facing additional demands on their time as a result of a settlement agreement reached with the U.S. Department of Justice (DOJ) regarding the bureau’s handling of persons with mental illness.

PPB’s Chief at the time, Mike Reese, along with members of his command staff and the bureau’s crime analysis unit (Sgt. Greg Stewart, Analyst Christian Peterson, and Officer Sean Sothern) began discussing alternative strategies for managing the agency’s patrol resources. Their search led to the expansion of an academic-practitioner partnership with Portland State University (PSU; including Drs. Kris Henning, Brian Renauer, Kimberly Kahn, and Yves Labissiere) and the hiring of Sgt. Renee Mitchell as a consultant. Sgt. Mitchell had recently completed a randomized experiment on hotspot policing in Sacramento, CA (Telep, Mitchell & Weisburd,

2012). Chief Reese and the assembled project team were committed to using a similarly rigorous research design to evaluate policing in local crime hotspots.

### **Portland's Neighborhood Involvement Locations (NI-Loc) Program**

Preliminary planning for the project began in mid-2013 and a pilot test was conducted to deliver "high visibility patrols" to several crime hotspots. The project faced an immediate challenge in that the national (e.g., NYC's Stop & Frisk) and local political climate at the time was not conducive to an intervention that would, in all likelihood, have a disproportionate impact on racial and ethnic minorities.<sup>1</sup> More specifically, concerns were raised about these supplemental patrols leading to more frequent investigative stops with young male minorities.

Seeking a solution to this issue Chief Reese recommended a shift away from high visibility patrols and traffic/pedestrian stops to alternative forms of interaction with residents. Rather than increasing enforcement in crime hotspots, the Chief directed the agency to send Community Engagement Patrols (CEPs) into Neighborhood Involvement Locations (NI-Locs). As stated in a "Tips and Techniques" bulletin that went out to every sworn officer in the bureau (April 2014):

*"The Chief's intent for this initiative is to carve out dedicated time for officers to engage with community members in areas that are experiencing high volumes of crime and/or livability concerns."*

Officers were provided guidance on different types of interactions they could pursue during the CEPs. This included relationship building, business checks, crime prevention, problem solving, and other high visibility activities.<sup>2</sup>

To our knowledge, this is the first experimental study conducted in the hotspot policing literature that prioritized non-investigative contacts with community members. Other studies have examined saturation patrols, problem-oriented policing, and focused deterrence in crime hotspots. The NI-Loc program's approach to policing high crime areas deviated from past studies in several other important ways. First, PPB's crime analysts developed an innovative strategy for scheduling CEPs in the targeted areas. Rather than give patrol officers a list of locations to visit during their shift, the analysts used the bureau's Computer-Aided Dispatch (CAD) system to front-load 16,200 dispatch calls. Second, we investigated different dosage levels with the supplemental patrols: some areas received two per day while others received four. Third, our assessment considered the impact of the CEPs on criminal offenses, but also calls for service, community attitudes toward the police, and residents' perceived safety.

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<sup>1</sup> While the PPB has never promoted a stop and frisk policy, there has been consistent concern in the community over the issue of racial profiling and disproportionate contact with the criminal justice system. Residents from racial/ethnic minority groups are significantly more likely to believe that Portland's police use race and/or ethnicity in deciding traffic stops (Renauer, Kahn, Henning & Stewart, 2013) and Portland's higher crime areas tend to be more diverse.

<sup>2</sup> It is important to note that officers were not prohibited from making traffic or pedestrian stops during the CEPs. Instead, communications went out advising officers that stops, "should not be the default activity in these areas."

The resulting NI-Loc program ran for six consecutive months from March 18<sup>th</sup> through September 13<sup>th</sup> 2014. It involved a fully randomized experimental design with 90 high crime areas assigned to one of three conditions: 1) control – no additional patrols, 2) two CEPs/day, and 3) four CEPs/day. The current report provides the results of outcome and process evaluations conducted in the NI-Loc experiment.

### Research Questions (RQ)

The outcome assessment addressed two global questions labelled RQ 1 and RQ 2 below. Each global question has been further delineated to address unique dependent variables.

**RQ 1:** Are residents' perceptions about the police and local public safety positively or negatively impacted by CEPs in crime hotspots?

**RQ 1a:** Did residents in the treatment areas see police more often or have more contact with the police than residents in the control locations? Did these measures vary by assigned patrol dosage (i.e., 4 CEPs/day > 2 CEPs/day)?

**RQ 1b:** Did residents in the treatment areas have more positive attitudes toward the police than residents in the control locations? Did these attitudes vary by assigned patrol dosage (i.e., 4 CEPs/day > 2 CEPs/day)?

**RQ 1c:** Did residents in the treatment areas feel safer and report less disorder in their neighborhood than residents in the control locations? Did these factors vary by assigned patrol dosage (i.e., 4 CEPs/day > 2 CEPs/day)?

A primary goal of our evaluation was to evaluate the effects of the CEPs on community attitudes and perceptions about the police. People in these high crime areas may welcome community engagement and increased police presence, potentially improving attitudes (e.g., Shaw, 1995). To the extent that the intervention was successful, we expected residents in the treated areas to see police more often, have more positive contact with officers, have more positive attitudes toward the police, feel safer, and report less disorder in their neighborhood than residents in control areas. Alternatively, a “backfire” effect might have occurred, wherein the increased police presence in the treated areas had a negative impact on public attitudes and perceptions (e.g., Rosenbaum, 2006). Finally, it is also possible that the intervention was not strong enough to change residents' attitudes towards the police (e.g., Ratcliffe et al., 2015, Weisburd et al., 2011).

**RQ 2:** Do CEPs in crime hotspots reduce crime and calls for service and do we see bigger reductions when officers visit these locations more frequently?

**RQ 2a:** Did the areas receiving NI-Loc patrols have less crime relative to the control locations? Did crime levels vary by assigned patrol dosage (i.e., 4 CEPs/day < 2 CEPs/day)?



**RQ 2b:** Did the areas receiving NI-Loc patrols have fewer crime and disorder-related calls for service relative to the control locations? Did calls for service vary by assigned patrol dosage (i.e., 4 CEPs/day < 2 CEPs/day)?

We expected that NI-Locs receiving the supplementary CEPs would have fewer crime-related calls for service and criminal offenses during the active phase of the intervention as compared to control locations. General support for this hypothesis comes from Braga, Papachristos, and Hureau's (2012) meta-analysis with 19 studies, in which they found a small reduction in calls for service and crime in hotspots assigned to receive additional police resources. The NI-Loc program differed from these studies and more recent evaluations in that the primary objective of our intervention was non-investigative community engagement (e.g., meet & greets, business checks, crime prevention). Prior studies have largely focused on enforcement-based patrols (e.g., aggressive traffic stops, searches for weapons, raids on drug houses), problem-oriented policing, and focused-deterrence. While it is possible that investigative actions are required to reduce crime and calls for service, we hypothesized that these same benefits could be derived from community engagement patrols. First, the mere presence of an officer in a hotspot signals an increased risk of apprehension to would be offenders. Second, Tyler's work on police legitimacy argues that people are more likely to comply with the law when they are treated respectfully by officers (Tyler, 2006; Tyler & Huo, 2002; Tyler & Wakslak, 2004). To the extent that our CEPs led to better police-community relations in the NI-Locs, we could expect greater compliance.

With regard to dosage, we expected to find lower levels of crime and calls for service in areas receiving four versus two 15-minute CEPs per day. Dosage, whether measured as the total amount of time officers spend in a hotspot or the frequency of visits to these locations, has yet to be examined using experimental methods. Koper's (1995) reanalysis of data from Sherman and Weisburd's (1990) experiment in Minneapolis suggests that maximum deterrence is achieved with patrols lasting 15 minutes, but the differences in dosage in this study were not randomly assigned. Support for a dose-response relationship in our study can be found in Sherman and colleagues' (2014; pg. 105) theory of hotspot policing. They argue that, "The greater the proportion of total time that police are visibly present in a hotspot, the less frequent or serious crime will be within that hotspot."

## METHODOLOGY

### Selection of NI-Locs (Hotspots)

The study's 90 crime hotspots or NI-Locs were identified using the following procedures. PPB's crime analysts geocoded criminal offenses and calls for service for the prior three years (2011, 2012, and 2013), focusing on incidents between March 1st and August 31st. Offenses included murder, rape, robbery, assault, burglary, larceny, motor vehicle theft, arson, vandalism, other sexual offenses, and gang activity. Calls for service were restricted to dispatch calls (i.e., no officer-initiated calls) between 10:00am and 2:00am and included incidents of a potential criminal nature (e.g., assault, burglary, disturbance, gang activity, prowler, rape, robbery, school incident, sexual offense, shots fired, stabbing, suspicious person, theft, threatening person, public

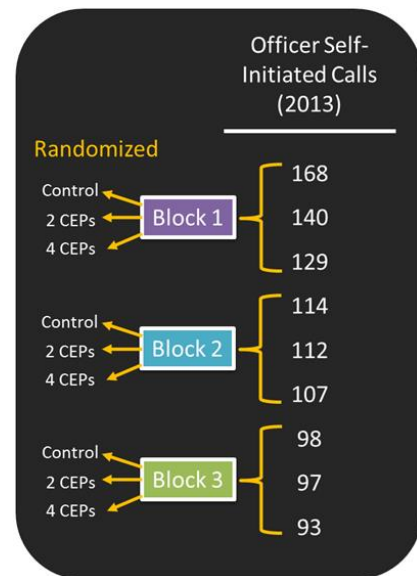
transportation incident, unwanted person, vandalism)<sup>3</sup>. Offenses were then aggregated by year into a 500' x 500' GIS grid overlaying the city. Prior studies on hotspot policing have used other units of analysis (e.g., street segments, patrol beats), but we believed a uniform grid system was best for Portland. This allowed the NI-Locs to be equally sized and helped ensure that calls and offense reports geo-coded to intersections, roughly one-quarter of the calls and offenses, were included.

Using the aggregated data, the analysts then calculated a composite score for each cell in the grid. Greater weight was given to more recent data using the following formula:

$$\text{Risk score} = (2011 \text{ calls} * .25) + (2011 \text{ offenses} * .25) + (2012 \text{ calls} * .50) + (2012 \text{ offenses} * .50) + (2013 \text{ calls}) + (2013 \text{ offenses})$$

The city's 312 highest risk scores were then subjected to additional scrutiny by analysts and several patrol sergeants to narrow the list of candidates. One hundred and thirty-six locations were eliminated due to their proximity to other hotspots. This was to ensure that we had a 1,000' buffer surrounding each NI-Loc to evaluate crime displacement. Another 68 locations were removed because they were on a city border or contained a structure that generates police calls that would probably not be impacted by supplemental patrols (e.g., hospital, jail, police facility). A final 18 cells were dropped due to ongoing or recent crime prevention efforts at those locations. The end result was 90 500' x 500' locations with higher than average crime and calls for service, each with a minimum 1,000' separation from other study areas.

A block randomization process was then used to increase the odds that we achieved balanced groups (Weisburd & Gill, 2014). Officers' self-initiated calls in 2013 were totaled for each NI-Loc and the resulting dataset was sorted in descending order. The three NI-Locs with the highest self-initiated activity (168, 140, and 129 calls respectively) formed the first block and within this block one area was randomly assigned to each study condition (e.g., control, 2 CEPs/day, 4 CEPs/day; see figure to right). This process was repeated until all 90 NI-Locs were assigned to a group.



### Scheduling the CEPs

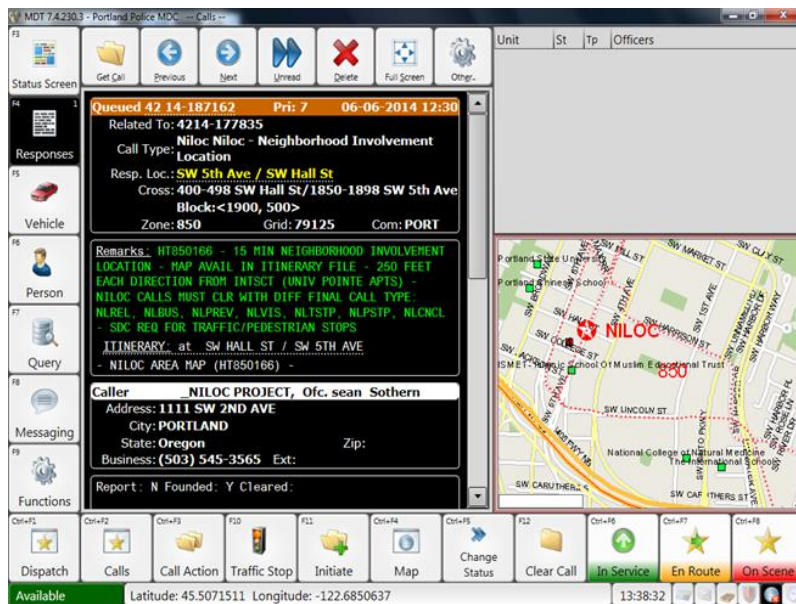
Locations in the control, 2 CEPs/day, and 4 CEPs/day groups were then assigned to three distinct phases of the project in an effort to minimize the additional work for patrol officers generated by

<sup>3</sup> Non-criminal calls for service include things like informational broadcasts, administrative actions, hazard warnings, animal problems, civil problems, community contacts, etc.

the study<sup>4</sup>. Each phase consisted of 10 NI-Locs from each study condition for a total of 30 locations. Phase assignments were made to balance locations across the bureau’s three precincts (North, East, and Central) and each phase was active for 90 days. During the active period, the treatment locations were receiving the CEPs. Phase I sites were scheduled to be active from March 18<sup>th</sup> through June 15<sup>th</sup>. Phase II sites went active between May 2<sup>nd</sup> through July 30<sup>th</sup>, and Phase III sites were active from June 16<sup>th</sup> until September 13<sup>th</sup>. During the six months of the experiment, this meant that officers were being dispatched to NI-Locs either 60 or 120 times per day for a total of 16,200 CEPs (see Appendix B for a map of the NI-Loc areas).

PPB’s crime analysts worked with the city’s Bureau of Emergency Communications (BOEC) to develop a strategy for pre-programming the 16,200 CEP calls into the CAD system<sup>5</sup>. The times of the patrols were varied throughout the day and across the different shifts as needed to ensure that no single district - Portland’s version of a beat - would have more than five CEPs per day. Similar efforts were taken to avoid calls during the transition between morning and afternoon shifts (3:00 and 4:00 pm) and the analysts varied the time of day for the CEP calls within each individual NI-Loc every 15 days in an effort to make the patrols less predictable to potential offenders.

Once a NI-Loc went active, the CEP calls were automatically issued by the dispatch system and presented to patrol officers via their mobile data terminal (MDT; see screenshot to the right). The CEPs were set-up as “non-priority”, meaning officers still had some discretion in how they resolved pending calls in their district. Each CEP call identified a central address for the 500’ x 500’ NI-Loc to ensure that the officer would maximize his/her visibility while on scene. The CAD system also presented officers with a detailed map and summary of crime/calls in the given NI-Loc (see Appendix C).



New CAD clearance codes were developed for the project in an effort to record officers’ primary actions during the CEPs. This included codes for relationship building, business contacts, problem-solving/crime prevention activities, high visibility patrol, vehicle stops, and pedestrian

<sup>4</sup> PPB recorded an average of 780 dispatch and 395 officer-initiated calls per day during 2014, excluding calls related to the NI-Loc program.

<sup>5</sup> Analyst Christian Peterson, Officer Sean Sothern and Murrell Morely (from Portland’s Bureau of Emergency Communications) won two technical solution awards from the CAD vendor for this work.

stops. As per bureau policy for stops, officers using the last two codes were required to record additional data in a secondary RMS (i.e., race, ethnicity, gender, search, search results).

### Training

Several steps were taken to educate patrol officers and supervisors about the NI-Loc program and policing in high crime areas more generally. This included bureau-wide “Tips & Techniques” bulletins and in-service training that outlined the Chief’s intent for officers to use the CEPs to engage citizens through non-investigatory contacts. Other in-person and electronic communication channels were used to prepare supervisors for the expected increase in call load, to disseminate procedures for cancelling calls administratively, and to define the different ways that officers could close a call using the new clearance codes. Finally, officers were shown how to access information on the treatment NI-Locs using the MDTs in their patrol vehicles. After launching the first CEPs on March 18<sup>th</sup>, the Crime Analysis Unit actively fielded questions and complaints regarding the project over the next six months. Small refinements were made where needed but the locations receiving calls and the number of calls issued per day in the treatment zones did not change.

### Data Sources

**Offense Reports** - The research team had access to all criminal incident reports for the city from January 1<sup>st</sup> 2011 to December 31<sup>st</sup> 2014. For the purpose of the evaluation, we examined the impact of the CEPs on four types of crime: violent (e.g., murder, aggravated assault, assault, robbery, rape/forcible sodomy, compelling prostitution, kidnapping, threat/intimidation), property (e.g., arson, burglary, larceny, motor vehicle theft, vandalism), social disorder (e.g., disorderly conduct, DUI, drinking in public, engaging in prostitution, littering, possession/use/sale of a controlled substance, trespassing, truancy), and Part I offenses (e.g., murder, aggravated assault, rape, robbery, burglary, larceny, motor vehicle theft). Given the nature of the CEPs and their potential impact, we also excluded all incidents that were of a domestic nature (i.e., familial or intimate relationship reported between the victim and offender).

**CAD (Dispatch and Officer-initiated calls)** - From the CAD system, we were able to extract data on all dispatch and officer-initiated calls that went out between November 1<sup>st</sup> 2011 and December 31<sup>st</sup> 2014. We were able to accurately geocode and aggregate 95.5% of the calls into the 500’ x 500’ city-wide grid and then use these data to generate totals for the 90 NI-Locs. Similar to the offense reports above, we created several categories of calls including: officer-initiated (also referred to as self-initiated), likely-violence<sup>6</sup> (e.g., assault, robbery, rape, sex offense, stabbing, shooting, person with weapon, abuse, threat), likely-property crime (e.g., burglary, theft, vandalism, vehicle stolen), social disorder (e.g., prowler, unwanted person, disturbance, welfare check, suspicious person, harassment, illegal dumping, juvenile problem, party, noise, vice-drugs, prostitution), and traffic incident (e.g., accident, hit & run, DUI, traffic pursuit, hazard wrong-way driver, parking problem).

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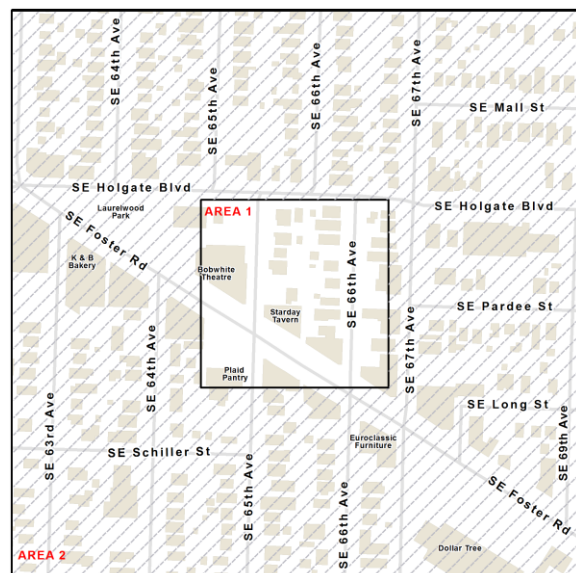
<sup>6</sup> The coding of final call types in our CAD system leaves some room for doubt about the exact nature of the incidents involved. Nor do officers and dispatchers always have clear information about incidents reported by members of the public.

**CAD (CEP calls)** - The CAD system also provided data on the 16,200 CEP calls planned for the study. This includes the location of the call (i.e., NI-Loc number), the originally scheduled time and date, the status of the call (e.g., completed, cancelled by dispatch, cancelled by patrol supervisor, left open), actual on-scene and clear times for completed calls, and the primary activity the officer engaged in during the call. As will be discussed later, the data on officers' actions during the CEPs turned out to be largely unreliable.

**Stops Data** - A separate RMS is used by the PPB to track details on traffic and pedestrian stops for the purpose of assessing racial/ethnic disparity. Officers making a stop are required to open a self-initiated call with dispatchers. When the call is closed, they are transferred to a secondary data mask where they enter information about the person(s) involved (e.g., race, gender, age), the type of infraction, and search details (e.g., search conducted, type of search, contraband found). Unfortunately, this system presented a minor problem for the NI-Loc evaluation. Officers who made a traffic or pedestrian stop during a CEP call had to close the CEP before they could initiate the stop call. Delays between the first call being closed and the second call being started made it difficult to reliably connect the CEP data with the secondary "Stops" RMS tracking the details of the stops. Given the challenges linking CEP calls to Stops data, we opted to use the latter in our analyses on traffic/pedestrian stops in the NI-Locs. In other words, the data we present later on stops represent all traffic/pedestrian stops that happened in the NI-Locs regardless of whether they resulted directly from a CEP or not.

**Resident Surveys** - Mailed surveys were used to collect data on residents' attitudes toward the police, contact with the police, and perceived safety. As a first step, we identified all of the household addresses in the 90 NI-Loc and each location's 500' buffer. These areas differed considerably in size, ranging from no households (2 NI-Locs) up to 877 households ( $M = 180.1$ ,  $SD = 166.5$ ). For more populated areas, we took a random sample of addresses for our mailing list - for smaller areas, we included all households in and around the NI-Loc. We ended up mailing surveys to 11,760 addresses (72.5%) of the 16,213 households identified. The surveys were sent to each NI-Loc (and buffer area) immediately after the location's active phase completed.

With regard to content, the surveys contained a map of the given NI-Loc and buffer zone (labelled Area I and II respectively). Respondents were asked to answer a series of questions about each area over the last three months (active phase of the study), including how often they saw police in the area, perceived safety, signs of disorder, livability. Other items on the survey



explored residents' attitudes toward the police. A copy of the survey can be found in Appendix D.

Of the 11,760 surveys distributed, 1,537 were returned for a response rate of 13.1%. The number of surveys distributed and the response rates were fairly consistent across the three study conditions: control (3,420 mailed, 466 returned or 13.6%), 2 CEPs/day (3,458 and 448 or 13.0%), and 4 CEPs/day (4,882 and 623 or 12.8%). The final usable sample for the analyses consisted of 1,423 surveys. We excluded 114 surveys from respondents who indicated that they did not spend any time in the designated NI-Loc area during the area's active phase.

The racial breakdown of respondents was 1,134 White (79.7%), 46 Black/African American (3.2%), 67 Asian/Pacific Islander (4.7%), 12 Indian/Native American (.8%), 33 Hispanic/Latino (2.3%), 64 Biracial (4.5%), 46 Other (3.2%), and 21 missing (1.5%). Gender consisted of 547 male (38.4%), 843 female (59.2%), 9 transgender (.6%), and 24 missing (1.7%). Age broke down as follows: <30 yrs: 10.5%, 30-44 yrs: 30.9%, 45-59 yrs: 24.2%, 60-74 yrs: 24.3%, > 74 yrs: 8.9%, and Missing: 1.1%.

**Officer Surveys** - At the end of Phase III in September 2014, we emailed online surveys to all active sworn officers in the police bureau (N = 910). In addition to two reminder emails, several roll-call announcements were made and direct requests to complete the survey were initiated by officers in the Crime Analysis Unit. As a result of these efforts, we received 211 usable forms (23.2% response rate). This includes 147 surveys completed by patrol officers, 43 sergeants, and 17 returned by supervisors at the rank of lieutenant or higher (rank was missing for four respondents). Questions on the survey addressed the primary goals for NI-Loc, officers' activities during CEPs, changes officers observed in the target locations, changes in officers' attitudes toward residents, and overall satisfaction with the program (see Appendix E).

**Officer Focus Groups** - We conducted focus groups with officers who had completed 25 or more CEPs during the experiment. A total of 249 officers met the threshold of 25+ calls and each person was sent an email inviting them to participate in a focus group to discuss their experiences with the NI-Loc program in exchange for a \$100 gift card. Officers were asked to register for one of three sessions scheduled for December 2014. A total of 25 officers participated in the three meetings. The groups were facilitated by Dr. Yves Labissiere and Sgt. Renee Mitchell. Detailed notes and audio recordings documented the conversations. Prompts were used to solicit officers' attitudes about the program (e.g., "What did you like/dislike about NI-Loc) and assess whether officers thought the program was an effective strategy for improving police-community relations.

## RESULTS

### Outcome Assessment

**RQ 1a: Did residents in the treatment areas see police more often or have more contact with the police than residents in the control locations? Did these measures vary by assigned patrol dosage (i.e., 4 CEPs/day vs 2 CEPs/day)?**



Data to address these questions comes from our surveys of residents in and around the NI-Loc areas. Seeing an officer(s) was measured by giving respondents a map of their NI-Loc area and asking, 1) *How often did you see a police officer here in a patrol car in the past 3 months?* [1 “never” to 5 “everyday”], and 2) *How often did you see a police officer walking this area on foot in the past 3 months?* [1 “never” to 5 “everyday”]. Respondents were also asked to indicate on the map with an “X” each location where they saw uniformed police officers in the last three months. The number of Xs marked in the NI-Loc area were then summed. Actual contact with an officer(s) was assessed using the same map and asking, 1) *How often in the past 3 months did you have a positive interaction with a police officer here?* and 2) *How often in the past 3 months did you have a negative interaction with a police officer here?* Both items were answered using a 1 (never) to 5 (everyday) scale.

As seen in the table below, mean levels on all items were low, indicating that residents had limited contact with officers during the NI-Loc study. Residents were most likely to report seeing an officer in a patrol car as opposed to walking, and for all three groups (i.e., control, 2 CEPs/day, 4 CEPs/day) residents reported more positive contacts with officers than negative.

### Seeing and Contact with Officers During NI-Loc Program

	2 CEPs (n = 30)	4 CEPs (n = 30)	CEPs (n = 60)	Controls (n = 30)	CEPs vs. Controls	2 vs. 4 vs. Controls
Seeing/Contact with Officers	M (SD)	M (SD)	M (SD)	M (SD)	F	F
Officer in patrol car	2.94 (1.11)	2.97 (1.14)	2.96 (1.13)	2.86 (1.16)	2.20	1.16
Officer walking	1.26 (.66)	1.43 (.80)	1.36 (.75)	1.41 (.78)	1.47	6.87**
Number of locations saw police	.80 (1.36)	.74 (1.32)	.77 (1.34)	.58 (1.06)	6.37*	3.52*
Positive contact	1.36 (.69)	1.42 (.79)	1.39 (.74)	1.30 (.66)	5.19*	3.51*
Negative contact	1.13 (.52)	1.12 (.48)	1.13 (.50)	1.12 (.44)	.13	.17

CEP = Community Engagement Patrols; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

The first statistical analyses, one way ANOVAs, comparing the treatment group (CEPs) with the controls found mixed results on measures of police exposure. The groups did not differ with regard to seeing an officer in a patrol car or seeing an officer walking in the NI-Loc area. There was a difference on the map item, such that respondents in the treatment group reported seeing officers in more locations ( $M = .77$ ,  $SD = 1.34$ ) than those in the control group ( $M = .58$ ,  $SD = 1.06$ ),  $p \leq .05$ . Regarding direct contact with the police, residents in the treatment condition ( $M = 1.39$ ,  $SD = .74$ ) reported significantly more positive contact with officers than those in the control condition ( $M = 1.30$ ,  $SD = .66$ ),  $p \leq .05$ . Negative contacts did not differ between the two groups.

Regarding differences in police exposure by dosage, results were again mixed. There was no difference in the residents' reports of seeing an officer in a patrol car or negative police contacts, but the overall ANOVAs (i.e., control vs. 2 CEPs/day vs. 4 CEPs/day) were statistically significant for seeing an officer walking, the number of locations where an officer was seen, and positive contacts with police. For the latter variables, pairwise analyses compared the 2 CEPs/day group with the 4 CEPs/day condition to examine the dose-response effect. The two groups differed reliably on one of the three measures: respondents in the 4 CEPs/day group ( $M = 1.43$ ,  $SD = .80$ ) reported seeing officers walking more frequently compared to the 2 CEPs/day ( $M = 1.26$ ,  $SD = .66$ ;  $p \leq .001$ ;  $d = .23$ ).<sup>7</sup>

Taken together, these results suggest some degree of success regarding the primary goal of the NI-Loc program: to increase positive contact with residents in high crime areas and avoid interactions that might negatively impact trust and legitimacy. The difference in positive contacts between the treatment and control conditions was quite small, however, generating a Cohen's  $d$  effect size of .13. Likewise, the difference in the number of locations where officers were seen was also quite small ( $d = .15$ ). Finally, with regard to a dose-response relationship, only one measure of police exposure differed between the 2 vs. 4 CEP groups, and here again the difference in practical terms was quite modest ( $d = .23$ ).

### **RQ 1b: Did residents in the treatment areas have more positive attitudes toward the police than residents in the control locations? Did these attitudes vary by assigned patrol dosage (i.e., 4 CEPs/day vs 2 CEPs/day)?**

Several measures were available in our resident survey that can be used to answer these research questions. First, residents were asked to evaluate the PPB's performance over the past three months on the following dimensions: 1) *fighting crime*, 2) *dealing with problems that concern my neighborhood*, and 3) *being available when I need them*. Items were answered using 1 "very poor (F)" to 5 "very good (A)". The three items were averaged to create a Police Performance scale (Cronbach's  $\alpha = .85$ ).

Second, respondents answered four items pertaining to police-community relations over the past three months: 1) *understanding the concerns of my community*, 2) *building trust with my community*, 3) *involving my community in crime prevention efforts*, and 4) *communicating with the public*. Response options ranged from 1 "very poor (F)" to 5 "very good (A)". The three items averaged to create a Police-Community Engagement measure ( $\alpha = .91$ ).

Finally, seven items on the survey related to procedural justice: 1) *I expect to be treated fairly by the police in Portland*, 2) *The police in Portland make decisions that are right for the people in my neighborhood*, 3) *I trust the police in Portland*, 4) *I have confidence in Portland's police*, 5) *The police in Portland treat people like me with respect*, 6) *If I was stopped by the police in*

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<sup>7</sup> Other pairwise comparisons that were statistically significant include: 2 CEPs/day ( $M = 1.26$ ,  $SD = .66$ ) reported a lower frequency of officers walking compared to controls ( $M = 1.41$ ,  $SD = .78$ ;  $p \leq .01$ .); 2 CEPs/day ( $M = .80$ ,  $SD = 1.36$ ) and the 4 CEPs/day ( $M = .74$ ,  $SD = 1.32$ ) saw officers in more locations than the control group ( $M = .58$ ,  $SD = 1.06$ ;  $p < .05$ ); 4 CEPs/day ( $M = 1.42$ ,  $SD = .79$ ) reporting significantly more positive contact than controls ( $M = 1.30$ ,  $SD = .66$ ;  $p \leq .01$ ).



Portland I would be treated fairly, and 7) I think my values and the values of Portland’s police are very similar. All items were answered using 1 “strongly disagree” to 5 “strongly agree”, and the average score was labeled Procedural Justice ( $\alpha = .93$ ).

**Attitudes Toward Portland Police Officers at Conclusion of NI-Loc**

	2 CEPs (n = 30)	4 CEPs (n = 30)	CEPs (n = 60)	Controls (n = 30)	CEPs vs. Controls	2 vs. 4 vs. Controls
Attitudes	M (SD)	M (SD)	M (SD)	M (SD)	F	F
Police performance	3.37 (.84)	3.49 (.81)	3.44 (.82)	3.50 (.81)	.30	2.73
Police-community engagement	2.94 (.90)	3.10 (.93)	3.03 (.92)	3.10 (.93)	1.16	3.55*
Procedural Justice	3.48 (.88)	3.53 (.89)	3.51 (.88)	3.60 (.81)	3.14	1.93

CEP = Community Engagement Patrols; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

One way ANOVAs comparing the control versus combined treatment condition indicated that none of the three attitudinal measures differed as a function of group (see table above). Similarly, two of the three ANOVAs analyses examining the dose-response effect (control vs. 2 CEPs/day vs. 4 CEPs/day) were non-significant. The one exception was perceptions of police-community engagement. A pairwise comparison addressing dosage found higher levels of police-community engagement in the 4 CEPs/day condition ( $M = 3.10, SD = .93$ ) than the 2 CEPs/day condition ( $M = 2.94, SD = .90; d = .17$ ),  $p \leq .05$ . Police-community engagement in the 2 CEPs/day condition ( $M = 2.94, SD = .90$ ) was also lower than the control condition ( $M = 3.10, SD = .93$ ),  $p \leq .05$ . The 4 CEPs/day group did not differ from controls on this measure.

To summarize, we found no significant differences between the combined CEP group and controls on respondents’ perceptions of police performance, police efforts toward community engagement, or perceptions of procedural justice. Digging a bit deeper, we found one potential difference by dose for police-community engagement. Residents from the 2 CEPs/day condition rated the police lower on this measure than both the control and 4 CEPs/day groups.

The latter finding was certainly different than what we expected, particularly since the NI-Loc program was seeking to a) increase positive contact with residents, and b) improve community attitudes towards the police. While the former appears to have been partially achieved, the latter was not. Perhaps residents in the more infrequently patrolled areas were unclear about the officers’ presence and, lacking information on the program, they assumed hostile intent. Maybe the delivery of a smaller patrol “dose” triggered previously dormant dissatisfaction with the agency and/or patrol officers (e.g., “you’re not here enough to really help”). Alternatively, it may be that officers interacted with the public differently when they were sent to high crime areas less frequently. Continuing, it may be that increasing positive contacts for a limited time is not strong enough to produce changes in, potentially deep seated, attitudes about the police. More sustained, long lasting changes in police behavior, beyond the scope of this program, may be needed to produce more positive police attitudes. The NI-Loc program, and its increase in

positive contacts, could provide one part in this potential long term change. Finally, it is important to note that there was no pre-test survey of community attitudes. While random assignment should equalize pre-experiment attitudes across groups, we still note this caveat when interpreting the findings. It is possible that the groups differed on their attitudes toward the police prior to the experimental study. All of these possibilities deserve additional exploration.

The apparent contradiction we observed at the aggregate level between residents in the 2 CEPs/day condition reporting of more frequent positive contact with officers and less favorable ratings of police-community engagement merited additional investigation. When analyzed at the individual level, we found that more frequent positive contact with the police during the 3 month period was positively correlated with all three police attitude measures: police performance ( $r = .20, p < .01$ ), police-community engagement ( $r = .22, p < .01$ ), and procedural justice ( $r = .21, p < .01$ ). That is, across all conditions, individuals who reported more positive contact with police also reported more positive perceptions of police performance, police engagement with the community, and perceptions of police legitimacy. Similarly, the more individuals reported negative contact, the more negative their attitudes about the police were: police performance ( $r = -.18, p < .01$ ), police-community engagement ( $r = -.16, p < .01$ ), and procedural justice ( $r = -.22, p < .01$ ). Therefore, while we did not observe the pattern of more positive contacts leading to more positive attitudes at the experimental group level, we do see correlational evidence that promoting positive contacts is an important step in improving police-community relationships.

Our findings regarding the NI-Locs assigned more frequent CEPs also warrant consideration. We dispatched officers to 30 high crime areas in Portland four times per day for 90 consecutive days. We saw no consistent evidence that these patrols led residents to evaluate the police more negatively or degrade their perceptions of police legitimacy. At least with higher doses, therefore, we did not see a “backfire effect” that some people have predicted.

### **RQ 1c: Did residents in the treatment areas feel safer and report less disorder in their neighborhood than residents in the control locations? Did these factors vary by assigned patrol dosage (i.e., 4 CEPs/day vs 2 CEPs/day)?**

The resident survey contained several questions regarding perceived safety, livability, and disorder. For perceived Safety respondents were given a map of their NI-Loc area and asked, *How safe would you feel: 1) walking alone here in the daytime and 2) walking alone here at night?* The two items were answered using a 1 “very unsafe” to 5 “very safe” scale. Livability was measured using four items: 1) *people walking, exercising, playing outside*, 2) *people talking to their neighbors*, 3) *people shopping, visiting stores or restaurants*, and 4) *overall quality of life in this location*. Disorder was also assessed using four items: 1) *People speeding/driving recklessly*, 2) *People making noise/being disorderly*, 3) *Litter, graffiti, vandalism*, and 4) *overall crime*. For livability and disorder items respondents answered using 1 “gone down a lot” to 5 “gone up a lot” and the four items from each scale were averaged ( $\alpha = .78$  and  $.83$  respectively).

**Perceptions of Safety and Disorder at Conclusion of NI-Loc**

	2 CEPs (n = 30)	4 CEPs (n = 30)	CEPs (n = 60)	Controls (n = 30)	CEPs vs. Controls	2 vs. 4 vs. Controls
Safety & Disorder Measures	M (SD)	M (SD)	M (SD)	M (SD)	F	F
Safety during day	3.99 (.96)	4.28 (.83)	4.16 (.90)	4.21 (.88)	1.13	13.07***
Safety during night	2.74 (1.20)	3.14 (1.19)	2.97 (1.21)	3.00 (1.28)	.16	13.11***
Livability	3.30 (.67)	3.31 (.63)	3.31 (.65)	3.29 (.65)	.13	.12
Disorder	3.48 (.78)	3.42 (.72)	3.44 (.74)	3.47 (.72)	.36	.88

CEP = Community Engagement Patrols; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

Analyses on perceived safety, livability, and disorder (one way ANOVAs) did not reveal any statistically significant differences between the control condition and combined CEP group (see table above). Overall dosage effects were found, however, on perceptions of safety. Pairwise contrasts of the 2 vs. 4 CEPs/day conditions found that residents in the areas receiving 4 CEPs/day ( $M = 4.28, SD = .83$ ) reported feeling safer during the day than residents in NI-Locs assigned 2 CEPs/day ( $M = 3.99, SD = .96$ ),  $p \leq .001$ . The same pattern was found for perceptions of safety at night: people from NI-Locs assigned 4 CEPs/day ( $M = 3.14, SD = 1.19$ ) reported feeling safer than residents from areas assigned 2 CEPs/day ( $M = 2.74, SD = 1.20$ ),  $p \leq .001$ .

Mirroring some of our earlier findings, additional pairwise comparisons found something unexpected with the 2 CEPs/day condition. Respondents in this group ( $M = 3.99, SD = .96$ ) reported feeling less safe during the day compared to controls ( $M = 4.21, SD = .88$ ;  $p \leq .001$ ). The same pattern was found for perceptions of safety at night: 2 CEPs/day condition ( $M = 2.74, SD = 1.20$ ) versus control ( $M = 3.00, SD = 1.28$ ;  $p \leq .01$ ). The control and 4 CEPs/day conditions did not differ from each other on perceived safety.

In short, these findings on perceived safety, livability, and disorder failed to support our hypothesis. We believed that the CEPs would lead residents to feel safer in their neighborhood, to perceive their local area as less disordered and more livable. None of these outcomes were observed. Instead, the pattern of our findings suggests that people in the areas assigned two CEPs per day may have felt less safe compared to people in control areas. One possible explanation for this finding is that infrequent visits by police to a high crime area signals potential danger to residents. Alternatively, we again note the lack of a pre-survey assessing perceived safety. It is possible that these perceptions differed between the 2 CEP group and control condition before the experimental study.

**RQ 2a: Did the areas receiving NI-Loc patrols have less crime relative to the control locations? Did crime levels vary by assigned patrol dosage (i.e., 4 CEPs/day vs 2 CEPs/day)?**

The data to address this research question included criminal offenses reported to PPB during the 90 days each NI-Loc was active. Incidents involving a domestic relationship between the victim

and offender were excluded, resulting in four categories of offenses: Non-DV Violent, Non-DV Property, Non-DV Social Disorder, and Non-DV Index Crimes<sup>8</sup>. Mirroring the analytic strategy presented above, two one way ANOVAs were conducted for each outcome variable. The first analysis compares controls versus the combined CEP groups and the second compares all three groups to address dosage (i.e., control vs. 2 CEPs/day vs. 4 CEPs/day). Pairwise comparisons are conducted when the latter analysis yields a statistically significant omnibus test ( $p \leq .05$ ).

**Criminal Offenses During 90 Days of NI-Loc Program**

Type of Offense	2 CEPs	4 CEPs	CEPs	Controls	CEPs vs.	2 vs. 4 vs.
	(n = 30)	(n = 30)	(n = 60)	(n = 30)	Controls	Controls
	M (SD)	M (SD)	M (SD)	M (SD)	F	F
Non-DV Violent	1.33 (1.63)	1.17 (1.49)	1.25 (1.55)	1.07 (1.17)	.33	.26
Non-DV Property	3.53 (3.88)	6.67 (7.78)	5.1 (6.30)	6.53 (8.19)	.84	1.98
Non-DV Social Disorder	3.37 (5.26)	3.00 (4.73)	3.18 (4.96)	6.27 (10.0)	3.84*	1.92
Non-DV Index	3.50 (3.95)	6.60 (7.96)	5.05 (6.42)	6.53 (8.22)	.88	1.93

CEP = Community Engagement Patrols; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

The ANOVAs comparing the controls with the combined treatment group revealed one statistically significant difference: offenses involving Non-DV Social Disorder were marginally more frequent in the control NI-Locs ( $M = 6.27$ ,  $SD = 10.0$ ) as compared to the combined treatment condition ( $M = 3.18$ ,  $SD = 4.96$ ;  $p \leq .053$ ). Given the borderline significance of this finding, and the fairly wide difference in standard deviations between the two groups, we conducted an additional analysis to control for the same crime measure in the 90 days before the NI-Locs went active. The estimated marginal means from this ANCOVA, controlling for prior Non-DV Social Disorder, were 4.92 and 3.86 respectively, a difference that was not statistically different,  $F(1, 87) = .77$ . This suggests that the difference reported in the table above was largely the result of pre-existing differences between the two groups on this measure of crime. With regard to the effect of patrol dosage, none of the analyses revealed a statistically significant difference between the three groups.

The overall conclusion from these analyses is that reported crime was not reliably impacted by our CEPs. Nor did we find evidence for a dose-response effect, with greater crime reduction in the four patrols per day NI-Locs compared to two patrols per day. A number of explanations for this finding are considered later in this report.

<sup>8</sup> The first three outcome measures (Non-DV Violent, Non-DV Property, Non-DV Social Disorder) are mutually exclusive. The fourth measure, Non-DV Index Crimes, overlaps with the former two categories, so it does not represent an independent analysis of the NI-Loc program’s outcomes.

**RQ 2b: Did the areas receiving NI-Loc patrols have fewer crime and disorder-related calls for service relative to the control locations? Did calls for service vary by assigned patrol dosage (i.e., 4 CEPs/day vs 2 CEPs/day)?**

CAD data on dispatch calls to the 90 NI-Locs during their 90-day active phase were used to address this question. Four mutually exclusive sub-types of calls were created: Violence/Potential Violence, Property Offenses, Social Disorder and Traffic Incidents (see methodology section for details).

Using the same analytic strategy as reported above for offenses, we found no differences on our calls for service measures for controls versus the combined CEP group (see table below). Similarly, the ANOVAs addressing dosage (i.e., control vs. 2 CEPs/day vs. 4 CEPs/day) did not reveal any differences on these outcome variables. Contrary to our hypotheses, therefore, neither crime nor calls for service were impacted by the CEPs and varying the planned dosage level of these patrols had no reliable impact.

**Dispatch Calls for Service During 90 Days of NI-Loc Program**

Type of Call	2 CEPs	4 CEPs	CEPs	Controls	CEPs vs. Controls	2 vs. 4 vs. Controls
	(n = 30)	(n = 30)	(n = 60)	(n = 30)	F	F
	M (SD)	M (SD)	M (SD)	M (SD)		
Violence/Potential Violence	3.30 (2.87)	3.07 (1.87)	3.18 (2.40)	2.63 (2.33)	1.07	.60
Property Crime	5.73 (4.28)	8.90 (10.56)	7.32 (8.15)	8.83 (8.61)	.67	1.45
Social Disorder	23.33 (18.47)	25.04 (18.66)	24.37 (18.44)	22.53 (14.74)	.22	.22
Traffic Incident	2.77 (2.49)	3.13 (2.80)	2.95 (2.63)	3.27 (3.30)	.24	.24

CEP = Community Engagement Patrols; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

**Process Evaluation**

Contrary to our hypotheses, crime and calls for service were largely unaffected by the CEPs. Likewise, we did not find the expected dose-response relationship with greater crime reduction in the 4 CEPs/day condition versus 2 CEPs/day. The same was generally true for residents’ attitudes toward the police and perceived safety: with the exception of positive police contacts, the CEPs did not lead to better outcomes when compared to our control condition.

In order to further understand these outcome findings, we investigated how NI-Loc was implemented and whether the program delivered adhered to our original plans for the intervention. Otherwise effective programs may fail to achieve their desired outcomes due to deviations in treatment content, dosage, or the quality of service delivery (Carroll et al., 2007; Hassell & Lovell, 2014; Hasson, 2010). Likewise, threats to the internal validity of a study’s design (e.g., nonequivalent groups, contamination, and compensatory treatment) may produce inaccurate results. Finally, we consider key theoretical issues that are likely to mediate the impact of hotspot policing interventions. We use Sherman and colleagues’ (2014) theory of

hotspot policing as a lens for evaluating the design and implementation of the NI-Loc program. The remainder of our results section is devoted to addressing 13 process-oriented questions.

**PQ 1: Were the three groups (control, 2 CEP/day, 4 CEP/day) equivalent at the start of the study?**

Random assignment of people, or places in the case of hotspot policing studies, into different treatment groups is undoubtedly the most powerful strategy we have for enhancing the internal validity of intervention studies. Randomization helps researchers ensure that groups are equal at the start of a study, giving more confidence that later differences observed in outcomes between treated and control conditions are attributable to treatment alone. The benefits of randomization are partially dependent, however, on sample size. As the sample sizes decrease, the odds of unequal groups goes up. One possible explanation for our findings is that our control and two CEP treatment groups were different in some way from the start and that this difference impacted later outcomes (e.g., crime, calls for service, community attitudes). While we attempted to guard against this by using a block randomization design (Weisburd & Gill, 2014), it is still possible that something went awry with the group assignments.

**Characteristics of NI-Loc Study Locations Prior to Start of Intervention**

Characteristics of NI-Loc Areas	Control		2/Day		4/Day		F or $\chi^2$
	M or %	SD	M or %	SD	M or %	SD	
2011 Offenses	9.0	4.3	6.9	5.3	9.5	4.4	2.58
2011 Dispatch Calls	12.0	7.2	17.0	20.5	13.8	6.3	1.16
2012 Offenses	10.4	6.1	8.7	7.2	9.7	5.9	.53
2012 Dispatch Calls	16.8	8.8	19.5	14.0	16.7	9.4	.63
2013 Offenses	10.6	4.6	8.7	6.2	10.3	5.6	.98
2013 Dispatch Calls	21.0	9.5	23.1	16.8	19.9	8.1	.54
Officer Self-Initiated Activity	40.2	33.6	41.2	37.1	41.1	34.4	.01
Multi-Vehicle Parking Lots	4.4	2.8	3.9	2.4	3.5	2.2	.85
Public Transportation Stops	1.5	1.4	1.8	1.3	1.7	1.3	.38
1+ Bars/Nightclubs in Area (% yes)	36.7		36.7		53.3		.83
1+ Businesses in Area (% yes)	96.7		96.7		90.0		1.69
1+ Residential Buildings in Area (% yes)	70.0		83.3		90.0		4.06

Note: None of the comparisons across group were statistically significant ( $p < .05$ ).

Several analyses were conducted to verify that our randomization of the 90 NI-Locs produced (roughly) equivalent groups. First, we looked at whether prior crime-related calls for service and criminal offense reports differed between the three conditions in the prior three years (e.g., 2011, 2012, 2013). These were the same measures used in selecting the study’s original hotspots. As shown in the table above, the NI-Locs assigned to the control, 2 CEPs/day, and 4 CEPs/day conditions did not differ reliably on any of these measures. Second, we looked at officers’ self-initiated activity in the NI-Locs for 2013. Given that we blocked on this variable, it is not

surprising that we found no differences across groups. Finally, we used GoogleEarth and Streetview to examine all of the 90 NI-Locs. For each location, we coded several descriptors including the number of multi-vehicle parking lots present, public transportation stops (e.g., buses, light rail), bars/nightclubs, businesses, and residential buildings. Our three groups did not reliably differ on any of these variables.

Based on the analyses presented above, therefore, we see no evidence that our outcome findings are the result of randomization errors. The procedures used to distribute the 90 NI-Locs to our three conditions appears to have created roughly equivalent groups at the start of the study.

**PQ 2: Was the assigned dosage of supplemental patrol actually delivered (i.e., 15 minutes per call, 2 or 4 calls per day depending on condition)?**

Sherman and colleagues (2014) argue that the deterrent value of supplemental patrols to crime hotspots is greater when the patrols are more frequent and officers spend more time in a given location, what we refer to in this report as “dosage”. Perhaps the most critical question to address with regard to our findings is whether the planned dosage of supplemental CEP patrols was actually achieved. Other researchers have reported difficulties getting officers to, or keeping officers in, the targeted locations (e.g., Sherman & Weisburd, 1995; Sorg, Wood, Groff, & Ratcliffe, 2014) and few studies have been able to carefully measure patrol dosages.

Officers in our study were supposed to visit the 60 treatment NI-Locs two or four times per day, depending on the condition, and stay there for at least 15 minutes. Each location was scheduled to receive these patrols for a period of 90 days. If the officers failed to adhere to these guidelines, if they visited the NI-Locs less often or for less time than planned, this could account for our lack of differences with the control condition (e.g., crime, calls for service, community attitudes). Similarly, the burden of visiting NI-Locs four times a day versus twice could have led to varied levels of compliance across our two treatment conditions. Maybe we failed to find any differences in key outcomes between the 2 CEPs/day versus 4 CEPs/day conditions because the actual patrol dosages delivered did not adhere to the planned 1:2 ratio.

Data to address these issues came from PPB’s CAD system. The pre-programmed schedule for the 16,200 CEPs was exported to the research team along with data on the outcome for each call. Dispatchers and patrol supervisors were allowed to cancel CEP calls when circumstances warranted it (e.g., officers were unavailable, higher priority calls holding). In other cases, CEP calls were closed by default when patrol officers failed to take the call or spend time in the given location. For the CEPs that were completed, we determined the amount of time spent in the target location using “on scene” and “cleared” time/date stamps.



### Planned Versus Delivered CEP Calls and Hours

Study Condition	# PATROLS		# HOURS	
	Planned	Delivered	Planned	Delivered
Control	0	0	0	0
2 CEPs/day	5,400	4,294	1,350	1,486
4 CEPs/day	10,800	8,852	2,700	3,097
<b>Total</b>	<b>16,200</b>	<b>13,146</b>	<b>4,050</b>	<b>4,583</b>

The table above provides details on the planned and delivered CEPs for our three conditions. In the 2 CEPs/day group, there were a total of 4,294 patrols completed, amounting to 79.5% of the calls that were originally planned. For the 4 CEPs/day group, 8,852 patrols were completed from the planned 10,800 (82.0%). The ratio between the two treatment conditions (1:2.1) deviated only slightly from the original plan of 1:2.

Moving to time spent on patrol, we intended for officers to spend a total of 1,350 hours in the 2 CEPs/day condition (i.e., 30 locations \* 2 patrols per day \* 90 days \* 15 minutes per patrol). Officers ended up being on scene 10.1% longer than expected, 1,486 hours in total, because the average length of each completed call was 20 minutes and 45 seconds rather than 15 minutes. The same basic pattern was found in the 4 CEPs/day condition: officers spent an average of 21 minutes on scene per completed call, delivering 3,097 hours of patrol (14.7% more time than planned). Here again, the planned ratio of 1:2 between the two treatment conditions was largely upheld (1:2.1).

Looking more closely at the CEP calls that were cancelled, we found that 56.4% were cancelled by dispatchers or their supervisors. This includes calls canceled before they went out to the street due to resource demands and calls that were left “hanging” in the queue that were eventually cleared by the dispatcher. Of the remaining calls, 18.8% were cancelled by patrol supervisors and 24.9% were closed by officers without spending time on scene. The latter included things like officers closing CEP calls in their district as their shift ended and calls closed while en route when a higher priority call came in.

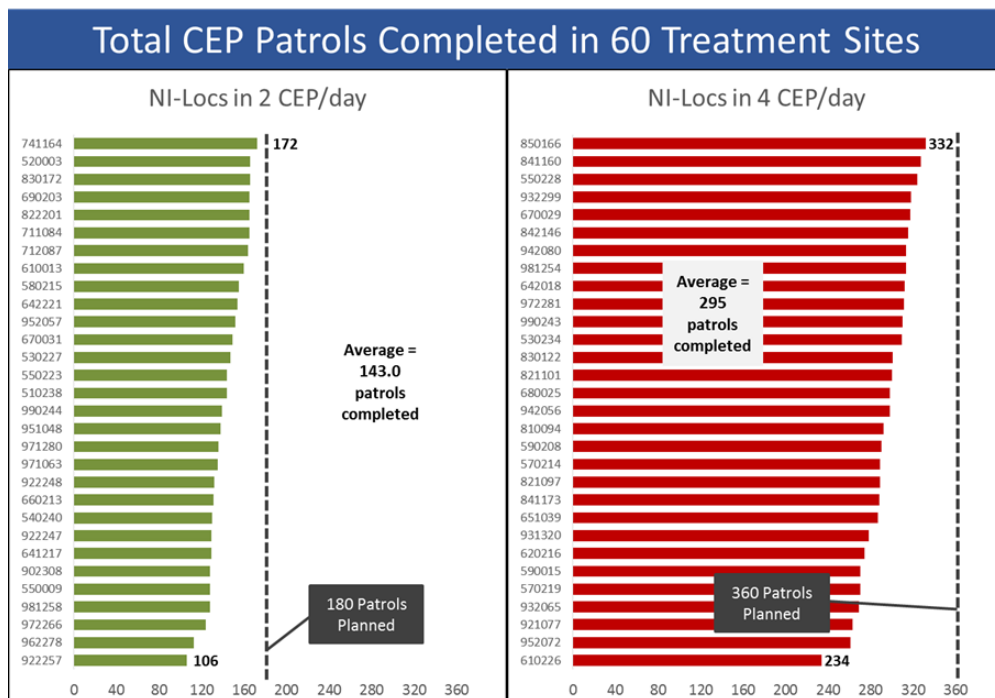
It is also worth noting that the cancellation rate increased over the course of the study. During Phase I, 88.0% of the CEP calls were completed. In Phase II, 79.0% of the calls were completed and for Phase III, the completion rate dropped to 76.4%. Several factors probably contributed to this decline. First, dispatchers, supervisors and officers learned how to preemptively cancel the pre-programmed CAD calls or cancel them after they were issued. The technical procedures for this were not obvious at the start of the study and informal policy guiding cancellations developed over time. Second, as we moved into the summer months, there was higher demand on officers’ time. The CEP calls were given lower priority in the CAD system. Third, officers and supervisors grew increasingly fatigued by the demands of the program. The addition of the CEPs during our study increased the agency’s overall call load by 5.1% during the first 45 days



of the study when only Phase I locations were active, by 9.1% for the 90 days with two overlapping phases, and by 4.4% for the final 45 days of Phase III.<sup>9</sup>

The data presented above suggest that our “dosage” of CEPs was largely delivered as planned, at least in aggregate. This does not mean that all of the NI-Locs assigned to receive CEPs received an equal dosage. Additional analyses were conducted to document the variability in patrols completed and total time spent in the 60 treatment locations.

In the 2 CEPs/day condition, the number of completed CEPs ranged from 106 to 172 and the average was 143 (see chart below). This compares to a planned frequency of 180 patrols. With the 4 CEPs/day condition, the number of patrols per NI-Loc ranged from 234 to 332 with an average of 295. For this group, the scheduled number of patrols was 360. In summary, none of the 60 NI-Loc treatment sites received their originally planned dosage with regard to the number of patrols. At the same time, none of the NI-Locs in the 4 CEPs/day condition received fewer patrols than NI-Locs in the 2 CEPs/day group.

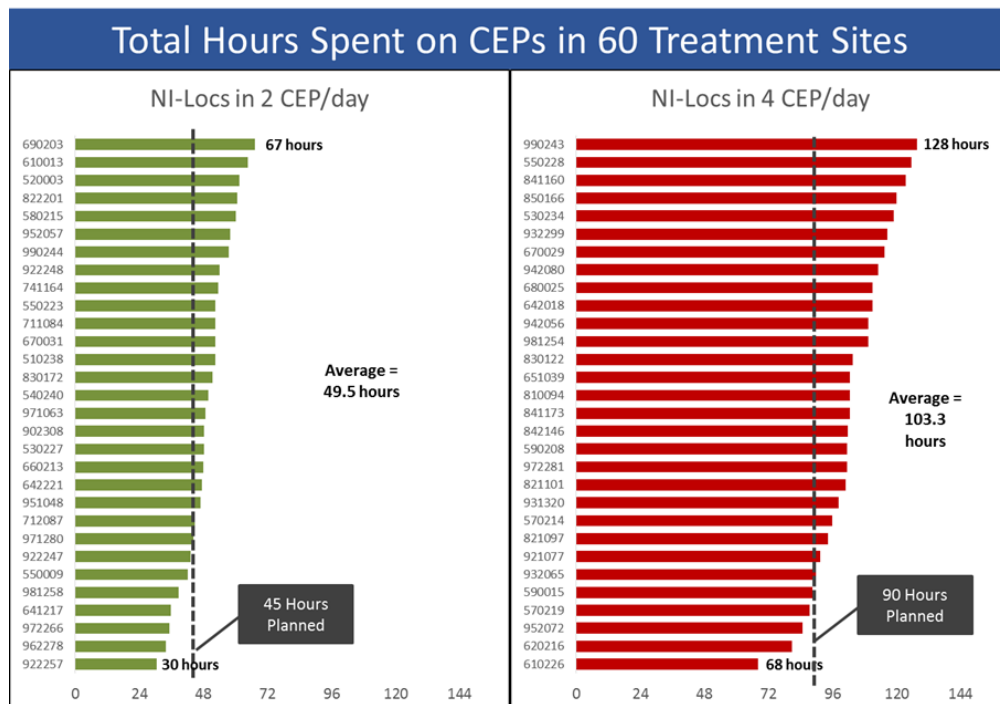


With regard to total time spent on supplemental patrols in the target locations, the planned dosage for the 2 CEPs/day was 45 hours per NI-Loc (i.e., 90 days x 2 CEPs per day \* 15 minutes per patrol). The actual time delivered ranged from 30 hours to 67 hours, with an average of 49.5 (see chart below). For the 4 CEPs/day condition, we planned to deliver 90 hours of supplemental police activity. The delivered amount ranged from 68 to 128 hours with an average of 103.3. Here again, there was no overlap between the two treatment conditions: all of the NI-Locs in the 4 CEPs/day condition received a higher dose (i.e., hours of patrol) than NI-Locs in the 2

<sup>9</sup> Based on CEPs that were issued (i.e., not cancelled pre-emptively), regular dispatch calls and officers’ self-initiated calls.

CEPs/day condition. And, because officers typically spent more time per call than expected, the overall amount of time spent in each treatment location over the course of the study exceeded expectations for most of the target sites.

Returning to the central question posed above--was the assigned dose actually delivered--we believe that the program was highly successful in this regard. The agency's use of their CAD system to direct supplemental police resources to high crime locations was particularly innovative and probably led to higher compliance than we would have achieved using alternative methods (e.g., a list of locations to visit delivered daily/weekly at roll call). People and organizations are more likely to adopt new practices when they deviate less from standard operating procedures (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004) and patrol officers are accustomed to their daily activities being regulated by dispatch. Use of the CAD system in the current study also allowed for more accurate measurement of patrols dosages than most hotspot policing studies have achieved<sup>10</sup>.



In conclusion, we do not see any evidence that our failure to achieve reductions in crime or improvement in community attitudes resulted from a lack of fidelity to our planned treatment dose. Whether the dose we delivered was sufficient from the outset is addressed in the next section.

**PQ 3: Was Portland’s dosage of supplemental patrols, either in the number of visits or total time spent in the target locations, sufficient to impact offending?**

<sup>10</sup> Notable exceptions include Sherman and Weisburd (1995) who measured dosage through direct observation and Weisburd, et al. (2015) who incorporated Automatic Vehicle Locator (AVL) data into their study.

The analyses presented in the prior sections indicate that the experiment was largely successful in delivering the planned dosage of supplemental police activity in our treatment locations. Whether these doses were sufficient from the outset to deter crime, calls for service, and impact community attitudes is another question. Two important factors weighed into the decision regarding sample size and ultimately dosage:

- The trade off in sample size (higher number of NI-Loc locations), and hence power, versus bigger dosage in a smaller number of locations.
- The need to deliver a dosage intensity that might be feasible for a large agency. Hence, 30 to 60 minutes per day seemed reasonable. Our hope was that the smaller dosage would increase the likelihood of the intervention being sustained, if found effective.

A simple look at some hotspot studies indicates that our dosage was on the small end (see table below). Studies that provided a time estimate of police presence per day in hotspots were chosen for inclusion in the table.

**Comparison of Dosage from Hot Spot Studies**

	# Treatment Locations	Size of Targeted Areas	Avg. Visits per Day	Avg. Hours per Day
Portland, OR (Community engagement patrol)				
2/day	30	500' x 500'	1.6	.6
4/day	30	500' x 500'	3.3	1.1
Sacramento, CA (Hotspot patrol)	21	Street segment	3.8	1.5
Minneapolis, MN	55	Street block	NA	2 to 3
Jacksonville, FL (Directed patrol)	21	.02 square miles	NA	7.6
Philadelphia, PA (Foot patrol)	60	Avg. 14 intersections/1.3 street miles	Pair of officers for entire shift	16

Out of the five studies which provide a time-based dosage estimate of police presence, both of the Portland treatment locations (2/day and 4/day visits) had a smaller number of visits and less average hours per day than the other four studies. The strongest dosage areas in the Portland study received around 3 patrol visits per day averaging approximately 1 hour a day in police activity. The average time officers in the Sacramento study were estimated in treatment locations was a half hour longer than Portland’s highest dosage locations. Dosage in the Sacramento, Portland, and Minneapolis studies are dwarfed by the reported dosage in the Jacksonville and Philadelphia studies, which range from 8 to 16 hours per day during the treatment phase. Even though the “Koper effect” notes that there is crime prevention decay after a 15-minute patrol visit to hot spot areas, it appears equally important that an hour or less of patrol activity *per day* may not be enough dosage for impacting crime and community attitudes in a hotspot of even this small a size. In short, our tradeoff for

increased comparison sites may have watered down our patrol dosage too much to have a meaningful impact.

### **PQ 4: Did officers adhere to the Chief's directive and interact with community members?**

Chief Reese's primary objective for the NI-Loc program was for officers to use the supplemental patrols to actively engage with community members in the target locations. Our goal of increasing community engagement is consistent with Sherman and colleagues (2014) theory of hotspot policing. They propose that, "The more engagement patrol officers undertake during patrol time in hotspots—from conversations to stop and frisk to ticketing and arrests—the less frequent and serious crime will be within the hotspots." In our case, however, we sought to prioritize the former, conversations, and decrease the latter, stops, tickets, and arrests. We believed that non-investigative interactions would be more likely to increase trust and confidence in the police, something Sherman and colleagues (2014) also highlight: "The more police legitimacy patrol officers create by treating all citizens in a respectful manner with fair procedures during patrols in hotspots, the less frequent and serious crime will be in those hotspots." Another possible explanation for our results, therefore, is that officers did not sufficiently engage community members during the CEPs or they interacted in ways that might have negatively impacted legitimacy.

As described previously, PPB's crime analysts created several new CAD clearance codes for the NI-Loc program to track officers' activity during the CEPs. Officers were also able to briefly describe their actions in an open-ended text field on their MDTs. Our initial plan was to use these data to ensure officers had complied with the Chief's directive to engage with the community. We also planned to use these data to evaluate the impact of different ratios of investigative versus non-investigative actions in the treated NI-Locs.

Unfortunately, limited supervision in the use of the new clearance codes and technical issues with the CAD system resulted in unreliable data. With regard to the former, officers were provided definitions for each type of activity in a Tips & Techniques bulletin distributed at the start of the program. For example, Relationship Building was defined as, "A wide range of behavior, such as walk and talks or non-investigative contacts with individuals. Interacting with the public in these areas is a primary goal of this project. Making contact with citizens, giving out stickers, etc., are all encouraged activities inside the NI-Locs." Once the CEPs began there was limited auditing of the codes by patrol supervisors to ensure that officers were selecting the most applicable categories.

On the technical side, the CAD system allowed officers to use any of the clearance codes in the system as opposed to only using those associated with the CEPs. Moreover, the addition of the new codes required a manual upload for each individual patrol vehicle which resulted in some delays at the start of the NI-Loc program and later when minor changes were made with the coding system. Finally, the way the clearance codes were entered into the MDTs increased the odds that officers would memorize just one code and use that for all of their CEPs. The clearance code that seemed to be preferred was NLVIS, NI-Loc High Visibility Patrol, accounting for

73.4% of the 13,146 completed CEPs.<sup>11</sup> We know from examining the (voluntary) open-ended comments some officers provided that some portion of these calls were mislabeled, at least based on our intended use of the categories. For example, the six CEPs listed below were all cleared in the CAD using NLVIS, but the comments indicated community engagement activities.

- Talked to several people at Safeway. One subject ask us to check him for warrants.
- Handed out a few stickers, spoke to a woman about parking, tagged an abandoned auto
- Played soccer w/ the children, handed out stickers
- Talked with Chevron employees about concerns they have in the area
- Spoke with business owners/managers, no big problem
- Talked with a gentleman about local squatters

These coding issues make it impossible to accurately quantify the level of community engagement that actually occurred during the CEPs. The best we can do with these data is to assert that officers largely complied with the Chief's request to limit traffic and pedestrian stops (additional evidence supporting this conclusion is provided below). It is conceivable, therefore, that crime, calls for service, and community attitudes did not change as a result of the program because we did not achieve a sufficient dose of engagement with the public or engage in ways that build trust and confidence.

### **PQ 5: Did investigative stops and searches increase in treatment areas relative to control locations?**

One of key results of the experiment was a null impact on public attitudes towards the police. Research into police legitimacy and procedural justice suggests that the style of policing occurring within a community may have an impact on public attitudes towards the police. For example, a more aggressive style of policing involving increased stops and searches may harm public opinion of the police. A concern with hotspot policing has been the possibility of these “backfire effects”. In other words, does increased police presence, particularly a more aggressive presence, as a result of hotspot attention actually harm police effectiveness by lowering public trust and legitimacy in the police? Prior analyses in this report clearly show that officers were successfully sent to the experimental areas more so than control areas adding upwards of an additional hour spent in the experimental locales. Perhaps this null impact of increased community engagement patrols on community attitudes found in this study is explained by the type of police activities occurring in the experimental areas. To assess this “backfire” possibility in our results, we examine differences in police traffic/pedestrian stops and searches that occurred across the experimental areas.

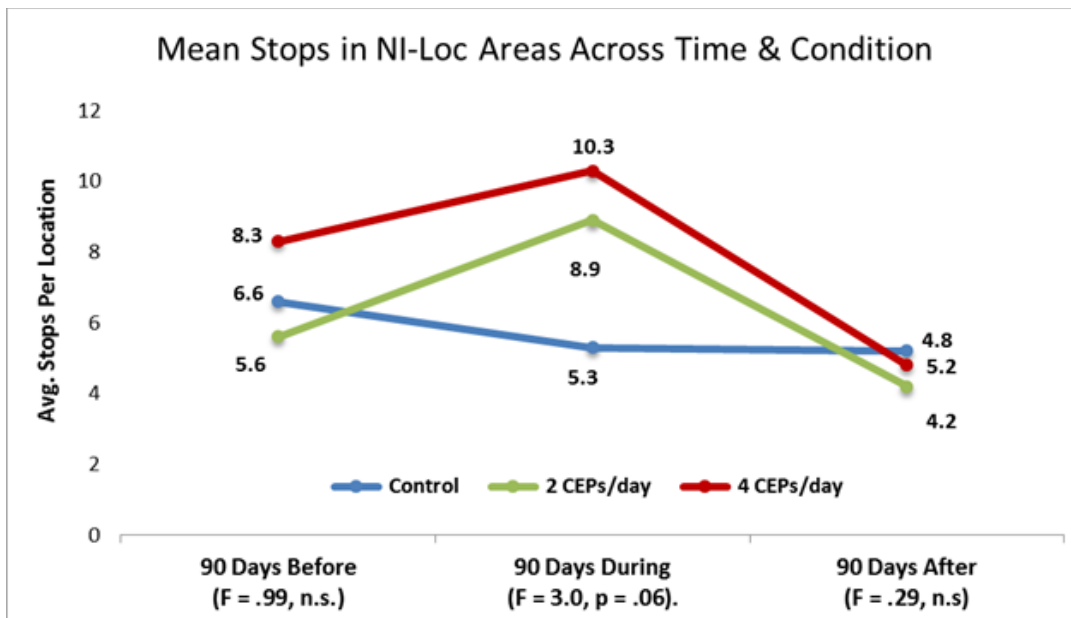
One-way ANOVA tests were used to assess if there were significant differences in the mean number stops and searches across the experimental areas as a result of the experiment. The impact of the experiment on stops and searches was examined in two different ways. The first approach involves an examination of mean differences in stops and searches across the three

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<sup>11</sup> The remaining codes used were Crime Prevention (4.7%), Business Contact (3.7%), Traffic/pedestrian Stop (3.5%), Relationship Building (3.2%), NI-Loc Other Activity (8.6%), and 27 other codes unrelated to NI-Loc accounted for 3.0%.

treatments (control, 2 CEPs/day, & 4 CEPs/day patrols) within three equal time periods (90 days before, during, and after the experiment). The second approach involves a time series analysis by examining whether the mean number of stops within each experimental area significantly changed from before, during, and after the experiment. The number of pedestrian stops in the data was too small to analyze separately from traffic stops. Similarly, the number of searches was also too small to analyze different search types (e.g. consents vs. incident to arrest).

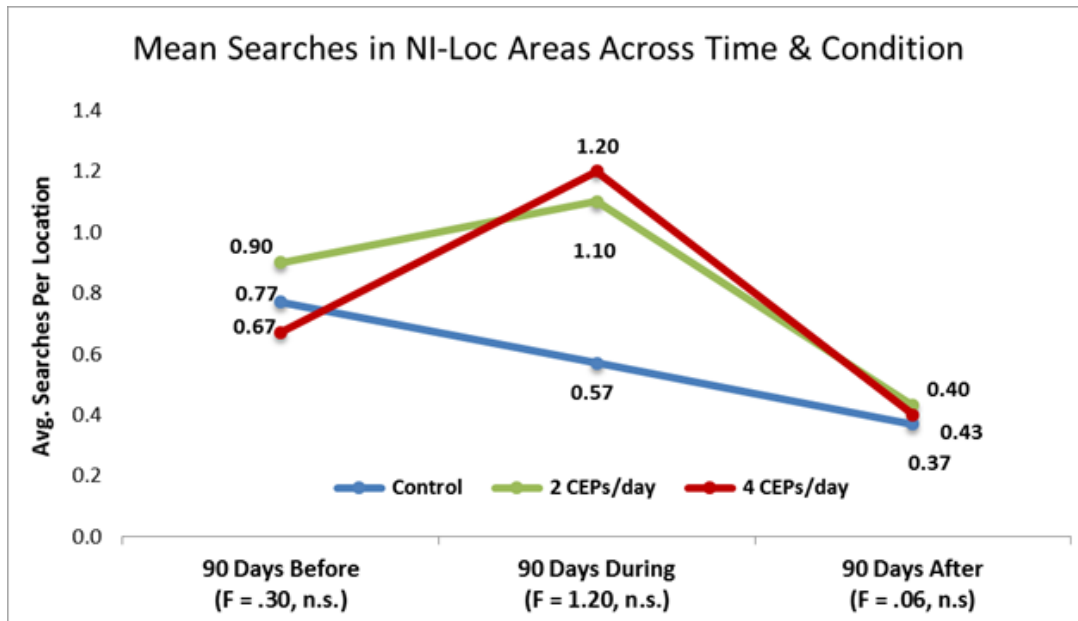
As seen in the chart below, the mean number of stops in NI-Locs before the experiment varied from 5.6 to 8.3, but these differences were not significantly different. Stops increased during the experiment in both the 2 CEPs/day and 4 CEPs/day patrol locations, while slightly decreasing in the control condition. The resulting difference in stops between the treatment areas and control condition during the experimental phase was borderline statistically significant ( $p = .06$ ). This was largely driven by the difference in stops between the 4 CEPs/day group compared to the control group ( $M = 10.3$  vs.  $5.3$ ).



Examining this question from a temporal perspective yields a different conclusion. Even though both the 2 CEPs/day and 4 CEPs/day areas experienced mean increases in the number of stops from 8.3 to 10.3 in the 4-day areas and 5.6 to 8.9 stops in the 2/day areas, these increases were not significantly different from the before time frame.

We can conclude that, although there was a mean average increase in stops occurring in additional patrol locations during the experiment relative to the control areas, the slight increase was unlikely strong enough to influence public attitudes. In other words, the null finding for the impact of the experiment on public attitudes was not likely due to a “backfire effect” related to more aggressive policing. A mean number of 9-10 stops in a 500’ x 500’ area across a 90-day period compared to 5 stops in the control areas is probably not enough to change existing perceptions of the police in these areas.

In the analysis of searches shown in the chart below a similar pattern emerges. Mean searches slightly increase in the 2 CEPs/day and 4 CEPs/day patrol areas, however there are no significant differences in the mean number of searches conducted across these three conditions. Similarly, the changes over time are not statistically significant. A mean of 1.1 and 1.2 searches conducted during the 90 day active phase of the study for the 2 CEPs/day and 4 CEPs/day conditions compared to .6 searches in the control areas is probably not enough to change existing perceptions of the police.



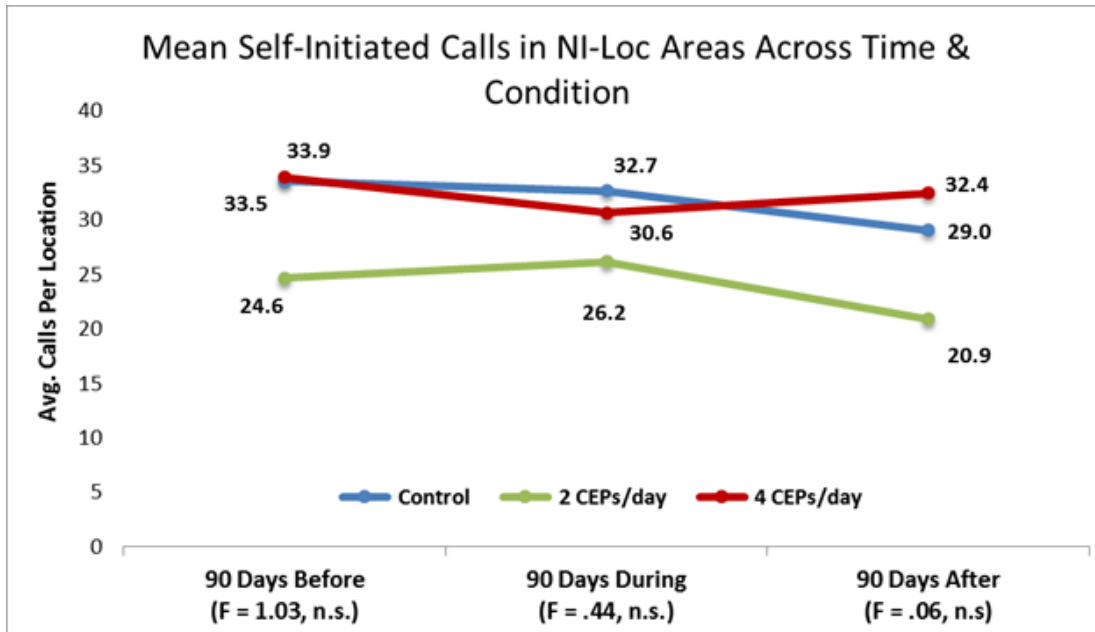
**PQ 6: Did officers compensate for the additional time spent on CEPs in treatment NI-Locs by decreasing their self-initiated activity in these areas?**

One potential explanation for the null impact on crime and citizen attitudes may be that overall officer activity (i.e. officer self-initiated activity) in the treatment locations declined due to the increased experimental patrols to that location from the CAD. In other words, after performing their CEP directed patrols to the area officers may have avoided the area during other times on their shift because they were already there. Thus, the experiment may not have produced an overall increase in officer presence and activity in the area because other self-initiated activity was subsequently reduced in exchange.<sup>12</sup>

To test this possible explanation we examined all CAD call that were self-initiated by officers in the experimental and control areas. If self-initiated activity was significantly lower in the two experimental areas compared to the control area during the experiment, it could be evidence of some compensation/trade-off for officer time already spent in the area. The figure below shows

<sup>12</sup> One of the patrol officers completing our follow-up survey addressed this issue: “Forced patrols in those areas meant that I would avoid them outside of the NI-Loc. I felt that they were getting a high percentage of my time and didn’t need the regular patrol that I gave the rest of the area.”

the average self-initiated calls per experimental and control locations 90 days before, during and after the experiment. ANOVA tests were used to examine whether there were any significant differences between the experimental areas and control across these three time periods. There were no significant differences between the experimental areas and control in the average self-initiated activity of officers during the experiment (and both before and after).



We can conclude that the null effects of the experiment do not appear to be due to some form of compensation/trade-off in police activity occurring in the experimental areas.

**PQ 7: Were Portland’s target locations “hot enough” to benefit from hotspot policing?**

Another explanation for our null findings with regard to changes in crime and dispatch calls is that the 90 locations selected for NI-Loc, our so called “hotspots”, were not sufficiently hot. Crime and calls for service in these areas may have been too infrequent to allow for change through additional police patrols. A related possibility is that crime is less geographically concentrated in Portland compared to other cities. Sherman and colleagues (2014) suggest that the overall crime reduction achieved from hotspot policing will be stronger in jurisdictions where crime concentrates more heavily in a small number of locations. One could extend this proposition to argue that the deterrent impact of supplemental police activity will be stronger in locations where offenders are highly concentrated.

We addressed these issues by examining crime reports and calls for service data for the 30 months prior to the start of the NI-Loc program (September 2011 through February 2014). Data on crime included all offenses reported in the city. For dispatch data, we excluded calls that were initiated by officers and calls that were unrelated to new criminal activity (e.g., accident, community meeting, respond to person in crisis, missing person, investigative follow-up, hazardous situation, information, etc.). The criminal incidents and calls for service were



geocoded and aggregated into the same 500' x 500' grid used by PPB's crime analysts to select NI-Loc's target locations.

### Calls for Service and Crime in Portland for 30 Months Prior to NI-Loc Study

Locations	# 500x500' Grid Cells	% of Grid Cells	Dispatch Calls			Criminal Offenses		
			#	% of Calls	Avg. # per Cell	#	% of Offenses	Avg. # per Cell
Other Areas	16,393	99.5%	360,382	92.8%	22.0	143,600	93.0%	8.8
NI-Loc Areas	90	0.5%	27,975	7.2%	310.8	10,797	7.0%	120.0
Controls	30	0.2%	9,079	2.3%	302.6	4,395	2.8%	146.5
2-CEPs/day	30	0.2%	9,171	2.4%	305.7	2,942	1.9%	98.1
4-CEPs/day	30	0.2%	9,725	2.5%	324.2	3,460	2.2%	115.3
Grand Total	16,483		388,357		23.6	154,397		9.4

Note: Includes crime-related dispatch calls and offenses from September 2011 through February 2014.

As shown in the table above, there were a total of 16,483 cells in the 500' x 500' grid overlaying the city. The 90 NI-Loc areas accounted for .5% of the city's geography.<sup>13</sup> In the 30 months before the start of the experiment, these 90 locations had 27,975 dispatch calls or 7.2% of the city's total. On average the NI-Locs had 310.8 calls each, ranging from 66 to 902. This compares to an average of 22.0 calls per cell in the areas outside of the experiment (range = 0 to 2,167). Given these numbers, it is not surprising that all 90 NI-Locs were at or above the 90th percentile with regard to prior calls for service: 88 were at or above the 95th percentile and 41 were in the 99th percentile.

Moving to the offense reports, the 90 NI-Locs accounted for 10,797 crimes in the prior 30 months, or 7.0% of Portland's reported crime. The NI-Locs averaged 120.0 offenses per site with a range of 24 to 507. The average number of offenses for the other areas of the city was 8.8, ranging from 0 to 1,804. Here again, all 90 NI-Locs were at or above the 90th percentile, 86 were at or exceeded the 95th percentile, and 35 were at the 99th percentile.

These findings suggest that 90 areas selected for our experiment were sufficiently "hot", at least relative to other areas in Portland for the 30 months leading up to our study. Whether these locations had levels of crime/calls for service that are comparable to other hotspot studies is difficult to know. The available studies lack standardization in measuring crime and calls for service and different units of aggregation have been used (i.e., street segments vs. our 500' cells). In general, however, Portland's overall rate of crime is comparable to the rates seen in cities conducting prior hotspot studies.<sup>14</sup> We have no reason to believe, therefore, that our outcome findings resulted from a lack of opportunity or insufficient criminal behavior to deter.

Similarly, we have reason to believe that Portland largely mirrors other cities when it comes to the degree of geographic concentration in crime. Weisburd (2014) recently analyzed data from

<sup>13</sup> This is an estimate since some grid cells along the city border were truncated in size.

<sup>14</sup> Portland's 2014 UCR index crime rate was 57.1 per 1,000. This compares to 37.4 for Sacramento, 44.1 in Philadelphia, 60.9 in Kansas City, and 79.3 in St. Louis, cities with prior experimental studies on hotspot policing.

five large cities and found that 50% of the crime within each jurisdiction was generated by just 4 to 6% of their respective street segments. In Portland we found that 50% of crime-related calls for service in the 30 months prior to the NI-Loc study happened in 5.6% of our 500' x 500' grid cells. One half of the city's reported criminal offenses were accounted for by just 4.5% of our 500' cells.

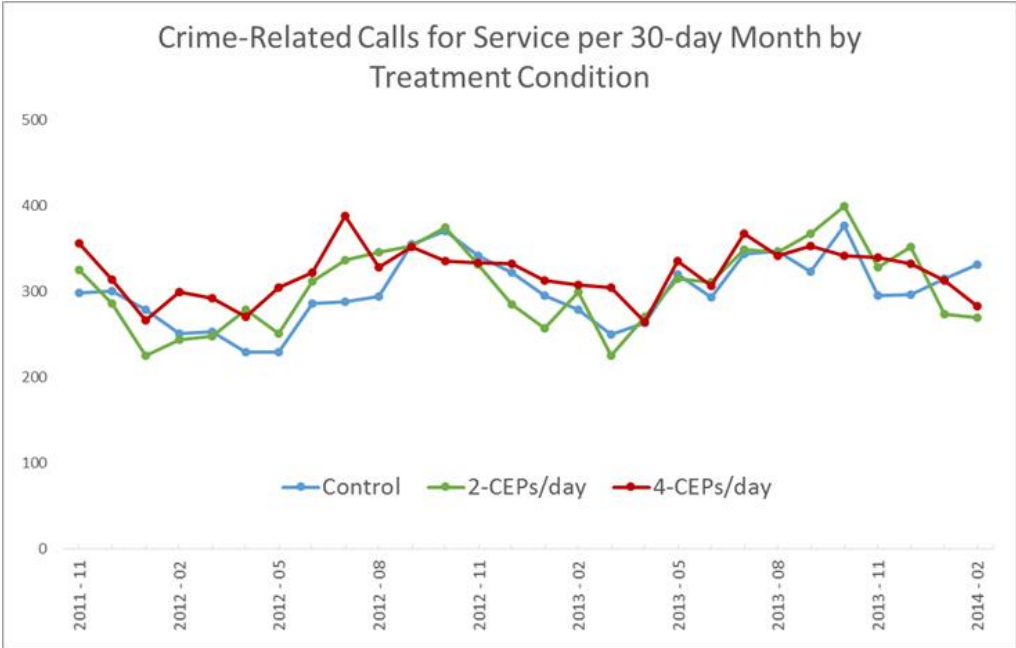
In summary, we do not have any reasons to believe that our outcome findings were the result of insufficient opportunity to affect a change, whether that be from a low crime rate in our targeted areas or a lack of crime concentration in Portland more generally.

**PQ 8: Did the 90 targeted locations have stable levels of crime and calls for service leading into the experiment?**

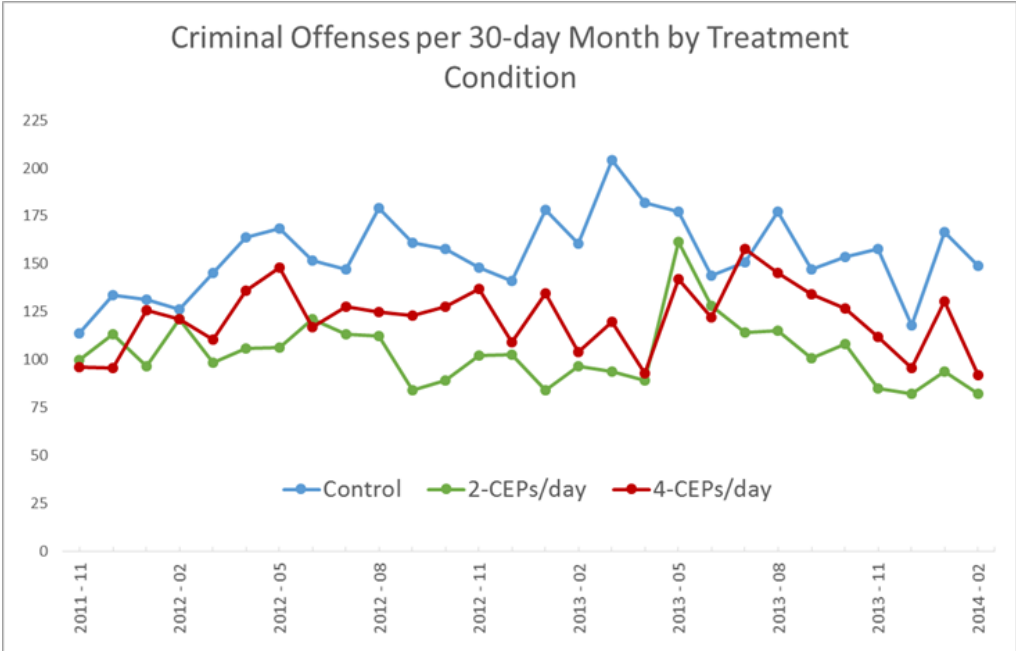
The analyses presented above suggest that our 90 NI-Loc cells had relatively high levels of crime and calls for service in the 30 months preceding the launch of the experiment and that the level of concentration in crime in Portland is comparable to other jurisdictions. This does not ensure that these sites had stable levels of crime that remained high immediately preceding our supplemental CEPs. If the baseline for crime dropped significantly in the NI-Locs before they started receiving the CEPs, then our capacity to further impact antisocial behavior may have been diminished.

Indeed, during the experiment several sergeants complained that some of our NI-Loc sites had little crime and they questioned why officers were being sent there 2 to 4 times per day. Qualitative investigation into these sites revealed that a few had indeed gone "cold" shortly before the study began due to the closure of the business contributing to the area's crime. In other cases, patrol officers were unaware of the crime in the area due to online reporting. A NI-Loc near Portland State University, for example, had a high rate of bicycle theft and most victims chose to report their loss through PPB's online system. Officers patrolling these areas were not routinely informed of these incidents.

In theory, randomization should have accounted for any differences in the offending trajectories of the 90 NI-Locs. Areas with rapidly decreasing crime, those with stable levels, and locations with rising offense rates should have been equally distributed between the three treatment conditions. Nevertheless, we wanted to verify that these areas had comparable baselines for crime and calls for service leading into the study. To conduct these analyses, we used offense data and crime-related calls for service from the prior 30 months (Nov 2011 through Feb 2014).



As seen in the chart above, crime-related calls for service leading up to our study was fairly stable for all three of our intervention groups (control, 2 CEPs/day, 4 CEPs/day). Similarly, the chart below shows relatively stable trends in criminal offenses leading up to the start of our study in March 2014.



Looking more closely within each treatment condition we found that most of the individual NI-Locs also had relatively stable levels of crime in the two years leading up to the study. With calls for service, for example, 20 out of the 30 NI-Locs in the control condition had less than a 25%

change in calls over the prior two years (March 18 to September 13 for 2012 and 2013). This compares to 16 and 23 of the NI-Locs in the 2 CEPs/day and 4 CEPs/day conditions. Only two NI-Locs in the control condition and one per CEP group saw a year-to-year drop of 25% or more. More commonly, calls for service increased over time.

These data indicate the crime and calls for service in our 90 NI-Locs were relatively stable leading into the current study period. As such, there should have been ample opportunity to positively impact offending in these areas.

### **PQ 9: Did the CEPs happen during peak crime periods in the targeted locations?**

Another explanation for our findings with regard to crime and calls for service is that our CEPs were not scheduled at peak crime periods for the NI-Locs. The likely causal mechanism by which supplemental police patrols impact crime is local deterrence (Sherman et. al., 2014). Most people are hesitant to engage in criminal behavior in the immediate presence of an officer due to the perceived risk of apprehension. It also stands to reason that the presence of offenders in a given hotspot varies over time of day, due to temporal patterns in guardianship, the availability of victims/targets, and offenders' routine activities. In theory, therefore, the benefits of police presence in a hotspot should be maximized when officers time their visits to coincide with an area's peak criminal activity. As stated by Sherman and colleagues (2014; pg. 105), "The greater the proportion of total time that police are visibly present in a hotspot, the less frequent or serious crime will be within that hotspot, **especially during higher crime hours.**"

Under ideal circumstances PPB's crime analysts would have identified the unique temporal pattern for each NI-Loc and then scheduled the area's CEPs to coincide with the hours of peak activity. Practical considerations made this unfeasible. Care had to be taken to avoid shift changes and overburdening officers with too many calls per district and precinct. Rather than individually matching the areas, the analysts examined the aggregate temporal distribution of calls for service and offenses during the approximate study months (March to August) for the preceding years. They used the findings as an additional input when scheduling the CEPs.

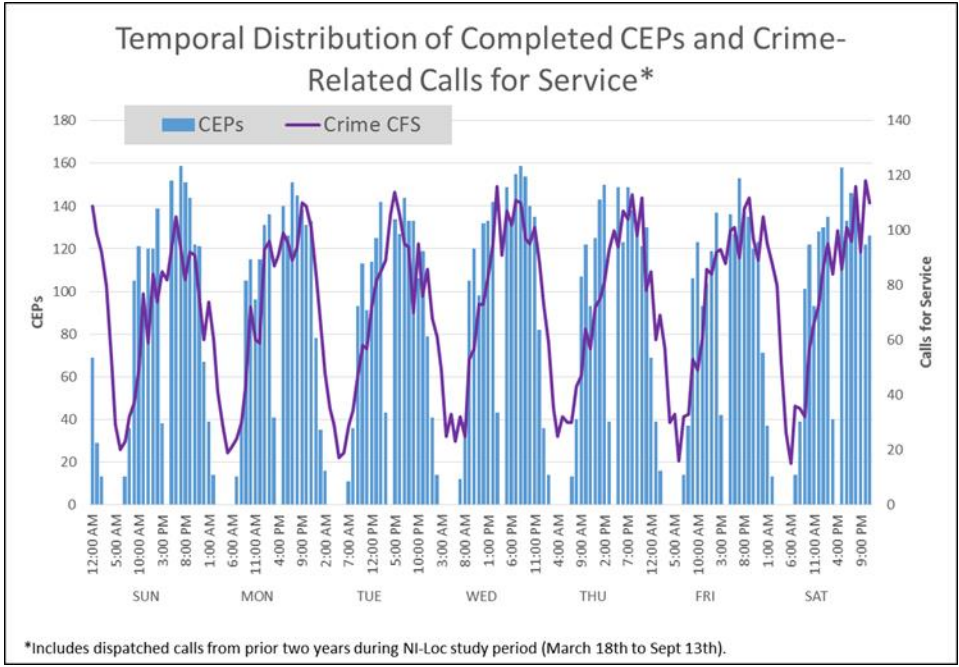
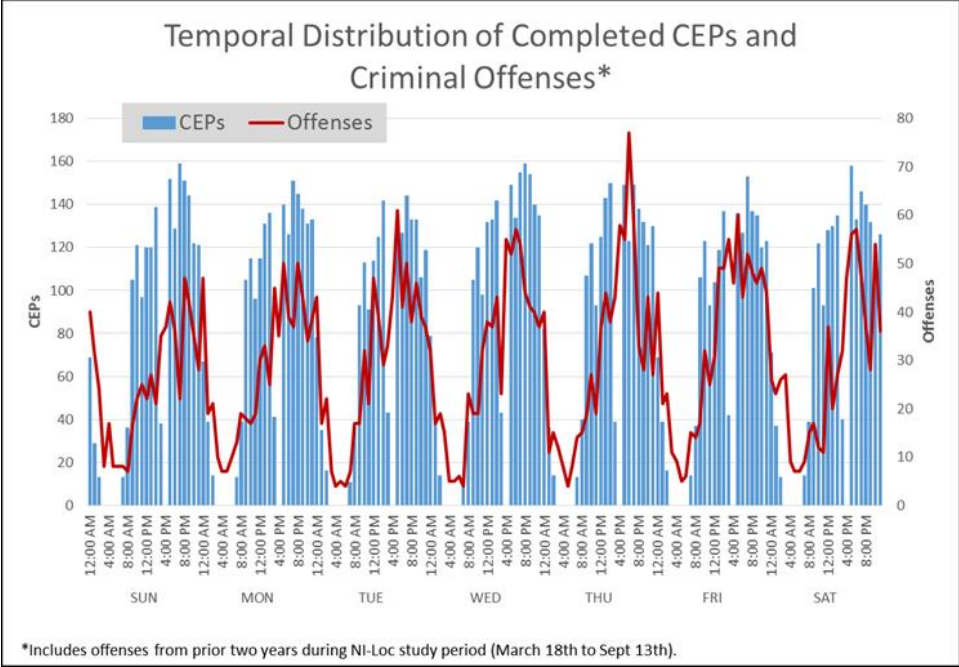
The research team used a similar procedure to assess whether the CEPs delivered were appropriately timed to coincide with crime in the NI-Locs. The two figures below show the distribution of completed CEPs during the study as a function of time of day and day of week. The first chart contrasts the timing of the CEPs with criminal offenses<sup>15</sup> in the target locations for the two years prior to NI-Loc (matched to the actual intervention dates of March 18<sup>th</sup> to September 13<sup>th</sup>). The second chart provides the same comparison for crime-related calls for service in the two preceding years.

The two charts reveal some discrepancies in the distribution of CEPs versus calls for service and criminal offenses in the NI-Locs. As noted previously, no CEPs were scheduled during the shift change from morning to afternoon. Second, crime and calls for service continue, albeit at a lower

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<sup>15</sup> Our only option here was to use reported times which, depending on the crime involved, may or may not be a good representation of when the crimes were actually committed. The same is true for calls for service - the charts show the time that a complaint was received, not necessarily when the behavior occurred.

level, into the early morning hours, but no CEPs were issued from 3:00am to 6:00am. Third, a more subtle difference in the timing of the CEPs versus crime can be seen in the later morning and early afternoon hours. The crime analysts distributed the CEPs more equally across the two daytime shifts, whereas crime shows a more pronounced increase during the later afternoon and evening hours.



In summary, we found mixed evidence that the CEPs were scheduled to coincide with the peak crime periods in the target locations, and hence maximize the potential deterrent benefits of additional police visibility. While the overall temporal pattern for the CEPs was consistent with the patterns seen for crime and calls for service in the preceding years, there were some points of discrepancy introduced by the practical limitations of scheduling 16,200 supplemental patrols during the police bureau's busiest time of the year. Nor were the CEPs for a given NI-Loc specifically tailored to match that location's unique crime pattern. Whether this impacted the ultimate effectiveness of the NI-Loc program remains unclear and future studies should address this aspect of policing in hotspots.

Our experience with the NI-Loc program in Portland, however, suggests that there will be considerable practical, technical, and theoretical challenges in perfectly matching supplemental patrols to peak crime periods in hotspots. First, areas differ in the degree to which crime temporally clusters. Offenses in the area surrounding a bar may spike in the later evening to early morning hours, whereas crime in a residential location may be more equally dispersed throughout the day. Second, areas may have seasonal or day of week fluctuations in crime that necessitate different patrol assignments over the course of an intervention. Third, temporal patterns vary for different types of crime. Residential burglary peaks during daytime hours, whereas street robbery spikes at night. This would force analysts to prioritize certain offenses over others. Fourth, local deterrence requires that officers show up before crimes actually occur. Identifying the exact times of occurrence for an area's prior crime is difficult, often impossible with some offenses. Fifth, we know very little about the tradeoff between visiting a location several times versus concentrating all of the supplemental police presence to coincide with an area's peak offending period. Finally, there is the administrative challenge of having sufficient patrol resources to: a) handle the high call load during peak crime periods, and then b) deliver supplemental patrols during these same times. It is perhaps for these reasons that most of the prior studies on hotspot policing have failed to rigorously implement this element of Sherman and colleagues' theory (2014).

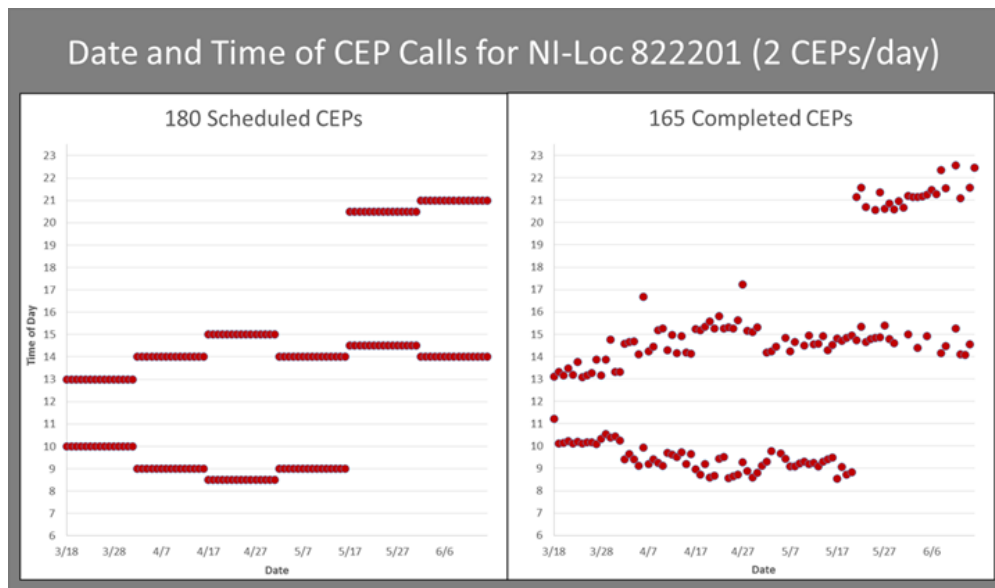
### **PQ 10: Were the CEPs scheduled to avoid being predictable to potential offenders?**

Another proposition made in Sherman and colleagues' (2014; pg. 105) theory of hotspot policing concerns the predictability of supplemental patrols: "The greater the objective unpredictability and the publicly perceived uncertainty about when and for how long police will appear and remain in a hotspot, the less frequent or serious crime will be within that hotspot." Perhaps in the NI-Loc experiment, the timing of the CEPs was too patterned and offenders quickly adapted by shifting their criminal activity to the periods when officers were unlikely to arrive.

The only data available to us for answering this question came from the CAD data on the CEPs. Because all of the calls were pre-programmed, we know exactly when each call was issued through dispatch. Moreover, the CAD system's "on scene" time/date stamp could be used to determine when officers actually arrived in a NI-Loc for the CEPs that were successfully completed.

The police bureau’s crime analysts sought to balance practicality with variability when scheduling and manually uploading the CEPs into the CAD system. Within each NI-Loc, they scheduled the first 15 days’ worth of patrols for the same time of day, with no differentiation for day of week. After 15 days, the time of day was changed - sometimes earlier, sometimes later, sometimes both since there were multiple CEPs scheduled for each treatment NI-Loc. Several factors influenced the direction and amount of time a NI-Loc shifted, including the proximity to shift changes and early morning hours (3:00 am to 6:00am), the balance in number of patrols across shifts, and the distribution of calls by district and precinct. In other words, the shifts were largely done to satisfy administrative considerations. This process was repeated at 15 day intervals until all 90 days of active intervention for the given NI-Loc were scheduled.

The figure below demonstrates the result for a single NI-Loc (#822201) that was in the 2 CEPs/day condition. The chart on the left shows the distribution of scheduled calls, 180 in total. For the first 15 days, dispatch calls went out at 10:00am and 1:00pm. After this, the calls shifted to 9:00 am and 2:00pm and so on.



As shown in the chart above, the initial scheduling process introduced some degree of unpredictability with regard to the timing of the CEPs. Additional variation was gained by the fact that some CEPs were cancelled as previously discussed. Moreover, because the CEPs were considered lower priority, there was often a delay between when the call came out via dispatch and when officers actually took the call and arrived on scene. This variability is demonstrated in the chart to the right depicting the on-scene time for the 165 calls completed in this NI-Loc.

Unfortunately, we lack comparable data from prior hotspot studies that could be used as the basis for comparison with our patrol intermittency. Nor does Sherman and colleagues’ (2014) theory provide sufficient guidance to evaluate whether our patrols were sufficiently dispersed to

introduce uncertainty in the minds of offenders in our targeted locations.<sup>16</sup> A visual analysis of the chart above for several randomly selected NI-Locs suggests, however, that the predictability of our patrols at a street level was probably quite limited, particularly in the 4 CEPs/day condition, where fewer temporal gaps were possible. In short, we do not believe our null findings with regard to crime and calls for service are attributable to this factor.

### **PQ 11: Were the 90 NI-Loc locations selected amenable to community engagement, the primary directive given to patrol officers?**

Sherman and colleagues (2014) argue that the deterrence potential of supplemental police patrols is maximized when officers actively engage with residents in targeted hotspots (e.g., stops, searches, citations, conversation). Locations differ, however, in the number and type of opportunities they present for community engagement. For example, a busy intersection may provide many opportunities for traffic stops but fewer opportunities for talking with residents outside of an enforcement context. Maybe the NI-Loc failed to impact crime and community attitudes because the locations selected for the program presented officers with limited opportunities for engagement.

Mirroring that practice in prior hotspot policing studies, NI-Loc used data on prior calls for service and offense reports to identify the program's 90 500' x 500' study areas. This approach to selecting target areas proved insufficient, at times misleading, in determining appropriate locations for community engagement. In our focus groups officers noted several factors that may have rendered some of the NI-Locs less amenable to the types of community engagement sought by the Chief.

First, officers noted that conversations with citizens were difficult to initiate in some locations. An officer offered a gas station as an example of a location that was unproductive. Specifically, people at a gas stop are not likely to be positively disposed to engagement by an officer. The effort to engage there would seem awkward, inauthentic and uncomfortable for both officers and residents. In fact, it could even backfire and result in a negative experience. By contrast, some NI-Locs included a public park and these sites provided more opportunities for productive engagement. Considerations such as these were not taken into account when selecting the 90 NI-Locs.

Second, is location receptivity: Just because a location has been deemed a NI-Loc does not mean that residents there were ready for, or receptive to officers' efforts at positive community engagement. People living in high crime areas are often dissatisfied with the police and blame them for not doing more to address public safety. Other residents in these areas may have been subjected to repeated investigative interactions that negatively impact their attitudes towards the police. Finally, the demographic makeup of higher crime areas typically includes residents who have less favorable views of the police (e.g., younger, lower SES, minorities; Renauer, Kahn, Henning, & Stewart, 2014). All of this made it harder for officers to anticipate how their attempts at engagement in the NI-Locs would be received.

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<sup>16</sup> We should also note the inherent challenge in achieving unpredictable patrol visits and scheduling the patrols to coincide with the area's peak crime period.



An example from a focus group illustrates this issue: Employees from a major bookstore in one of the NI-Locs would come out and asked the officers for a business card whenever they were at the location for more than ten minutes. The officers felt the employees were taking note of “lazy” officers who were talking to people passing by. The employees did not ask the officers what they were doing and, when the officers tried to engage the employees, they would walk off. Another officer noted that some businesses did not like having officers “hanging around” for fear their presence would send the wrong message to customers. This resulted in the business asking the officers to leave.

A third factor affecting community engagement in the NI-Locs was time. The scheduling of CEPs in the CAD system did not take into account the opportunities for engagement at different times of day. Some types of engagement that may be appropriate at 1:00 pm in a given location may be less so at 1:00 am. Moreover, officers felt that the residents they encountered in the late evening hours were less receptive to engagement than those they encountered during the daytime. As one officer put it, “At 3 in the morning they want nothing to do with me.” Finally, fifteen minutes may not have been enough time to engage in a meaningful communication in some instances and may have been too much in others.

If citizen engagement is a truly a critical component in the success of hotspot policing, then some of our findings may indeed be attributable to the fact that the NI-Locs varied with regard to opportunities for meaningful communication between officers and residents. Officers were instructed to prioritize non-investigative interactions and limit enforcement activities. This may have been difficult in some NI-Locs due to the factors noted above, resulting in officers having limited contact with residents. Communication between police and residents of the type sought by the NI-Loc program may also require bi-directional commitment or consent. Officers in the focus groups noted that residents and businesses in the targeted areas were never asked if they wanted more police activity. As a result, some officers sometimes felt that their efforts to engage residents generated hostility and distrust. These are certainly issues that need to be considered moving forward with research in this area.

### **PQ 12: Were officers fully informed about the goals for NI-Loc and trained in community engagement?**

Research in the field of implementation science finds that otherwise effective interventions often fail to achieve their desired outcomes due to deviations in program fidelity. Specifically, the outcomes achieved (or not) by a given program are highly dependent upon the quality of services that were delivered by participating staff members (Carroll et al., 2007). In the context of NI-Loc, this means the time officers spent in the NI-Locs, the quality of their engagement with community members, the supervision provided by sergeants, and the overall leadership of PPB’s command staff. If PPB’s officers, sergeants, and commanders were misinformed about the program, insufficiently trained for the intervention, or if the program generated a high degree of resistance within the agency this might account for some of our findings. Process questions 12 and 13 are devoted to addressing this issue.

With regard to information and training, an implementation plan was developed and launched following Chief Reese's final approval of the program. This plan consisted of:

- Three presentations to the PPB general staffing meetings, attended by most lieutenants, captains, commanders and other senior command.
- A thirty-minute training delivered at the PPB Sergeants' In-Service (attended by all PPB sergeants). This covered the theory and science behind the hotspot policing. It also focused on both the potential for crime reduction and survey data which demonstrated that most PPB/community interactions were positive.
- Two "Tips and Techniques" training documents delivered to all PPB officers, sergeants and command staff via email. The second document outlined the purpose of the program and updated the goals regarding increased community engagement.
- 25+ informal coffee sessions with patrol sergeants during which Sgt. Stewart (Crime Analysis unit and PPB's lead on the program) addressed questions about NI-Loc.
- An information flier delivered to the mailbox of all PPB patrol officers. This was done in response to initial confusion regarding program goals. It included the emphasis on community engagement, provided examples of potential activities for the NI-Loc calls and provided contact information for those with additional questions.
- Dissemination of program information via the mobile data terminals (MDTs) in patrol vehicles. This included access to all of the print material noted above as well as maps and information on each of the treatment NI-Locs.

All of the print material and training sessions sought to reaffirm the Chief's expectation that officers would use the CEPs to actively engage with community members. Likewise, the trainings covered the benefits of police/community interaction and argued that building trust through engagement with community members is a core function of 21st century policing.

Unfortunately, the surveys and focus groups with PPB's sworn officers suggest that these efforts were insufficient. Large numbers of officers remained confused, ambivalent and/or conflicted about the purpose of the program. During the focus group, officers were asked what they believed were the goals of NI-Loc. Officers expressed a range of views, from crime reduction, improved public safety, operational efficiency, to building relationships with residents and identifying problems in neighborhoods. This range of opinions surfaced in all three focus groups and indicated a lack of agreement and clarity rather than a planned multiplicity of purposes on the part of program administrators. Focus group participants reported that this confusion led to an inconsistent response on the part of officers. While some officers handled the calls with fidelity to the chief's intent, others used the calls to focus on paperwork in their vehicle rather than community engagement.<sup>17</sup>

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<sup>17</sup> As discussed previously, CAD data documenting officers' actions during the CEPs was unreliable so we cannot accurately quantify the proportion of calls that involved actual contact with residents/businesses.

Responses from the officer survey reveal similar confusion over the NI-Loc program’s key objective. Specifically, the bureau’s sworn officers were asked, “What was the primary goal of the recent NI-Loc project?” The table below documents their answers to this question broken down by rank. Command staff (i.e., lieutenants and higher) answering this question were the only group to identify improving police-community relations as the primary goal (53%). Only one-third of patrol officers (32%) and one-quarter of the sergeants (24%) surveyed thought community relations was the focus. More commonly they believed that the NI-Loc program was seeking to reduce crime and calls for service.

**Perception of NI-Loc Program's Primary Goal**

	<b>Officers (n = 113)</b>	<b>Sergeants (n = 41)</b>	<b>Lieutenants+ (n = 17)</b>
Improve police-community relations	32%	24%	53%
Reduce crime and calls for service	48%	68%	41%
Something else	20%	7%	6%

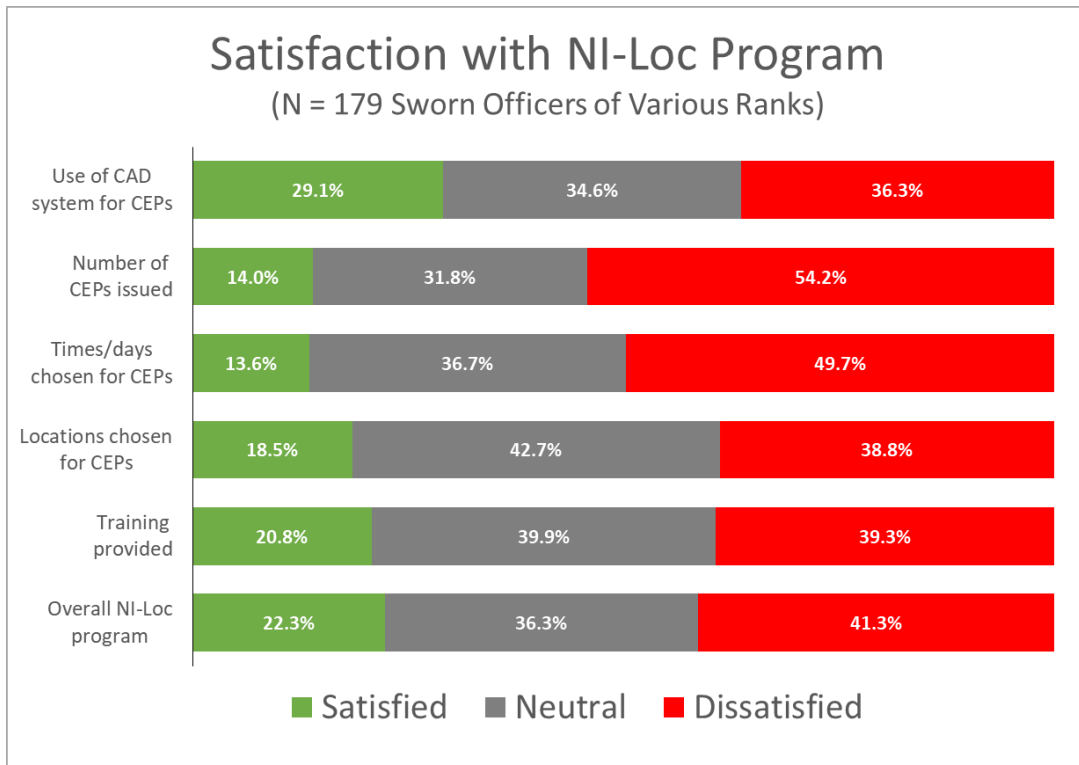
These findings probably reflect some of the adjustments made to the NI-Loc program during the pilot testing and initial rollout. Early discussions within the bureau and the pilot test focused on the use of “high visibility patrols” to reduce crime and calls for service. Improving police-community relations was seen initially as a secondary goal. Later, the program was reoriented to focus on community engagement as a mechanism to: 1) improve police-community relations, and 2) decrease crime and calls for service. The transition included renaming the call in the CAD from “Hotspot” to “NI-Loc” patrol.

This early shift in focus appears to have created confusion at lower levels of the organization. Command staff members, received multiple briefings, and as a result were better informed about the change. We also learned that some of the bureau’s traditional methods of outreach to officers, such as email blasts and roll call announcements, may be inadequate for communicating key information about a new patrol initiative. Officers received several messages about the revised program focus, but many appear to have ignored, forgotten, or been confused about the change.

**PQ 13: Were officers supportive of NI-Loc? Did they see value in the effort?**

Survey data collected from PPB’s sworn officers (N = 179) found a high level of dissatisfaction with the program as a whole. This includes 19.0% of respondents who were “very dissatisfied” and 22.3% who were “dissatisfied”. Less than one quarter (22.3%) of the respondents said they were satisfied, while the remaining group (36.3%) were neutral about the program (see figure that follows). Overall satisfaction with NI-Loc varied considerably by rank. All of the command staff were either neutral (31.3%) about the program or satisfied to some degree (68.8%). By

comparison, one-quarter of sergeants (28.2%) and one-half of the patrol officers (50.8%) were dissatisfied (satisfied = 23.1% and 16.1% respectively). Additional analyses using just officers who took CEP calls found that support for the program was greater among newer officers, those who believed the goal of the program was community engagement, and those who spent more time outside of their vehicle during the CEPs (Renauer et al., 2015).



The survey also explored officers’ opinions about specific elements of the NI-Loc program. As shown in the figure above, the highest level of dissatisfaction (54.2%) was found for the number of CEP calls issued per week, followed by the days/times the calls were issued (49.7%), the training provided (39.3%), and the locations targeted (38.8%). The highest level of satisfaction (29.1%) was for use of the CAD system to dispatch officers on the CEPs.

Qualitative data from the focus groups and open-ended survey questions provided additional detail on officers’ concerns about the NI-Loc program. Provided below are summaries of key themes observed in these data.

**Workload** –The most prominent theme from the qualitative data was the experience of NI-Loc as burdensome. The Chief’s intent for the program, as communicated to officers via a Tips & Techniques bulletin, was to “*carve out dedicated time for officers to engage with community members in areas that are experiencing high volumes of crime and/or livability concerns.*” From the officers’ perspective, there was no “carving out” from their current workload to accommodate the new calls. No additional officers were made available to handle the 5 to 10%

increase in call-load generated by the NI-Loc program. Not surprisingly, this resulted in a lot of frustration among patrol officers. When asked about their least favorite aspect of the program, officers responded as follows:

- “The amount of NI-Loc calls was absurd.”
- “Officers are professionals and they felt anxiety when they could not service the NI-Loc Calls. There were simply not enough officers to be everywhere they needed to be. “
- “The concept is a good idea but it was not implemented well and we are not staffed well enough to do this project the way I believe it was intended. Most of the calls would hold because there were high priority crimes happening at the time the calls came out. In order to make this work, you would need twice as many officers in each of the districts that have NI-Loc locations. Half to take the high priority calls and half to be out in the community trying to prevent the ones that are occurring now. “
- “NI-Loc was a burden and added to an already busy shift. We are understaffed and don't have time to really get out of the car and talk to people or business owners in a manner that would be beneficial. The NI-Locs were seen as a nuisance by officers and were not taken seriously. Many times they were used as a way to catch up on police reports without being interrupted. If you had many more officers this program might have worked but it did nothing to combat crime or make people feel safer.”
- “The Portland police do not have the staffing to really make this program work, we have districts and areas that have no officers assigned on a daily basis, officers are also being asked to do more investigation work on cases which take them off the street more, it's just not a priority to the city, Community policing is a term used but rarely supported.”
- “The community involvement piece, that is a big reason this program was started, is the type of police work good officers were doing before this program. There were also way too many of these calls. We need 200 more patrol officers to be able to handle all of the NI-Loc in a timely manner along with all of the usual calls for service.”

**Buy-In** – Patrol officers in the focus groups perceived a lack of buy-in from their peers and command staff. Despite associating NI-Loc more with the leadership, they shared that command staff and street-level supervisors were not always supportive of the program. They reported that command was inconsistent in holding officers to account for CEP calls and were inconsistent on the message and purpose of NI-Loc. Officers also shared that some of their fellow officers did not adhere to the program’s intent or take the CEP calls seriously. Officers shared stories of their peers using NI-Loc calls as an excuse to do nothing, catch up on paperwork, etc. These behaviors were not challenged by supervisors or command staff. A few quotes from the survey help to illustrate this issue:

- “Hindsight is always 20/20, but I think this thing could have been sold better. There was a lot of grumbling at the precinct about these calls. While I appreciated them,

not all of my peers did, and I think one of the main reasons for this was the telling rather than asking.”

- (least favorite thing about the program) “All the bitching by cops for taking these calls and supervisors for cancelling these calls without reason.”
- “I feel that the program encourages de-policing. Many officers seemed to use it as an excuse to sit in their car and do nothing for 20 minutes.”

**Deprofessionalization** – On an emotional level, buy-in was also affected by what the officers felt NI-Loc, indirectly, communicated to them about their work and worth. This theme is reflected in sentiments such as feeling sidelined, that the program was “a slap in the face” or “big brother” telling officers how to do their job. Many officers feel that they are the experts on their district and its problems. They work hard to build relationship with residents in their district and would have liked to have input during the selection of the target areas. NI-Loc trespassed on that ownership and undermined their sense of worth as an officer.

- “My problem is that NI-Loc didn't have us doing anything we shouldn't already be doing as a good district officer. Knowing our business owners, employees, and problem areas are basics of knowing our area.”
- “This program assumed officers would engage with the community in a new, dynamic way because of this directed patrol. I would argue that real District Patrol Officers already do this, know the people, what they do and when they do it. The mayor and other politicians within this organization have diminished the role of a patrol cop to entry level employment and NOT a profession.”
- “NI-Loc is a complete and utter waste of my time. I work my district. The only thing NI-Loc did was interrupt my ability to address the issues in my district that are really important. Instead of me dealing with the real issues in my district, I had to go to locations that statistically indicated there was a problem, but was not a problem that has been identified by members of the community.”
- “As a district officer I am already plugged into the ‘problem’ areas and am present in them throughout the shift. I didn't like being told when I had to be in those areas (randomly) and where the areas were, specifically when some of the NI-Locs were not even problem locations.”
- “I felt as though sometimes they (CEPs) were designed to make certain officers more proactive. I feel you can learn more about your district by doing regular patrol as opposed to having a computer create a call that tells you to go somewhere and ‘hang out’ for fifteen minutes.”

**Centralization** - Officers perceived NI-Loc as an experiment conceived by “pencil pusher(s)” and central command staff using “big data.” This centralization of decision-making and use of data analysis generated resentment among some officers. A lot of this anger centered upon the selection of target areas without input from street-level officers.

- “It felt like a smoke-and-mirrors stunt. I appreciate getting out and talking to people, but don't need to be mandated to do so on a certain street corner of the city.

I know where and when to stop and talk to people without a call being held in our dispatch queue.”

- “The locations chosen for NI-Loc are ridiculous. They should have been based on actual problem areas. Instead you had officers sitting in locations where nothing was going on and businesses were closed. The program is a failure because the locations chosen made no sense.”
- “The initial NI-Loc locations were chosen apparently at random with no consideration for where crime occurred or what type of crime was occurring. The second batch were, admittedly, better but still limited the ability for an experienced community police officer to recognize what is going on in his or her district that night at that time and adjust patrol effectively.”

Officers also questioned the timing of the CEP calls and noted accurately that the calls were not scheduled to coincide with each location’s unique temporal pattern.

- “Working Night shift, some of the NI-Loc areas had little or no vehicle and pedestrian traffic.”
- “It seemed that the time of day was not figured into the automatic generation of these calls. All the times I went to these, there was no one in the area. The businesses had closed, and there was no pedestrian traffic.”
- “NI-Loc calls popped up way too frequently especially in the busiest parts of the day, and we did not have time to properly address the area.”

A final concern was that the program administrators had not sought community input when designating the NI-Loc areas. Some officers felt like they were being asked to make “cold calls” without prior consent from the residents or businesses in the area.

- “The neighborhood that was chosen in my patrol area has no interest in relations with police, and was predominantly non-English speaking.”

**Ambivalence** - Ambivalence captures the final theme from the focus groups and surveys. Officers felt ambivalence toward NI-Loc due to the unclear relationship between the CEPs and what they perceive as their primary duty: responding to 911 calls and enforcement. Taking a CEP call impeded this function and left officers worried about the reaction by supervisors and peers who might have to take incoming calls during their absence. Additional ambivalence stemmed from the doubt that community engagement by patrol officers could improve community relations and prevent crime.

- “It (NI-Loc) took us away from our primary purpose as patrol officers which is to be available to answer calls for service and be on patrol for traffic issues, etc. instead of focusing on one particular location.”
- “Being forced to ‘meet the community’ at specific times and locations is not police work. Maybe for command staff but not patrol. During peak busy times calls for service should take precedence rather than an arbitrary call that relies on someone else's idea of making friends.”

**Contrary Views** - While the dominant refrain in our surveys and focus groups was frustration with the various elements of the program, for a small minority of officers NI-Loc represented a welcomed change from the normal routine. These officers felt empowered to do more community engagement and appreciated the opportunity to redefine the traditional definition of police work.

- “(NI-Loc) provided a good opportunity to meet citizens in a high crime area. It also highlighted areas of high crime that I was not familiar with, due to not having patrolled that area previously.”
- “It was a good reminder to get out and spend some time with the citizens. I handed out A LOT of stickers to kids.”
- “I liked the opportunity to reach out to people in a specific area for a designated amount of time. “
- “It was nice to have time dedicated to getting out of our car and interact with citizens/businesses.”
- “It was nice to have focused time to meet with businesses near the NI-Loc. They all told me that they noticed a difference at deterring the criminal element.”

Other officers (and police supervisors) expressed that the program was helpful, at an organization level, in promoting more officer to engage in community policing. These officers, sergeants and lieutenants tended to believe in community policing and saw this as a mechanism to help focus their peers or subordinates build relationships in the community.

- “Many good officers do this every day, but from a management perspective it is hard to get all of your officers to do this without micro managing. NI-Loc was a great mechanism to encourage this activity.”
- “(NI-Loc was good at) making officers get out of their cars and contact people in the community that they normally wouldn't speak to.”
- “I think it forced some less motivated officers to have more community interaction.”
- “Provided opportunity for my officers to engage the community in other than enforcement actions.”
- “I believe the idea is to improve police-community relations, and I think we are far behind and have not put much effort into building relationships with many marginalized groups. I like ANY idea that promotes the relationship-building in communities.”
- “I liked the idea of getting officers out of cars and interacting with community.”

In summary, our focus groups and surveys found that most patrol officers were dissatisfied with, or at best, ambivalent toward the NI-Loc program. Their feedback highlighted a number of reasonable concerns including insufficient: a) staffing to handle the call load, b) training in community engagement, c) communication about program goals, and d) input from street-level officers and residents. The degree to which these issues and the officers' overall feelings about NI-Loc impacted the outcome findings is difficult, if not impossible to accurately assess. Officers still completed most of the CEP calls despite their dissatisfaction with the program. In



fact, they ended up delivering a higher dosage of supplemental patrol time than was originally planned. Fidelity with regard to the community engagement directive is more suspect. Some officers reported using the CEPs to interact with residents and business, but others appear to have cleared the calls with minimal if any direct contact with community members. Future efforts to evaluate the impact of non-investigative interactions between police and residents need to address some of the challenges we report above.

## DISCUSSION

### Summary of Findings

The NI-Loc program was an ambitious effort on the part of the Portland Police Bureau to address local concerns about police-community relations and high crime in select areas of the city. Moreover, the agency and their academic partners wanted to contribute to the scientific literature by testing a new model of hotspot policing, one that sought to simultaneously reduce crime and improve residents' attitudes toward the police by focusing on non-investigative contacts (e.g., Engel & Eck, 2015). The resulting intervention sent officers on 13,146 supplemental community engagement patrols (CEPs) to 60 high crime areas in the city over a period of seven months in 2014. These treatment locations received either two ( $n = 30$ ) or four ( $n = 30$ ) CEPs per day in an effort to evaluate the relationship between dosage and outcomes, an important gap in the extant literature on policing crime hotspots. Another 30 locations were randomly assigned to the control condition. Considerable efforts were taken to implement the program with a high degree of fidelity and maximize its impact by incorporating elements of Sherman and colleagues' (2014) theory of hotspot policing.

When assessed solely based on key outcome measures, the program did not generate the results that were predicted. Neither offenses nor crime-related calls for service were lower in the treatment areas as compared to the control locations. And, while residents in the treatment areas did report seeing police in more locations within their NI-Loc and having additional positive contacts with officers, the CEPs in aggregate were not associated with more positive attitudes toward the police or higher ratings of perceived safety.

Although these findings clearly deviated from our hypotheses and prior meta-analytic work on hotspot policing, this is not the only study to produce null effects with regard to crime or public perceptions (e.g., Braga, Papachristos, & Hureau, 2012; Ratcliffe et al., 2011; Weisburg et al., 2015). The question that remains largely unanswered in the literature is why some of these interventions led to positive changes in hotspots while others, including the NI-Loc program, did not.

With regard to NI-Loc, we believe that several factors may have contributed to our (mostly) null findings. The biggest factor is likely the level of patrol dosage that we delivered in the target locations. In designing the program, we sought to balance statistical power (i.e., a large sample size) with the resource limitations affecting Portland and many other law enforcement agencies. Police agencies rarely have sufficient personnel to place two officers in each hotspot for their entire shift, as was the case in Ratcliffe, Taniguchi, Groff, and Wood's (2011) study in

Philadelphia. We opted for two dosages that could be delivered in Portland without additional patrol resources, something we thought at the time might be sustainable with a smaller number of target locations. Unfortunately, 30 to 60 minutes of supplemental patrol may not be enough to achieve statistically significant reductions in crime or calls for service nor improve community/police relations.

Other limitations of the original NI-Loc program that may have impacted our findings include confusion among some officers about the primary goal of the program, a lack of training in community engagement, and limited oversight of the patrols to ensure officers were interacting with the public as instructed. Our focus groups and surveys with officers after the experiment, along with feedback during the study, detailed some resentment about the CEPs being added to officers' existing call load. Finally, no efforts were taken to engage residents in the treatment NI-Locs before the study launched. Residents were not asked whether they wanted additional police activity nor were they given the opportunity for input on the type of activities officers did during the CEPs<sup>18</sup>. This may have made it more difficult for officers to develop/improve relationships with the residents in these areas.

### **Implications for Research and Practitioners**

The results from this study and our overall experience evaluating the NI-Loc program lead to several recommendations for future research on policing in crime hotspots. Similarly, the PPB learned many important lessons while implementing the original NI-Loc experiment that shaped how the agency is currently doing community engagement in the city's high crime areas. Other agencies may benefit from reading about these lessons.

#### **1. The recommended dosage, or total time officers spend in a hotspot, necessary to achieve a reduction in crime remains unknown.**

Decisions around dosage for this study were influenced by statistical considerations (e.g., sample size), organizational capacity, and prior research suggesting patrols of 15 minutes per visit (Koper, 1995). While the experiment was highly successful in achieving distinct dosage levels, the average amount of time spent in the treatment locations per day was on the low end compared to other hotspot studies and may have led to our null findings. The patrol dosage necessary to reduce crime remains an open question that will need to be addressed in future studies. Researchers should carefully consider the potential tradeoff in statistical power between 1) a larger sample size and 2) a more powerful intervention (i.e., higher dosage). At the same time, consideration of the longer term sustainability of hotspot policing programs is necessary. Proving that a given dose of patrol reduces crime will be of little use to practitioners if the dose is not sustainable for most agencies.

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<sup>18</sup> To our knowledge, none of the prior studies on hotspot policing have sought to engage residents in target areas and seek their input before sending in the additional patrols. One factor in our decision to not do this was experimental fidelity. We did not want to publicly identify the treatment and control areas because this could threaten the internal validity of our research design (e.g., diffusion, demoralization, compensatory treatment).

### **2. Efforts are still needed to identify hotspot policing strategies that reduce crime while also improving police-community relations.**

In designing the NI-Loc program, we learned early on that some residents negatively associate hotspot policing with stop-and-frisk and racial profiling, although this was not the intended goal of the program. By contrast, “community engagement” was considerably more appealing and matched the bureau’s goals. This led to a shift in the program’s focus immediately prior to launching the experiment. Our hope was that CEPs would achieve multiple goals. By prioritizing non-investigative interactions, we hoped to improve police-community relationships in the NI-Locs. By being highly visible in these areas, we hoped to deter crime. Measurement issues and a lack of training, raise questions, however, about the extent to which “community engagement” was in fact delivered during the CEPs. As a result, our study is not able to provide conclusive evidence for, or against, the use of community engagement patrols in crime hotspots. Consistent with Engel and Eck (2015), we encourage further research efforts to identify police practices that are effective in reducing crime, but are also perceived by residents as equitable.

### **3. Using pre-programmed CAD calls to direct supplemental patrols to crime hotspots is effective and can help ensure implementation fidelity in field experiments.**

Past research has found that patrol officers sometimes deviate from experimental protocols by leaving the targeted area early or by failing to deliver the requested number of visits to a given hotspot (Sherman & Weisburd, 1995; Sorg, Wood, Groff, & Ratcliffe, 2014). Moreover, with but a few exceptions, the available research on hotspot policing suffers from insufficient attention to measurement of the patrol dosage that is actually delivered. This includes imprecise measurement of the daily count of patrol visits and total time spent in the hotspot. Likewise, limited attention has been given to the predictability of patrols and degree to which patrols are timed to coincide with peak crime periods for the target location, factors that may mediate the deterrent value of this strategy.

Our experience during the NI-Loc program suggests that many of these issues can be improved with the use of CAD. Patrol officers are used to their daily routines being partially dictated by dispatchers using a CAD system and research on the adoption of innovative practices finds better outcomes when the new practice deviates less from past activities (Greenhalgh, MacFarlane, & Kyriakidou, 2004). As Braga and Weisburd (2007, pg. 17) put it, “Police most easily adopt innovations that require the least radical departure from their hierarchical paramilitary organizational structures, continue incident-driven and reactive strategies, and maintain police sovereignty over crime issues.”

Another benefit of using CAD is documentation. Safety protocols dictate that officers responding to a call report their exact location, time of arrival, time when they “clear” the call, and in some cases how the call was cleared. Our experience with NI-Loc revealed that significant steps could be taken to improve the documentation of officers’ actions during hotspot or community engagement patrols. This includes providing officers with standardized definitions for, and supervision in, the use of CAD clearance codes. CAD

systems could also be improved for this purpose by adding capacity to enter more than one activity per call.

Finally, the analysts working on the NI-Loc program eventually developed a technique in conjunction with the CAD vendor to batch load thousands of pre-programmed directed patrol calls. In short, researchers and practitioners wishing to implement new hotspot policing program are likely to find that incorporating their CAD system into the process can yield many benefits.

#### **4. Assessing public reactions to new policing initiatives is both necessary and feasible.**

To be maximally effective in their work police must be perceived by the public as trustworthy and legitimate (Tyler, 2006). All too often researchers and police practitioners have failed to assess what impact new policies and practices have on public attitudes. They focus instead on crime reductions or increased arrests, stops, citations, and seizures. New York City's recent experience with "stop-and-frisk" effectively illustrates that use of these metrics alone is insufficient when assessing the cumulative value of a crime reduction program. Hence Engel and Eck's (2015) argument that, "Measures of equity-related concepts (legitimacy, procedural justice, etc.) should be included in all evaluations of evidence-based practices."

In the NI-Loc study, this goal was achieved using community surveys. We mailed paper surveys to 11,760 surveys households in and around the 90 NI-Locs. A separate version of the survey was required for each NI-Loc because we included a map of the area for residents to use when answering questions. While this was a somewhat daunting task, we should note that it was accomplished without external funding as the grant from BJA came after the experimental phase of NI-Loc was largely completed. Costs were reduced through the use of the city's printing services and the academic partners contributed to the project without compensation.

The survey protocol used with the NI-Loc study could certainly be improved. We were limited to a single communication per household as opposed to the more ideal practice of multiple mailings to increase response rates (e.g., Dillman, 1978). Likewise, our evaluation with regard to community attitudes would have benefited from the use of a pre-test/post-test survey design. This would allow us to determine not only whether attitudes were more positive in treatment locations relative to controls, but whether attitudes actually improved over time. Nevertheless, our study demonstrates that community surveys are a feasible approach to assessing public reaction to new policing initiatives.

#### **5. Directed patrols and hotspot policing can be, and perhaps needs to be de-centralized.**

The experimental phase of NI-Loc was run largely from PPB's central administrative offices. Little input was sought from street level supervisors or patrol officers in selecting target areas, determining the dosage levels, selecting the days/times for patrols, or in deciding what actions officers should engage in during the supplemental patrols. As might be expected, this

generated rancor among some officers, particularly those who take pride in managing their district and understanding the pattern of crime in the area. At the same time, some of the supervisors and officers exposed to the NI-Loc program recognized the benefits of using pre-programmed CAD calls to deliver supplemental doses of patrol to areas of need. Other officers we surveyed appreciated the opportunity to focus on positive community engagements during the CEPs.

All of these were valuable lessons for PPB and led the agency to transition NI-Loc from a “top down” to “bottom up” program following the termination of the official experiment. A process was created for officers, sergeants and local command staff to request CEP patrols targeting specific problem areas. Examples include community engagement patrols at high school football games, patrols to city parks during high crime periods, and patrols to deter car prowls in downtown parking garages (see Appendix F for more details). More than 5,000 of these patrols have been dispatched through CAD since the end of the field experiment. Additional research will hopefully be conducted to assess whether a decentralized approach to directed patrol produces better outcomes with regard to crime and community attitudes.

### **6. Community engagement is a two-way street.**

To our knowledge, the NI-Loc program was the first hotspot policing initiative specifically designed to increase non-investigative interactions between police and citizens. Officers were advised to use the CEPs as an opportunity to exit their vehicle, walk the area and greet residents and business owners. Based on the data we collected via CAD, surveys and focus groups, it appears that many officers complied with this directive. Others did not, preferring instead to remain in their vehicle. Data coding challenges prevented us from accurately measuring the distribution of these activities. Nevertheless, PPB learned several important lessons about community engagement from the study. These lessons are detailed briefly below.

- a. Not all hotspots are amenable to community engagement - The NI-Loc areas in the study were chosen based on prior crime and calls for service, along with proximity to other hotspots. We did not take into consideration how much opportunity officers would have to engage with residents. Some of the areas we selected had limited foot traffic. Others, like gas stations, were not ideal for approaching people to strike up a conversation.
- b. Officers are not equally skilled at community engagement - An underlying assumption of NI-Loc was that all patrol officers have the requisite skills for and interest in communicating with residents in ways that enhance trust and legitimacy. Our program might have been more impactful if we had trained officers at the outset and/or the state advanced these skills through the basic police academy. An alternative approach would be to identify skilled communicators in the bureau and have these officers take all of the CEP calls.
- c. Research on non-investigative interactions is limited - Most of the current research and training on procedural justice has focused on improving officers’ communication during

investigative interactions. We found less guidance in the literature on how officers might be able to enhance trust and legitimacy via non-investigative encounters with residents. This is an important oversight given that this type of interaction probably accounts for the majority of an officer's daily contacts.

- d. Engagement requires bi-directional communication - Another assumption of the program was that citizens in the NI-Locs wanted to engage with the police. Communication is clearly a two-way street and some officers reported hostility from residents (e.g., "why are you here?").

One of the adaptations made to NI-Loc after the experiment ended was to start off by surveying households in a given neighborhood. The research team mailed invitations to all households in the neighborhood asking them to complete an online survey. The survey provided a map so residents could identify areas of particular concern. Other questions were used to gauge residents' support for different crime prevention strategies that might be deployed. This information was cross-referenced with crime and calls for service data allowing PPB to identify specific locations in the neighborhood that merited additional police activity. Now when officers or residents question why supplemental patrols are being assigned to a given area there is far greater legitimacy to the efforts. This approach has been used in four neighborhoods to date. Appendix G provides the survey report from one of these efforts.

### **7. Large-scale field experiments require a significant commitment of resources and capital - agencies may benefit from collaboration.**

A final lesson of the NI-Loc program is that some research studies may be too involved or too demanding for a single agency. In an effort to achieve higher statistical power and control threats to internal validity, we selected 90 locations and attempted to deliver 16,200 supplemental patrols over a relatively short period of time. Well over 300 officers participated in the program by completing a community engagement patrol and countless others throughout the agency were otherwise impacted. Based on the feedback we received from PPB personnel and our own observations, this was clearly asking a lot of the officers and agency more generally. It is unlikely that PPB could engage in such an ambitious study again in the near future without seriously impacting employee morale. We suspect this explains why most agencies that have undergone large-scale experiments with hotspot policing appear to have had difficulty sustaining their program over time. Human capital is a limited resource that agencies must judiciously administer.<sup>19</sup>

Moving forward with evidence-based practice in this field might require that agencies and funders collaborate to spread the burden of large field experiments across multiple

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<sup>19</sup> The artificial nature of an experiment is also worth brief commentary. A couple of our treatment locations ceased being "hot" near the start the study when the business that was accounting for the crime was closed or moved. In actual practice this would be addressed by cancelling the supplemental patrols scheduled for these locations. Concerns about violating our research protocol prevented us from doing so. Needless to say, the officers who were sent to these locations 180 to 360 times over the next three months were not pleased.

jurisdictions. This would also benefit the external validity of our research since the findings would result from several locations rather than just one.

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APPENDIX A

Research Dissemination

Conference Presentations

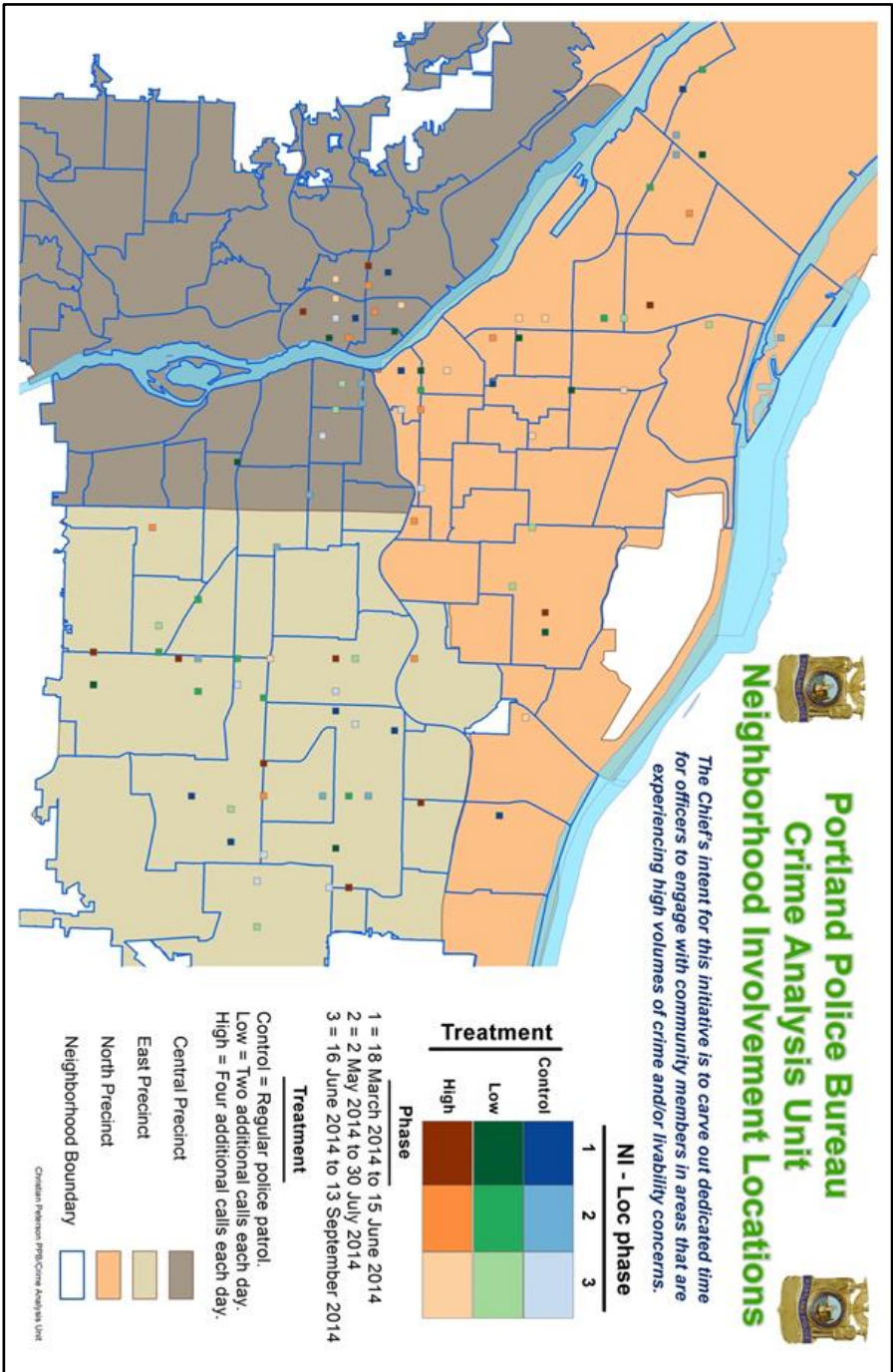
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APPENDIX B

Study Locations



APPENDIX C

NI-Loc CAD Bulletin



**APPENDIX D**  
**Resident Surveys**  
**(next page)**



# PPB Community Survey



Use a pen or pencil to fill in "bubble" answers.

**1. Rate the Portland Police Bureau's (PPB) performance over the past three months on the following activities.**

- Fighting crime .....
- Dealing with problems that concern my neighborhood ...
- Being available when I need them .....
- Understanding the concerns of my community .....
- Building trust with my community .....
- Involving my community in crime prevention efforts .....
- Communicating with the public .....

	VERY GOOD (A)	GOOD (B)	FAIR (C)	POOR (D)	VERY POOR (F)
• Fighting crime .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Dealing with problems that concern my neighborhood ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Being available when I need them .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Understanding the concerns of my community .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Building trust with my community .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Involving my community in crime prevention efforts .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Communicating with the public .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2. Please indicate your level of agreement with the following statements.**

- I expect to be treated fairly by the police in Portland .....
- The police in Portland make decisions that are right for the people in my neighborhood .....
- I trust the police in Portland .....
- I have confidence in Portland's police .....
- The police in Portland treat people like me with respect..
- If I was stopped by the police in Portland I would be treated fairly.....
- I think my values and the values of Portland's police are very similar .....
- The police in Portland use race and ethnicity when deciding whether to stop someone .....
- I worry that the police in Portland may stereotype me because of my race or ethnicity .....
- I would help the police in Portland to identify someone who committed a crime in my neighborhood .....
- I would work with the police in Portland to address problems in my neighborhood .....

	STRONGLY AGREE	AGREE	NEITHER AGREE /DISAGREE	DISAGREE	STRONGLY DISAGREE
• I expect to be treated fairly by the police in Portland .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• The police in Portland make decisions that are right for the people in my neighborhood .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• I trust the police in Portland .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• I have confidence in Portland's police .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• The police in Portland treat people like me with respect..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• If I was stopped by the police in Portland I would be treated fairly.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• I think my values and the values of Portland's police are very similar .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• The police in Portland use race and ethnicity when deciding whether to stop someone .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• I worry that the police in Portland may stereotype me because of my race or ethnicity .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• I would help the police in Portland to identify someone who committed a crime in my neighborhood .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• I would work with the police in Portland to address problems in my neighborhood .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**3. Your survey is *anonymous*. The following questions are included only to help us know how well our results represent all residents in the City of Portland.**

- What is your gender? .....
- What is your racial background? (mark all that apply) .....

MALE	FEMALE	TRANSGENDER			
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
CAUCASIAN/ WHITE	AFRICAN AMERICAN/ BLACK	ASIAN/ PACIFIC ISLANDER	INDIAN/ NATIVE AMERICAN	OTHER	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

• Do you describe yourself as Spanish, Hispanic, Latino? .

NO	YES
----	-----

• What is the **highest** level of education you completed?..

SOME HIGH SCHOOL OR LESS	HIGH SCHOOL DEGREE/ GED	SOME COLLEGE BUT NO DEGREE	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE OR HIGHER
--------------------------	-------------------------	----------------------------	--------------------	-----------------------------

• What is your age?.....

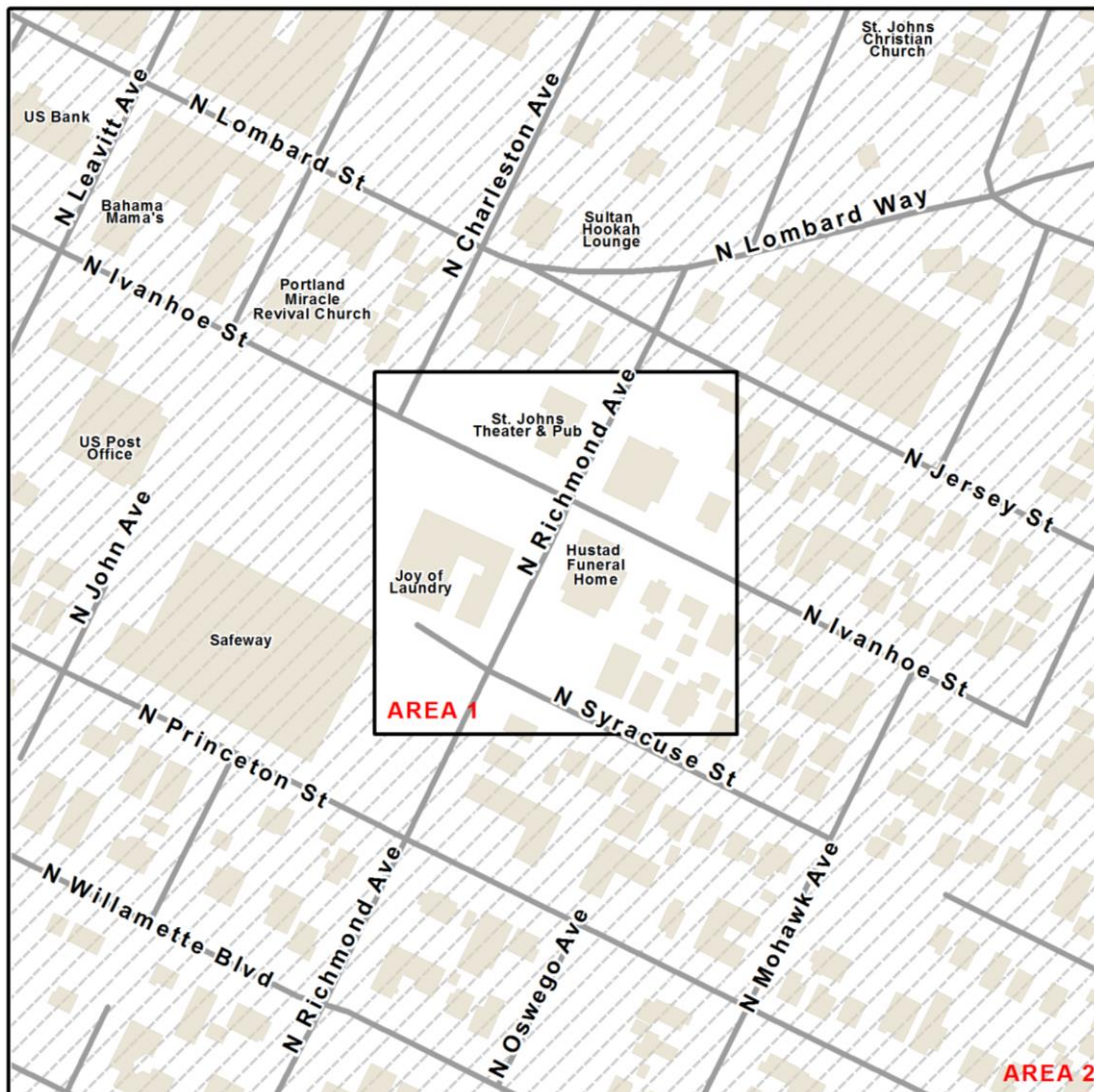
UNDER 30	30 to 44	45 to 59	60 to 74	OVER 74
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4. **People in the same racial group can have different experiences. We are interested in differences based on how you see yourself and how others see you.**

STRONGLY AGREE	AGREE	NEITHER AGREE /DISAGREE	DISAGREE	STRONGLY DISAGREE
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- The racial/ethnic group I belong to is an important reflection of who I am .....
- Other people think I physically look like a typical member of my racial/ethnic group .....

Our remaining questions concern experiences you've had in a specific Portland location (see map below). The map is divided into two distinct areas. The square at the center of the map is labeled area #1. The outer square is labelled area #2. When answering questions about area #2 you exclude (don't count) the space inside of area #1.





5. Answer the following questions for just AREA #1 on the map

**How often in the past 3 months did you:**

- Go to, visit, or spend time in this area? .....
- See a police officer here in a patrol car? .....
- See a police officer walking this area on foot? .....
- Have a positive interaction with a police officer here? .
- Have a negative interaction with a police officer here?

	EVERY DAY	SEVERAL DAYS A WEEK	SEVERAL TIMES A MONTH	ONCE A MONTH OR LESS	NEVER
• Go to, visit, or spend time in this area? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• See a police officer here in a patrol car? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• See a police officer walking this area on foot? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Have a <u>positive</u> interaction with a police officer here? .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Have a <u>negative</u> interaction with a police officer here?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Have you observed recent changes in this area?**  
(leave blank if you did not go here in past 3 months)

- People walking, exercising, playing outside? .....
- People talking to their neighbors? .....
- People shopping, visiting stores or restaurants? .....
- The overall quality of life in this location? .....
- People speeding/driving recklessly? .....
- People making noise/being disorderly? .....
- Litter, graffiti, vandalism? .....
- Overall crime in this location? .....

	GONE UP A LOT	GONE UP A LITTLE	NO CHANGE	GONE DOWN A LITTLE	GONE DOWN A LOT
• People walking, exercising, playing outside? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People talking to their neighbors? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People shopping, visiting stores or restaurants? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• The overall <u>quality of life</u> in this location? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People speeding/driving recklessly? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People making noise/being disorderly? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Litter, graffiti, vandalism? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Overall <u>crime</u> in this location? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How safe would you feel:**

- Walking alone here in the daytime? .....
- Walking alone here at night? .....

	VERY SAFE	SAFE	NEITHER SAFE NOR UNSAFE	UNSAFE	VERY UNSAFE
• Walking alone here in the <u>daytime</u> ? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Walking alone here <u>at night</u> ? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Has anyone in your household been the victim of a crime in Area #1 over the past 3 months?**

- Person crime (e.g., assault, robbery, harassment) ...if "yes" was this reported to the police? .....
- Property crime (e.g., theft, burglary, vandalism) ...if "yes" was this reported to the police? .....

	NO	YES (experienced a crime)	
		REPORTED IT TO POLICE	DID NOT REPORT TO POLICE
• <u>Person</u> crime (e.g., assault, robbery, harassment) ...if "yes" was this reported to the police? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• <u>Property</u> crime (e.g., theft, burglary, vandalism) ...if "yes" was this reported to the police? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Answer the following questions for just AREA #2 on the map (this excludes the space in Area #1)

**How often in the past 3 months did you:**

- Go to, visit, or spend time in this area? .....
- See a police officer here in a patrol car? .....
- See a police officer walking this area on foot? .....
- Have a positive interaction with a police officer here? .
- Have a negative interaction with a police officer here?

	EVERY DAY	SEVERAL DAYS A WEEK	SEVERAL TIMES A MONTH	ONCE A MONTH OR LESS	NEVER
• Go to, visit, or spend time in this area? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• See a police officer here in a patrol car? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• See a police officer walking this area on foot? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Have a <u>positive</u> interaction with a police officer here? .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Have a <u>negative</u> interaction with a police officer here?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Have you observed recent changes in this area?**  
(leave blank if you did not go here in past 3 months)

- People walking, exercising, playing outside? .....
- People talking to their neighbors? .....
- People shopping, visiting stores or restaurants? .....
- The overall quality of life in this location? .....
- People speeding/driving recklessly? .....
- People making noise/being disorderly? .....
- Litter, graffiti, vandalism? .....
- Overall crime in this location? .....

	GONE UP A LOT	GONE UP A LITTLE	NO CHANGE	GONE DOWN A LITTLE	GONE DOWN A LOT
• People walking, exercising, playing outside? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People talking to their neighbors? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People shopping, visiting stores or restaurants? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• The overall <u>quality of life</u> in this location? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People speeding/driving recklessly? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People making noise/being disorderly? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Litter, graffiti, vandalism? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Overall <u>crime</u> in this location? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How safe would you feel:**

- Walking alone here in the daytime? .....
- Walking alone here at night? .....

	VERY SAFE	SAFE	NEITHER SAFE NOR UNSAFE	UNSAFE	VERY UNSAFE
• Walking alone here in the <u>daytime</u> ? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Walking alone here <u>at night</u> ? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Has anyone in your household been the victim of a crime in Area #2 over the past 3 months?**

- Person crime (e.g., assault, robbery, harassment) ....if "yes" was this reported to the police? .....
- Property crime (e.g., theft, burglary, vandalism) ....if "yes" was this reported to the police? .....

	NO	YES (experienced a crime)	
		REPORTED IT TO POLICE	DID NOT REPORT TO POLICE
• <u>Person</u> crime (e.g., assault, robbery, harassment) ....if "yes" was this reported to the police? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• <u>Property</u> crime (e.g., theft, burglary, vandalism) ....if "yes" was this reported to the police? .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Now we would like you to think about the people living in Areas 1 & 2 combined (all of the space inside the border for Area #2).

Would people living here intervene or get involved in some way if the following things happened in this area?

	VERY LIKELY (to get involved)	LIKELY (to get involved)	NEITHER (likely or unlikely)	UNLIKELY (to get involved)	VERY UNLIKELY (to get involved)
• Children were skipping school and hanging out on a street corner .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Children were spray-painting graffiti on a local building ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• A fight broke out in front of their house.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• The local school was threatened with budget cuts .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• A club with nude dancers wanted to relocate here .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Drivers were speeding on this area's residential streets .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• A neighbor had loud parties every night .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate your level of agreement with the following statements about areas #1 & #2 combined.

	STRONGLY AGREE	AGREE	NEITHER AGREE /DISAGREE	DISAGREE	STRONGLY DISAGREE
• People in this area are willing to help each other .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People in this area can be trusted .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People in this area don't get along with each other .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• People in this area do not share the same values.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Our final questions ask you to review the map again. To answer these questions you will draw shapes on the map.

8. Mark on the map with an "X" every location that you have seen a uniformed police officer parked or outside of his/her vehicle over the last 3 months. Include both Area # 1 & Area #2 and make your "X" the size of a fingernail.

If you have not seen any police officers here during this time, please leave the map blank and check this box.....

9. Mark on the map with a circle or an oval the locations where you would like to see more police presence in the coming 3 months. Include both Area # 1 & Area #2 and make your circle/ovals as big as needed.

If you do not want more police presence in this area leave the map blank and check this box.....

Please use the space below to document any other public safety concerns you have about areas #1 and #2 on the map. You can also use this space to provide other suggestions or feedback to the Portland Police Bureau.

**APPENDIX E**

**Officer Surveys**

**(next page)**

# PPB Officer Survey

Dear Portland Police Bureau Employee,

Thanks for responding to our recent email. As you know, Portland State University (PSU) is collaborating with PPB to evaluate the recent NI-Loc or Neighborhood Involvement Locations project. We are interested in your experiences with the initial program which ran from mid-March through mid-September, 2014. Your opinion about this intervention is critically important, both locally and at a national level. Research is needed to evaluate this policing practice and determine whether directed patrol efforts like NI-Loc are beneficial.

We hope you will take 10-15 minutes to complete this online survey that explores your opinions about the NI-Loc project. The survey is completely anonymous. There is no way to connect your answers to your identity, so there is no risk of your opinions being shared with others in a way that you could be personally identified. Participation is also completely voluntary and you can skip questions if you feel this is needed.

If you have questions or concerns about this research project please contact the Principal Investigator Dr. Kris Henning (khenning@pdx.edu or 503-725-8520).

Sincerely,  
Kris Henning, Ph.D.  
Professor  
Portland State University  
PO Box 751 Portland, OR 97207  
(503-725-8520)

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*The following demographic questions will only be used to describe our participants in aggregate and to determine if opinions vary among different groups.*

**What was your rank as of March 15th, 2014?**

- Officer
- Sergeant
- Lieutenant or higher

**What shift were you assigned to as of March 15th, 2014?**

- Day
- Afternoon
- Evening

**What was the primary branch you were assigned to on March 15th, 2014?**

- Patrol
- Investigations
- Services

**How many years had you worked in law enforcement as of March 15th, 2014?**

- Less than 5
- 5 to 9
- 10 to 14
- 15 or more

**What is your gender?**

- Male
- Female
- Transgender
- Prefer not to answer

**Are you a racial or ethnic minority?**

- Yes
- No
- Prefer not to answer

**Had you heard about the Neighborhood Involvement Location or NI-Loc program before receiving this email?**

- Yes
- No

**From your perspective, what was the primary goal of the NI-Loc project that was run from mid-March through mid-September?**

- Reduce crime and calls for service
- Improve police-community relations
- Something else (describe)\_\_\_\_\_

**How many NI-Loc calls did you take over the 6-month period from mid-March through mid-September?**

- None
- 1 to 50
- 51 to 100
- 101 to 150
- 151 or more (enter estimated number)\_\_\_\_\_

***The next set of questions ask how you feel about different aspects of the recent NI-Loc program.***

**Are there specific things you LIKED about the NI-Loc program?**

- NO
- YES – describe in box below

**Are there specific things you DISLIKED about the NI-Loc program?**

- NO
- YES – describe in box below

**Please indicate how satisfied/dissatisfied you are with the following aspects of the recent NI-Loc program.**

	Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied
Your OVERALL experience with the NI-Loc program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The training provided to you for NI-Loc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The final locations chosen to receive NI-Loc patrols	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The choice of times/days selected to receive NI-Loc patrols	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The number of NI-Loc calls issued per location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of the CAD system for directing patrols to NI-Loc locations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





***In this section of the survey we want to learn what actions you took during your completed NI-Loc calls. For each item 'click' and drag the slider to select the correct percentage. (NOTE: for any given call you may have done more than one thing listed so the percentages do not have to add to 100%)***

**Patrolled the NI-Loc area in a vehicle**

\_\_\_\_\_ % of calls where you did this

**Patrolled the NI-Loc area on foot**

\_\_\_\_\_ % of calls where you did this

**Made a traffic stop in the NI-Loc area**

\_\_\_\_\_ % of calls where you did this

**Made a pedestrian stop in the NI-Loc area**

\_\_\_\_\_ % of calls where you did this

**Talked with a community member in the NI-Loc area about a public safety issue**

\_\_\_\_\_ % of calls where you did this

**Talked with a community member in the NI-Loc area about a topic unrelated to public safety**

\_\_\_\_\_ % of calls where you did this

**Provided a community member in the NI-Loc area direct assistance of some sort that was non-investigative**

\_\_\_\_\_ % of calls where you did this

**Talked with a business owner or business employee**

\_\_\_\_\_ % of calls where you did this

**Provided a business direct assistance of some sort (include investigative and non-investigative)**

\_\_\_\_\_ % of calls where you did this

**Did you ever access the linked map files and crime data that were available in the CAD system for each NI-Loc area?**

- YES - I reviewed the maps & data
- NO - But I knew this was available
- NO - I did not know this was available

**Did the map files and crime data available through the CAD help you understand the crime problems in the NI-Loc locations?**

- Not applicable (did not access the maps or data)
- YES - It was helpful
- NO - It was not helpful

**Next we want to know if taking NI-Loc calls had any impact on your relationship with the people and businesses in these areas. Indicate whether you agree or disagree with the following statements.**

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
I became more invested in the NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I became more familiar with the people in NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learned more about people's concerns in NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I developed new positive relationships with people in NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I became more familiar with the businesses in NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learned more about businesses' concerns in NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I developed new positive relationships with businesses in NI-Loc areas as a result of these calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Please use the space below to provide any additional feedback on the NI-Loc program that you think might be helpful.**

**This concludes the survey. We greatly appreciate you taking the time to provide us with this valuable feedback.**

APPENDIX F

PPB's Directed Patrol Activities Post NI-Loc Experiment

Type	Description	External Partner(s)	Patrols Scheduled (as of 8/2017)
School Engagement	Direct engagement by officers at school events such as sporting events, back to school and other activities	Portland Public School District	251
Sex Offender Address Verification	Direct patrols designed to contact local registered sex offenders, confirm that their addresses are correct and allow district officer to know the sex offenders in their area of responsibility.	State of Oregon Sex Offender Registration	860
Car Prowl Extra-Patrols	Direct patrols designed to support ongoing efforts at reducing car prowls	Car Prowl Summit members	1,274
Inner East Side Livability Patrols	Direct patrols in response to livability concerns in Inner-Southeast Portland	Office of Neighborhood Improvement; Businesses	410
St. John's Foot Patrols	Walking Patrols in the St. John's Neighborhood	Office of Neighborhood Improvement; Businesses	481
Central Livability	Patrols to address illegal camping and drug use in Central precinct		410
Gang Impacted Area	Directed patrols to engage with community members living in areas with high gang activity		1,042
Woodstock Neighborhood	Sent officers to interact with community members and business	Office of Neighborhood Improvement	34
Community Engagement Parks	Officers directed to city Parks during peak activity periods to meet residents and act as visual deterrent	Portland Parks & Recreation	284

**APPENDIX G**

**Neighborhood Survey**

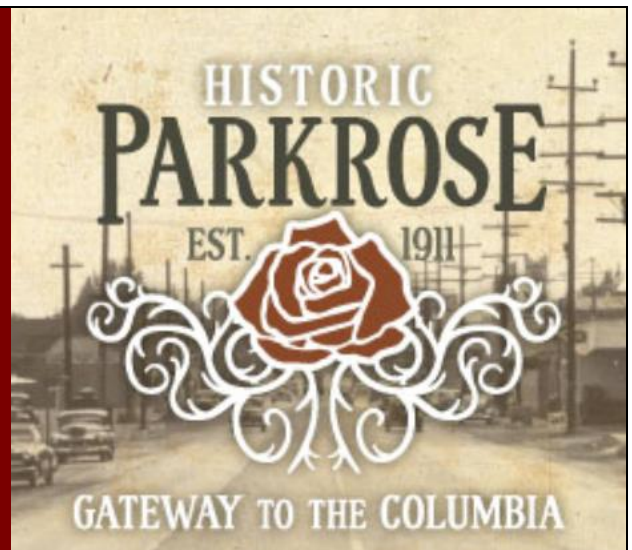
**(next page)**

# Community Attitudes Regarding Public Safety in Portland's Parkrose Neighborhood

**Kris Henning, Portland State University**

**Jason Jones, Portland Police Bureau**

**Christian Peterson, Portland Police Bureau**



## Key Findings

- *Social disorder (e.g., noise, squatters, trespassing, panhandlers, and prostitution) property crime, and drugs/alcohol were the top public safety concerns identified by Parkrose residents completing the online survey.*
- *Respondents to the survey demonstrated a high degree of agreement regarding the areas within their neighborhood that have public safety concerns. This includes the corridors running east to west surrounding NE Sandy Blvd and NE Prescott St.*
- *People from Parkrose who completed the survey feel considerably less safe walking alone in their neighborhood than the average city resident. Moreover, the majority of survey respondents reported that public safety in Parkrose had declined over the past 12 months.*
- *The majority of respondents expressed confidence with the Portland Police and felt the Portland Police treat people in the neighborhood with respect. People felt this could continue to be strengthened through non-investigatory foot patrols, community meetings, and expanded police participation in community events.*

## Introduction

The Portland Police Bureau (PPB) is partnering with Portland State University (PSU) and neighborhood groups to develop new strategies for improving public safety and police-community relations. The current initiative seeks to provide residents with greater voice in where police work in their neighborhood, what problems they address, and how they intervene. We also hope to provide residents, businesses, and community organizations with data they can use to leverage additional resources for improving public safety in their neighborhood.

This report focuses on the Parkrose neighborhood. Parkrose is located in the Northeast section of Portland (i.e. North of Burnside Ave. and East of the Willamette River). PSU's [Population Research Center](#) estimates that there were 6,363 residents living in the neighborhood in 2010, a 5.5% increase from 2000 (see full [neighborhood profile](#) for additional details). For additional information on the neighborhood, contact the [Parkrose Neighborhood Association](#).

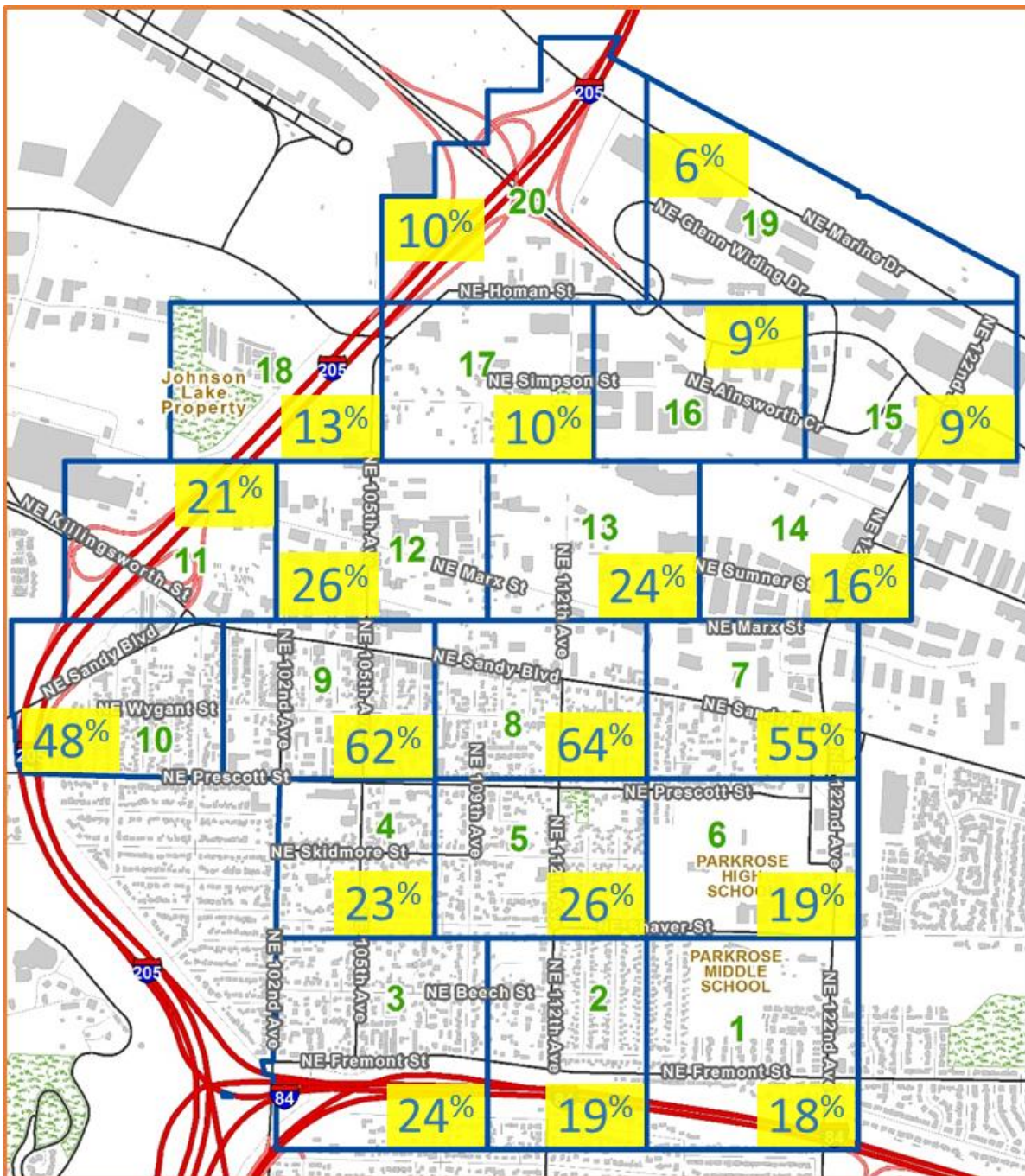
In July 2016 all households in the Parkrose neighborhood were mailed a letter inviting the adult occupants to participate in an online survey. Additional invitations were delivered in-person by PPB officers and the link to the online survey was in several newsletters and community-oriented websites. The questionnaire asked residents to identify their primary public safety concerns, whether they supported or opposed various actions the city might take in responding to these problems, and for ideas on improving police-community relationships. Three hundred and forty-nine surveys were submitted and analyzed for this report.



**Portland State**  
Criminology &  
Criminal Justice



## Neighborhood Map & Areas of Concern

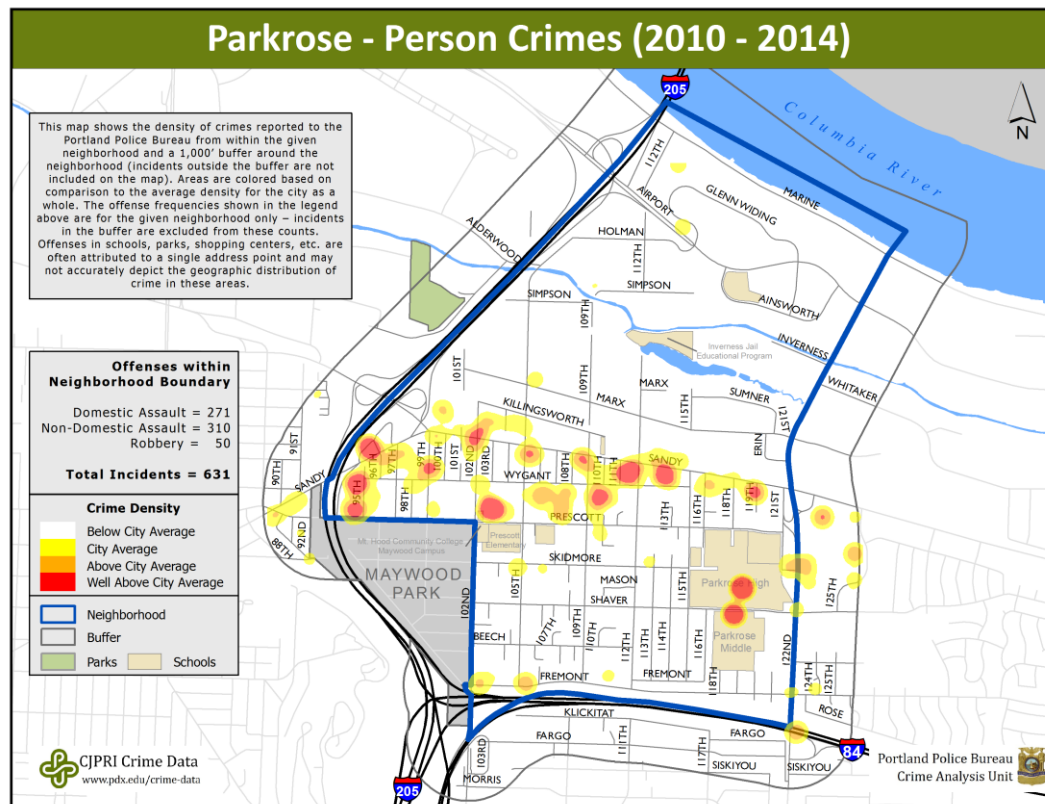
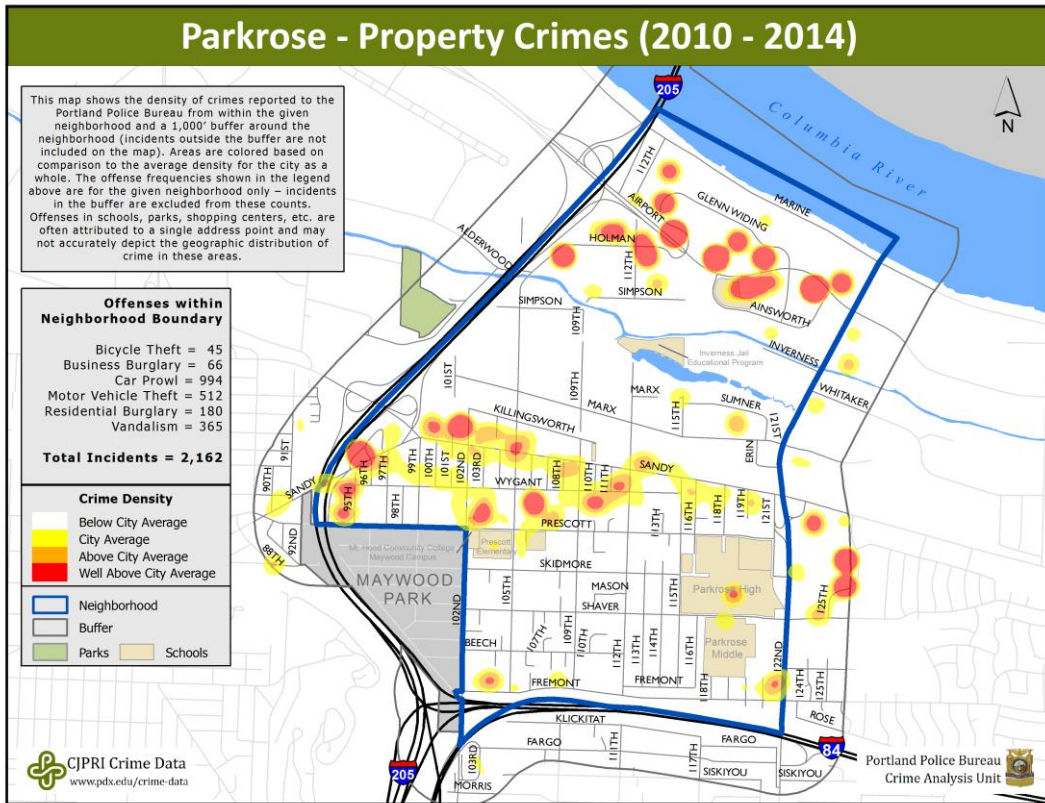


The rough boundaries of the Parkrose neighborhood were mapped for the online survey and divided into 20 distinct areas. These regions are numbered in green text on the map above, from 1 (lower right corner) to 20 (top left). People were asked to ‘click’ with their computer mouse all of the areas where they had public safety concerns. No limit was placed on the number of problem areas they could select in this first question. **Public safety** was defined as “*crime, traffic safety, environmental hazards, etc.*” After this task was completed people were asked to select one location that represented their area of biggest concern.

The yellow boxes (light blue text) on the map above give the percent of survey respondents ‘clicking’ each region to designate it as a location of concern. For example, 18% of the respondents reported they had public safety concerns in area #1 on the map.

Overall, there was a high degree of consensus among respondents regarding the presence of public safety concerns in the corridor between NE Sandy Blvd. and NE Prescott (areas 7, 8, 9 and 10). Area 8 was identified as the location of “most concern” by 27% of the respondents, followed by area 9 (13%) and area 10 (12%).

The residents' perceptions about problem locations in their neighborhood were compared to official crime reports filed by the PPB. The two maps provided below detail the "hotspots" of property (includes bike theft, motor vehicle related thefts, burglaries and vandalism) and person crimes (i.e., assault & robbery) in Parkrose for the years 2010 to 2014. Consistent with the survey responses, the corridor between NE Sandy Blvd and NE Prescott accounted for the majority of hotspots for person crimes and a large number of the high density locations for property crime. The one exception noted between the two sources of data was the high number of property offenses happening in the northern region of the neighborhood, an area that contains several large retail businesses. For more information about the crime maps please visit [PSU's Crime Data Website](http://psu.edu/crime).





## Public Safety Concerns & Problems Reported

In addition to identifying areas of concern on the neighborhood map, people were asked to identify specific public safety problems in Parkrose. The respondents selected their three biggest concerns from the following list: Property crime, violent crime, guns, drugs/alcohol, social disorder, property maintenance, gangs, unsupervised youth, traffic offenses, environmental hazards, and “other”. The table below provides the results of this analysis.

# Times Selected	Ranking of Public Safety Concerns
212	Social disorder (e.g., noise, squatters, trespassing, panhandling, prostitution)
206	Property crimes (e.g., theft, burglary, car break-ins)
149	Drugs/alcohol (e.g., people using, selling in public)
105	Property maintenance (e.g., vacant buildings, unkempt yards, abandoned cars, garbage, graffiti)
71	Traffic offenses (e.g., speeding, failure to stop, aggressive driving)
56	Guns (e.g., shots fired/availability of guns)
44	Violent crime (e.g., assaults, robberies)
44	Other concerns (e.g., loose dogs, poor street lighting, lack of sidewalks, limited parking)
41	Gangs (e.g., gang activity, fighting)
15	Unsupervised youth (e.g., loitering, truancy)
11	Environmental hazards (e.g., lead, air quality)

Social disorder, which included noise, squatters, trespassing, panhandling and prostitution, was the problem identified by the most people (212 respondents). This was followed closely by property crime, including theft, burglary and car break-ins (206 respondents). The next two highest rated problems included drugs/alcohol (148) and property maintenance (105).

The PSU/PPB research team conducting the present survey had previously surveyed residents in the King (2015) and Humboldt (2016) neighborhoods. Residents from those surveys ranked guns and gangs as their two biggest threats to public safety. These findings highlight major differences in the perceived threats to public safety problems from one region of the city to another.

The survey respondents from Parkrose were asked to provide additional details regarding their primary public safety concerns. These open-ended text responses were analyzed to identify recurring themes. Consistent with the ranking of problems in the table above, the most frequently cited problem for the neighborhood was the homeless and transient population. For example:

- *“It’s hard to see illegal squatting happening in the overgrown area next the Jiffy Lube. Several years ago, the walking (on-foot) neighborhood police officer had this area cut down and cleaned up. The homeless have taken over this area again.”*
- *“There are a few homeless areas that are not being looked in on. A row of vans and campers that appear permanent on Marx, for example, as well as an encampment.”*
- *“The homeless people and their fleet of unregistered vehicles and campers that continue to litter our neighborhood.”*
- *“There are vacant homes that have squatters residing in them. Squatters have no ownership or care for the property. They shouldn’t be there in the first place. They are degrading the*



People responding to the survey often drew connections between the homeless/squatter population and other problems in the neighborhood like illicit drug use, prostitution, illegal dumping, vandalism, theft, and physical threats.

- *“This area is getting worse with chronic repeat overnight campers in RV’s and cars and all that goes along with that (fighting, trash dumping, nudity, crimes, intoxication).”*
- *“The homeless issue is out of hand. From the drug use, home invasions, cars being stolen, solicitation from prostitutes, packages stolen, aggressive people using neighbor’s water for bathing, etc, drug deals. Not to mention the trash - causing rats to nest and invade the neighborhood. Squatters in vacant homes. Sad that east county is getting the brunt of this.”*
- *“The presence of people living in campers in our neighborhood makes me feel unsafe and causes me to worry about my children/property/self. I have seen drug use, prostitution and theft centered around these transient campers. The garbage left behind when they move to a new location is enormous.”*
- *“Homeless folks leave trash & human waste, & make some areas feel unsafe. We no longer use the bike trail as a result.”*
- *“Homelessness in local parks. I take my children to the park and there are homeless people on drugs camping out.”*
- *“Our biggest problem is squatter/camper related. This includes piles of trash left anywhere they like, local property crimes, open drug and alcohol use, abandoned cars and car parts on the roads, trashing homes and properties they squat on, walking the street and making noise at all times of night and morning.”*
- *“The transient population moving in, as well as the drug activity around the squatter houses.”*
- *“The homeless problem is just completely out of control. Desperate people do desperate things. We can’t even leave our windows open at night or our house unattended for more than a couple of hours or someone will break in and steal whatever is within reach.”*

Some of the respondents went further and listed potential causes for the homeless and camping issue. They attributed blame to banks, landlords, social activists, and chronic underfunding by city administrators.

- *“The banks need to board up these homes or get them on the market faster so they do not get stripped and destroyed. They are in another state and do not care about the problems they are allowing.”*
- *“The banks have several empty homes in the area. So squatters and drug dealers are moving in to our sweet neighborhood.”*
- *“There are many abandoned/foreclosed homes in this area. This contributes to homeless setting up camp or moving into the empty homes, garbage left on the street and on the property and a general run-down appearance.”*
- *“Vacant homes being used as drug houses and the companies that have foreclosed on them not doing anything.”*
- *“This influx of campers came after the ‘sweep’ from Springwater Trail, they were deposited in our neighborhood by advocates who brought their belongings in a U Haul and then unloaded the squatters and their items into our neighborhood.”*
- *“Parkrose has become a dumping ground for the city. No money is spent on services here. Squatters and homeless everywhere and out of control slum landlords. More effort should be made to reduce rentals and get more owner-occupied homes.”*
- *“I am a strong believer in the broken windows theory, and the lack of funding the city of Portland puts into this neighborhood really shows.”*
- *“Don’t feel safe walking at night in my own neighborhood. Factors that are definitely contributing is the lack of community resources and the notorious underfunding of East Portland.”*

Concerns regarding traffic safety in the neighborhood were also frequently voiced in the open-ended responses. This includes speeding vehicles, inadequate traffic control devices, and a lack of sidewalks and bike lanes.

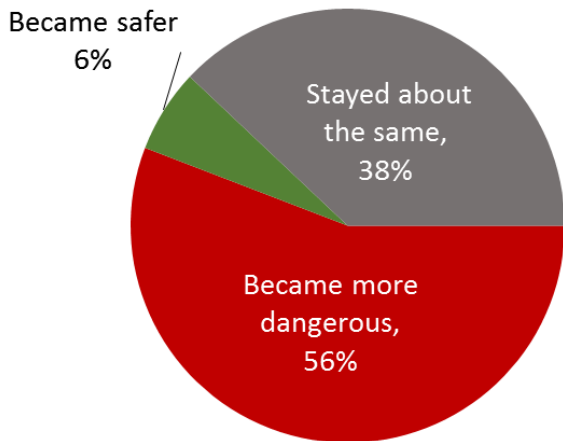
- *“People often don't stop at the stop sign while driving on shaver at 115th or at 112th. There are a lot of kids in the neighborhood and I'd like to see more enforcement.”*
- *“The intersection of NE Sandy Blvd and HWY 205 does not seem to be working well and causes dangerous driving on the side streets from people trying to avoid the problem. We have had many reckless drivers by our house and several close calls for accidents and property damage.”*
- *“Traffic flow of 102nd and on Sandy Blvd is terrible - Lights don't seem to be synchronized, people wanting to go through have to wait for people trying to get on the freeways, it is impossible to get into the lane you need”*
- *“Traffic on 102nd to Sandy Bv is in a race track mode for the week ends especially.”*
- *“The intersection of 109th & Shafer has Stop signs only on two sections. Many folks just drive through causing accidents. Shrubs are grown up on the corners blocking a clear view of any oncoming vehicles.”*
- *“Lots of speeding on Sandy, Prescott, and other major roads in the area. Infrastructure for walking or riding a bike is sparse and usually low quality in the area so dealing with dangerous drivers is hard to avoid, especially during rush hour.”*
- *“129th Street between Halsey and San Rafael St has cars speeding between them all the time. Need speed bumps or to be monitored. There are kids who play in the streets or on their yards and it's scary to watch these cars speeding through.”*
- *“At 122 & the 1-84, I see 3-5 people daily running red lights. I am a cyclist and I am nearly hit every single time”*
- *“The stretch of Fremont St between NE 122nd Ave and NE 148th Ave is treated as a drag strip more often than not. Additionally, there are no designated bike lanes. With a new park going up, I am concerned about the impending speeding traffic. I have a young child and worry about her safety along this street.”*

Finally, a number of respondents reported ongoing concerns related to prostitution and sex trafficking. Some of this was attributed to campers and zombie houses, but more people placed blame on hotels/motels in the area.

- *“The presence of people living in campers in our neighborhood makes me feel unsafe and causes me to worry about my children/property/self. I have seen drug use, prostitution and theft centered around these transient campers.”*
- *“There is still occasional prostitution on 107th and 108th and Sandy. The problem is getting better now that there are less vacant buildings.”*
- *“Wygant is where you can easily see prostitutes.”*
- *“Panhandlers and prostitutes are still present on Sandy and side streets.”*
- *“Cheap motels on Sandy Blvd. are a magnet for drugs & sex trafficking.”*
- *“The motels on Sandy are ‘seedy’. Sandy has been known for prostitution.”*
- *“There are a lot of motels along Sandy that seem to have a prostitution issue.”*

# Perceived Safety in Parkrose Neighborhood

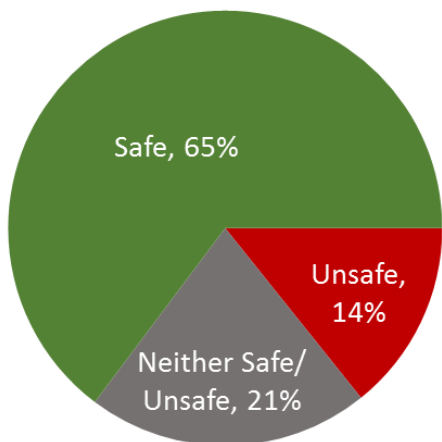
## Perceived Safety Over Past Year



The survey asked three global questions about **perceived safety** in the neighborhood. Perceptions about safety may be just as important as objective risk in that excess fear can result in deterioration of psychological well-being, community relationships, business sales, and home values. Hence, the PPB's stated [mission](#) includes a focus on reducing both crime and *fear of crime*.

For the first question, respondents were asked about changes in their perceived safety over the past year. The majority of respondents felt that Parkrose had become a more dangerous place to live over the past 12 months (56%). Only six percent of the respondents felt that the neighborhood had become safer (see chart to the left).

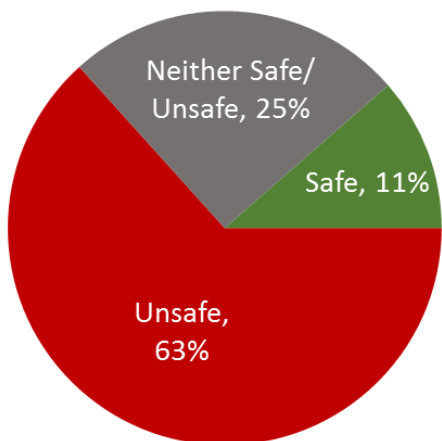
## Perceived Safety Walking Alone: Daytime



Unfortunately, official crime data for 2015 and 2016 are not yet available, so we do not have "objective" data to contrast with residents' perceptions about safety in Parkrose. Police reported offenses for the years 2000 through 2014 are available. While the city of Portland as a whole saw the crime rate for person offenses (e.g., assaults, robbery) drop 46% over this period, the rate for Parkrose declined just 16%. Similarly, the property crime rate in Parkrose dropped 20% over this period compared to a 26% decline for the city overall [see [PSU's Crime Data Website](#)].

Residents were also asked how safe they would feel walking alone in Parkrose during the daytime and at night. The majority of people (65%) responded "safe" or "very safe" for a daytime walk. A much smaller number (14%) answered that they would feel "unsafe" to "very unsafe" walking alone at this time of day. These figures can be compared to city-wide figures from the Portland City Auditor's [2016 Community Survey](#) which used a similar question. They found that 90% of Portland residents would feel "safe" to "very safe" walking alone in their neighborhood during the day.

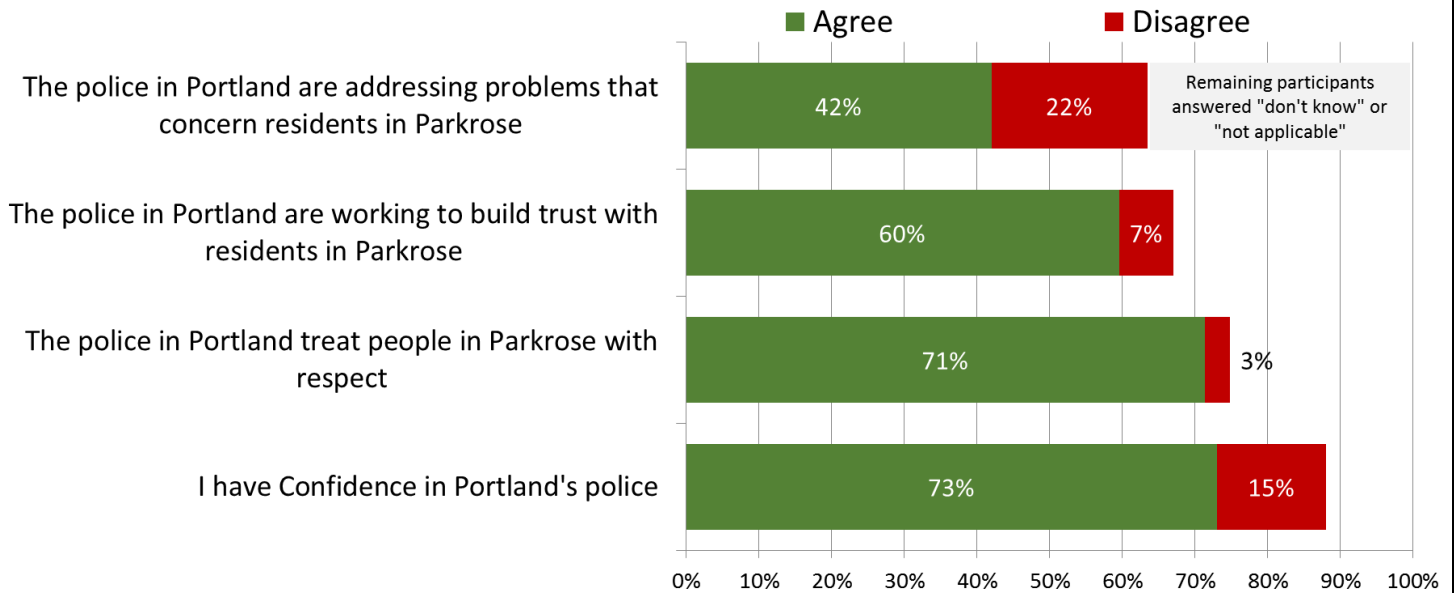
## Perceived Safety Walking Alone: At Night



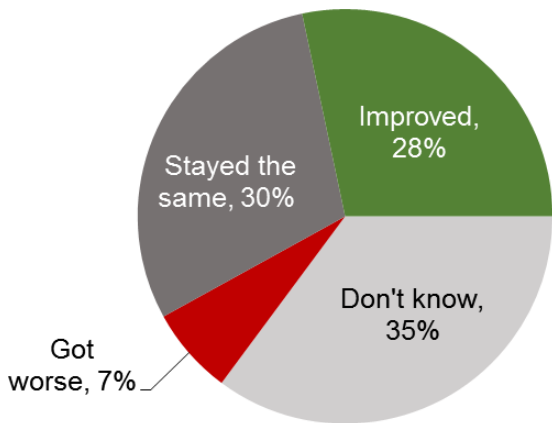
Perceived safety while walking alone in Parkrose was considerably lower for nighttime hours. Only 11% of the survey respondents answered "safe" to "very safe". The majority said they would feel "unsafe" to "very unsafe" (63%). By comparison, the Auditor's citywide survey found that just 21% would feel "unsafe" to "very unsafe" walking alone in their neighborhood.

Taken together, these findings suggest that most people feel safe in Parkrose during the daytime, but that perceived safety, at least when walking alone, declines considerably at night. The comparison to citywide data from the Auditor's office also reveals that people in Parkrose feel considerably less safe walking in their neighborhood than the average Portland resident.

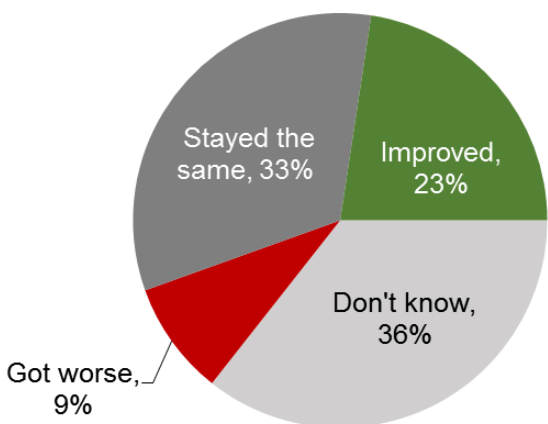
# Residents' Perceptions About Portland Police



## Communication Between Residents & Portland Police



## Trust Between Residents & Portland Police



Several items in the survey explored respondents' opinions about the Portland Police Bureau (PPB). These questions help us evaluate the current relationship between the police and Parkrose residents and may provide guidance on improving partnerships to enhance public safety.

Starting with the bar chart above, we found that the majority of respondents have confidence in the local police (73%), feel that the police treat people in the neighborhood with respect (71%), and most believe the Portland police are working to build trust with residents in the neighborhood (60%). The area of biggest concern was whether the police are addressing problems that concern residents in Parkrose. Nearly one quarter of the respondents (22%) disagreed with this statement and one third (37%) were unsure or answered "not applicable".

Two questions addressed possible changes in police-community relationships over the past year. The majority of respondents stated that communication between residents and the police had improved or at least stayed the same over the past 12 months (58%; see chart to the left). Only a small proportion of people felt that communication had gotten worse (7%). Similarly, the majority of respondents (56%) reported that trust between the residents and police had stayed the same or improved. One in ten (9%) felt that trust had declined over time.

While the data on the prior page highlight opportunities to further improve police-community relationships in Parkrose, it is also worth noting that the opinions expressed regarding the police were consistently more positive than what we found in our surveys of the King and Humboldt neighborhoods. The table below provides a direct comparison of the items from these three surveys.

	Neighborhood Surveyed		
	Humboldt	King	Parkrose
I have confidence in Portland's police (% "agree ")	57%	56%	73%
The police in Portland treat people in the neighborhood with respect (% "agree ")	51%	45%	71%
The police in Portland are working to build trust with residents in the neighborhood (% "agree ")	32%	38%	60%
The police in Portland are addressing problems that concern residents in the neighborhood (% "agree ")	29%	31%	42%
Communication between police & residents in the neighborhood (% "is improving ")	9%	13%	28%
Trust between police & residents in the neighborhood (% "is improving ")	8%	6%	23%

People surveyed in Parkrose have more favorable views of the police than people surveyed in King and Humboldt. That includes greater confidence in the police, trust, and the perception that the police are working to address problems. Recent efforts made by local officers to engage with residents through a variety of community events may have contributed to these positive ratings. For example, when asked what could be done to improve relationships between the police and residents, people offered comments like these:

- *“More of the ‘Walk with a Cop’ and ‘Coffee with a Cop’ type events and the wonderful presence he (Officer \_\_\_\_ ) and his colleagues bring to community events.”*
- *“Our officers are great. They always attend our neighborhood meetings when they can and communicate with us regularly. They need more recognition for all they do and more support from the bureau.”*
- *“From what I have seen lately, there is a pretty good relationship between the two (officers). I have had quite a bit of contact recently with the police bureau and think there has been a great response and a seemingly caring attitude. They seem vested in the neighborhood.”*

Establishing a direct causal linkage between the survey findings and recent community policing initiatives in Parkrose is difficult and a couple of important caveats need to be provided. First, the surveys were done at different times: King (October 2015), Humboldt (March 2016), and Parkrose (July 2016). It is possible that the differences seen represent a city-wide trend rather than something unique to Parkrose. Second, for the King and Humboldt survey respondents were given slightly different options for answering some of the questions (i.e., “strongly agree”, “agree”) as compared to the Parkrose survey (i.e., “agree”). It is unclear whether this might have impacted how people responded to the questions. Third, slightly different approaches to delivering the surveys were used in each neighborhood. Finally, our data represent a single “snapshot” in time. We do not know, for example, whether attitudes toward the police have always been different in Parkrose. In short, we cannot be 100% certain that the more positive opinions found in the Parkrose survey are directly attributable to the recent community engagement efforts that have been made there.

As noted previously, participants were asked to provide a short answer to the following question: *“What steps could be taken to improve relationships between the Portland Police Bureau and residents in the Parkrose neighborhood?”* The most common response to this question involved increasing police resources in the area:

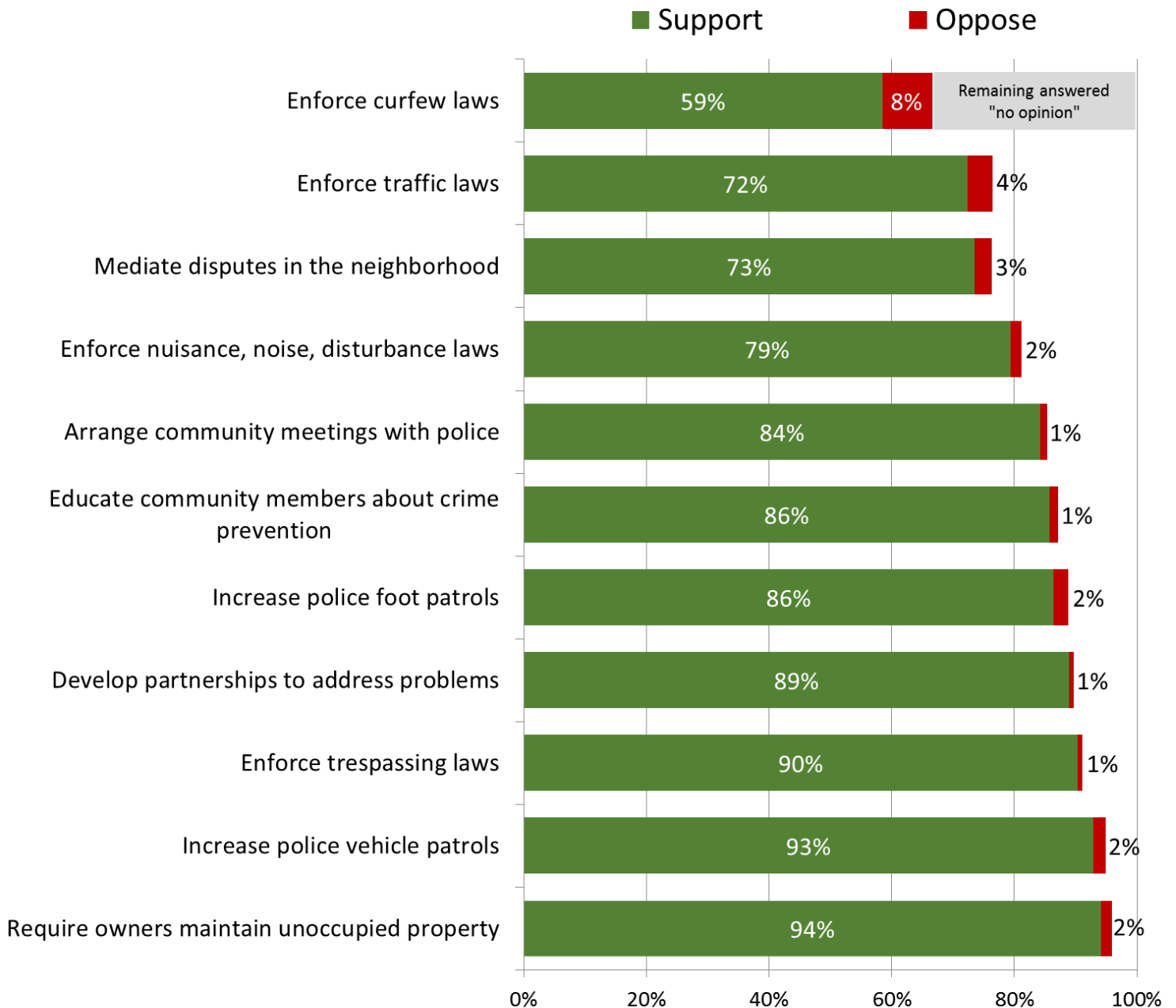
- *“I would like to see more police patrols.”*
- *“Increased visibility of the police in the neighborhood.”*
- *“They need to be more visible, that is, they need to be here in the neighborhoods.”*
- *“A more visible police presence in the neighborhoods (not just on major streets). We used to see the police regularly patrolling our streets (and one time had two of them join our neighborhood brunch), but we haven't seen anyone patrolling for a couple of years.”*
- *“I would like to see more police around the schools, interacting with the youth in positive ways, and helping me and other parents feel safe while students are in school.”*
- *“You have a substation up the street on Sandy Blvd; populate it and pay attention to Sandy Blvd and the drug traffickers in the RV Park.”*
- *“A more visible presence is important. The bad guys need to know you are there watching.”*
- *“There needs to be a more officers assigned to the Parkrose Area. Response time when there is an issue is tremendous, 1 - 2 hours. Individuals living in Parkrose have to deal with issues the police should be dealing with.”*

Many of the respondents also highlighted the need for consistent police staffing and expanded efforts to develop longer-term relationships with residents.

- *“Foot patrols, with regular (same group) officers, stopping in to meet and develop relationships with businesses. Also stopping to talk to residents when and where applicable. And they should get to know the resident homeless. Building trust relationships takes time, and is impossible or at least very difficult if the patrols are constantly changing. I believe that there is a lot of value to knowing the officers that cover our beat.”*
- *“Try to keep posting officers in areas they know or are known or live. Moving them around makes communication and understanding harder.”*
- *“Continue opportunities for residents to develop relationships with the police presence in Parkrose. When we know each other better we develop trust in one another.”*
- *“Interact positively with neighbors when present to address concerns/issues. We want to know we are heard and respected.”*
- *More personal contact in non-emergency situations - walk the beats. I've seen marvelous transformations when this has been in other cities.”*
- *“When you only see police when things are bad or you have a problem that is not helpful. People need to see police during good days and good times being people who are present in the community.”*
- *“More community engagement opportunities with cops in different parts of the neighborhood or with churches/faith communities. More police on foot patrol or bikes, make them more accessible than police cars.”*

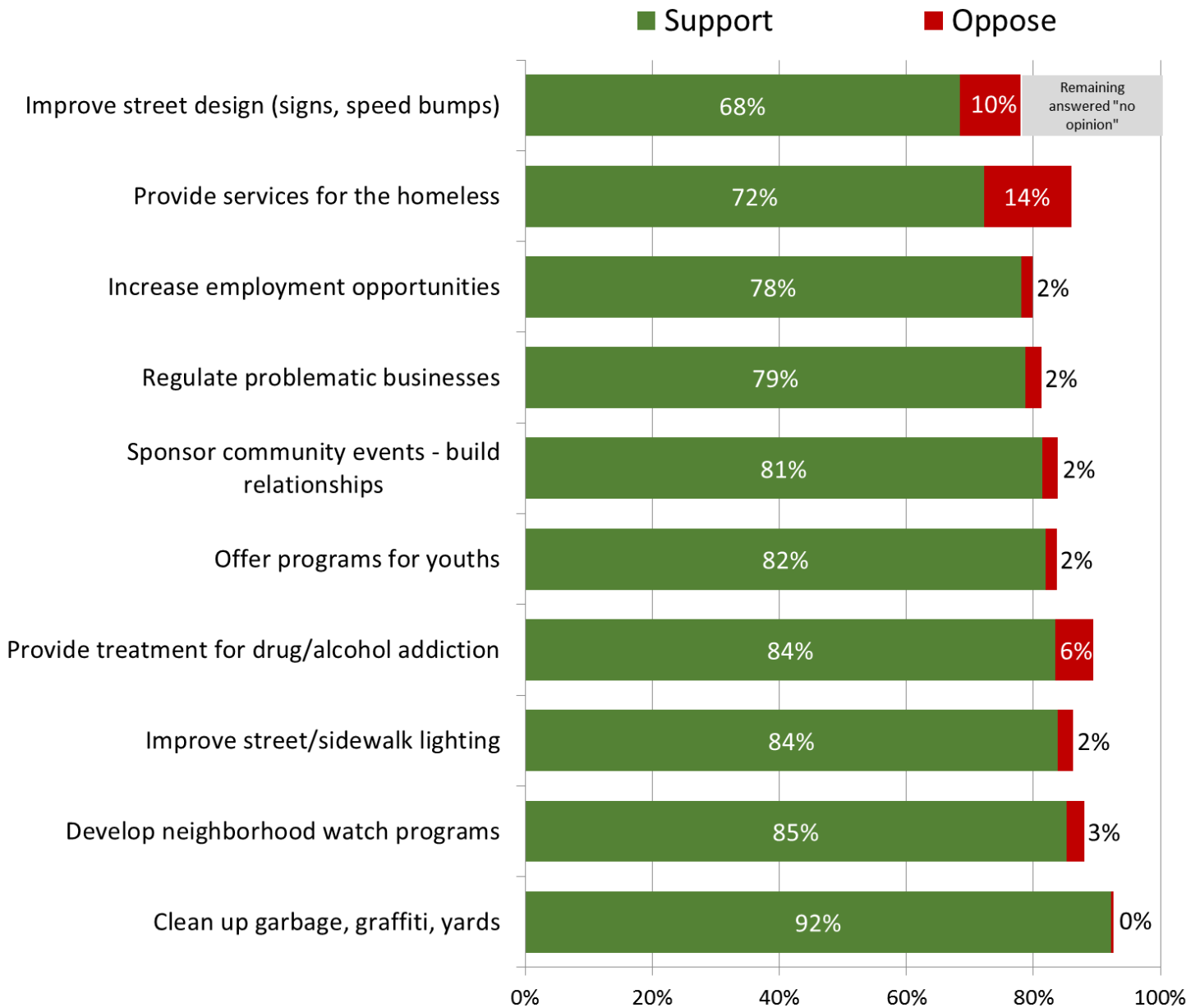
## Strategies to Address Public Safety

Survey participants were asked whether they supported or opposed eleven distinct police activities and ten broader city government actions that might be used in Parkrose to improve public safety. Data like these can be helpful when selecting and implementing strategies because the efforts will have enhanced legitimacy if they are supported by residents.



The policing strategy endorsed in greatest numbers (94% of respondents: see chart above) concerned maintenance of unoccupied property: *“Contact owners of abandoned properties/vehicles to request they maintain, secure, or remove property.”* Other police-led measures that were endorsed by at 90% of the residents surveyed included increasing police vehicle patrols (93%) and enforcing trespassing laws (90%). The two strategies that received the most opposition were enforcing curfew laws (8% opposed) and enforcing traffic laws (4%).

With regard to broader city government actions that might be taken in Parkrose to improve public safety, the four options receiving the most support were: Clean up garbage, graffiti, empty buildings or yards (92% support; see chart below), Develop neighborhood watch programs (85%), Improve street/sidewalk lighting (84%), and Provide treatment for drug/alcohol addiction (84%). While still endorsed by the majority of respondents, there was more opposition to provide services for the homeless (14%) and efforts to improve street design (e.g., signs, speed bumps; 10%).



Participants were also given the opportunity to voice their own opinions about what the police and/or city could do to improve public safety (“What is the most important thing the City or Police could do to improve public safety in Parkrose?”). The results largely mirror the findings from above. First, residents want the police/city to do more to address squatters and abandoned/neglected properties.

- *“If the empty Zombie houses are kept empty and clean this should limit the number of squatters. with squatters come drugs/ garbage/ violence to the neighborhood. We are tired of being the ‘dumping’ ground in East County. This is our home we want to keep it clean and safe, help us to do this.”*



- *“In Parkrose (as in many neighborhoods), there are abandoned properties that sit vacant. In our experience (with a house down the street), it is very difficult for police to intervene when squatters are in the house. Taking care of these properties is extremely important for the whole neighborhood.”*
- *“I think the most important would be to clean up garbage, graffiti, also empty buildings or yards and make the banks or whoever owns these buildings or homes make them take care of them. If we have businesses that bring problems into the neighborhood we should make them clean up or ban them from our neighborhood.”*
- *“Holding property owners and banks accountable for the condition of their properties is key. If these properties were not available to be squatted, we would not have this problem.”*
- *“There are many new home owners in our neighborhood and many of them are cleaning up the homes and yards---it would nice if everyone got on board because there are a few that are not kept up, vacant homes and vacant businesses that look run down.”*

Related to property maintenance, people also suggested that the city deal with the local homeless/camper population. Opinions diverged widely, however, about how to approach this problem. A minority of people suggested more resources be made available to the homeless. More often, people suggested that services be reduced in favor of strict enforcement of trespassing laws.

- *“The majority of the issues I see relate to homelessness. It seems to take up a lot of our police force's time and attention, but it is not, in the end, something they can really fix. I would love to see the City and/or County find a way to start housing these people.”*
- *“I believe that we need to address the drug and alcohol problems and provide more homeless resources.”*
- *Please work with the banks and absentee landlords to give PPB trespass rights. PPB can only do so much when the City is flaccid about this entire problem.”*
- *“Arrest loiters, move the homeless to shelters, not just do ‘outreach’ ENFORCE laws, Arrest Drug Traffickers not just watch/monitor them, Force the Railroad to police their right of way and not allow homeless camps on railroad right of way.”*
- *“More strict treatment of vagrants. If someone doesn't live here or have business to conduct here, then they have no reason to be here.”*
- *“Enforce current laws in the books about panhandling, illegal camping, drug use. I don't want more services for the homeless especially on the east side.”*
- *“Enforce the existing laws - it takes way too long to have abandoned & homeless vehicles removed - way too long to have the illegal dumping removed - homeless should not be allowed to take over empty/foreclosed homes - they should be removed immediately.”*

Finally, people recommended that the city increase police resources in the neighborhood and that PPB officers continue to develop stronger connections with community members.

- *“Be present and visible in the neighborhood. Develop positive relationships with the neighbors that want to help Parkrose.”*
- *“Increase patrol/relationships. This neighborhood has a lot of valuable resources and should be a great place to live. There are well known problematic apartment buildings and businesses. By building police/citizen relationships in the area, we can work together to address issues.”*
- *“I feel that having a greater presence in the neighborhood whether it be via car or foot patrols (or both) would really help. I realize that police have limited resources, but seeing more officers in my neighborhood would be reassuring.”*
- *“By continuing to improve community outreach, the community will be more empowered to partner with police, rather than only point blame and exacerbate current problems.”*

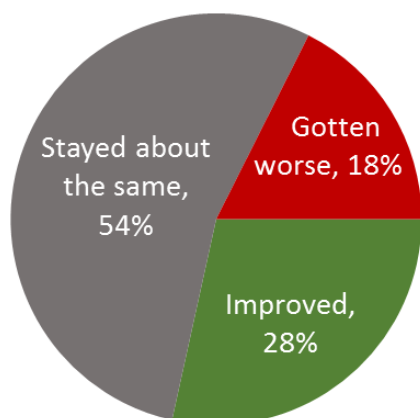
## Collective Efficacy

Public safety may be enhanced when neighbors look out for one another, intervene early to address problems, and share the same values. This is often referred to as “*collective efficacy*.” Several questions in our survey addressed this topic.

RESIDENTS IN PARKROSE...	% Agree	%Disagree*
Would contact a child's caregivers if they saw the child skipping school	21%	33%
Would intervene if they saw someone vandalizing property	51%	20%
Share the same values	36%	25%
Are willing to help each other	72%	9%

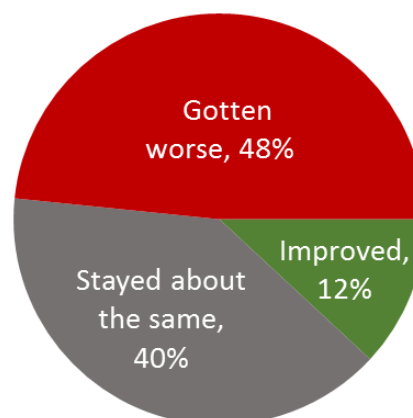
\*remaining proportion answered "don't know / not applicable "

### Relationships Between Residents in Parkrose Have:



Excludes 56 people (19% of respondents) answering "don't know"

### The Overall Quality of Life in Parkrose Has:



Excludes 21 people (7% of respondents) answering "don't know"

Three quarters (72%) of the respondents felt that residents in Parkrose are willing to help each other when needed (see table above). Fewer people felt that residents in the neighborhood share the same values (36%). Regarding informal commitment to maintaining public safety, just one-half of the respondents (51%) said that residents would intervene if they saw someone vandalizing property in the neighborhood. Even fewer (21%) reported that residents would address juvenile truancy by contacting a child’s caregivers.

As shown in the pie charts above, we found that most of the survey respondents felt that relationships between residents in Parkrose had either improved (28%) or stayed about the same (54%) over the past twelve months. Respondents were considerably less positive about overall quality of life in Parkrose: Nearly one-half (48%) thought that the overall quality of life had decreased in the past year.

Another aspect of collective efficacy is how people feel about their neighborhood. We asked the survey participants the following question: “*What are some of the strengths of the Parkrose neighborhood, things you like about living here or spending time here?*”

The most popular theme emerging from this question was **positive relationships with neighbors, a strong sense of community and the feeling of a small town.**

- “*Friendly neighborhoods where people, for the most part, look out for one another.*”

- *“There is a strong sense of community here. I grew up here - graduated in 1989 (GO BRONCOS!) - went off to military service and then came back here to raise my family.”*
- *“The neighbors are great and friendly. We share vegetables and plants, walk each other’s dogs and keep our eyes on our properties when we vacation! There is an awesome sense of community here.”*
- *“Relationships between neighbors are strong and for the most part we take pride in our homes and neighborhood.”*
- *“I have lived here for 18 years and I really do LOVE it here! I LOVE the schools, my neighbors, and the community!”*
- *“Feels like a small town where people care about the community.”*

People also appreciate that the neighborhood is usually **quiet, laid-back, and separated** from the busier areas of Portland.

- *“For the most part it's really quiet, and most of the people that you meet seem to be pretty friendly and engaging.”*
- *“It's a nice quiet residential area. There aren't too many apartment complexes.”*
- *“More rural feel. Quieter neighborhood.”*
- *“Relatively quiet. Not too many bicyclists riding on the streets. Makes driving less nerve wracking.”*
- *“We just moved here in November so we are still getting settled in but so far I love Parkrose. It's a nice quiet neighborhood.”*

Residents also appreciated the physical design elements in the neighborhood including larger lot sizes, trees, access to transportation, and the local schools.

- *“Parkrose has beautiful neighborhoods! The trees and nature is abundant! Love the schools!”*
- *“It's close to major arteries, I have changed jobs many times and have never needed to move. I like the larger lot sizes and the 1900-1920's houses.”*
- *“We really love our neighbors and friends. We have a very large lot and like this much private yard space. We like the big trees in the neighborhood. We like the closeness to so many other districts by bus or car.”*
- *“I love the space we have between houses and the wide streets (no sidewalks helps with this), you can breathe in our neighborhood.”*
- *“The transit options out here are great with the Max, a variety of bus routes, the 205 bike path, and the freeways. We have several nice established neighborhoods with cute older houses.”*

Taken together, these findings raise concerns about the neighborhood’s collective capacity to address public safety issues at this time. While many of the people surveyed feel very positively about the neighborhood, recent changes appear to be threatening their perceived safety, quality of life, and shared commitment to the area. As one resident noted, *“having lived here for 70 years it is hard to see our once safe neighborhoods changing to problem areas.”* Moreover, many of the residents surveyed attribute blame for the recent changes to public officials in Portland, who they feel have ignored their concerns and favored other areas in the distribution of public resources (*“Parkrose has become a dumping ground for the city. No money is spent on services here”*).

## Summary & Recommendations

Several of the key findings from the survey are summarized below along with recommendations for improving safety and livability in the Parkrose neighborhood.

1. The corridors surrounding NE Sandy Blvd and NE Prescott St. (areas 7 to 10 on our map) generated the most concern among residents. These areas have also accounted for a sizable proportion of the reported property and person offenses in Parkrose over the past few years. We recommend that efforts to improve public safety in Parkrose start with this area. Research finds that geographically focused crime prevention efforts produce better outcomes than more diffuse interventions.
2. Perceived safety in Parkrose was considerably lower at night and fell well below the city average. Forthcoming efforts to improve safety in this region should consider this temporal pattern.
3. The public safety concerns most commonly cited for Parkrose included various forms of social disorder (e.g., noise, squatters, trespassing, panhandlers, prostitution), property crime, and drugs/alcohol. Residents often connected these issues to one another rather than seeing them as separate problems. Perceived increases in these problems over time are negatively impacting the overall quality of life for residents. We recommend that social disorder be the primary focus for new public safety initiatives launched in Parkrose.
4. The overwhelming majority of residents surveyed support increasing police resources in Parkrose. This includes expanded vehicle and foot patrols, traffic enforcement, and enforcement of trespassing laws. We recommend that any increases in said activities be closely coordinated with residents, business owners, and other partners to ensure that the efforts have broad community support.
5. Many of the problems reported by residents involve broader social and regulatory issues beyond the direct control of the police (e.g., property maintenance, poor street lighting, homelessness, and alcohol/drug addiction). Efforts to improve public safety in this neighborhood will require the formation of partnerships with social service organizations and other governmental/regulatory agencies with more direct influence over these issues.
6. The PPB's North Precinct has a strong history with Problem-Oriented Policing (POP; e.g., Albina & Killingsworth Initiative) and this approach could work well in Parkrose, particularly given the relative specificity of the major problem (i.e., social disorder) and the geographic and temporal focus detailed above. We recommend the following steps for such a project:
  - a. Conduct additional analyses on recent calls for service in the target corridor to refine the geographic and temporal focus of the initiative.
  - b. Identify key stakeholders in the community who are willing to partner with the police in addressing social disorder (e.g., residents, businesses, non-profits, governmental agencies).
  - c. Convene meetings to review the survey and research findings. Identify underlying factors contributing to social disorder in the target area.
  - d. Generate intervention strategies – narrow list to those that are achievable given a short time frame (60-90 days) and available resources.
  - e. Implement strategies and monitor outputs (e.g., # patrols, lights added, trespass citations issued).
  - f. Evaluate outcomes (e.g., calls for service, public perceptions) and refine strategies as needed.

## Survey Methodology & Sample Characteristics

PPB crime analysts used city databases to identify 3,163 household addresses in the Parkrose neighborhood. They mailed each household a letter in July 2016 from (then) PPB Commander George Burke. The letter explained the purpose of the project (i.e., “*learn more about public safety in the Parkrose neighborhood*”) and requested that all adult occupants complete an anonymous online survey. Additional efforts to encourage responding included targeted requests with key community groups and media sources in the neighborhood. Street officers in the applicable police district also handed out 3 x 5 cards with the survey link and paper versions of the survey.

Data for the present report were downloaded from the online survey site in November. A total of 349 completed surveys were available at that time. Unfortunately it is impossible to accurately determine the response rate for the survey because we do not know the true number of people who read the mailed invitation or heard about the survey through other means.

We acknowledge that the current sample represents a small proportion of the estimated 5,032 adults living in the neighborhood. We also know that the sample is not representative of all residents. Whites, females, and those 35 to 44 years of age were over-represented as compared to the 2010 Census figures (see table below; Population estimates obtained from PSU’s [Population Research Center](#)).

For more information about the survey methodology please contact Dr. Kris Henning at Portland State University, ([khenning@pdx.edu](mailto:khenning@pdx.edu)).

Demographics		% Survey Respondants	% 2010 Census*
Gender	Male	37%	58%
	Female	63%	42%
	Other	1%	**
Age	18 to 24	2%	14%
	25 to 34	19%	24%
	35 to 44	31%	21%
	45 to 54	18%	19%
	55 to 64	18%	13%
	65 or older	12%	9%
Race	White	84%	61%
	African-American/Black	4%	13%
	Asian	2%	10%
	Am. Indian/Alaska Native	1%	1%
	Native Hawaiian/Pacific Isl.	1%	2%
	Some Other Race	5%	9%
	2 or more races	4%	5%
Ethnicity	Hispanic	7%	16%
	Non-Hispanic	93%	84%

\*Gender and age based on adults; Race & ethnicity based on all ages. \*\*Not available.



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**For Additional Data  
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Portland Visit:**

**[http://www.pdx.edu  
/crime-data](http://www.pdx.edu/crime-data)**