

Glendale Police Department

Smart Policing Initiative II: Final Report

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Executive Summary

In 2011, the Glendale Police Department was awarded a second SPI grant. The Glendale SPI team sought to build on their previous success by continuing to focus on the target area in SPI I (in the Gateway patrol division), and by expanding the program to the other major patrol sector in the city: Foothills. During a 20-hour advanced problem-oriented policing training, the SPI team identified related and persistent problems in both patrol sectors. The Foothills officers devised a traditional POP strategy to target property crimes, especially organized retail theft. The officers identified two specific hot spots for property crime, a large mall (Arrowhead Towne Center) and a large apartment complex (6201 West Olive). The Gateway officers were more seasoned with POP, having participated in SPI I. As a result, they devised a unique model where they functioned as a fluid and nimble “Advanced POP team” that would engage problem offenders and problem places as they emerged in a large hot spot in the Gateway patrol sector.

The Glendale SPI II represented problem-oriented policing as envisioned by Herman Goldstein. The projects were grounded in continued, intensive problem analysis based on (but not limited to) calls for service data (Gateway), resident surveys (at 6201 West Olive), social and physical disorder surveys (6201 West Olive), examination of crime, disorder and suspicious activity through new data collection protocols (Arrowhead Towne Center), and social network analysis (Gateway and 6201 West Olive). The responses to the identified crime problems were comprehensive and collaborative. Though traditional crime suppression efforts were deployed for each project, additional strategies included Crime Prevention through Environmental Design tactics (6201 West Olive), outreach and education (all three projects), counter insurgency, (Gateway) and informal focused deterrence (6201 West Olive and Gateway).

The research partners evaluated the impact of the three projects using a variety of methods, from bivariate analysis to Interrupted Times Series Analysis (ARIMA). The three project areas experienced significant declines in crime and disorder during the study period, though in some cases, the declines were short-term. At Arrowhead Towne Center, the SPI led to a 27% reduction in calls for service – a statistically significant impact that continued through the end of the study period. At 6201 West Olive, the social and physical condition of the complex improved notably. Moreover, the team’s efforts led to a short-term, 15% drop in calls at the complex, though this reduction did not reach statistical significance and the call load spiked considerably during the last six months of the study period. In Gateway, the officers devised an Advanced POP team strategy that employed a variety of innovative techniques including social network analysis and counter insurgency. The strategy led to the identification and targeting of prolific offenders, and generated short-term, notable declines in several micro hot spots. The researchers documented numerous other non-crime related benefits, including improved social and physical conditions at the target locations, and new partnerships with stakeholders and the community.

The Glendale SPI II led to a number of important lessons learned regarding the difficulties of new partnerships, the importance of continued focus on problem areas, and the tension between limited resources and identified problems. Importantly, the groundwork for sustainability is evident, and as one of the oldest and most active SPI sites, the Glendale Police Department and their research partners at Arizona State University will continue to work together to push the boundaries of innovative police strategies that reflect the core principles of the Smart Policing Initiative.

Introduction

Glendale is the fifth largest city in the state of Arizona with a population of 226,721 (2010 US Census). While Glendale is a fairly prosperous city when compared to many communities, the southeast corner of the city, which borders Phoenix, is responsible for a disproportionate number of its problems related to crime and disorder. According to the Glendale Police Department (GPD), about 30% of calls for service and 55% of all arrests are attributed to the area, which encompasses just six square miles of the city (the city is 56 square miles). In 2010, GPD recorded 7,233 Part I crimes in the target area, 6,713 property offenses and 520 violent offenses – giving the target area violent crime and property crime rates of 5.0 and 64.5 per 1,000 population, respectively (significantly higher than the overall city rate).

Persistent crime in this target area, particularly property crimes, led to the GPD in 2009 to seek out funding from the Bureau of Justice Assistance's (BJA) Smart Policing Initiative. GPD was selected as one of the ten originally funded sites, and over the course of that first two-year grant, GPD and its research partner, Arizona State University (ASU), employed the SARA model of problem-oriented policing to identify problems, to determine their underlying causes, and to implement and assess evidence-based responses. The first SPI grant focused on two recurring problems in the aforementioned target area: disproportionate retail theft at Circle K convenience stores, and a problematic large apartment complex that generated an excessive amount of calls for police service. GPD experienced success with both of these problems through the application of strong place-based interventions that included suppression (i.e., traditional law enforcement strategies), intervention with place managers, crime prevention through environmental design (CPTED), and engagement with other stakeholders. For the apartment complex, successes included improved business practices and adherence to CPTED principles; eviction of problematic tenants, near-capacity occupancy rates, and reduced calls for service. For the Circle K project, successes included: the identification of two primary offender groups (repeat, career criminal offenders; and "party-hopping" youths); identification of repeat offenders and targeted suppression efforts at those offenders; prevention efforts directed at juvenile offenders (including production of a public service announcement); identification of poor business practices and recalcitrance

on the part of Circle K to alter those practices; and the development of a valley-wide working group of law enforcement agencies to collectively address the Circle K theft problem (including Mesa, Peoria, Phoenix and Tempe). The comprehensive SPI efforts at six Circle K locations led to a 42% drop in calls for service at those locations, a trend that was not experienced by other convenience stores in Glendale (see White and Katz, 2013).

In 2011, the Glendale Police Department was awarded a second SPI grant. The Glendale SPI team sought to build on their previous success by continuing to focus on the original target area (in the Gateway patrol division), and by expanding the program to the other major patrol sector in the city: Foothills. The SPI team identified related and persistent problems in both patrol sectors. The Foothills officers devised a traditional POP strategy to target property crimes, especially organized retail theft. The officers identified two specific hot spots for property crime, a large mall (Arrowhead Towne Center) and a large apartment complex (6201 West Olive). The Gateway officers were more seasoned with POP, having participated in SPI I. As a result, they devised a unique model where they functioned as a dedicated “Advanced POP” team that would engage problem offenders and problem places as they became identified (through scanning and analysis) in a large hot spot in the Gateway patrol sector. The Glendale SPI team applied the SARA model approach to the identified problems. Notably, the original SPI grant focused almost exclusively on a place-based approach. That is, crime hot spots were identified (e.g., Circle Ks and the apartment complex) and SPI efforts focused on criminal activity at those locations. Under the new grant, the Glendale SPI team sought to develop and deploy both place-based and offender-based strategies to address the identified crime problems: in effect, targeting the “hot people” in the “hot places.”

This report describes the implementation and impact of the strategies that were devised to address the target problems and target offenders, as part of the Glendale Smart Policing Initiative II. The first section of the report describes the development of problem-oriented policing as well as the available research on the strategy, which has emerged as an evidence-based practice. The second section of the report described the intensive training on POP and the SARA model, which served as the foundation for

the Glendale SPI II. The report then describes each of the three SPI projects (prolific property offenders and crime at 6201 Olive [Foothills] and Arrowhead Towne Center [Foothills], and the Advanced POP team [Gateway]), outlines the strategies that were devised and deployed, and evaluates the impact of the strategies on crime.

Problem-Oriented Policing and the SARA Model: The Foundation of the Glendale SPI

The Emergence of Problem-Oriented Policing

Throughout much of the 20th century, police departments espoused a traditional style of policing grounded in a reactive patrol model and a “triage approach” to handling calls for service. By the 1970s, however, serious questions had emerged regarding this “professional” model of policing. The results from the Kansas City Preventive Patrol study (Kelling et al., 1974), coupled with crime increases, riots in many urban centers, and serious deficits in police-community relations strongly suggested that the professional model was not an effective way to engage in day-to-day police business. In 1979, Herman Goldstein transformed policing with his critique of the professional model and his call for a problem-oriented approach to policing. He argued that police over-emphasized internal management processes, which had relatively little impact on reducing crime, in an effort to achieve “administrative competence.” Goldstein (1979: 239) described this as a “means over the ends syndrome.” He used an amusing analogy involving bus drivers who became so concerned with maintaining their on-time schedules that they no longer stopped to pick-up passengers. Goldstein (1979) argued that both police and the bus drivers had lost sight of their primary mission.

For the bus drivers, the fix was simple. Maintaining an on-time schedule is important, but it should not come at the expense of transporting passengers. For police, the fix is more complex and involves an examination of the police role. Goldstein reflected on the fact that the police role was defined in vague terms and focused on such broad concepts as crime, order maintenance, and service. This led the police to design and implement generalized responses that were reactive and lacked specificity. Instead, he argued that the police needed to re-focus their attention to the specific objective of policing, which is

to deal with problems. More specifically, Goldstein (1979) stated that the police should target discrete problems (e.g., homicide, disorder, drunk driving) and develop customized responses to attack the causes of each problem. This would require the police to engage in research to understand the problems, and explore alternative responses to address those problems (e.g., thinking outside the box beyond traditional law enforcement). For example, Goldstein (1979; 1990) called for the police to make greater use of city ordinances, zoning regulations, and other civil remedies, and to collaborate with other agencies to determine the most appropriate response to a given problem.

Eck and Spelman (1987) facilitated the adoption of problem-oriented policing (POP) by developing a clear, concise problem-solving strategy with an easy-to-remember name —the SARA model. The SARA model outlined the four major steps the police should follow to implement problem-oriented policing: scanning, analysis, response, and assessment. The first stage of problem-oriented policing is scanning, or problem identification. Scanning can be done in a number of ways. For example, officers might look for problems in their assigned beat (e.g., based on physical and social indicators). Officers might also work with crime analysts to review calls for service to identify potential problems or addresses (e.g., Goldstein [1979; 1990] noted that problems will manifest as a collection of related incidents that share one or more underlying causes). The second step in problem-oriented policing is analysis. During this stage, the police collect information about the problem in an attempt to identify its scope, nature, and root cause. Analysis involves the police conducting research on the problem: collecting data from a range of different sources (police data, observation, interviews of relevant parties) and analyzing that data to identify the causes of the problem. This often leads the police to focus on three characteristics (or elements) known as the crime triangle: offenders, places, and victims (Eck, 2003).

The third stage of problem-oriented policing is the development and deployment of responses. Based on results from the analysis stage, a strategy for addressing the problem is developed and implemented. Importantly, the response is developed based on an understanding of the root causes of the problem. The response might rely on traditional law enforcement or suppression strategies, but it should

be comprehensive and include additional approaches such as informal mechanisms of social control (e.g., pulling levers), civil law (e.g., code enforcement), engagement of place managers, and/or restructuring environments (e.g., CPTED). The last stage of POP is assessment. Assessment is the evaluation of the effectiveness of the response. Assessment should incorporate rigorous evaluative methods that measure program impact. The assessment phase also provides the police an opportunity to alter strategies that have been ineffective.

Empirical Research on Problem-Oriented Policing

Problem-oriented policing has been implemented and evaluated in numerous jurisdictions. The first experiment testing the impact of POP was conducted in Newport News, Virginia. For years, the Newport News Police Department attempted unsuccessfully to address burglaries in the New Briarfield apartment complex. The National Institute of Justice selected the Newport News Police Department to pilot test a problem-oriented policing model, and as part of the process, a task force of officers developed the four-step SARA model (Eck and Spelman, 1987). The analysis determined that the physical condition of the complex contributed to crime in general and burglaries in particular. A comprehensive response was developed that sought to address the declining conditions of the complex. Subsequent analysis showed that the response led to a 35% reduction in burglaries at the complex (Eck and Spelman, 1987).

Problem-oriented policing has taken on a variety of forms over the past 30 years, with police agencies often focusing on particular people, places, and events that generate crime, disorder or other problem behavior. Prior evaluations have consistently supported the effectiveness of POP strategies in reducing a wide range of crime and disorder problems such as firearm-related homicides, street level drug dealing, violent and property crime, and prostitution (Sherman, 1989; Kennedy, 1997; Green-Mazerolle et al., 1999; White et al., 2003; Reitzel et al., 2005). Moreover, the model is embraced by police practitioners because of its simplicity and clarity. However, scholars have noted that, in practice, certain elements of the model are more difficult to implement than others. For example, scanning and response development are typically “easy” for police to implement (though there is a tendency to over-rely on

traditional enforcement strategies). Analysis, however, does not come as naturally to police officers, and as a result, it is sometimes given short shrift. Braga and Weisburd (2006: 146) referred to this tendency as “shallow problem solving,” and they caution that inadequate analysis can short-circuit the entire strategy because it results in officers not fully understanding the problem and its causes.

In the most comprehensive examination of POP to date, Weisburd, Telep, Hinkle, and Eck (2010) identified more than 5,500 studies of problem-oriented policing, and they conducted a meta-analysis of the ten studies that utilized experimental or quasi-experimental designs to examine the impact of the strategy on crime and disorder. They reported that POP had “a small but meaningful impact” (Weisburd et al., 2010: 153) among the ten study sites. The authors concluded that while POP is one of the most significant police innovations over the past several decades, few studies have examined the strategy through methodologically rigorous research designs.

More recently, problem-oriented policing has been implemented by a number of jurisdictions as part of their Smart Policing Initiative. As mentioned previously, in their first SPI grant the Glendale Police Department employed a POP approach to address crime and disorder at Circle K convenience stores, resulting in a 42% decline in calls for service at target locations. The Boston Police Department also adopted a POP approach that centered on deployment of problem-oriented policing teams to violent crime hot spots (called “Safe Street Teams” or SSTs). The SST officers deployed nearly 400 different environmental, enforcement and community/social service interventions in the target areas, leading to 15-19% reductions in violent index crimes, robberies and aggravated assaults (Braga, et al., 2012; Braga and Schnell, 2013). Other SPI sites that have implemented POP strategies include Lowell (MA), Los Angeles, New Haven (CT), and Philadelphia (www.smartpolicinginitiative.com).

The Glendale SPI Training on Problem-Oriented Policing

The Glendale Smart Policing Initiative II began with advanced training in problem-oriented policing and the SARA model. From January through April 2012, the research partners from Arizona State University (White and Katz) provided classroom based training (approximately 20 classroom hours) grounded in the model curriculum available through the Center for Problem-Oriented Policing (see

http://www.popcenter.org/learning/model_curriculum). Approximately 25 officers from the Gateway and Foothills sectors attended the four-month training.¹ Table 1 shows how the instructional component of the training was organized, using a combination of Power Point presentations (from the POP Center), traditional lectures by the ASU research partners, and webinars from the Smart Policing Initiative. Though the lecture-based material (and webinars) were vital to knowledge transfer, the centerpiece of the training involved “homework assignments” that required officers to complete each phase of the SARA model. The assignments instructed officer groups (from 3-5 officers) to scan to identify problems; to complete in-depth analysis to understand the scope, nature and causes of the problem; and to develop response and assessment plans. Officers were told to “think big” and identify problems that have been persistent and difficult to solve. Table 2 shows the assignment for the Scanning Phase (additional assignments are found in Appendix A).

¹ Several of the officers in the Gateway sector attended the training as part of Glendale SPI I. As a result, they were not required to sit-in on the earlier sessions. They did, however, attend the later sessions as the teams began the SARA model exercises.

Table 1: Training Schedule for the Glendale Smart Policing Initiative II

Session I (2-2.5 hours): 1/25/12

- Introduction by Chief Conrad
- Introduction to SPI and Reflections on SPI 1: Lt. Balkcom, Professor Katz

Session II (2.5 Hours): 2/1/12

- SPI Problem-Oriented Policing Webinar
- Power Point on POP and SARA (Case Study: Chula Vista)

Session III (2.5 hours): 2/15/12

- SPI Targeting Offenders Webinar
- Power Point on Theories
- Discussion of Objectives for SPI II
- Break into Groups and Hand out Assignment #1: Scanning to identify places

Session IV (2.5 hours): 2/29/12

- SPI Offender Notification Webinar
- Presentation on Social Network Analysis
- Group Presentations and Discussion of Assignment #1

Session V (2.5 hours): 3/14/12

- SPI Research that Matters Webinar
- Group Presentations and Discussion of Assignment #2

Session VI (2.5 hours): 3/28/12

- Collaboration Webinar
- Power Point on Evaluation and Assessment
- Group Presentations and Discussion of Assignment #3

Session VII (2 hours): 4/11/12

- Group Presentations and Discussion of Assignment #4

Importantly, the problems identified by the officer groups in training served as the foundation for the POP work the officers would engage in over the next several years. The discussion of the SARA assignments was designed to be interactive among the officer groups, with the ASU training instructors acting as facilitators. This format produced a lively dialogue among officer groups that tapped into officers' expertise and street knowledge. In effect, the SARA plans that were devised and carried out were the end result of the iterative process that engaged the entire training class and the ASU faculty.

Table 2: Glendale POP Training Assignment: Scanning

Instructions

The objective of this field assignment is to identify and explore the problem places or people that your group has selected. Each group should pick one problem. This is the Scanning Phase of SARA. Please complete the following:

1. Characterize the nature of the problem.
 - a. What kind of place is it (store, bar, apartment complex)?
 - b. What type of behavior, activity or events?
 - c. What kinds of people do you think are causing problems (gangs, juveniles, etc)?
 - d. What is the harm?
 - e. Who is experiencing the harm?
 - f. Do those experiencing the harm expect police to do something?
 - g. Are the events recurring? How so? For how long?
 - h. Do the recurring events have something in common?
2. Please identify a second problem that you believe is similar to the first. This second problem can serve two purposes: it can be the “on-deck” problem for your group, and it can also serve as a comparison to the first problem. Discuss this second problem and compare it to the primary problem.
3. Develop an Analysis plan to examine the primary problem.
 - a. Who will conduct the analysis?
 - b. How will the analysis be completed (methods; interviews, call data, etc.)?
 - c. What data will be collected?
 - d. How will the analysis be carried out?

Please select a group leader who will present the assignment to the rest of the training class during our next session (2/29), preferably using PowerPoint. Presentation of results should be in the range of 15-20 minutes.

The Foothills officer groups identified two problems to target: prolific property crime offenders at 6201 West Olive (a large apartment complex in the Foothills sector) and property crime at Arrowhead Towne Center (a large mall in the Foothills sector). The more seasoned Gateway officers devised an approach where they would act as an Advanced POP team that would address problem places and people as they emerged in the general target area from SPI I (e.g., a large crime hot spot).² The implementation of the SARA model with each of these problems is described below.

² The Glendale SPI team had also identified a fourth project location. During the SPI training, construction began on a large outlet mall called Tanger Outlets. The SPI team began engagement with the management team at Tanger during construction, with the intent of developing an ongoing, collaborative partnership. Two things caused the team to drop the project. First, attorneys at Tanger and Arizona State University could not agree to the terms of a nondisclosure agreement. Second, a budgetary shortfall caused the Glendale Police Department to eliminate one of

Problem 1: Prolific Property Crime Offenders at 6201 West Olive (Foothills)

As part of the scanning and analysis phases of the SARA model, the Glendale SPI team in the Foothills sector identified 6201 West Olive as a project location. The apartment complex is quite large with more than 750 units. Officers selected the location because it generates a disproportionate amount of calls for service involving property crimes, and is consistently among the top locations in the city for automobile theft. For example, from 2008-2011, 6201 West Olive generated, on average, 570 calls for service per year; or about 1.5 calls per day.

The SPI work at 6201 West Olive was composed of several core activities, each of which is described below. The SPI at the apartment complex began with a survey of residents. The resident survey was designed to capture tenants' perceptions of the crime problems at their complex (i.e., additional analysis). Based on the results of the analysis phase, the Foothills SPI team devised a multi-faceted response that included ongoing assessments of social and physical disorder; law enforcement suppression operations; a public awareness campaign; social network analysis (SNA) with known drug offenders who live in and near the complex; and an informal focused deterrence approach with offenders identified through the SNA. The impact of the SPI activities was assessed through a comparison of call activity at the target apartment complex, as well as six comparison complexes, using both bivariate analysis and Interrupted Times Series Analysis (ARIMA; with monthly call for service data from January 2008 through July 2014).

Additional Analysis: Apartment Complex Residents' Survey

Though officers' street knowledge and official police department data provided useful insights on the crime problems at the apartment complex, the Glendale SPI team sought to enhance our understanding of the issues of concern through an in-depth resident survey. The research partners developed an instrument (see Appendix B) that captured residents' perceptions of crime and disorder at the complex

the specialized units (Neighborhood Response Squad) that was participating in the SPI (sending the officers in that unit back to patrol).

(nature, prevalence and type), as well as victimization, fear of crime, and perceptions of the Glendale Police Department. The researchers deployed a team of approximately six undergraduate and graduate students to conduct door-to-door surveys of residents. Students worked in pairs and were assigned specific areas or buildings in the complex. Students knocked on each apartment unit door up to five times (over multiple days) before classifying the unit as “no response.” The survey was available in English and Spanish, and Spanish-speaking students were on location for each day of survey administration. The students received completed surveys from 410 apartment units, for a response rate of approximately 55 percent (only 650 units were occupied at the time the survey was completed).³ The survey respondent profile is as follows:

- 57% male; 43% female;
- 53% single, never married; 23% married;
- 45% White (Non-Hispanic); 16% Black (Non-Hispanic); 23% Hispanic;
- Mean age = 29.6;
- Average number of months living in the complex = 16.9.

The key findings from the resident survey are as follows:

- The most commonly cited community–related concerns were social disorder issues.
 - “Drunks” and drug users hanging around the complex (37.5%);
 - People fighting and arguing (44.7%);
 - Noisy neighbors or loud parties (31.5%);
 - Reckless or fast driving (42.2%);
 - Physical disorder issues were not identified as problematic.
- The most commonly cited crime problems were burglaries from apartments (14.7%) and cars (23.1%), and drug use/dealing (38.3%).

³ The research team coordinated their initial visit to the complex with GPD in June 2012. However, the apartment complex manager asked the team to wait to initiate the research effort until she received permission from her corporate office. Permission was received in mid-August, and the surveys were administered from August 30 – September 8, 2012.

- Approximately 30% of residents indicated that they were concerned about becoming a victim of a crime in the complex; and 35% were concerned that their apartment would be burglarized while they were away from the home.
- Residents' perceptions of the Glendale Police Department were very positive.
 - Nearly half (48.5%) stated that they were very satisfied with police, and 43.7% said they were somewhat satisfied.
 - 80-82% stated that the police treat people fairly and are respectful of people in the complex.
 - Just 4% stated that they were afraid of the police.

The research confirmed police officer concerns regarding property crimes at the complex, particularly burglary and theft. The survey also documented residents' concerns with social disorder and quality-of-life issues, from noisy tenants and reckless driving to drug using in public spaces. The resident survey findings, along with the officers' street knowledge and analysis of calls for service, served as the foundation for the development of a comprehensive response plan that incorporated Crime Prevention through Environmental Design (CPTED, but with a focus on social disorder), public outreach and prevention, law enforcement/suppression operations, and informal focused deterrence targeted at influential offenders identified through social network analysis.

Response 1: Social and Physical Disorder Surveys

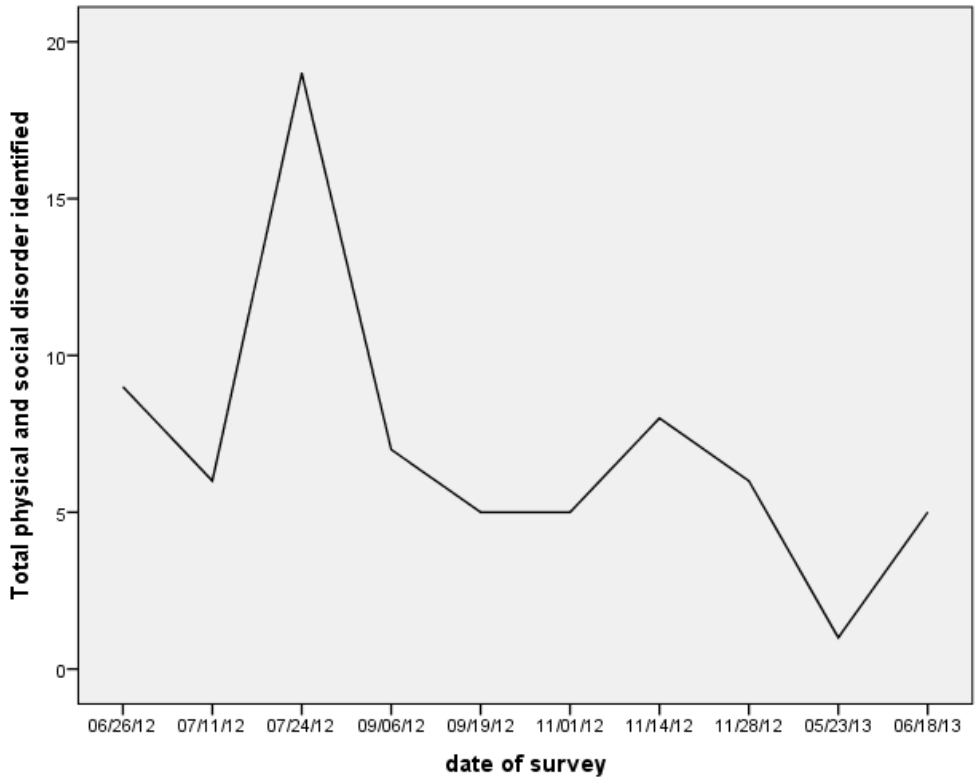
In order to address residents' concerns about quality of life issues and social disorder, the Glendale SPI team administered a social and physical disorder survey that captured various aspects of the apartment complex's physical and social environment, such as litter, property damage, graffiti, overgrown foliage, prostitution, open air drinking and drug using/dealing, panhandling and loitering. The survey also captured positive social and physical environmental characteristics, from painted-over graffiti and evidence of revitalization to children playing outside. The survey, which was developed during Glendale SPI I and is a modified version of the survey developed by Weisburd et al. (2006), is grounded in the principles of CPTED (see Appendix C). Glendale SPI team members who are crime prevention specialists (and are certified in CPTED) completed the disorder survey at the apartment complex on a periodic basis for one year, from June 2012 through June 2013. Following each survey administration, members of the SPI team would meet with the apartment complex manager to discuss social and physical

disorder issues that were identified, in order to get the issues resolved quickly. The apartment complex manager was appreciative of the GPD efforts and was very responsive in terms of addressing identified areas of concern.

Interestingly, the disorder survey results were a bit inconsistent with the resident survey results. The resident surveys described social disorder issues as the most concerning, from public drinking and loud parties to reckless driving. Alternatively, the disorder surveys consistently documented physical disorder problems, from trash, debris and over-grown foliage to un-drivable/damaged cars. The discrepancy may be tied to the presence of the officers when they conducted the disorder survey (i.e., the presence of the police vehicle and officers on foot completing the survey may have reduced the social disorder temporarily), or the times at which the disorder survey was completed (mostly during daylight hours). Figure 1 shows the total physical and social disorder issues identified during each survey administration. Regardless of the discrepancy, Figure 1 shows that the apartment complex manager was able to successfully respond to the identified areas of concern.⁴

⁴ Narrative comments from the crime prevention specialists on the last two disorder surveys indicated that the physical appearance of the complex had improved considerably.

Figure 1: Results from Social and Physical Disorder Surveys at 6201 West Olive



Response 2: Law Enforcement and Suppression

The Glendale SPI team also engaged in more traditional suppression and crime control operations throughout the study period. The activities included increased patrol presence, the use of license plate readers, and surveillance operations using unmarked vehicles and “bait” bikes. Though law enforcement efforts focused specifically on theft and drug use/selling, the overall objective was to generate a deterrent effect through periodic heavy patrol presence, which prior research has suggested can be successful in crime suppression (Koper, 1995; Telep et al. forthcoming). More specifically, the crime suppression at 6201 W. Olive Ave took place in two phases. The first was a focused suppression where officers/detectives specifically focused on the apartment complex and nearby areas to address offenders. A zero tolerance approach was taken as a means to deter criminal activity in the focus area. These focused suppressions occurred on a varied schedule so not to lead offenders to believe that enforcement was only taking place on specific days of the week. The approach was also focused on specific offenders which

allowed the team to maximize resources. The second phase or “maintenance” phase was a periodical review of criminal activity at 6201 W. Olive Ave. The focused suppressions worked as a means to address criminal activity as a whole, while the “maintenance” phase was used as a means to identify reoccurring issues and offenders. This phase also emphasized the relationship between apartment management and police. While offenders identified and addressed during the focused suppression phase were reported to management for eviction, the “maintenance” phase built on that with the addition of regular meetings with management, the use of more rapid responses to complaints and addressing any CPTED issues with the aid of the Community Action Team (CAT).

The suppression and maintenance strategies often both produced both arrests and evictions (when the arrestees were tenants at the complex). For example, a suppression operation on one night in late April 2014 produced 4 arrests and 7 evictions. Overall, 65 offenders were identified and arrested. Of the 65 arrests 30 were for felony offenses, which speaks to the efforts made to identify and target the top offenders in the area. Additionally, three search warrants were drafted and 13 evictions were obtained based on the SPI team efforts.

Response 3: Outreach and Public Education

Given that the primary crime issues at the complex involved burglaries from apartments and vehicles, the Glendale SPI team developed a range of outreach and public education efforts to reduce risk of victimization. Members of the team met at least bi-weekly with the apartment complex manager to discuss ongoing concerns and emerging problems (including results from the social and physical disorder surveys). The Glendale SPI team developed a “vehicle report card” which assesses the risk of victimization for burglary from vehicle based on: property left in plain view, keys left in the vehicle, automobile windows left open, automobile doors unlocked, and other issues (see Appendix D). The team conducted vehicle inspections in the parking lot of 6201 West Olive periodically throughout 2013. For example, in February 2013 SPI crime prevention specialists examined and left report cards on 300 vehicles (60 vehicles had identified risk factors or areas for improvement). In April 2013, the team

examined and left report cards on 500 automobiles (100 had identified risk factors areas for improvement). The same process was carried out again in July 2013 (400 vehicles).

Response 4: Social Network Analysis and Informal Focused Deterrence

The Glendale SPI team also sought to identify prolific offenders who resided in or near 6201 West Olive using a statistical technique called Social Network Analysis. Morselli (2010) notes that social network analysis provides a method for visually and analytically understanding the social and structural organization of such criminal enterprises as gangs, drug traffickers, terrorists, and organized crime groups. Social network analysis focuses on interactions between people and/or groups rather than their attributes or individual characteristics (Wasserman and Faust, 1994; McGloin, 2005b); thus having the capacity to link group structures to individual actions. Social network analysis graphically displays relationships in the form of sociograms and has the potential to identify structures of groups (de Nooy, Mrvar, and Batagelj, 2005), whether these groups are densely connected, the role that individuals play within groups (Wasserman and Faust, 1994; Scott, 2007), who is fighting who, as well as a number of other valuable pieces of information that has the potential to help police officials effectively design responses to gangs (Papachristos, 2005; McGloin, 2005a; Morselli, 2010).

McGloin (2005a) played a major role in contributing an understanding of how social network analysis can be used by the police as part of a strategic problem analysis plan. First, in her analysis of interview data with police officers and others she determined that gangs in Newark were loosely organized and that some individuals were peripheral to the gang and others were well embedded within it. This indicated that different strategies were needed depending on a person's position within the gang. Second, she reported that social network analysis allowed for an understanding of who held "structurally important positions within the gang networks" (McGloin, 2005a: 18). Certain gang members, referred by social network analysts as "cutpoints" were found to be the only connection between other gang members. These individuals can be selected for intervention (arrest, call in, etc.), which can potentially have a significant impact on the group.

Papachristos (2009) used police homicide records and gang information on the offender and victim obtained from detectives to conduct social network analysis for the purpose of examining the reciprocity, dominance, and social contagion of gang homicide. He found that gang homicides created a structure, or social network, through which violence moved. Violence was spread in order that gangs could maintain their dominance, or status, within the social structure. He concluded by arguing that social network analysis provides powerful information that can be used to focus intervention resources to disrupt violent interactions between gangs. Katz (2006) performed a similar analysis of homicides in Trinidad and Tobago. Analysis of homicide data in conjunction with police interview data indicated that a very small number of gangs were responsible for a large percentage of homicides in the nation. He reported that an even smaller number of the gangs could be characterized as being “aggressors” and were responsible for the instigation of violence contributing to relatively short spurts of reciprocal gang violence. The analysis was used by the police to intervene in the cycle of violence (Katz, 2006); and to target particular criminal groups.

Given the connections between property crime and drug use in Glendale and other Smart Policing sites (see Bond et al., 2014), the research partners sought to replicate the above work by asking GPD team members to nominate 8-10 known drug offenders at the target location for the purpose of conducting SNA. Once the initial list was finalized, team members pulled all department records (DRs) on each of those offenders, dating back to January 1, 2010. This pull included reports where a nominated offender was arrested, was an investigative lead or a suspect, as well as field interview (FI) and gang information cards. Each report for a nominated offender was reviewed to determine if there were additional people mentioned in the event (i.e., the nominated offender’s associates). Each additional person who was identified on a nominated offender’s report was then recorded as an “associate” to the network list, producing a much larger network of offenders (the original 8-10 nominated offenders and all of their associates). The Glendale SPI team then pulled all department records for each of the newly identified associates. The team again reviewed all reports generated from contacts with the associates to identify a

“third cut” of offenders in the social network: the “associates of the associates.” The process produced three layers of the social network: the original nominated list of offenders (n=9); the associates of the nominated offenders (n=43), and the associates of the associates of the nominated offenders (n=110).⁵

The researchers then conducted a social network analysis with the identified offenders using a software package called *Pajek*. The complete social network is shown in Sociogram 1. The research team selected the *betweenness* measure of centrality to identify the most important individuals in the network (*betweenness* focuses on those individuals who are the “intersection” on many paths to other members of the network; i.e., they have connections between large numbers of people in the network).⁶ Table 3 shows the 20 individuals with the highest betweenness scores in the network. For example, offender #8 has the highest centrality score, indicating that the offender is connected to 26.18% of the offenders in the network. Offender #35 is connected to 18.62% of the offenders in the network, and Offender #49 is connected to just 2.6% of the network.

⁵ Individuals were removed from the list for any one of three criteria: 1) associates who did not have any indication they were a suspect or investigative lead (IL; as suspect) on a DR since January 1, 2010; 2) the individual was found to be incarcerated, with an expected release date in excess of 6 months from October 1, 2013 (estimated full initiation of response); and 3) they were deceased.

⁶ There are two other commonly used measures of centrality: degree (which is the number of ties an individual has in the network) and eigenvector (those who are connected to well-connected individuals). We selected betweenness because the measure emerged as the most useful in prior research on gangs in Glendale, Arizona (Fox et al., 2012).

Sociogram 1: Social Network Analysis of Offenders Tied to 6201 West Olive

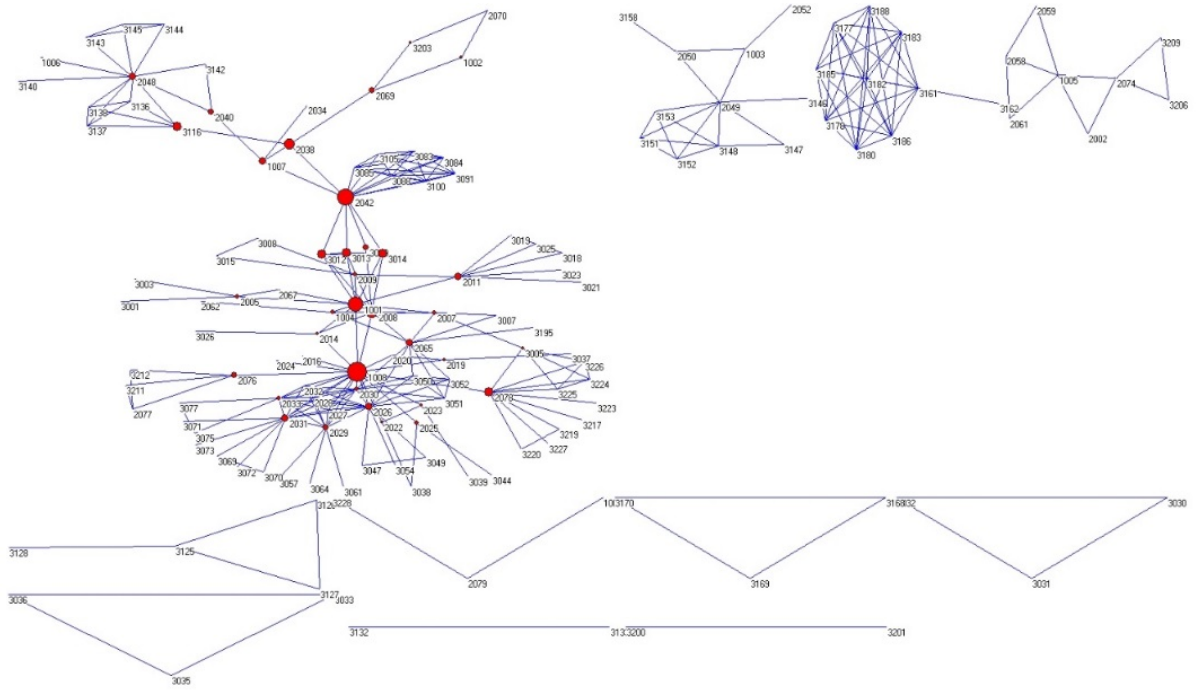


Table 3: *Betweenness Centrality for Offenders Tied to 6201 W Olive*

Number	Label	Betweenness centrality in N1 (153)	Last Name	First Name	DOB
8	1008	0.261810947	--	--	07/04/92
35	2042	0.18617114	--	--	02/03/92
1	1001	0.172179282	--	--	11/29/92
13	2008	0.102292079	--	--	08/19/92
33	2038	0.086789822	--	--	12/19/81
51	2078	0.063276984	--	--	05/08/78
59	3012	0.050176427	--	--	09/16/87
60	3013	0.050176427	--	--	01/08/94
61	3014	0.050176427	--	--	11/23/90
102	3116	0.04884106	--	--	02/24/71
7	1007	0.046575462	--	--	10/26/78
36	2048	0.044484141	--	--	02/10/83
15	2011	0.043482049	--	--	02/25/94
29	2031	0.043482049	--	--	07/05/86
24	2026	0.037289416	--	--	08/04/71
44	2065	0.034379786	--	--	06/22/93
34	2040	0.031326246	--	--	10/01/84
27	2029	0.026402928	--	--	04/22/67
46	2069	0.026185082	--	--	06/19/88
49	2076	0.026185082	--	--	07/14/90

The research team then prepared an intelligence packet for each of the top 40 most “connected” people in the network. The intelligence packet included a picture of the offender, home address, a list of all department reports, supervision status (e.g., on probation), a visual depiction of the individual’s place in the network, and a list of known associates. An example is shown in Figure 2.⁷ The Glendale SPI team held a meeting to review the intelligence packets on all 40 top offenders. During the meeting, officers discussed each offender in terms of their background, criminal history, known location, supervision status, warrants, associates, and officer intelligence on their current activities. Fifteen offenders were identified for intervention.

⁷ This is a mock-up and does not show a “real” person in the 6201 West Olive network.

More specifically, each sworn officer on the Glendale SPI team “adopted” two or three offenders and began the process of tracking them down. The research partners developed an informal focused deterrence script to be read to each offender. The focused deterrence message included the following:

- The police department knows who you are and is aware of the crimes you have been committing.
- We will be watching you, and if you continue to commit crimes, we will arrest you.
- We realize that you may need help with education, getting a job, drug treatment, or other issues. We can connect you with service agencies that can help you with those problems, and can help you to stop committing crimes.
- This is your one and only warning. Commit crime and you will be arrested and sent to jail. Ask for help, and we will make sure you get it.

Figure 2: Intelligence Packet on an Offender Identified through Social Network Analysis

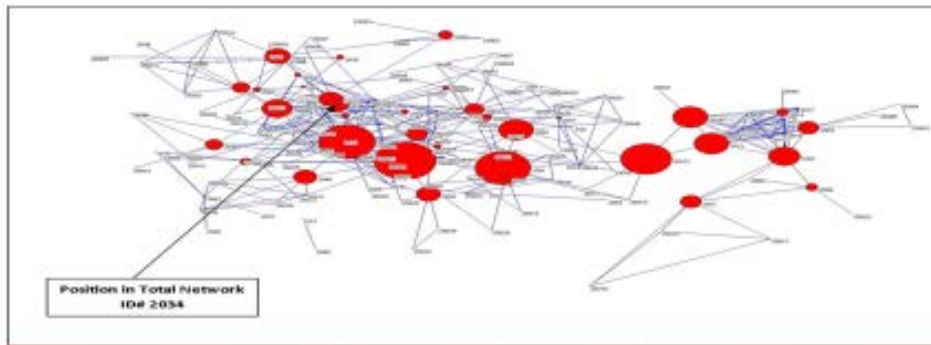
Doe, Jane
Network ID#: 2034
GLENDALE SPI—VIOLENT NETWORK INTEL SHEET

AGE:	29
DOB:	00/00/1900
SSN:	999-99-9999
SEX:	FEMALE
RACE:	Hispanic/Latina
HEIGHT:	506
WEIGHT:	120
ADDRESS:	4412 N 77 ave; Phoenix, AZ 85099 [STABLE—PARENT]
EMPLOYER:	Unemployed
EMPLOYER'S ADDRESS:	NA
GANG:	NA
CUSTODY STATUS:	NONE—Released ADC 99/99/2099
PROBATION STATUS:	NONE
PROBATION OFFICER:	
PD CONTACT:	
RECENT DRs	
11-119999	INVOLVE TYPE: S (BO) DESCRIPTION: Misd Warrant
11-9999	INVOLVE TYPE: S (BO) DESCRIPTION: Misd Warrant
10-9999	INVOLVE TYPE: S (BO) DESCRIPTION: DV-Assault
10-9999	INVOLVE TYPE: S (BO) DESCRIPTION: Prohibitive camping
10-999	INVOLVE TYPE: FI DESCRIPTION: Suspected selling of drugs
10-99999	INVOLVE TYPE: S DESCRIPTION: Poss. of Marijuana
10-9999	INVOLVE TYPE: FI DESCRIPTION: Loitering



Other information:
FBI #: Subside-99999





ASSOCIATE	DR#	INVOLVEMENT TYPE	DR#	INVOLVEMENT TYPE
1005-MICHAEL	12-1	FI	12-8	FI
	12-7	FI	12-9	FI
	12-6	VICTIM	13-2	IL
	13-2	FI	12-9	SUSPECT
	12-7	VICTIM	12-1	FI
	12-7	VICTIM	12-9	SUSPECT
	13-5	FI	12-2	FI
	12-1	FI	12-4	SUSPECT
	13-2	SUSPECT	10-8	FI
	13-2	VICTIM	12-6	FI
2004-DANIEL	12-2	FI		
2031-JAMES EDWARD	NONE			
2052-NICOLE	NONE			
2055-BOB	13-4	FI		
26008-KEN	NONE			

Thirteen of the 15 offenders were contacted and given the focused deterrence message. Of the two not given the message, one could not be located, and the second had been deported in the intervening time from analysis to notification intervention. The assigned officers maintained contact with their offenders over the next several months. During that time, six of the 13 offenders were arrested on various charges, from shoplifting to probation violations and warrants. The remaining offenders had no formal contact with the GPD. By the time of the writing of this report, all six arrested offenders were back on the street, and had been re-contacted by police for a new focused deterrence message. Also, by September 2014, the whereabouts of four of the offenders was not known, and the team suspects that they have moved out of the area. The impact of the focused deterrence message on the 13 offenders is not entirely clear, though any reductions in criminal activity among this group should be captured in the impact assessment described below.⁸

Assessment: Bivariate and Interrupted Time Series Analysis

The research partners employed a two-phase analysis, including bivariate analysis and Interrupted Time Series Analysis (ARIMA) to test the impact of the Smart Policing Initiative at 6201 West Olive. The research partners examined all call for service data at the target location and six comparison apartment complexes, from January 1, 2008 through September 30, 2014. The six comparison apartment locations were selected as follows:

- Two based on similar call for service levels: 6112 N 67th Ave; and 5631 W Colter;
- Two based on similar size (e.g., number of units): 7711 N 51st Ave; 5205 W Thunderbird;
- Two based on proximity (e.g., nearby): 7841 N 59th Lane; 8150 N 61st Ave

Figures 3-5 show the average monthly calls for service to the target location and the comparison locations, from 2008-2014 (we use the average monthly total so the incomplete year 2014 can be

⁸ The Glendale SPI team also experimented with the use of cell phones to generate a social network analysis. The officers confiscated six cell phones from offenders arrested at or near 6201 West Olive. The research partners used the call and text histories on those phones to create a social network. The use of cell phones was not nearly as successful as the use of official police data, though the cell phone data did produce a wealth of actionable intelligence regarding criminal activity at the apartment complex.

included). Though the ARIMA technique relies on monthly call data, Figures 3-5 give a higher-level picture of call activity at the seven locations. The figures show that 6201 West Olive was fairly distinctive in terms of calls for service compared to the other locations. After a sizeable drop in 2009, the call load spiked in 2010 before starting a slow decline in 2011-13 (note that SPI activities started in summer 2012). However, calls for service spiked notably in 2014. There are a few noteworthy trends among the comparison locations. For example, in Figure 3, 5631 West Colter experienced the largest increase in calls among all the complexes during the study period. In Figure 4, 5205 West Thunderbird shows a similar pattern until 2014, and 7711 North 51st shows a general increase over time.

Figure 3: Target Apartment Complex and Two Comparison Complexes (Similar Call Load)

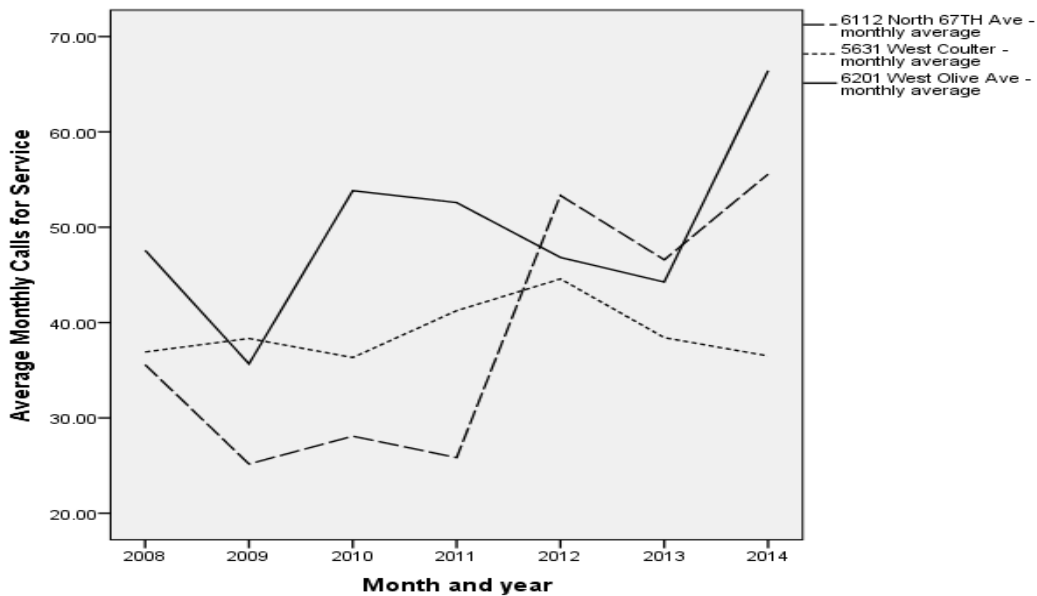


Figure 4: Target Apartment Complex and Two Comparison Complexes (Similar Size)

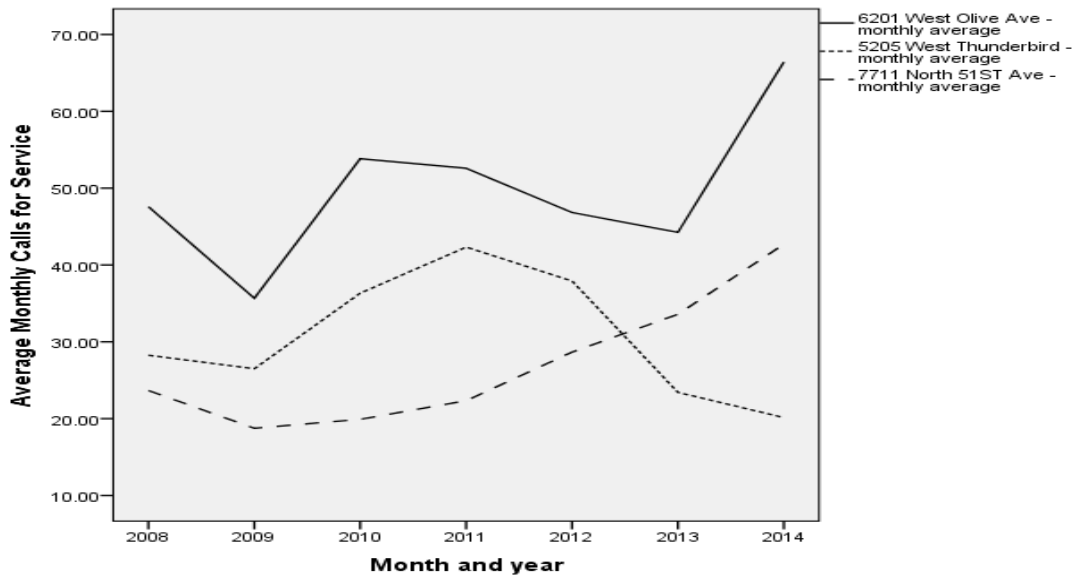
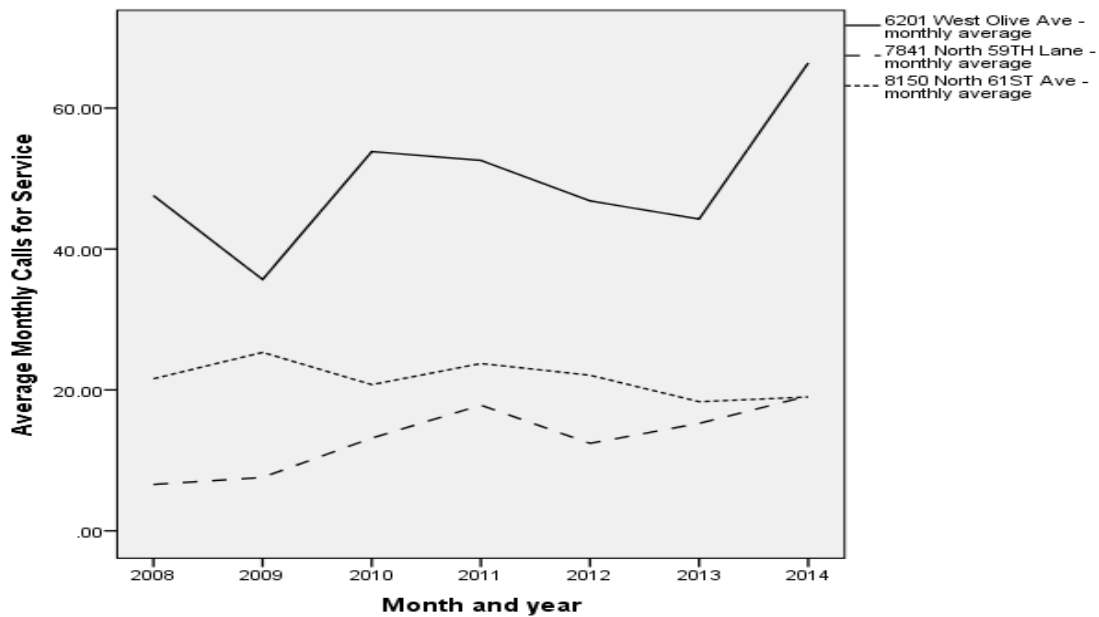


Figure 5: Target Apartment Complex and Two Comparison Complexes (Proximity)



The trend in calls for service at the target complex (6201 West Olive) suggests that the SPI may have had a temporary effect on crime during 2012-2013, but any potential impact disappeared in 2014. The authors conducted interrupted time series analysis (ARIMA) to further explore the potential impact of SPI on crime at the target complex. McDowall and McCleary (2014: 2654, 2656) note that:

Interrupted time series models use repeated measurements on an outcome variable to estimate the causal impact of an intervention. The interrupted time series design is among the strongest types

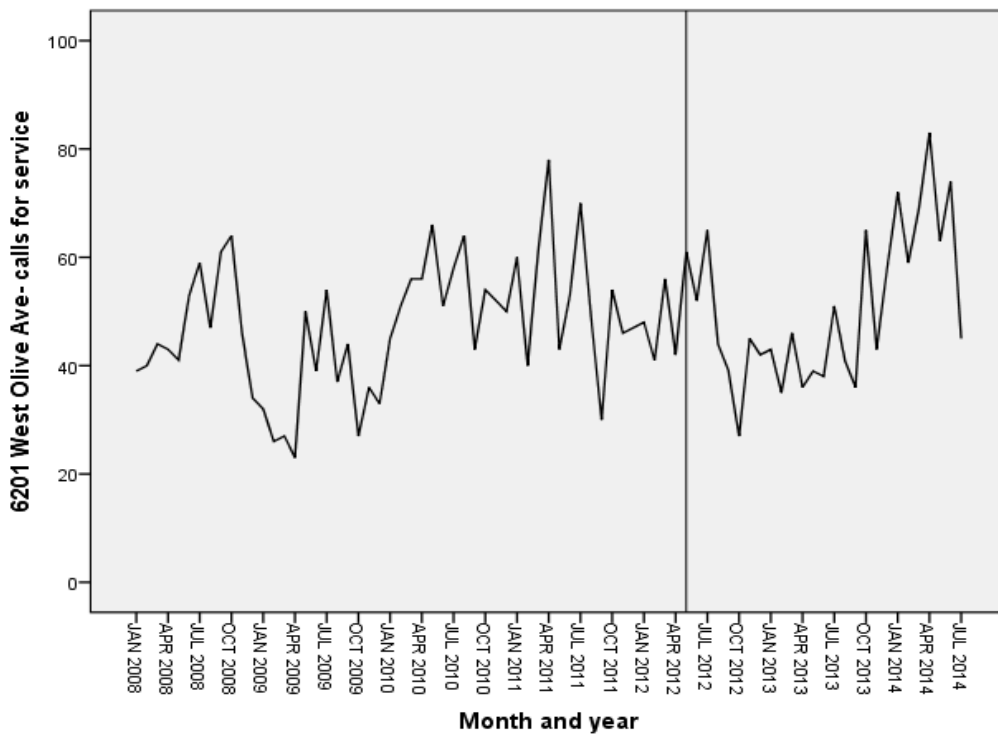
of quasi-experiments...Although other reasonable classes of models exist, the most common choice in interrupted times series studies is the *AutoRegressive Integrated Moving Average* (ARIMA) models...” (see also Taylor, 1994).

A brief description of the ARIMA modeling process is warranted. The first stage of ARIMA, called model-building, seeks to identify a descriptive statistical model that captures the implicit pattern in the outcome, in this case, calls for service at the target apartment complex (measured as monthly totals at 6201 West Olive). This includes an evaluation of moving average vs. auto-regressive components, as well as the presence of seasonality. The second stage of ARIMA, called impact assessment, seeks to determine whether any changes in the 6201 West Olive model were associated with the onset of the SPI. In effect, a variable reflecting the onset and duration of the SPI is added to the model as an independent, dichotomous covariate (e.g., independent variable). The SPI variable has zeros (0s) for values for all months outside of the measured intervention period and ones (1s) for the months of the impact (i.e., reflecting the onset and duration of the intervention). This model building process can be conducted “manually” in SPSS, though this method introduces a good deal of subjectivity into the process. Interrupted times series analysis can also be conducted in the statistical software program, R, where the model building process and impact assessment are conducted as part of the code (i.e., the best-fitting model is identified automatically with no subjectivity).

Figure 6 shows the monthly total calls for service at the target location, from January 2008 through July 2014. The vertical line at May 2012 represents the onset of the SPI. Prior to May 2012, the trend in calls is relatively flat from 2010 to early 2012, generally ranging from 40-60 calls per month. There is a decline after the onset of SPI until about October 2013. This represents a drop of approximately 15% in monthly calls for service (from about 53 calls per month to 45 calls per month). However, calls for service begin to increase in late 2014 and continue to trend upward through the end of the study period. The research partners carried out the interrupted time series analysis using the software program R, which identifies the best-fitting model automatically. The results were then confirmed in SPSS. The R program identified the best fitting time series model as (0, 1, 1), with differencing and a first order

moving average component (no seasonality). The authors conducted an impact assessment by adding an SPI variable to the model, first with an abrupt, permanent impact (starting in May 2012 and continuing to the end of the study period). The intervention component was not significant. The authors then tested an abrupt, temporary impact starting in May 2012 and ending in October 2013, and again, no significant intervention was identified (see Table 4). The results indicate that the SPI did not have a statistically significant impact on crime at the target apartment complex.⁹

Figure 6: Monthly Calls for Service at 6201 West Olive



⁹ For additional information and ARIMA output, contact Michael White (mdwhite1@asu.edu). Also, the authors had originally intended to conduct ARIMA at the comparison apartment complexes, if a significant effect was found at the target complex. However, this additional analysis was deemed unnecessary given the results in Table 4.

Table 4: Impact Assessment at 6201 West Olive with an Abrupt, Temporary Intervention (ending in October 2013)

Model Statistics							
Model	Number of Predictors	Model Fit statistics		Ljung-Box Q(18)			Number of Outliers
		Stationary R-squared	Normalized BIC	Statistics	DF	Sig.	
6201 West Olive Ave-Model_1	1	.287	5.095	19.035	17	.326	0

ARIMA Model Parameters							
				Estimate	SE	t	Sig.
6201 West Olive Ave-Model_1	6201 West Olive Ave	No Transformation	Constant	.380	.593	.642	.523
			Difference	1			
			MA Lag 1	.626	.093	6.742	.000
	SPI intervention	No Transformation	Numerator Lag 0	-.564	1.325	-.426	.671

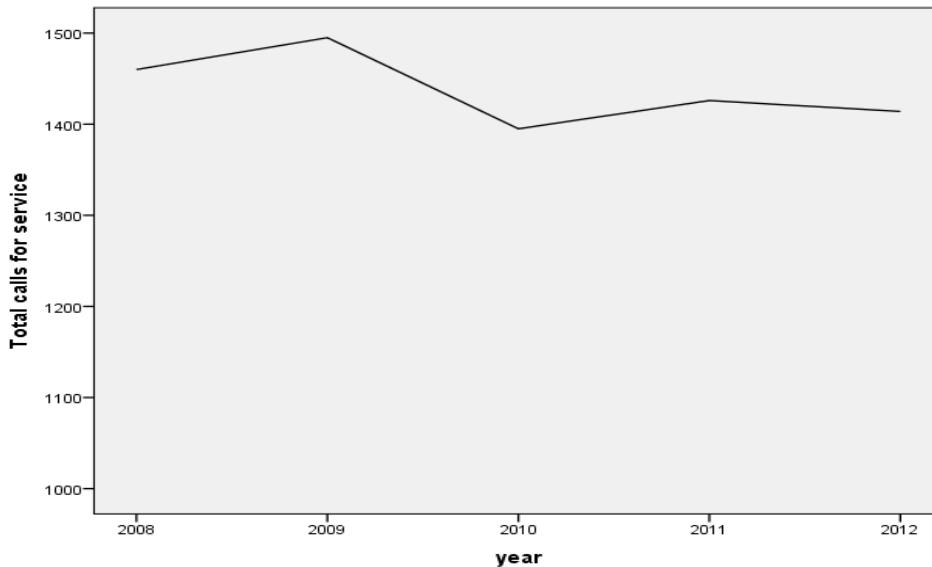
Problem 2: Property Crime at Arrowhead Towne Center (Foothills)

As part of the scanning and analysis phases of the SARA model, the Glendale SPI team identified Arrowhead Towne Center (ATC) as a project location. ATC is the largest indoor mall in Glendale, and the second largest mall in the state of Arizona. The mall includes dozens of retail stores, restaurants, a large 14-screen movie theater and an outdoor amphitheater with seating for 350 (see Appendix E for a mall map). The Glendale Police Department devotes considerable resources to the ATC, particularly for the holiday season (week before Thanksgiving to the week after New Year’s Day). Because of the size of the mall and the sheer volume of vehicle and pedestrian traffic, ATC is routinely one of the top locations in Glendale for property crime calls, particularly larceny, theft from vehicle and automobile theft. Figure 7 shows that, prior to the start of the SPI, ATC averaged about 1,400 calls for service per year, or nearly four calls per day.

The SPI work at Arrowhead Towne Center was composed of three core activities, each of which is described below. First, the ATC project was grounded in strong prevention and collaboration efforts

between the Glendale SPI team, ATC mall management and the mall security team (Allied Barton). This component included SPI team participation in “security summits” at ATC with mall management, security team members and individual store managers. The team also periodically used vehicle report cards (see description above) for automobiles in the parking lots. The second component involved traditional crime suppression activities, most notably increased police presence periodically during the study period and specifically during the holiday (from before Thanksgiving to after New Year’s Day). The third component involved applying a hot spots philosophy to the mall “footprint.” More specifically, the research partners devised an incident report form that security team members would complete after every call for disorderly, suspicious or criminal activity. This form captured detailed information about the nature and location of the suspicious activity, the individuals involved, and vehicle information (if relevant). Security team members completed the activity reports for a period of nearly two years, from October 2012 to June 2014. The research team analyzed the data from the activity reports and presented findings on crime and disorder hot spots (location and temporal) to the Glendale Police Department and the Allied Barton security team. The overall goal of the strategy was to extend the hot spots strategy to one large commercial location, allowing the police department and security team to better direct their resources to the most crime and disorder-prone locations at the mall.

Figure 7: Annual Calls for Service at Arrowhead Towne Center, 2008-2012



Response 1: Prevention and Collaboration Activities

Much of the SPI work at Arrowhead Towne Center focused on developing an ongoing collaborative partnership between all relevant stakeholders that would increase communication flow, break down traditional barriers between competitor stores, and improve the safety and quality of the shopping experience at ATC. The SPI team focused on improved education and prevention activities as well. The mall management and security team were active partners with the SPI team during the entire project. Open lines of communication between the police department and the security team resulted in a number of benefits. For example, the police department established daily email alert notifications for the Security Manager. The alerts provided a snapshot of all calls for service dispatched to any of the 7 ATC addresses. The Security Manager now had access to real time data indicating when and why patrol officers had responded to their property. Also, the Community Action Team conducted monthly interior/exterior site inspections assessing blight and safety deficiencies. One safety concern identified was damaged hinges to a rear corridor door, causing it to not close securely. The inoperable door posed a safety concern as it was easily accessible and led directly into the employee restroom and storage areas

located at the rear of the store. The Security Manager was advised of the vulnerability and contacted the merchant for repair.

The Glendale SPI team participated in three “security summits” during the study period (9/18/12, 11/7/12, and 7/10/13) at ATC. The summits were organized by the mall manager and security supervisor, and attendees included individual store managers, anchor store managers and security (Sears, Macy’s, Dillard’s, etc.), mall security, and the Glendale SPI team. During each summit, the security manager gave briefings on the latest issues and patterns regarding suspicious and criminal activity. The Glendale SPI team described the project, its goals and primary activities. During two summits, the research partners also presented preliminary findings from the ATC activity reports (see below). The SPI team also arranged for guest speakers including a representative of the Organized Retail Crime Association (ORCA), the Assistant Chief of the Glendale Police Department, and a representative from the City Prosecutor’s Office. The objectives of the summits were to provide information to store managers regarding the SPI, to discuss crime issues, to highlight the importance of documenting and reporting criminal activity, and to increase communication among the various stakeholders at the mall.

On several occasions throughout the study period, the Glendale SPI team utilized vehicle report cards to identify automobiles at risk of burglary or theft. This strategy was also employed at 6201 West Olive and is described in greater detail above. For example, on November 28, 2012 members of the Glendale SPI team placed report cards on 399 vehicles in the parking lot near Macy’s and Forever 21. Notably, analysis of ATC report data (see below) identified this area as the parking lot with the greatest number of vehicle break-ins and car thefts. Of the 399 vehicles, 89 had risk factors or areas in need of improvement. Also, near the end of the study period, the ATC mall manager engaged the SPI team in a dialogue over the use of license plate readers at the mall. More specifically, the mall manager was interested in purchasing two vehicles for the security team, and deploying LPRs on those vehicles so the security team could utilize the technology in the mall parking lots on a daily basis. At the time of writing this report, the Glendale Police Department was exploring options to allow the mall security team access

to the requisite, secure criminal history databases to link to the LPRs. The Glendale SPI team sought guidance on this issue (giving access to the National Crime Information Center [NCIC] to a private entity) through the Arizona Attorney General's Office and through a web blast to Smart Policing sites.

Response 2: Crime Suppression

The Glendale SPI team also engaged in more traditional crime suppression strategies at Arrowhead Towne Center, most notably during the holiday season beginning the week before Thanksgiving and ending a few days after New Year's Day. Though the Glendale Police Department developed holiday plans at ATC prior to the SPI, the planning process changed notably under the SPI framework. The plans were more data-driven, based on both crime analysis and analysis of the ATC reporting forms. Also, communication among the stakeholders increased considerably as a result of the SPI, leading to more collaborative efforts among store managers, security personnel and the police. A zero tolerance approach was used as the primary strategy for deterring crime and the officers worked in conjunction with mall security to get offenders trespassed from the property. The combination of enforcement and trespassing offenders generated numerous arrests. For example, during the 2012 holiday season the Glendale SPI team conducted five rounds of increased presence/crime suppression operations at the mall. Over a 27-day period from November 23rd – December 20th, the operation produced 38 misdemeanor arrests and 11 felony arrests. The vast majority of arrests involved property crimes (organized retail theft and shoplifting), drug possession, and outstanding warrants. Over the two holiday seasons (2012-2013), officers were able to identify and arrest 121 offenders. Of these 121 offenders, 55 of them were arrested for property crimes, which was one of the biggest problem areas for the mall. Additionally, the recovery of thousands of dollars' worth of merchandise was made possible through the SPI efforts.

Response 3: ATC Incident Reporting

The centerpiece of the SPI work at Arrowhead Towne Center involved application of hot spots policing principles to the mall location. The SPI team hypothesized that crime and criminal offenders

were not evenly distributed across the “mall footprint,” and that there were likely areas of the mall, internal and external, that generated a disproportionate amount of disorder, suspicious and criminal activity. When the SPI began, the mall security team did not have the capacity to conduct sophisticated hot spots analysis because they did not systematically record the activity of their security officers, and they lacked the infrastructure to conduct any sort of crime analysis. As a result, the research partners at ASU devised a scantron-based report form that security team members would complete after every response to disorderly, suspicious or criminal activity (see Appendix F for a copy of the activity report form). The form captures detailed information on activity type, location, offenders, vehicles, and other relevant information. On a bi-weekly basis, a member of the SPI team would pick-up completed activity forms, troubleshoot any questions or problems that had emerged, and drop off new forms.

Throughout the study period, the Glendale SPI team struggled to increase response rates for activity report completion. For example, an analysis of report form activity over a 27-month period showed that security team members routinely completed 20 or more forms per month. However, there were numerous months where only 10 or fewer forms were completed. The SPI team met with the security supervisor on a regular basis to emphasize the importance of completing the forms, and in early 2014 the team developed an incentive program where the security team member who completed the most forms (and completed them accurately) was named “SPI Partner of the Month.” Glendale SPI team members attended Saturday roll-call briefings through the spring and summer 2014 to deliver the awards (a framed certificate and \$25), and thank the security team for the hard work (see Appendix G for a copy of the certificate). Despite these efforts, the extent to which the data captured on the forms is a representative sample of all problem activity at ATC remains unclear. Conservatively, the research partners estimate that the data from the forms represent approximately 15-20% of the crime and disorder at the mall. Nevertheless, the results from this hot spots strategy are illustrative and representative a good

starting point for applying hot spots policing principles to large properties such as malls, parks and entertainment venues.¹⁰

The research partners presented preliminary findings to the GPD, mall management and the security team on two occasions (July 2013 and November 2013). The results from the presentations are described below.

July 2013 Preliminary Report:

The July 2013 report was based on ATC report forms completed from October 2012 through May 2013 (n=235). Several interesting themes emerged from the analysis:

- There was substantial variation by time of day. Nearly 60% of reports were completed between noon and 6pm (**temporal hot spot identified**).
- More than 40% of the reports involved shoplifting, and 30% involved suspicious activity. There were few documented reports of serious crime.
- Nearly three-quarters of the reports involved incidents that occurred outside of the mall. Three parking lots were particular “hot spots” for incidents outside of the mall (**external hot spots identified**).
- Nearly half of the incidents that were reported inside of the mall occurred in the West section of the mall, upper and lower levels (**internal hot spot identified**).
- More than 70% of the incidents involved just one suspect. In the majority of incidents (72%), the suspect’s image was captured by still camera, surveillance camera or both.

November 2013 Preliminary Report:

The November 2013 report was based on ATC report forms completed from June 2013 through November 22, 2013 (n=229). Several of the themes from the second report were consistent with the earlier set of findings.

¹⁰ Near the end of the study period, the Glendale SPI team learned that the corporate office of Allied Barton, the security contractor at ATC, maintains their own internal database of activity at the mall. It is unclear how much relevant information is captured in this database, and the research team began an ongoing dialogue to gain access to the system.

- There was substantial variation by time of day. Consistent with the earlier report, noon to 6pm was still a temporal hot spot for incidents (43%). However, there was notable spike in incidents occurring in the overnight hours (after 12am when the mall was closed). **(The results demonstrate the capacity to identify both persistent and emerging temporal hot spots).**
- Approximately 45% of the reports involved shoplifting, and 30% involved suspicious activity. There were few documented reports of serious crime. This is again consistent with the prior report.
- More than three-quarters of the reports involved incidents that occurred outside of the mall (78%). Three parking lots were particular “hot spots” for incidents outside of the mall. Two of the three parking lots were also identified as hot spots in the previous report **(external hot spots identified).**
- Approximately 44% of the incidents that were reported inside of the mall occurred in the West section of the mall, upper and lower levels. This is consistent with the prior report **(internal hot spot identified).**
- Approximately 70% of the incidents involved just one suspect. In the majority of incidents, the suspect’s image was captured by still camera, surveillance camera or both. This is again consistent with the prior report.

Assessment: Interrupted Time Series Analysis (ARIMA)

The research team employed interrupted time series analysis (ARIMA) using all call for police service data at Arrowhead Towne Center, from January 1, 2008 through September 30, 2014. Figure 8 shows the average monthly totals by year, and there is a clear decline in calls at the mall that coincides with the onset of the SPI in mid-2012. Figure 9 shows this trend more clearly with actual monthly counts, and a vertical line representing the SPI. The research partners carried out the interrupted time series analysis with the software program R, and then confirmed the results in SPSS. Using R, the research partners identified the best-fitting model (0,0,1) (2,0,0), with a first order moving average component and second order seasonal autoregressive components. The authors then conducted an impact assessment by adding an SPI variable to the model, first with an abrupt, permanent impact (starting in May 2012 and continuing to the end of the study period). The intervention component was not significant. The authors then tested a gradual, permanent impact, starting in September 2012 and continuing through the end of the study period. The impact with this onset and duration was statistically significant (see Table 5). The gradual impact starting in September 2012 is consistent with the distribution of police department

resources during the SPI at that time. More specifically, the Foothills team completed the SPI training in April 2012, and the team focused their efforts on 6201 West Olive from May through September 2012 (including the resident survey). In September 2012, the team shifted focus to the ATC to prepare for the holiday season. The interrupted time series results indicate that the SPI produced a 27% decline in crime at Arrowhead Town Center. This crime decline is statistically significant and it continued through the end of the study period.

Figure 8: Average Monthly Calls for Service at Arrowhead Towne Center, 2008-2014

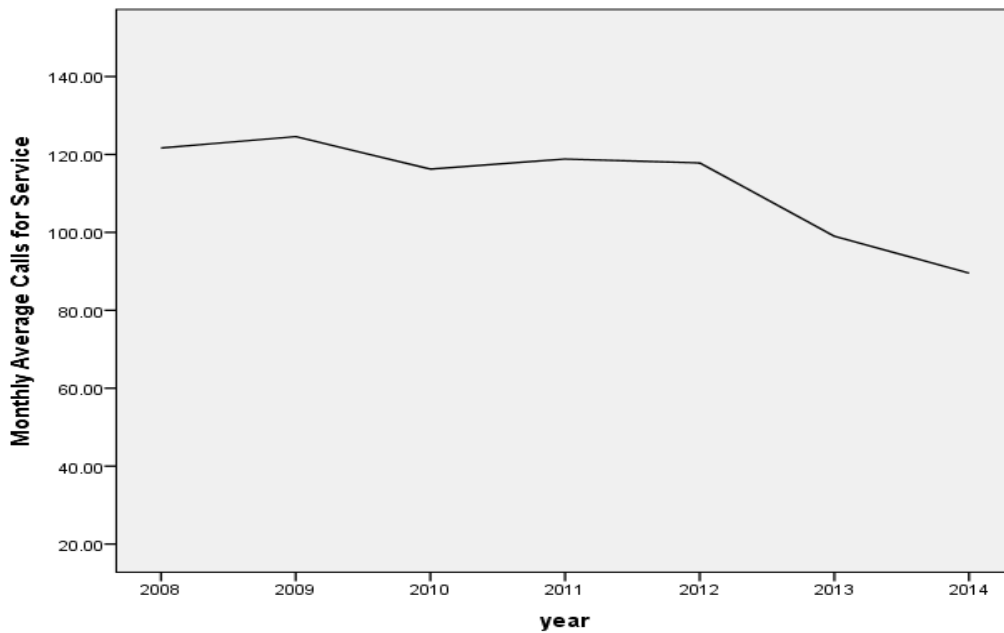


Figure 9: Monthly Calls for Service at Arrowhead Towne Mall

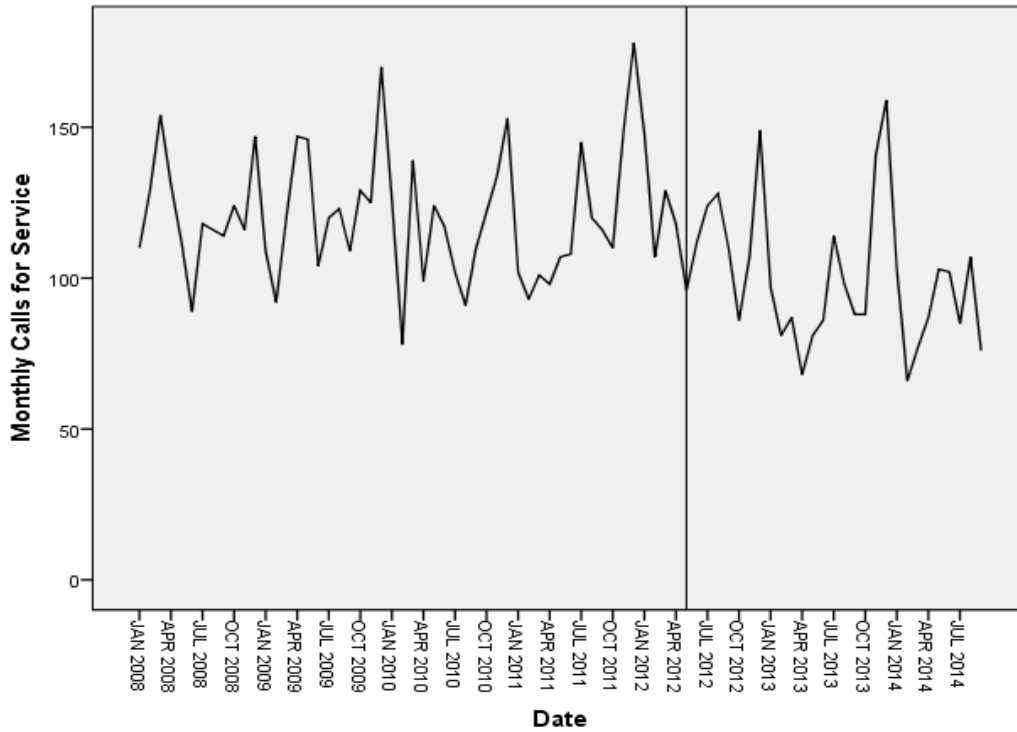


Table 5: Impact Assessment at ATC with a Gradual, Permanent Intervention (starting in September 2012)

Model Statistics						
Model	Number of Predictors	Model Fit statistics	Ljung-Box Q(18)			Number of Outliers
		Stationary R-squared	Statistics	DF	Sig.	
Calls for service total-Model_1	1	.506	20.563	15	.151	0

ARIMA Model Parameters				Estimate	SE	t	Sig.
Calls for service total-Model_1	Calls for service total	No Transformation	Constant	121.040	5.973	20.265	.000
			MA Lag 1	-.316	.113	-2.788	.007
			AR, Seasonal Lag 1	.331	.113	2.941	.004
			Lag 2	.367	.126	2.917	.005
	SPI intervention	No Transformation	Numerator Lag 0	-23.356	5.511	-4.238	.000

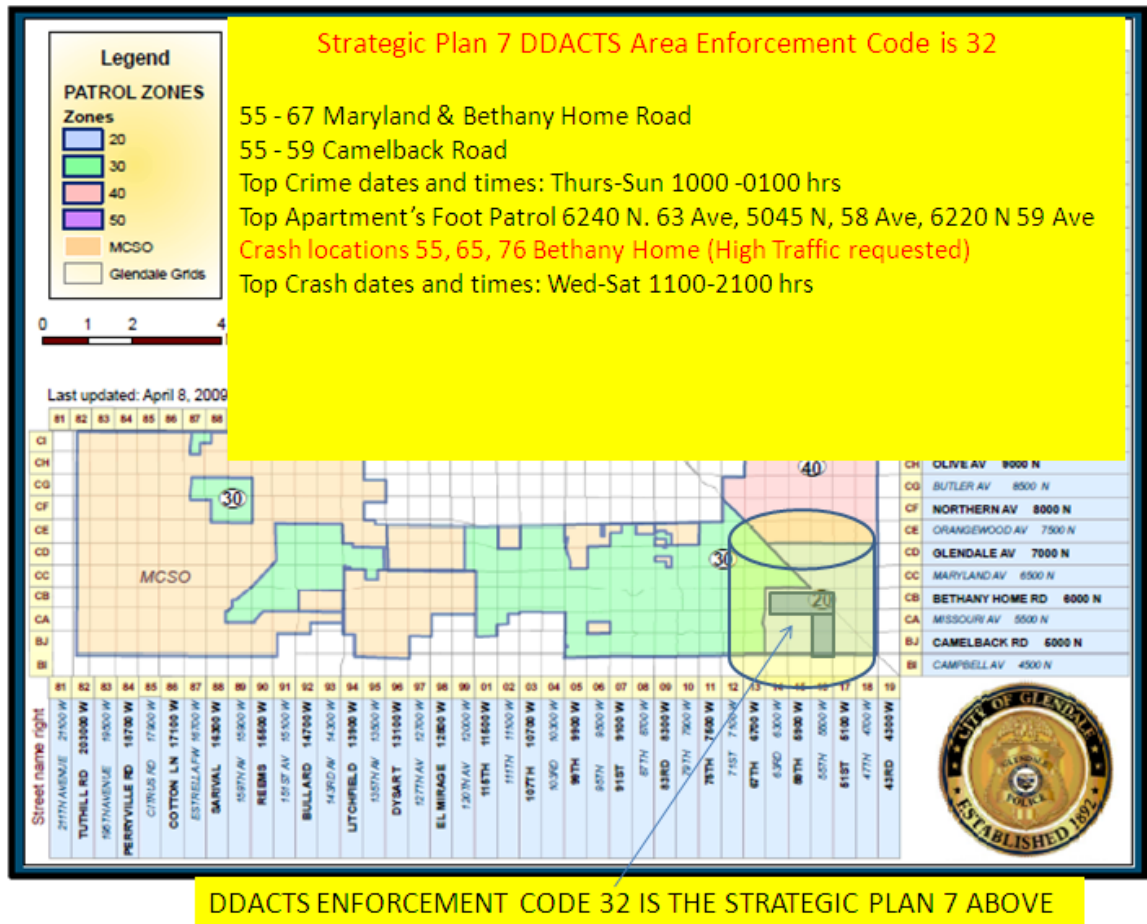
Problem 3: Advanced POP Team (APOP, Gateway Sector)

Process Evaluation

As noted above, the GPD had invested heavily in problem oriented policing through its previous involvement in SPI. Police executives, managers, and officers became not only more interested in implementing POP, but were very interested in learning advanced techniques in POP. They recognized that thorough analysis of the problem and assessment of the effectiveness of the response was vital to good policing. As a consequence, the Gateway team placed increased pressure on the research partners to challenge them on what was possible, and to provide additional training to them on innovations in policing (thus the name, Advanced POP Team, or APOP). Below we discuss the process in which the Gateway team proceeded, as well as the evolution of the project. It is important to note that often times officers become discouraged if their response to a problem is labeled as ineffective and they may limit their future involvement in POP out of frustration. In Glendale's Gateway Division, however, the SARA process became institutionalized. If a response was found to be ineffective officers rapidly conducted further analysis to determine the root cause of the problem. They challenged each other to think in more innovative and sophisticated ways. Therefore, while some of the below responses were not found to be effective, we believe that the SPI II program in Gateway was successful because it created a culture where advanced POP would be sustained for several years.

The APOP Team in Gateway began with an idea by the Commander to focus on neighborhoods in the Gateway Division that he referred to as deployment zones. Deployment zones were areas that were determined by the crime analysts to be "hot spots." These hot spots were later referred to as Strategic Area 7 because on a map all of the hot spots together looked like the outline an upside down 7. The Strategic Area 7 is highlighted in Figure 10 below.

Figure 10: Strategic Area 7 Deployment Zones



Following the identification of Strategic Area 7, the Commander worked with the APOP Team to identify “Prolific Offenders” who were disproportionately responsible for crime in the area. From this pool of candidates, the specific prolific offenders selected for the intervention effort were to be identified through social network analysis (SNA). The Commander requested that the crime analyst identify and pull the records of all individuals who had been arrested or stopped (i.e., ID’ed through FI cards) in the neighborhood in the past three years. This resulted in more than 4,900 individuals being identified through the initial analysis of police intelligence and criminal history records. The intelligence was then provided to the research partner for analysis.

The initial prolific offender selection lists were developed using the starting list of offenders from the Strategic Area 7 query. The list was divided into two groups defined by crime type: 1) violent

The prolific burglary list was developed as follows:

Step one: The team began with an initial list of Nominated Offenders. The initial list of nominated offenders were drawn from individuals known by the Gateway APOP team to be involved in (or suspected involvement) residential and commercial burglaries within the specific beats making up the high crime zone designated as “Strategic Area 7”. This initial list began with 18 offenders.

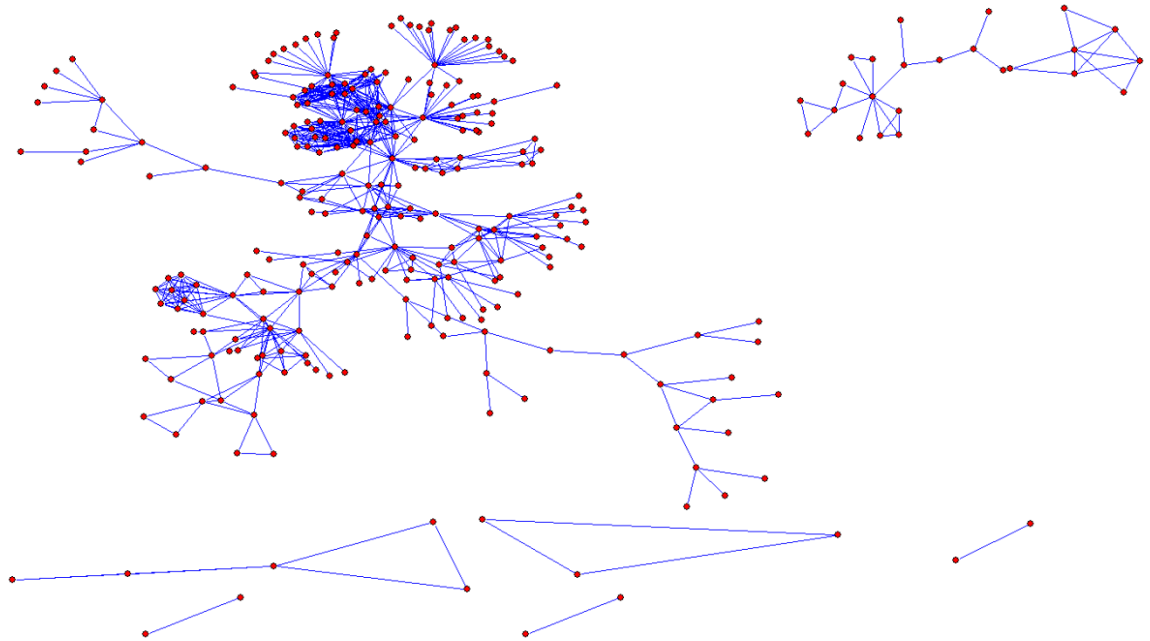
Step two: The team pulled all departmental reports (DRs) for each Nominated Offender (n=18). DRs from January 1, 2010 through current were reviewed for each offender. Each additional person included on a report was then added as an “associate” to the network list. Reports included all regular DRs, supplements, etc. and FI Cards.

Step three: Associates (n=175) were then run through Glendale’s Criminal History database (CHIPS) in the same manner as the nominated offenders on the initial list. Individuals who were listed in an associate’s DR were added to the network list as 2nd-stage associates, or “associates of associates”. Individuals were removed from the list for any one of three criteria: 1) those associates who did not have any indication as a suspect or investigative lead (IL; as suspect) on a DR since January 1, 2010; 2) the individual was found to be incarcerated, with an expected release date in excess of 6 months from October 1, 2013 (estimated full initiation of response); and 3) they were deceased. The removal process left a list of 90 (of the 175) associates.

Step four: Associates of the associates were run through CHIPS (n=331). These individuals were then vetted for removal from the network list using the same criteria as for the direct associates, leaving 157 offenders on the list.

The above resulted in a list of a total of 265 unique individuals. We then conducted SNA (see Sociogram 3) and identified 40 offenders based on their betweenness centrality score. This “Top 40” list was then used by the GPD team to prioritize 14 individuals who appeared to be good candidates for intervention efforts.

Sociogram 3: Burglary Offenders



The commander noted that because prolific offenders were disproportionately responsible for crime in the area, that the program could be evaluated by examining the change in the number of officially recorded offenses related to: 1) Residential/Business Burglaries; 2) Robberies/Gun Related Violence; 3) Stolen Vehicles; 4) Drug Related Offenses; 5) Gang Related Activity; and 6) Suspicious Subjects contacted repeatedly in the area for various crime related activities. The Commander codified the project through a written crime control plan that was distributed to all officers throughout the Gateway Division.

Specifically, he ordered the following:

- I. Shift Commanders (Lieutenants) will take ownership of a Deployment Zone identified by the crime analyst as a hot-spot.
 - a. Their effectiveness will be based on their ability to gain buy-in from subordinate supervisors.
- II. Shift Commanders will develop a strategic analysis tailored to target “Prolific Offenders” who reside and contribute to crime in Deployment Zones (hot-spots) within the Gateway area.
 - a. Their effectiveness will be based on their ability to utilize tactical analysis plans implemented by first-line supervisors.

- III. Shift Commanders will be responsible for coordinating statistical data, maintaining best practices, and providing an administrative analysis for the monthly CompStat meeting.
 - a. Neighborhood Response Squad (NRS) and Community Response Squad (CRS) will monitor and develop strategies based on crime trends; modify work hours in order to serve as an extension of Patrol when Deployment Zones need additional proactive resources.
 - b. The initial six months will be used to evaluate the hours worked by the NRS teams.
 - c. If the hours currently working do not meet the intended goal, members will be asked to adjust work hours for the remaining six months to evaluate their effectiveness during late shift hours.
- IV. Neighborhood Response Squad and Community Response Squad will develop and implement a strategic analysis to disrupt highly connected groups within Deployment Zones.
- V. Community Action Team members will coordinate the Glendale Police Department Gateway Community Oriented Police Partners Network which include faith based, the growing refugee population, and the various social service intervention and cross sector partners.
- VI. Each Lieutenant is responsible for outlining their respective plan, the timeframe, managing the results, and reporting the results at the monthly CompStat meeting. Their plans will be due no later than June 20, 2013.
- VII. The Gateway Division Commander will facilitate the needs of the various leaders while working to heightened awareness training for officers to allow for a greater understanding of those the officers come into contact.
 - a. Additionally, the Commander will serve to provide oversight and accountability to the project.
 - b. The Commander will provide the results of the plan to the Operations Bureau Assistant Chief to relay progress to the Glendale Police Department Chief of Police.

Source: Anderson, Andre (2013). Gateway 2013-2014 Targeted Response Plan Crime Social Network Analysis to Address Prolific Offenders, Glendale Police Department, Glendale, AZ.

The Commander and the APOP team then sought to implement a plan that they believed would increase general and specific levels of deterrence among the criminally involved population. First they wanted to create “positive paranoia” among this group through offender notification. APOP Officers were assigned specific prolific offenders. APOP officers were directed to: 1) act as case managers and track the activities of the offenders; 2) Coordinate with outside law enforcement agencies to check for new or open cases and take enforcement action; 3) Coordinate with probation to ensure positive

communication and report sharing; and 4) Inform the offenders that they are under surveillance and that if they or their associates engaged in crime they would be arrested.

While some offenders moved to other cities, out of state or changed behavior due to police presence, several continued to commit criminal acts. These offenders drew focused attention from law enforcement and the criminal justice system through information sharing and collaborative efforts from the community. Tactics used for the prolific offenders were tailored to the offender and included some or all of the following:

- Weekly records checks for outstanding/open investigations of criminal cases.
- Coordination and dissemination of new criminal activity through probation.
- Surveillance of subjects.
- Advising subjects of social service resources available.
- Monitoring jail release dates and continued monitoring of activities.
- Strict enforcement of offenses.

Below is a sample script that officers used to notify the offenders via informal focused deterrence.

PROLIFIC OFFENDERS NOTIFICATION

The Glendale Police Department is working with the US Department of Justice to study criminal networks. We know that you are committing crimes, and we are watching you and your friends. This is your chance to stop. If you do not stop, you will be arrested and put in jail.

If you want to change your life and you need help, we can link you with people who can assist you. They can help with getting a job, drug and alcohol problems, health problems, education, and child services.

Do you have any questions?

Over the course of the project, the detailed lists of violent and property offenders included the most prolific offenders in Gateway Division. In total, 604 prolific offenders throughout the division were identified, of which 35 (n=15 violent, n=20 burglary) were prioritized for notifications. Among those selected, 24 were notified, 9 were arrested, and a felony arrest warrant was issued for one other. Of those notified, three requested social service resources. Finally, officers proactively worked on behalf of one other member of the list who, after initial notification, was determined to have serious mental health

issues. Officers worked proactively to get this individual connected with services, and at last check in the spring of 2014, he was still receiving care, taking medication, and had not had any criminal contact with law enforcement.

As a consequence of the Commander's directive through the crime control plan and the positive culture that developed around the program, the APOP Team and officers throughout Gateway Division identified and notified offenders more quickly than anticipated. As a result, additional "Prolific Offenders" were identified through SNA, and the APOP team began to focus their efforts on offenders who were tied to smaller areas with Strategic Area 7 (i.e., "micro hot spots"). This group of prolific offenders was referred to as the Prolific 65. The Prolific 65 list was developed as follows:

Step one: The team started with an initial list of offenders connected to either the violent or burglary (or both) lists and connected to at least one of a handful of addresses. One of the Gateway officers determined that a number of individuals among the prolific offender lists had either residential or arrest location addresses attributed to a cluster of townhouses and/or a nearby motel, in total covering not more than three residential blocks. This "scan" led to a review all of the top offenders from both lists for these addresses, yielding an initial list of 20 offenders.

Step two: As done with previous offender lists, officers used the Glendale's Criminal History database (CHIPS) to review each offender. All regular departmental reports (DRs), supplemental and FI cards for each offender (n=20) from January 1, 2012 through the current date, at time of analysis, were reviewed. Each additional person included on a report was then added as an "associate" to the network list (n=31).

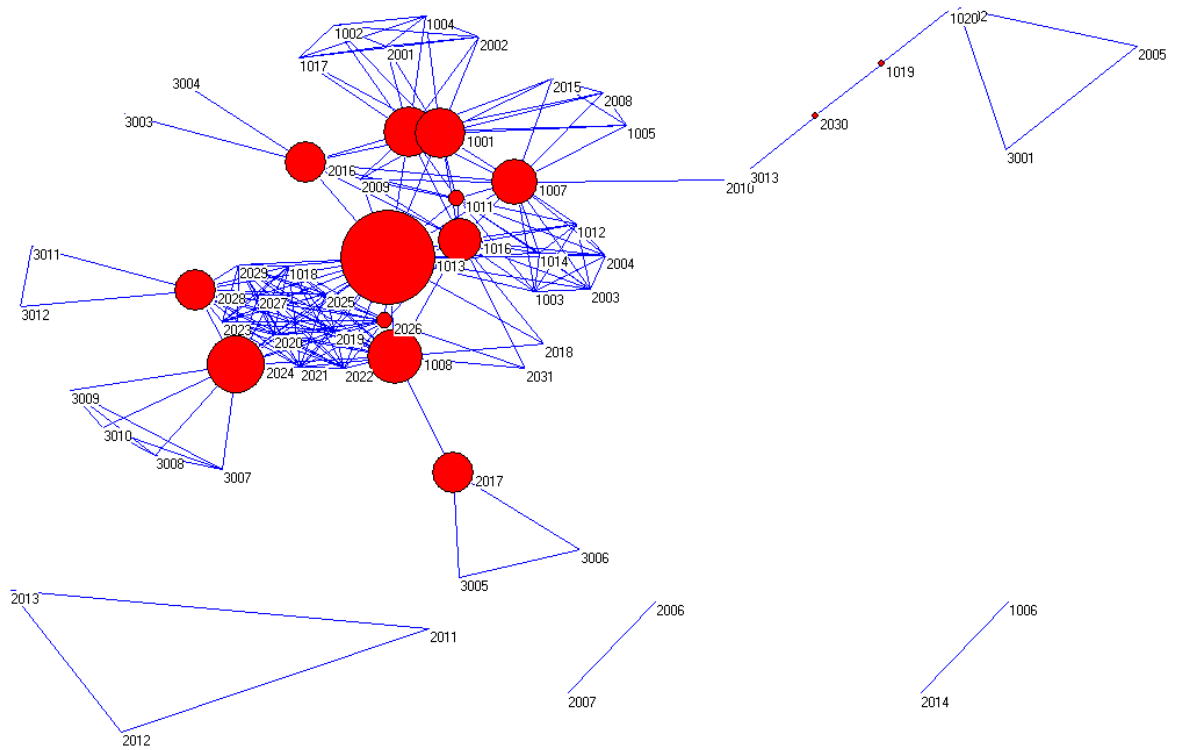
Step three: Associates (n=31) were then run through CHIPS in the same manner, to identify the second layer of associates. Thus, those individuals who were listed in a DR for this group, were added to the network list as 2nd-stage associates, or "associates of associates". We followed previous protocols for removal from the list as follows: a) those associates who did not have any indication as a suspect or investigative lead (IL; as suspect) on a DR since

January 1, 2012; b) the individual was found to be incarcerated, with an expected release date in excess of 6 months from October 1, 2014 (end of intervention term); and c) they were deceased.

Step four: Associates of the associates were run through CHIPS as above (n=14).

This process resulted in a list of a total of 65 unique individuals. We then conducted SNA identify those individuals most central to the network of offenders connected to the micro hot-spot, based on their betweenness centrality score (see Sociogram 4).

Sociogram 4: Prolific Offenders Linked by Selected Micro Hot-Spots



Micro-Hot Spots

As mentioned above, one member of the APOP Team noticed that a number of the identified prolific offenders were contacted at one of two addresses—a Motel 6 and a cluster of town-houses. Following the SNA analysis of prolific offenders linked to these locations and the previously described notification intervention, additional enforcement responses were developed based on the geographic component of the prolific offender list. This initially resulted in two parallel micro-hot spot projects being conducted at each location.

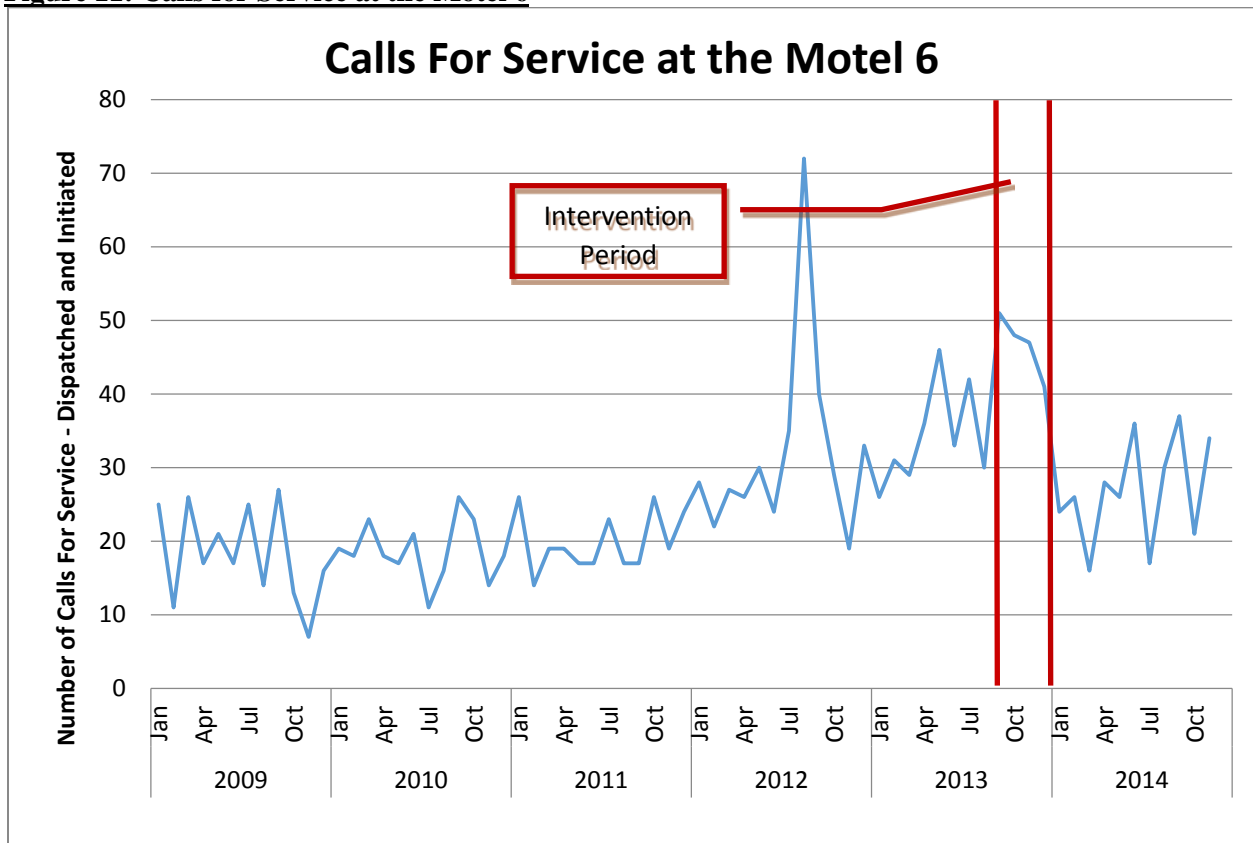
Response 1: Motel 6

Following the identification of the Motel 6 as a potential problem location, patterns in calls for service (CFS) were examined by the APOP team. They found that CFS at the hotel had been increasing substantially over a series of years. As seen in Figure 11 below, from January 2009 through June 2012 there were between 10 to 25 CFS at the motel per month. By July 2012 that number had increased to 35, and then it jumped to 72 in August 2012. Following the identification of the motel as a problem, members of the APOP team conducted covert surveillance on location. They observed chronic levels of open air drug sales, prostitution, and offenders who had chosen it as a place to live while they were hiding from authorities. They also observed motel guests/tenants paying their rent in cash to avoid detection of their presence. Overall, during the pre-intervention period the motel averaged 29.1 CFS per month.

Over a 90-day period, from September through December 2013 the APOP team implemented a multi-pronged response at the Motel 6. First, they attempted to contact the owners of the motel. It took several weeks to make contact with the owners because the property was owned by an investment group from India. The officers informed the owners of the situation and expressed interest in meeting with them when they next visited Glendale (which would not be for several months). Second, the officers conducted several additional covert operations where they arrested on-view offenders. Third, they notified guests/tenants that the police department was observing the location and informed them that criminal and disorderly behavior at the motel would no longer be tolerated. Last, they conducted a CPTED review of the site and recommended to the property manager that a number of physical features of the property be

changed. This included locking gates behind the motel and courtyard, and closing a vehicle entrance so that customers and their guests were required to travel through a one-drive way, which was easily observable by the police. By the end of the 90 days, the police notified 375 tenants/guests/employees about new crime control efforts, spent 648 hours visiting, stationed or making directed patrol stops at the motel to deter criminal activity. In total, 178 individuals were arrested for illegal activity during the response period. During the intervention period, CFS averaged about 45 per month, largely due to the proactive policing efforts. Unfortunately, we did not find a sustained impact on CFS after the intervention. Post implementation, the motel averaged 28.5 CFS per month, which was not statistically significant from the pre-implementation period. However, CFS were down notably from the spikes that had originally brought the location to the attention of the APOP team.

Figure 11: Calls for Service at the Motel 6



Response 2: Micro Hot-Spot Counter Insurgency

During initial surveillance efforts at the townhouse complex, it was noted that a number of the identified prolific offenders had moved. Near the same time as these events, an investigation into a homicide that occurred at a nearby apartment complex led to a name that was on the prolific offender list. Reviewing other connections and CHIPS data, the APOP Team elected to shift focus to four apartment complexes, all falling within a one mile radius of one another, to focus further efforts. The approach for the apartment complexes differed from the Motel 6 micro hot –spot and from other Glendale SPI II interventions. The new approach was based on counter insurgency principles.

Following the initial scan that identified the four apartment complexes, and the subsequent analyses that supported the suitability of selecting them for a targeted intervention, a new response strategy was selected. A “counter insurgency” model was chosen as the response for all four of these micro hot-spots. The counter insurgency approach (see: <http://www.cbsnews.com/news/counterinsurgency-methods-used-to-fight-gang-crime/>) calls for an officer to be assigned responsibility for a particular location, and in Glendale these were the four apartment complexes. Officers from the APOP Team and hand-picked patrol officers were assigned to be responsible for a particular apartment complex, and they were expected to become engrained in the daily activities of the community. In short, the APOP officers became part of the community life at each complex – in effect, attempting to win “the hearts and minds” of the good citizens living in those areas.

To facilitate this process, the APOP Team developed an information sharing network for apartment complex managers. While initially intended for the target complexes, the support from the multiunit housing management community fostered the further inclusion of other complexes. The primary goal of the information sharing network was to reduce offenders’ ability to “hop” from one complex to another after evictions or other problems at a given apartment complex. The secondary goal was the development of the apartment manager co-op that would improve communication with the police. Related to this goal, increasing communication between other businesses, community members and faith based groups (as well as the apartment managers) was also important and actively fostered. Routine, frequent foot and

driving patrols in the hot-spot areas was a priority, as was increasing police presence through multi-unit enforcement details. The increased visibility and activity of police was an important messaging tool to both the offenders and the community. It was intended that offenders would become increasingly aware, and fearful of police activity, and would move on and disperse. Additionally, members of the community would be more inclined to reports matters to the police as they became more comfortable that police were actively involved in their communities. Finally, officers supplemented the enforcement attention with positive citizen contacts such as greeting residents, and disseminating information on crime prevention tips, job placement opportunities and other social service resources available to the community, and how to obtain them. The four apartment complexes selected for the counter insurgency approach included:

- a. 5045 North 58th Avenue;
- b. 6301 North 64th Drive;
- c. 6529 West Glendale Avenue; and
- d. 6565 West Bethany Home Road.

Assessment:

The impact of the counter insurgency efforts was analyzed by using CFS data from Glendale Police Department's CHIPS system. The research team conducted a pre-post intervention comparison on each of the four selected apartment complexes. Specifically, the analysis examined three aspects of the data that would predictably be impacted by the counter insurgency intervention model: 1) changes in the frequency of contacts with residents; 2) changes in completed field interview cards; and 3) changes in crime. The researchers hypothesized that the first two outcomes should increase during the counter insurgency effort. The third outcome, crime, should experience a temporary increase followed by a longer-term decline. The data covered CFS from January 1, 2009 through October 31, 2014. The intervention start date for analysis was set at January 1, 2014, for pre-post analyses. The activity levels at each of the four apartment complexes were as follows:

- 5045 North 58th Avenue – Contacts (n=1050); FI Cards (n=226); Offense Reports (n=638)
- 6301 North 64th Drive – Contacts (n=693); FI Cards (n=164); Offense Reports (n=370)
- 6529 West Glendale Avenue - Contacts (n=764); FI Cards (n=219); Offense Reports (n=485)

- 6565 West Bethany Home Road – Contacts (n=507); FI Cards (n=110); Offense Reports (n=327).

The first apartment complex, located at 5045 North 58th Avenue (see Table 6a) resulted in significant increases in both Contacts Made by officers and FI Cards completed, as expected. Although the mean number of offenses declined by a small amount (6.0%), it was a statistically significant decline. The complex at 6301 North 64th Drive had different results. Contacts Made increased significantly, by 144% from pre to post intervention, but there was no change in completed FI Cards, and offenses actually increased from an average of 5.4 per month to 7.7, post intervention (see Table 6b). The complex located at 6529 West Glendale Avenue saw significant changes in all three measures, with increases in Contacts Made by 88%, and in Offense Reports by more than 14% (see Table 6c). The increase in Offense Reports was actually expected at this complex because a number of directed enforcement details were focused at this location. There was a significant decline in completed FI Cards, however (by 18%). Finally, the fourth complex, located at 6565 West Bethany Home Road (Table 6d) also saw inconsistent results. Contacts Made increased significantly (+134%), but there was no change in completed FI Cards, and there was an increase in Offense Reports (+25%).

Table 6a: Counter Insurgency Impact at 5045 N 58th Ave

	Pre		Post		% change in mean
	mean	SD	mean	SD	
Contacts Made *	16.3	7.5	22.0	6.4	34.8
Field Interview Cards *	3.5	2.5	4.4	1.8	24.5
Offense Reports *	10.1	4.1	9.5	3.5	-6.0

* t-test significant at $p \leq .05$

Table 6b: Counter Insurgency Impact at 6301 N 64th Drive

	Pre		Post		% change in mean
	mean	SD	mean	SD	
Contacts Made *	8.8	3.4	21.5	6.9	143.9
Field Interview Cards	2.5	1.6	2.7	1.2	7.3
Offense Reports *	5.4	2.6	7.7	3.4	41.9

* t-test significant at $p \leq .05$

Table 6c: Counter Insurgency Impact at 6529 W Glendale Ave

	Pre		Post		% change in mean
	mean	SD	mean	SD	
Contacts Made *	10.8	4.7	20.4	3.0	88.0
Field Interview Cards *	4.0	3.3	3.3	2.0	-17.5
Offense Reports *	8.0	4.0	9.1	2.7	14.2

* t-test significant at $p \leq .05$

Table 6d: Counter Insurgency Impact at 6565 W Bethany Home Road

	Pre		Post		% change in mean
	mean	SD	mean	SD	
Contacts Made *	7.0	3.3	16.3	5.1	134.2
Field Interview Cards	1.9	1.6	1.8	1.5	-5.4
Offense Reports *	5.1	2.3	6.4	1.9	25.0

* t-test significant at $p \leq .05$

Overall, there were some positive impacts from the counter insurgency efforts, particularly with regard to positive contacts made with residents. Formal field interviews also increased at two of the complexes. The impact on crime was inconsistent however, as only one complex saw a statistically significant decline over time. Based on interviews with the lieutenant and sergeant who were primarily responsible for the supervision of the counter insurgency intervention, it became clear that there were some “growing pains” during implementation. They observed that some personnel originally assigned to a few of the complexes did not fully “embrace” or implement the strategy as modeled. There was also some staff turnover among officers (i.e. changing assignment from the Gateway Neighborhood Response Unit or regular patrol into other units or assignments). They felt that some of the mid-course changes impacted the consistent application of the counter insurgency strategy, and ultimately, limited the potential effectiveness of the strategy.

Focused Deterrence Training in July 2014 (Call-in planned for early 2015)

Over the course of the project the Advance Problem Oriented Policing (APOP) Team further understood the potential role of offender notification in increasing specific and general levels of deterrence. Observations of the team suggested that they increasingly became comfortable with using

intelligence to identify those most at risk of criminality and targeting these individuals for intervention. In March, 2014 the GPD requested technical assistance from CNA to provide training on Focused Deterrence Policing.

In July 2014 Tom Woodmansee, a CNA Subject Matter Expert from the Madison Police Department, provided Focused Deterrence training to nearly three dozen members of the Glendale Police Department, more than a dozen invited law enforcement leaders from other agencies in Arizona, as well as multiple community representatives. The training focused on such issues as: 1) crime problem selection; 2) selecting and convening a group of key stakeholders, including but not limited to the US Attorney's Office, County Attorney, Federal Law Enforcement agencies, Social Service Agencies, and the Faith Based Community; 3) developing and focusing prevention, intervention, and suppression strategies on targeted offenders; and 4) communicating with the offenders so that they understand why they have been targeted and the associated benefits and consequences of their future behavior. The APOP Team is currently working with external stakeholders including the Arizona US Attorney's Office, the Maricopa County Attorney's Office, the Glendale Prosecutor's Office, the U.S. Marshal's Office, Maricopa County Probation Department, and representatives from the faith based community to implement its focused deterrence project in early 2015.¹¹

Conclusion

Reflecting on the Impact of Glendale SPI II

This report represents the culmination of the Glendale Police Department's five-year involvement with BJA's Smart Policing Initiative. Although GPD was a progressive police department prior to 2009, the department has truly embraced the core principles of SPI over the last five years, and those principles – collaboration, data-driven decision making, researcher partnerships, and advanced problem-solving (to name a few) – will continue to define GPD in the future (see the next section on sustainability). The Glendale SPI II has been a success based on a number of metrics. First, most evaluations of POP projects

¹¹ The Glendale Police Department had initially intended to conduct the call-ins in fall 2014. However, the call-ins were delayed until after 2015 because of required planning for the NFL Super Bowl.

indicate that implementation of the SARA model is weak, typically defined by shallow analysis, traditional law enforcement responses and unsophisticated evaluations (Braga & Weisburd, 2006; Weisburd et al., 2010). That is not the case with the Glendale SPI II. This project centered on continuing, in-depth problem analysis, comprehensive responses developed based on an understanding of the causes of the problem, and a rigorous evaluation that reaches Level 4 on the Maryland Scientific Scale (Sherman, et al., 1998). The Glendale SPI II is problem-oriented policing as originally envisioned by Herman Goldstein.

Second, the Glendale SPI team developed key partnerships throughout the project that served as the foundation for the problem-solving activities with each project. The Foothills projects were defined by the relationships with the apartment complex manager at 6201 West Olive, and the mall management and security team at Arrowhead Towne Center. In Gateway, the team helped create a working group of apartment complex managers in their sector, and the team is in the planning stages of a focused deterrence strategy (with offender call-ins). Their focused deterrence team includes other law enforcement agencies, the County Attorney's Office, Adult Probation, federal law enforcement agencies, and social service providers. Third, the three project areas experienced significant declines in crime and disorder during the study period. At Arrowhead Towne Center, the SPI led to a 27% reduction in call for service – a statistically significant impact that continued through the end of the study period. At 6201 West Olive, the SPI team was able to work with the apartment manager to substantially improve the social and physical condition of the complex. Moreover, the team's efforts led to short-term, 15% drop in calls at the complex, though this reduction did not reach statistical significance and the call load spiked considerably during the last six months of the study period. In Gateway, the officers devised an Advanced POP Team strategy that used a variety of innovative techniques to address crime and disorder, including social network analysis and counter insurgency methods. The strategies led to the identification of more than 600 offenders in Glendale, with 35 being targeted for intervention. Of those 35, 24 were given the informal focused deterrence message, 9 were eventually arrested, and four were connected with social

services. Additionally, the APOP Team identified a number of micro-hot spots, and offenders at those hot spots, and the Team implemented strategies that led to notable, short-term declines in crime and disorder in several of those micro-hot spots (Motel 6 and one of the apartment complexes).

Last, the Glendale SPI II led to several important lessons regarding collaboration, the difficulties of imposing new data collection tasks (at ATC), and the tension between resources and identified problems. For example, the work at ATC highlighted the challenges of competing interests with regard to crime, safety, and retailer's philosophy regarding lost "product" (e.g., stolen good are seen as an acceptable loss, or cost of doing business). Also, the SPI team continued to shift focus, especially in Foothills, because of resources limitations in the department. In Foothills, the resource constraints may explain the findings at the apartment complex. In hindsight, the problems at 6201 West Olive were persistent and durable, and the spike in crime near the end of the study period occurred when the team began focusing more of its attention at Arrowhead Towne Center. Had the team been able to keep their focus on 6201 West Olive, they may have been able to suppress the problems that led to the call increase (albeit with the expense of those shift efforts felt at ATC). In Gateway, the team also struggled at times with available resources. In fact, one of the original SPI teams in Gateway was "disbanded" during the project period. Regardless, the lessons learned provide an important starting point for understanding the tension between resources and identified problems, and for making course-corrections during the project period that will improve the likelihood for successful interventions in the future.

Sustainability

One of the core principles of the Smart Policing Initiative is that the strategies deployed by law enforcement agencies are sustainable beyond the two (now three) year grant period. Sustainability is difficult, however. Law enforcement agencies that have been successful in obtaining Federal funding, like the Glendale Police Department, are used to thinking about grants as discrete, independent, short-term investments. "Write the proposal; win the grant; deliver what was promised in the proposal; write the final report; find the next grant opportunity." It is sometimes difficult to break out of this mind set,

especially if there is turnover at the top of the organization (e.g., a new chief comes in and has different priorities than the former chief). The Glendale Police Department has successfully broken this mindset in their approach to the Smart Policing Initiative. The department now has stability at the top and middle ranks (Commander and Lieutenant) of the department, with individuals who have been part of SPI for nearly five years. Moreover, across the two SPI grants nearly 60 officers have participated in an intensive 20-hour training on problem-oriented policing and the SARA model (nearly one-fifth of the department). Smart Policing has been infused into the recruit training (recruits have been required to sit in on our SPI team meetings) and into promotional processes (promotions to Sergeant and Lieutenant) at the department.

The sustainability of the SPI is also evident through the continued work on the projects in Glendale SPI II. At Arrowhead Towne Center, the groundwork has been laid for an enduring partnership. In August 2014, the Commander of the Foothills sector (Levander) and one of the research partners (White) had a lunch meeting with corporate executives from Allied Barton and Macerich (the property owner) to discuss the continuation of the partnership and to begin a dialogue on access to the Allied Barton internal data system. Moreover, the hot spots approach with the ATC report form has provided a starting point for using data to more effectively direct police and security resources at the mall, especially during the holiday season. At the time of this writing, the Foothills team was in the process of writing their “holiday plan” for ATC, and the findings from the ATC reports are being utilized in that planning.

In Gateway, the focus on prolific offenders has been extended to patrol officers and is now a defining element of the entire sector. The Gateway officers continue to identify prolific offenders in the target area, and those offenders are now assigned to patrol officers to monitor. ASU continues to provide support through additional Social Network Analysis. SPI officers have each been assigned to troublesome apartment complexes where many of the offenders live, and they routinely walk those complexes using the “counter-insurgency” approach (<http://www.cbsnews.com/news/counterinsurgency-methods-used-to-fight-gang-crime/>). Moreover, the Gateway team has facilitated the creation of a working group of

apartment complex managers who meet regularly and share information on evicted tenants (i.e., in an effort to prevent “bad” tenants from simply jumping from one complex to another after getting evicted for criminal activity). In July 2014, approximately 50 officers from all ranks of the department received specialized training in Focused Deterrence and Offender Call-ins from Lieutenant Tom Woodmansee of the Madison, Wisconsin Police Department. The Gateway sector is in the planning stages for carrying out their first Offender Call-in, most likely in early February 2015. Cross-sector partners have been identified and briefed on the strategy (service providers, probation, county attorney, etc.), offenders have been identified (“A and B listers”), and an offender selection committee has been created.

Still, there will be clear hurdles to sustainability in Glendale, and the biggest hurdle involves the budget. The city budget is a serious concern, and the police department continues to “move the puzzle pieces around” to avoid lay-offs. The biggest area of concern involves crime analysis. When GPD applied for their first SPI grant in 2009, the department had four full-time crime analysts. Currently, they have one with no current plans to hire another. Crime analysis is the foundation of a Smart Policing agency. Crime analysis allows for data-driven decision making and strategic planning. It is also crucial to the two “As” in the SARA model: analysis and assessment. Sustainability of the SPI in the GPD will hinge on the assignment of additional resources to this core function of the Department, and the leadership is well aware of this need. As one of the oldest and most active SPI sites, the Glendale Police Department and their research partners at Arizona State University will continue to work together to push the boundaries of innovative police strategies that reflect the core principles of the Smart Policing Initiative.

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About the Center for Violence Prevention & Community Safety

Arizona State University, in order to deepen its commitment to the communities of Arizona and to society as a whole, has set a new standard for research universities, as modeled by the New American University. Accordingly, ASU is measured not by whom we exclude, but by whom we include.

The University is pursuing research that considers the public good and is assuming a greater responsibility to our communities for economic, social, and cultural vitality. Social embeddedness – university-wide, interactive, and mutually-supportive partnerships with Arizona communities – is at the core of our development as a New American University.

Toward the goal of social embeddedness, in response to the growing need of our communities to improve the public’s safety and well-being, in July 2005 ASU established the Center for Violence Prevention and Community Safety. The Center’s mission is to generate, share, and apply quality research and knowledge to create “best practice” standards.

Specifically, the Center evaluates policies and programs; analyzes and evaluates patterns and causes of violence; develops strategies and programs; develops a clearinghouse of research reports and “best practice” models; educates, trains, and provides technical assistance; and facilitates the development and construction of databases.

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