Policing Convenience Store Crime: Lessons from the Glendale, Arizona Smart Policing Initiative

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Abstract
The Glendale, Arizona Police Department received funding in 2009 through the Bureau of Justice Assistance's Smart Policing Initiative (SPI). The Glendale team employed problem-oriented policing to address crime and disorder at convenience stores throughout the city. The SPI team's analysis demonstrated that crime was disproportionately occurring at Circle K stores, and that store management practices were largely responsible for the crime problem. The Glendale SPI team developed a multi-pronged response that included intervention with Circle K leadership and the implementation of prevention and suppression strategies. Results indicate that crime dropped significantly at the SPI target stores (42%) from the year preceding the intervention to the year after. This decline is inconsistent with crime patterns witnessed at the remaining convenience stores in the city of Glendale. The paper concludes with a discussion of how police departments can successfully engage with private sector corporations on issues of crime, disorder, and community safety.

Keywords
problem-oriented policing, SARA, convenience store crime

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Introduction

> A suspect accused of shooting a man who intervened in a beer theft at a Phoenix convenience store last year was arrested in Mexico over the weekend...Manuel Salazar III is accused of shooting Lance Taylor to death in front of his family at a Circle K near McDowell Road and 43rd Avenue on Feb. 19, 2010. Salazar tried to steal two 30-packs of beer from the store. Taylor blocked his path and told him to return the beer. Salazar put the beer back in the cooler then reportedly pulled a handgun from his waistband and pointed it at one of the clerks as he walked toward the doors. Salazar then had words with Taylor's wife and hit her in the head with his gun on his way out of the store...Taylor followed Salazar outside and was shot during a confrontation. He died at a local hospital.[1]

From 2005 to 2009, the city of Glendale, Arizona experienced violent and property crime rates that were significantly above the national average. For example, in 2006, the violent and property crime rates in Glendale (per 100,000) were 619.1 and 5,095.5, compared to national rates of 473.6 and 3334.5. Over the next few years, Glendale experienced significant declines in violence, as the violent crime rate dropped by nearly 30% to 449.7 per 100,000 in 2009 (compared to a national rate of 431.9). However, property crime rates remained persistently high in Glendale and peaked at 5234.6 in 2008—63% higher than the national average.

In 2009, the Glendale, Arizona Police Department and their research partners at Arizona State University's Center for Violence Prevention and Community Safety received funding through the Bureau of Justice Assistance's (BJA) Smart Policing Initiative (SPI) to target crime—particularly property crime—through problem-oriented policing. The SPI provides funding to law enforcement agencies to test solutions to serious crime problems in their jurisdictions. Through the SARA process (scanning, analysis, response and assessment), the Glendale SPI team identified crime and disorder at convenience stores as the target problem. The team selected this issue because the problem was chronic (tied to persistently high property crime rates), it placed a significant burden on police resources, and because it threatened the safety of both customers and store employees. Indeed, from 2008 to 2010, a number of incidents occurred in the Phoenix metropolitan area in which thefts from convenience stores escalated into violence, much like the fatal case described above involving Lance Taylor.

This paper examines the implementation and impact of the Glendale SPI, which was grounded in the SARA model. The Glendale SPI team began the SARA process with 20 hours of classroom based training on advanced problem-oriented policing. The Glendale SPI team included a sector Lieutenant, two specialized units, each staffed with a Sergeant, six to nine police officers, and a Civilian Community Action officer (CAT) specializing in crime prevention, a

crime analyst, and the research partners from Arizona State University. Through scanning and analysis, the SPI team determined that crime and disorder problems were disproportionately occurring at Circle K stores and that Circle K management practices were largely responsible for the crime problem. The Glendale SPI team developed a multi-pronged response plan to target the six most troublesome store locations that included intervention with Circle K corporate leadership and the implementation of prevention and suppression strategies. To assess program impact, the authors examined calls for police service at all 65 convenience stores in Glendale over a three-year period. After a brief review of the literature examining problem-oriented policing, this paper describes each of the steps of the SARA process in Glendale. The paper concludes with a discussion of the implications of the findings, as well as lessons learned regarding how police can engage with private sector corporations on issues of crime, disorder, and community safety.

Prior Research

In 1979, Herman Goldstein transformed policing with his critique of the "professional model" and his call for a problem-oriented approach to policing. He characterized the police at that time as over-emphasizing processes that had relatively little impact on reducing crime—he termed this problem the "means over the ends syndrome." Goldstein (1979) also noted that at this time much publicized research questioned the effectiveness of traditional policing strategies. For example, the Kansas City Preventative Patrol Experiment had illustrated the limited impact of preventative patrol on fear of crime and deterring crime (Kelling et al., 1974). Likewise, he pointed out that other research showed that special investigative techniques and rapid response to calls for service did not result in a significant increase in arrest (Spelman and Brown, 1982).[2] He argued that these strategies largely failed because they focused on the internal management of police organizations in an effort to achieve "administrative competence" (Goldstein, 1979, p. 239) rather than focusing on the actual problems faced by their communities.

Goldstein reflected on the fact that the police role was largely defined in vague terms and focused on such broad concepts as crime, order maintenance, and service. This, he argued, led the police to design and implement generalized responses that were reactive and lacked specificity. Instead, he argued that the police needed to pivot their orientation and specify the primary objective of policing, which is to deal with problems—social and behavioral in nature. More specifically, Goldstein (1979) stated that the police should focus their efforts on the discreet types of problems they address (e.g., homicide, disorder, drunk driving) and develop customized responses to each type of problem. This would require the police to define problems with greater specificity, engage in research to understand the problems, and explore alternative responses to

identified problems. 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) enabled agencies across the country to more easily adopt problem-oriented policing (POP) by articulating its basic concepts through an easy to remember acronym—SARA. 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 problem identification, otherwise known as scanning. Scanning can be done in a number of ways. For example, over the course of the day, an officer might look for problems in their assigned beat (e.g., based on physical and social indicators). Another strategy might be for crime analysts to review calls for service to identify potential problems or addresses. The problems identified using this model manifest as a collection of related incidents that share one (or more) underlying cause(s) (Goldstein, 1979, 1990). The second step in problem-oriented policing is analysis. During this stage, the police collect information about the problem selected for attention in an attempt to identify its scope, nature, and root cause. 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 strategy formulation, otherwise known as response. Based on the analysis of data collected during the analysis stage, a strategy for addressing the problem is developed and implemented. The response might include traditional responses relying on the criminal law, but often includes relying on informal mechanisms of social control (e.g., pulling levers), civil law (e.g., code enforcement), and/or restructuring environments (e.g., Crime Prevention through Environmental Design, 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

One of the first experiments examining the impact of POP was conducted in Newport News, Virginia. For years, the local police agency attempted to address an increasing number of burglaries in the New Briarfield apartment complex. Increases in officer presence reduced crime, but when the officers were deployed to other areas the problem returned. Officers introduced the four-step (SARA) problem-oriented policing approach and the analysis showed 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 significantly decreased crime (Eck and Spelman, 1987). Since the Newport News POP project, problem-oriented policing has been adopted by hundreds of police agencies in the United States and abroad.

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 crime and disorder such as firearm-related homicides, street level drug dealing, violent and property crime, as well as prostitution (Green-Mazerolle et al., 1999; Kennedy, 1997; Reitzel et al., 2005; Sherman, 1989; White et al., 2003). However, scholars have noted that, in practice, agencies often engage in "shallow problem solving" which does not reflect Goldstein's original vision (Braga and Weisburd, 2006, p. 146). 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 conducted a meta-analysis of the 10 studies that utilized experimental or quasi-experimental designs to examine the impact on crime and disorder. They reported that POP had a small but meaningful impact (p. 153) among the 10 study sites. The authors concluded that while POP is one of the most significant and meaningful police innovations over the past several decades, few studies have examined the strategy through methodologically rigorous research designs.

The SPI

In 2009, the BJA created the SPI program (see Coldren, Huntoon and Medaris in this issue for a complete discussion of the SPI). Agencies that reflect the spirit of the SPI are strategic, science-based, and heavily reliant on data, information, and technology. SPI agencies collaborate with academic research partners and other stakeholders, and they are actively involved in the assessment of their efforts. Through the SPI, BJA seeks to provide resources and technical assistance so that police can efficiently focus their resources on places and people that are most responsible for crime and violence. Over the past four years, more than 35 law enforcement agencies across the nation have participated in BJA's SPI. The Glendale, Arizona Police Department, one of the original funded agencies, partnered with Arizona State University to apply the principles of problem-oriented policing and the SARA model. The rest of the paper describes the Glendale SPI.

Scanning and Analysis

Advanced Training in Problem-Oriented Policing

From January through April 2010, the authors provided advanced training in the SARA model and problem-oriented policing. The training (approximately

20 hours) was grounded in the model curriculum available through the Center for Problem-Oriented Policing and was attended by approximately 25 officers in two specialized units (see http://www.popcenter.org/learning/model_curriculum). The centerpiece of the training involved "homework assignments" that required officers to scan to identify problems and to complete in-depth analysis to understand the scope, nature, and causes of the problem (officers immediately identified convenience store crime). Officers were told to "think big" and identify problems that have been persistent and difficult to solve. Officers also developed response and assessment plans.[3] In effect, the training required the officers to engage in all phases of the SARA model.

Analyzing the Glendale Convenience Store Crime Problem

Once officers had identified convenience store crime as the target problem, the Glendale SPI team completed in-depth analysis of the problem, beginning with an examination of calls for service. Crime analysts pulled calls for service from 2008 to 2010 at all 65 convenience stores in Glendale, by store location. Table 1 shows the top generators of calls for police service during that time, and the top 10 locations all are Circle K stores. Notably, there are only 15 Circle K stores in Glendale (representing 23% of all convenience stores in the city), but those 15 stores were responsible for 79% of the calls for service at convenience stores in 2010. Several of the stores experienced more than 500 calls per year.

Table 1. Highest Generators of Calls for Service, 2008–2010, among Glendale (AZ) Convenience Stores.

Name	Address	Totals	2008	2009	2010
Circle K	4306 W Maryland Ave	1,428	381	555	492
Circle K	5880 W Camelback Rd	1,148	199	396	553
Circle K	5907 W Bethany Home Rd	1,062	201	524	337
Circle K	5102 W Camelback Rd	1,020	304	434	282
Circle K	7428 N 51st Ave	918	323	322	273
Circle K	6305 W Maryland Ave	880	273	331	276
Circle K	4648 W Bethany Home Rd	861	282	306	273
Circle K	9002 N 47th Ave	664	271	206	187
Circle K	6002 W Grand Ave	527	163	159	20
Circle K	6937 N. 75th Ave	494	169	136	189
QuikTrip	6702 W. Glendale Ave	402	127	149	126
7–11	6010 W. Bethany Home Rd	197	69	75	53
QuikTrip	5082 NW Grand Ave	185	58	56	71

Table 2 examines the types of crimes at Circle K stores for 2010.[4] The findings show that property crimes, disorder, and welfare checks comprised the majority of incidents. These stores were also characterized, but to a lesser extent, by violent crime, drug crime, and sex crime (e.g., prostitution).

One possible explanation for the disproportionate amount of crime at Circle K stores involves their location. In other words, Circle Ks might be found in communities where crime is more prevalent. To examine this issue, the Glendale team mapped the locations of convenience stores and examined crime and disorder at both Circle Ks and surrounding convenience stores, shown in Figure 1. Circle K stores are represented by the stars, and other convenience stores are represented by solid dots. As the legend suggests, the size of the dot or star indicates the total number of crime incidents at each location. Figure 1 shows that convenience stores located near Circle Ks experienced substantially less crime and disorder ("big stars" surrounded by "small dots"). This geographic analysis suggests that, even when accounting for the location of the convenience store, Circle Ks generate a disproportionate amount of crime and disorder.

The Glendale SPI team also visited Circle K stores, as well as other convenience stores with low or no crime problems. Team members completed CPTED surveys of the stores and conducted surveillance of the most active locations. CPTED is a core element of problem-oriented policing and crime prevention more generally. Based on this work, the Glendale SPI team identified a number of Circle K management practices that were largely responsible for the crime problem. These practices included inadequate staffing; failure to respond to panhandling, loitering, and graffiti; and violations of basic CPTED principles, such as poor lighting, obstructed lines of sight, and high-risk product placement (e.g., placing beer by the front door).

Table 2. Crime, by Call Type, among Glendale Circle K Convenience Stores, 2010.

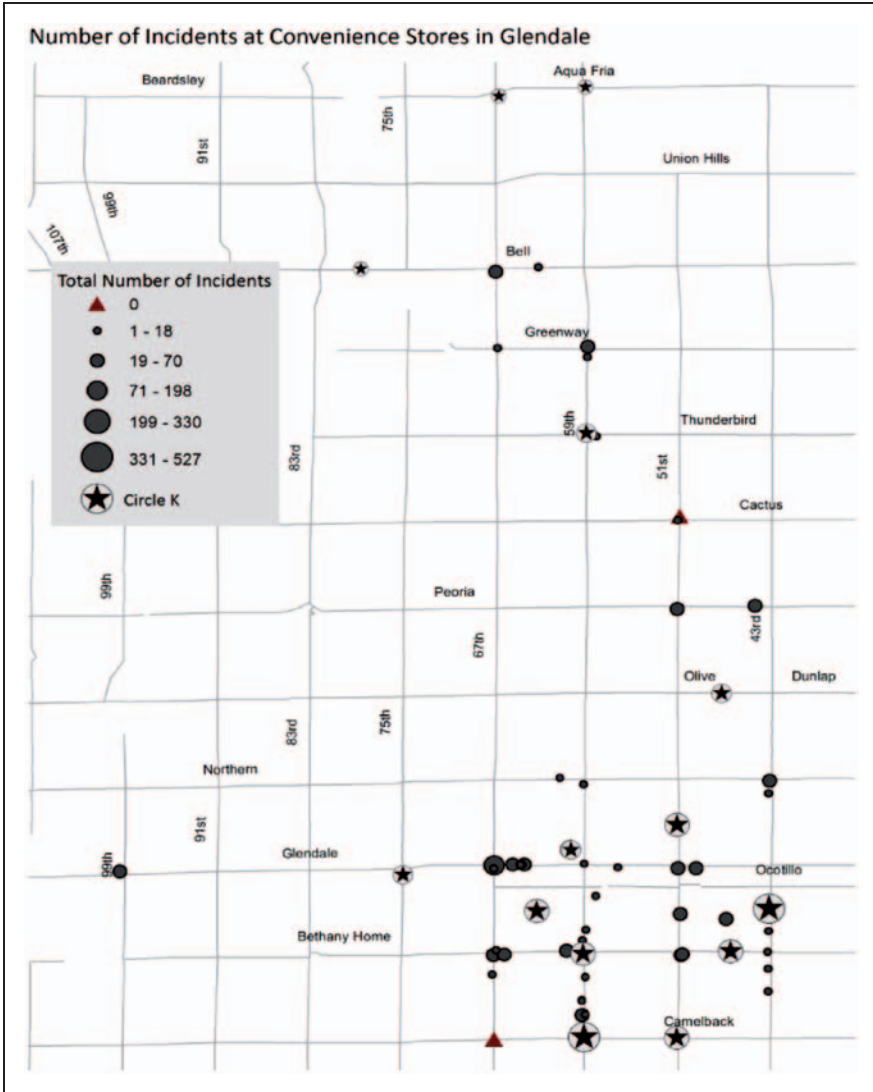| Address	Disorder	Drug	Property	Sex crime	Violent	Welfare check	Total
5880 W Camelback Rd	110	5	377	6	6	23	527
4306 W Maryland Ave	64	4	378	2	9	16	473
5907 W Bethany Home Rd	89	3	185	6	15	32	330
6305 W Maryland Ave	21	1	215	1	11	23	272
5102 W Camelback Rd	34	2	185	0	10	39	270
4648 W Bethany Home Rd	17	0	225	2	9	11	264
7428 N 51st Ave	25	3	209	1	9	13	260
6002 W Grand Ave	15	0	168	0	7	8	198
9002 N 47th Ave	12	0	154	0	4	9	179
66937 N 75th Ave	42	0	104	3	8	16	173

Figure 1. Glendale (AZ) convenience stores by location, type, and calls for service (2010).

Response

Based on the analysis, the Glendale SPI team developed a three-pronged response plan that included engagement of Circle K leadership, prevention, and suppression.[5]

Response 1: Intervention with Circle K Leadership

Given available resources, the Glendale SPI targeted for intervention the top six generating Circle K stores. The team met with Circle K leadership and presented more than 220 CPTED-related recommendations to alter store design and environment to reduce the opportunity for crime. The Glendale SPI team's intervention efforts with Circle K produced mixed results. On one hand, there were clear successes. Circle K loss-prevention staff provided training to SPI officers on access and use of the store surveillance systems,[6] they began sharing information and working with detectives to identify repeat offenders, and they participated in suppression efforts (see "Response 3" section below). The team achieved sporadic success with CPTED recommendations, such as the removal of beer from the floor at a few stores, and the placement of trespassing signs at all stores. For the most part, however, the Glendale team experienced resistance from Circle K management. CPTED recommendations were often ignored, especially those that required a financial commitment. For example, Circle K management refused to increase staffing during "hot times" because of the cost associated with a second employee. After initial meetings, Circle K leadership lost interest in addressing crime and disorder problems at their stores and reduced their communication with the SPI team.

The SPI team adopted two approaches in response to the resistance from Circle K management. The first involved the creation of a working group of law enforcement agencies in the metropolitan area, including departments in Mesa, Tempe, and Phoenix. The SPI team collected call-for-service data from all the agencies and produced a multi-city convenience store crime report, which demonstrated that the experiences in Glendale were also common to other cities.[7] For example, the 116 Circle K stores in Phoenix represent 37% of all convenience stores in the city, but those locations are responsible for 68% of convenience store crime in Phoenix. Similar results are found in Mesa and Tempe. The working group served to increase leverage on Circle K through a collective voice. The Glendale SPI team's second approach involved presenting the multi-city report to the local media, which resulted in both print and television stories focusing on the Circle K crime problem (e.g., public shaming).[8] These strategies were effective in getting Circle K management back to the table and involved as a stakeholder, and in facilitating the discussion over the modification of management practices.

Response 2: Prevention

During the scanning and analysis phases, the SPI team discussed the importance of developing comprehensive responses that attacked the problem from multiple angles. Traditional crime-control strategies had been employed in the past to address convenience store crime, with little effect. Moreover, results indicated that juveniles commit approximately 25% of the crimes at Circle K stores.

Consequently, the SPI team developed a number of prevention strategies to deliver a clear message about the seriousness and potential long-term consequences of this crime. The centerpiece of these efforts involved a partnership with the Glendale Mayor's Youth Advisory Commission, as well as the development of a video public service announcement. This PSA, which was developed in partnership with a local Glendale television station and featured local high school students who acted in and presented a message about the consequences of engaging in thefts, especially "beer runs." The PSA was delivered to all Glendale middle and high school students in the weeks preceding the prom season.[9]

Response 3: Suppression (**Operation Not-So-Convenient**)

The Glendale SPI team carried out intensive surveillance and enforcement operations at the six targeted Circle K stores, called *Operation Not-So-Convenient*. This operation took place over nine consecutive weekends in August and September 2010, followed by periodic weekends throughout 2011. The operation included the use of undercover and marked cars, Circle K loss-prevention staff, researcher, and civilian staff (arrestees were debriefed at booking). *Operation Not-So-Convenient* led to 57 arrests, including 15 felony arrests. Of the 57 arrests, 48 had been adjudicated by December 2012, resulting in 37 convictions (77% conviction rate among adjudicated cases, with several jail and prison sentences).[10] Also, many of the suspects arrested during the operation were not first-time or low-level offenders. About 50% of the arrestees had priors, and 10% had prior serious arrests (Part I Crimes).

Assessment

We examined the impact of the Glendale SPI on calls for service at the six target Circle K stores in comparison to all other convenience stores in Glendale, shown in Table 3. In the interest of saving space, Table 3 displays all of the Circle Ks in Glendale (the six target locations and the nine remaining locations), as well as the top generating other locations. Note that there are 36 convenience stores in Glendale not shown here. The stores not shown experienced less than 25 calls for service during each of the three years in the study period. The 29 stores shown in Table 3 accounted for more than 80% of the calls for service to Glendale convenience stores each year.

Table 3 shows the average calls for service per month by store type and location (first and second columns) over a three-year period including: the year preceding the SPI (Pre-test period; August 2009–July 2010), the year during the SPI response phase (Intervention period; August 2010–July 2011), and the year after the intervention (Post-test period; August 2011–July 2012).[11] We employed ANOVA to examine mean monthly changes in calls for service between the pre-test period and the post-test period, both by individual store

Table 3. Number of Calls for Service by Period among Glendale (AZ) Convenience Stores.

Store name	Address	Pre-test period 8/9–7/10	Intervention period 8/10–7/11	Post-test period 8/11–7/12	ANOVA results	Monthly change
SPI stores/target group						
Circle K	4306 W Maryland	47.8 (574)	39.3 (471)	28.2 (338)	*	−19.6
Circle K	5880 W Camelback	43.4 (522)	44.7 (536)	31.7 (380)	*	−11.7
Circle K	5907 W Bethany Home	44.2 (530)	18.0 (216)	15.5 (186)	*	−28.7
Circle K	5102 W Camelback	30.4 (365)	21.5 (258)	12.1 (145)	*	−18.3
Circle K	7428 N 51st Ave	20.3 (243)	24.3 (291)	20.4 (245)		−
Circle K	4648 W Bethany Home	21.0 (252)	20.9 (251)	12.6 (151)	*	−8.4
Total target group		(2,486)		(1,445)	*	(−42%)
Circle K comparison group						
Circle K	6305 W Maryland	26.8 (322)	17.3 (207)	14.7 (176)	*	−12.1
Circle K	9002 N 47th Ave	16.1 (193)	13.3 (159)	13.8 (165)		−2.3
Circle K	6937 N 75th Ave	14.5 (174)	17.5 (210)	9.7 (116)		−4.8
Circle K	6002 W Grand Ave	14.2 (170)	18.2 (218)	13.0 (156)		−1.2
Circle K	20203 N 67th Ave	5.7 (68)	3.2 (38)	2.0 (24)	*	−3.7
Circle K	20207 N 59th Ave	7.0 (84)	4.2 (50)	2.0 (24)	*	−5.0
Circle K	5049 W Peoria Ave	10.6 (127)	8.6 (103)	10.2 (122)		−
Circle K	5902 W Bell Rd	6.7 (80)	6.8 (82)	4.7 (56)	*	−2.0
Circle K	7870 W Bell Rd	3.0 (36)	2.1 (25)	2.7 (32)		−
Total Circle K comparison group		(1,254)		(871)		(−31%)
Other comparison group						
QuikTrip	6702 W Glendale Ave	11.9 (143)	12.4 (149)	12.9 (155)		+1.0
QuikTrip	5082 NW Grand Ave	4.1 (49)	5.4 (65)	3.6 (43)		−
7/11	6010 W Bethany Home	5.9 (71)	2.8 (34)	4.8 (58)		−1.1
Shell	6705 W Bethany Home	3.3 (40)	2.9 (35)	4.3 (51)	*	+1.0
AM/PM	9920 W Glendale Ave	4.2 (50)	2.5 (30)	2.2 (26)	*	−2.0
Somer Mkt	4935 W Glendale Ave	2.5 (30)	2.7 (32)	2.2 (26)		−
Chevron	5103 W Peoria Ave	1.7 (20)	2.6 (31)	3.0 (36)	*	+1.3
AAA Food	5105 W Glendale Ave	1.7 (20)	3.7 (44)	3.0 (36)	*	+1.3
Exxon	5908 W Thunderbird	9.8 (118)	9.2 (111)	7.8 (94)		−2.0
Carniceria	6402 W Glendale Ave	1.7 (21)	2.0 (24)	2.3 (27)		−
Pizza Local	6530 W Glendale Ave	4.2 (50)	2.9 (35)	4.2 (50)		−
Dollar Mart	6601 W Bethany Home	3.5 (42)	3.6 (43)	4.4 (53)		−
Quick Conv.	6705 W Bell Rd	2.1 (25)	2.3 (28)	2.2 (27)		−
Total other comparison group		(679)		(682)		(+0.5%)

ANOVA was employed to examine mean monthly changes in calls for service between the pre-test period and the post-test period. An asterisk indicates statistical significance ($p < .05$).

location and by category of stores (e.g., SPI Stores/Target Group; Circle K
Comparison Group, etc.). The last column shows the change in average monthly
calls from the year before the SPI to the year after. The six target Circle K stores
are listed first, followed by the other nine Circle Ks in Glendale, and the remaining
locations with the largest number of calls for service. There were statistically
significant drops at five of the six target Circle K stores (declines of 8–29 calls
for service per month). For example, at the Circle K on 5907 W Bethany Home
Road the average number of monthly calls for service dropped from 44.2 in the
pre-test year to 15.5 in the post-test year (total calls dropped from 530 to just 186).
Overall, calls at the six target Circle Ks dropped by 42% from the pre- to post-
intervention period (2,486 to 1,445; also statistically significant at $p < .05$).

Table 3 also shows average monthly calls for service for the remaining Circle
K stores in Glendale. Though crime at these locations was much less common,
these stores offer an interesting comparison to the impacts experienced at the
target Circle Ks. Four stores experienced statistically significant declines in calls
for service. Overall, calls for service at the nine non-SPI Circle Ks dropped by
31%, though this did not reach statistical significance (e.g., the majority of this
drop is explained by the decline at the store on 6305 W Maryland). The bottom
of Table 3 shows the top generating non-Circle K convenience stores in
Glendale, and four of these locations experienced a significant decline during
the study period. Overall, calls for service at these locations changed little from
pre- to post-intervention (by 0.5%).

Figure 2 shows these results differently, with each line representing a category
of stores: SPI target Circle Ks, the Non-SPI Circle K comparison group, and the
other convenience stores in Glendale. Each line represents the annual calls for
service at each category of stores during the three-year study period, and the
significant decline in calls for service at the target Circle Ks (i.e., 42% drop) is
clearly distinct from the patterns at the other convenience stores in the city
(though the comparison Circle Ks also witnessed a decline). The results pre-
sented in Table 3 and Figure 2 strongly suggest that the SPI led to significant
declines in crime and disorder at the target convenience store locations.

Discussion

The Glendale SPI reflected the spirit of several foundational elements of pro-
blem-oriented policing. The Glendale SPI team engaged in detailed analysis of
the targeted crime problem; they developed a comprehensive response that relied
on both traditional and non-traditional law enforcement strategies; they colla-
borated with key stakeholders (other law enforcement agencies; Circle K); and
they assessed the impact of the initiative. Results from the assessment phase
show that calls for service at the target stores declined by more than 40%
after the intervention—a decrease that was statistically significant and was
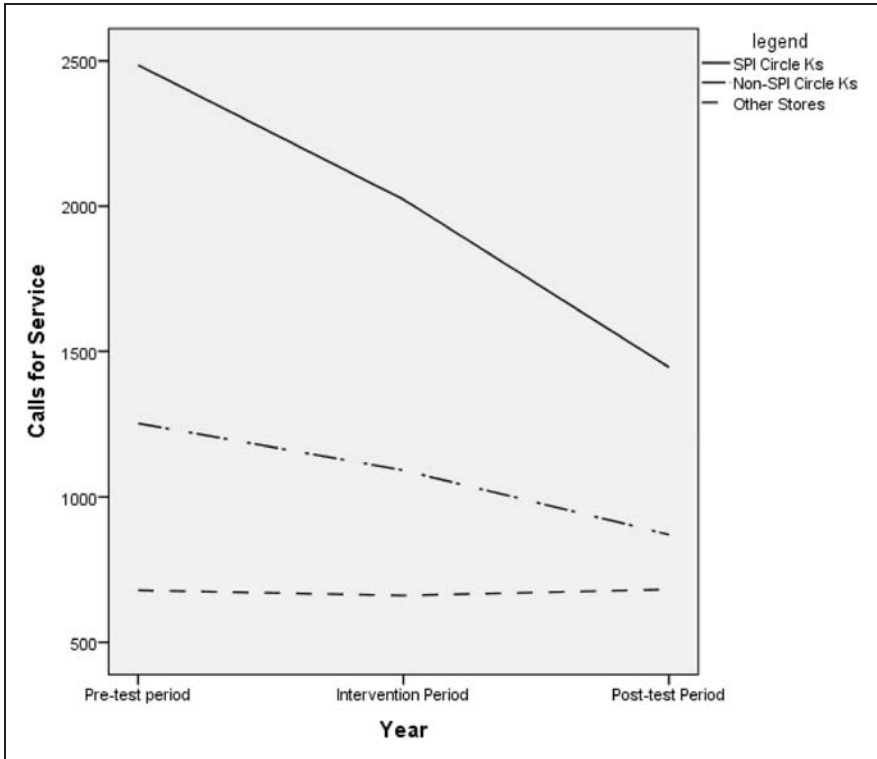different from crime patterns witnessed at other convenience stores in the city.

Figure 2. Convenience store crime in Glendale by store category, during the three-year study period.

The SPI enhanced the safety of both employees and customers at the six target Circle Ks and produced large cost savings for the police department. For example, Glendale data indicate that each call for service at a Circle K takes an average of 23 minutes of officer time. With an average officer salary of $46.26 per hour, the calls for service at the six target Circle Ks in the year before the SPI ($n = 2,486$) cost the police department a total of $43,686, just in officer time. The cost at the same six stores in the year after the intervention was $25,403 ($n = 1,445$) —a savings of more than $18,000 in officer time at just those six locations. And these figures do not include other crime related costs associated with product loss, violent victimization (e.g., hospitalization, loss of work), jail and imprisonment, and private security.

The current study does have a number of limitations that warrant consideration. For example, the authors do not control for crime in the areas surrounding the convenience stores (though Figure 1 suggests this may not warrant concern). The paper also relies on official police data, and as a result, crimes

that go unreported are not part of this analysis. Moreover, there was some concern among the Glendale SPI team that the Circle K leadership would direct their stores to stop calling for police service after crimes had occurred. Though the authors cannot rule out this explanation for the crime declines reported in Table 3, the inconsistency in crime patterns across Circle Ks and our anecdotal discussions with Glendale officers suggest that changes in crime reporting do not explain the crime reductions. Last, the analyses conducted here are descriptive and bivariate. A more sophisticated time series analysis could control for other relevant factors and offer a more detailed picture of program impact.

Implications

The results from the Glendale SPI add to the body of literature supporting the effectiveness of problem-oriented policing. Moreover, the experiences in Glendale offer a number of lessons regarding the nature and prevalence of convenience store crime, as well as insights on how to address crime at those types of locations (and how to collaborate with the corporations that operate those locations). First, our analysis of police data from Glendale, and later analysis of data from the City of Phoenix, Tempe, and Mesa, found that Circle K convenience stores were magnets for crime, regardless of where they operated. Related to prior research on repeat offenders, victims, and places, Circle K stores were disproportionately responsible for generating crime when compared to convenience stores operated by other corporations. These findings suggest that some neighborhood-based corporations (e.g., fast food industry, gas stations) that are widely distributed throughout communities might be more likely to generate crime than others because of corporate management practices, store designs, and security practices. In effect, the results here suggest that in addition to crime-prone people (repeat offenders) and places (hot spots), there may also be crime-prone corporations.

Second, we found that many of the suspects who committed thefts from convenience stores were prolific offenders, in some cases committing crimes on a weekly or even daily basis. They had extensive criminal histories (including past violence) and were likely involved in other more serious types of crime. The New York Police Department discovered this phenomenon in the late 1980s when they targeted turnstile jumpers in the subway, and the same pattern appears to be in play with convenience store thieves in Glendale. In simple terms, targeting convenience store thieves can be an effective strategy for arresting serious criminal offenders.[12]

Third, the response plan developed by the Glendale SPI was defined by two major themes: deterrence and the importance of environment. With regard to deterrence, the effectiveness of *Operation Not-So-Convenient* at the target stores likely sent a strong deterrent message to would-be thieves. For example, 72% of the arrests made during *Operation Not-So-Convenient* operations occurred at the

three stores that experienced the largest declines (18–29%, see Table 3). These three Circle K stores were also much more compliant with CPTED requests compared to the other target stores (e.g., all three stores immediately removed beer from the floor). This evidence suggests that visible police presence, proactive enforcement, and effective CPTED management were linked to decreases in crime at the target stores.

With regard to the private sector, the convenience store industry is driven by revenue. The leadership thinks and acts based on profit, which may directly contradict with the goals of law enforcement. For example, when the Glendale SPI team suggested adding a second clerk during high-risk theft times, Circle K management refused because of the additional cost. Also, there are a number of arguments that the corporate management may rely on to justify why crime is a problem at their stores. Police departments can be prepared for these arguments and can refute them with data. When presented with the data in Table 1 (showing that Circle Ks were the top generators of calls for service in Glendale), the Circle K leadership claimed that their stores were in higher-crime neighborhoods. The Glendale SPI team responded with the geographic map (Figure 1) that directly refuted this claim.

Moreover, if a convenience store chain is problematic in one city, it is likely to be problem in surrounding jurisdictions. One way to increase leverage is to build a collective voice with other agencies. A multi-agency working group can help confirm that the corporate culture and crime-control problems are pervasive. Such a group can garner much more attention than any one agency acting by itself (e.g., especially media attention). However, law enforcement must also be careful not to alienate corporate leadership. The key issue is to keep an open dialogue with corporate peers to help them understand the police department's goals, as well as the significance of the partnership for each stakeholder. The likelihood of achieving effective crime prevention increases substantially when all key parties are involved. Collaboration between police and other stakeholders is a cornerstone of problem-oriented policing (see Goldstein, 1979), and it was a central feature of the Glendale SPI.

Notes

1. http://www.azfamily.com/news/local/Suspect-in-Phoenix-homicide-arrested-in-Mexico-122962593.html
2. It is interesting to point out the number of parallels between Goldstein's (1979) call for problem-oriented policing (e.g., financial crisis, lack of evidence based practices, call or increase police analytics, etc.) and BJA's impetus for Smart Policing.
3. In order to assess enhancement in officers' understanding of the training course material, the authors developed a knowledge assessment that was administered before and after the training (December 1, 2009 and April 28, 2010). Officer performance on the knowledge assessment, which included both objective and short answer questions, improved significantly over time, from 68.5% to 80.5%.
4. Data for this table come from Call Aided Dispatch/Record Management System (CAD/RMS) data which contains calls for service (CFS), as well as officer initiated, and official report data.
5. Response plans were developed by the officers and vetted by both the research partners and the department leadership.
6. Prior to this training, officers who responded to a call at a Circle K would have to wait until a manager accessed the system and provided a still photo of the suspect. After the training, the responding officers could access the system themselves and download a photo immediately.
7. For a copy of this report, see http://cvpcs.asu.edu/sites/default/files/content/products/CVPCSreport_convstore_2011_3PDs.pdf
8. For examples of media coverage, see http://www.abc15.com/dpp/news/region_southeast_valley/mesa/report%3A-valley-circle-k%27s-are-hotspots-for-crime; http://www.azcentral.com/community/glendale/articles/2011/07/10/20110710asu-study-circle-k-police-calls.html
9. See http://www.youtube.com/watch?v=hQZ6s2BTAo8. The team also partnered with a local service provider for juvenile justice-involved youth, and mass produced and distributed fliers warning of the dangers of committing convenience store thefts ("if you steal beer, you will pay for it;" in English and Spanish).
10. At the time this paper was published, only two of the 57 arrestees had their cases dismissed. Several defendants were wanted on warrants, or their cases were still working their way through the court process. As a result, the conviction rate has likely increased. The sentences include three prison terms (e.g., 17 years for an armed robbery suspect) and two county jail terms. The high conviction rate is likely tied to suspects being caught in the commission of the crime, and in the recovery of the evidence.
11. Glendale's Smart Policing grant began in September 2009 but the first year of the project was devoted to the SARA training, in-depth analysis, and the development of response and assessment plans. The response, including *Operation Not-So-Convenient* began in July 2010 and continued until the end of the grant in September 2011.

12. Moreover, this arrestee population can become an important source of intelligence for other crimes and criminals. Indeed, on a number of occasions, *Operation Not-So-Convenient* arrestees attempted to garner favor with police by providing information on other criminal activity.

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