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A Multi-City Report on Crime and Disorder in Convenience Stores

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In an effort to reduce our impact on the environment, we have chosen to distribute this report as a digital file.

Problem

Over the past year anecdotal evidence from media reports has suggested dispro-portionate levels of crime and violence occurring at Circle K stores in the Phoenix metropolitan area. Criminal events depicted by the media often took the form of individuals engaging in some type of minor criminal activity at a Circle K, and the events spiraling out of control. For example, a quick search on the internet brings up several examples over the past year of individuals attempting to steal beer or other items from a Circle K, and the incident ending with individuals being shot or stabbed. As a consequence of these observations, and subsequent federally sponsored research examining problem places in Glendale, Arizona, faculty and staff from the Center for Violence Prevention and Community Safety (CVPCS) at Arizona State University (ASU) reached out to several valley police departments and requested official data to more systematically examine this potential problem. This report presents our findings and our recommendations.

Methodology

Data for this report were obtained from three police departments: Glendale, Mesa, and Tempe. We requested 2010 Call Aided Dispatch/Record Management System (CAD/RMS) data because it contains calls for service (CFS), officer initiated, and official report data. Traditionally, efforts to measure crime by place have often been restricted to police crime reports. However, a number of researchers have argued that official crime data are perhaps inappropriate for such studies (Mazerolle et al. 2000; Sherman et al. 1989; Sherman and Weisburd 1995; Skogan 1990). Two major reasons have been noted. First, official police records substantially underreport, and perhaps distort, less serious crimes. Scholars maintain this is largely because, once called, police officers are more likely to handle such incidents informally (Sherman 1986; Skogan 1990). For example, Black (1980), in his observational study of police officers in Boston, Chicago, and Washington, DC, found that only about 40 percent of minor complaints are officially recorded (see also Sherman 1986). The second weakness of official crime data is that the mean number of official offenses recorded at the neighborhood level is often too low to generate a sufficient amount of statistical power. Therefore, the probability of finding a significant effect is decreased substantially (Mazerolle et al. 2000; Sherman and Weisburd 1995; Weisburd and Green 1995). Accordingly, using CAD/RMS data provides a more accurate view of neighborhood-level problems, reduces measurement bias, and increases statistical power.

To increase the comparability between communities we collapsed different types of records into twelve basic categories: (1) violent, (2) property, (3) drug, (4) alcohol, (5) vehicular accidents, (6) sex crime, (7) administrative, (8) disorderly conduct, (9) traffic violation, (10) warrant, (11) welfare check, and (12) other. Six of the categories were omitted for the sake of this report because they were most likely unrelated to the operation of convenience stores. For example, some stores are located in convenient locations where some official police activity takes place at that address, but has little to do with the store itself. Specifically, police officers might pull over traffic violators and ask those who are in traffic accidents to pull over in the parking lot of the store. They might transfer arrestees, process paper work, or conduct other tasks that might be attributed to the address belonging to a convenience store, but in fact the store itself was uninvolved in the event. As a consequence, for the purpose of this report we only included those incidents that were categorized as violent (e.g., robbery, assault), property (e.g., theft), drug (e.g., use, sales), sex crime (e.g., prostitution), disorderly conduct, and welfare checks in the analysis. Where incidents or crime is referenced in the analyses throughout this report, it is based on these six measures.

1 This category refers to checking on welfare of a person such as a clerk or employee.

Findings

The discussion of findings below is divided into five sections. The first section describes the context of the study by describing the number and type of convenience stores in each community. The second section provides our findings on the convenience stores that are most responsible for crime and disorder in each city. Third, we provide information on the types of crime and disorder found at the convenience stores. Fourth, we provide findings on the contribution of Circle K to convenience store crime and disorder in each city. Fifth, we discuss possible alternative reasons for the disproportionate amount of crime and disorder that takes place at Circle K stores.

The Context

Table 1 shows that Circle K operates a large proportion of the convenience stores in each of the three study cities. For example, Circle K represents about one-third of all convenience stores in Mesa and Tempe, and about one-quarter of convenience stores in Glendale. Glendale varies from the other two cities in that they have a larger proportion of independently owned stores (i.e., "mom and pop" stores that are not owned and operated by a large corporation).

Table 1: Convenience Stores in Glendale, Mesa and Tempe in 2010– by Type

Store Type	Glendale	Mesa	Tempe
Circle K	15	46	27
AM/PM-Arco	1	10	7
Quik Trip	2	14	6
Shell	2	16	9
7-11	2	11	7
Chevron	1	13	6
Valero	0	9	3
Independent	42	31	16
Total	65	150	81

Incidents of Crime and Disorder by Store Location

Table 2 shows the top ten (10) generators of crime and disorder for each of the three cities – by store and street address. The analyses indicate that Circle K dominates the store locations that are the most responsible for crime and disorder across the three cities. In Glendale, the top 10 generators of crime and disorder are all Circle Ks; in Mesa, 8 of the top 10 generators of crime and disorder are Circle Ks; and in Tempe, 6 of the top 10 generators of crime and disorder are Circle Ks.

Table 2: Top 10 Generators of Convenience Store Crime and Disorder by City, 2010

Glendale			Mesa			Tempe		
Store	Location	Total Incident	Store	Location	Total Incident	Store	Location	Total Incidents
Circle K 5880 W Camelback Rd		527	**Circle K** 330 E Broadway Rd		182	**Circle K** 119 University Dr		193
Circle K 4306 W Maryland Ave		473	**Circle K** 1145 W Main St		177	**Circle K** 1101 S Rural Rd		158
Circle K 5907 W Bethany Home		330	**Circle K** 417 S Dobson Rd		171	**Circle K** 2196 E Apache Blvd		108
Circle K 6305 W Maryland Ave		272	**QT** 414 S Stapley Dr		150	**Shell** 1734 E Apache Blvd		100
Circle K 5102 W Camelback Rd		270	**Circle K** 809 E Southern Ave		150	**Circle K** 15 W Southern Ave		96
Circle K 4648 W Bethany Home		264	**Circle K** 1205 E Broadway Rd		141	**Circle K** 1323 W Southern		80
Circle K 7428 N 51st Ave		260	**Circle K** 1160 E University Dr		133	**QT** 918 E Baseline Rd		66
Circle K 6002 W Grand Ave		198	**Circle K** 2005 W Broadway Rd		129	**Circle K** 2730 N Scottsdale		58
Circle K 9002 N 47th Ave		179	**AM/PM** 406 N Country Club Dr		125	**QT** 1106 E Broadway Rd		57
Circle K 6937 N 75th Ave		173	**Circle K** 310 N Mesa Dr		123	**Shell** 2180 E Broadway Rd		54

Types of Crime and Disorder by Store Location

Tables 3a, 3b, and 3c show the number of crime and disorder incidents by location, crime type, and city.   The findings show that property crimes, disorder, and welfare checks comprised the majority of incidents responded to by the police at the high crime convenience stores in each city. These stores were also characterized, but to a lesser extent, by violent crime, drug crime (e.g., drug sales), and sex crime (e.g., prostitution). For example, the 10 Glendale Circle Ks averaged about 9 violent crimes per store during 2010.

Table 3a: Glendale

Address	Store	Disorder	Drug	Property	Sex crime	Violent	Welfare Check	Total
5880 W Camelback Rd	Circle K	110	5	377	6	6	23	527
4306 W Maryland Ave	Circle K	64	4	378	2	9	16	473
5907 W Bethany Home	Circle K	89	3	185	6	15	32	330
6305 W Maryland Ave	Circle K	21	1	215	1	11	23	272
5102 W Camelback Rd	Circle K	34	2	185	0	10	39	270
4648 W Bethany Home	Circle K	17	0	225	2	9	11	264
7428 N 51st Ave	Circle K	25	3	209	1	9	13	260
6002 W Grand Ave	Circle K	15	0	168	0	7	8	198
9002 N 47th Ave	Circle K	12	0	154	0	4	9	179
6937 N 75th Ave	Circle K	42	0	104	3	8	16	173

Table 3b: Mesa

Address	Store	Disorder	Drug	Property	Sex crime	Violent	Welfare Check	Total
330 E Broadway Rd	Circle K	80	3	53	0	6	40	182
1145 W Main St	Circle K	73	2	59	1	2	40	177
417 S Dobson Rd	Circle K	45	1	91	0	12	22	171
414 S Stapley Dr	Quik Trip	33	1	8	0	2	106	150
809 E Southern Ave	Circle K	17	1	69	0	3	60	150
1205 E Broadway Rd	Circle K	20	1	41	0	1	78	141
1160 E University Dr	Circle K	8	1	50	0	4	70	133
2005 W Broadway Rd	Circle K	44	0	62	0	6	17	129
406 N Country Club Dr	AM/PM	61	4	24	3	6	27	125
310 N Mesa Dr	Circle K	47	0	51	0	1	24	123

Types of Crime and Disorder by Store Location - Cont.

Table 3c: Tempe

Address	Store	Disorder	Drug	Property	Sex crime	Violent	Welfare Check	total
119 W University Dr	Circle K	107	2	19	5	11	49	193
1101 S Rural Rd	Circle K	69	1	40	7	9	32	158
2196 E Apache Bl	Circle K	36	1	26	2	3	40	108
1734 E Apache Bl	Shell	38	1	15	5	16	25	100
15 W Southern Ave	Circle K	40	3	30	1	2	20	96
1323 W Southern Ave	Circle K	20	0	43	1	2	14	80
918 E Baseline Rd	Quik Trip	26	2	11	0	5	22	66
2730 N Scottsdale Rd	Circle K	22	1	3	4	7	21	58
1106 E Broadway Rd	Quik Trip	15	1	17	1	3	20	57
2180 E Broadway Rd	Shell	10	3	16	0	14	11	54

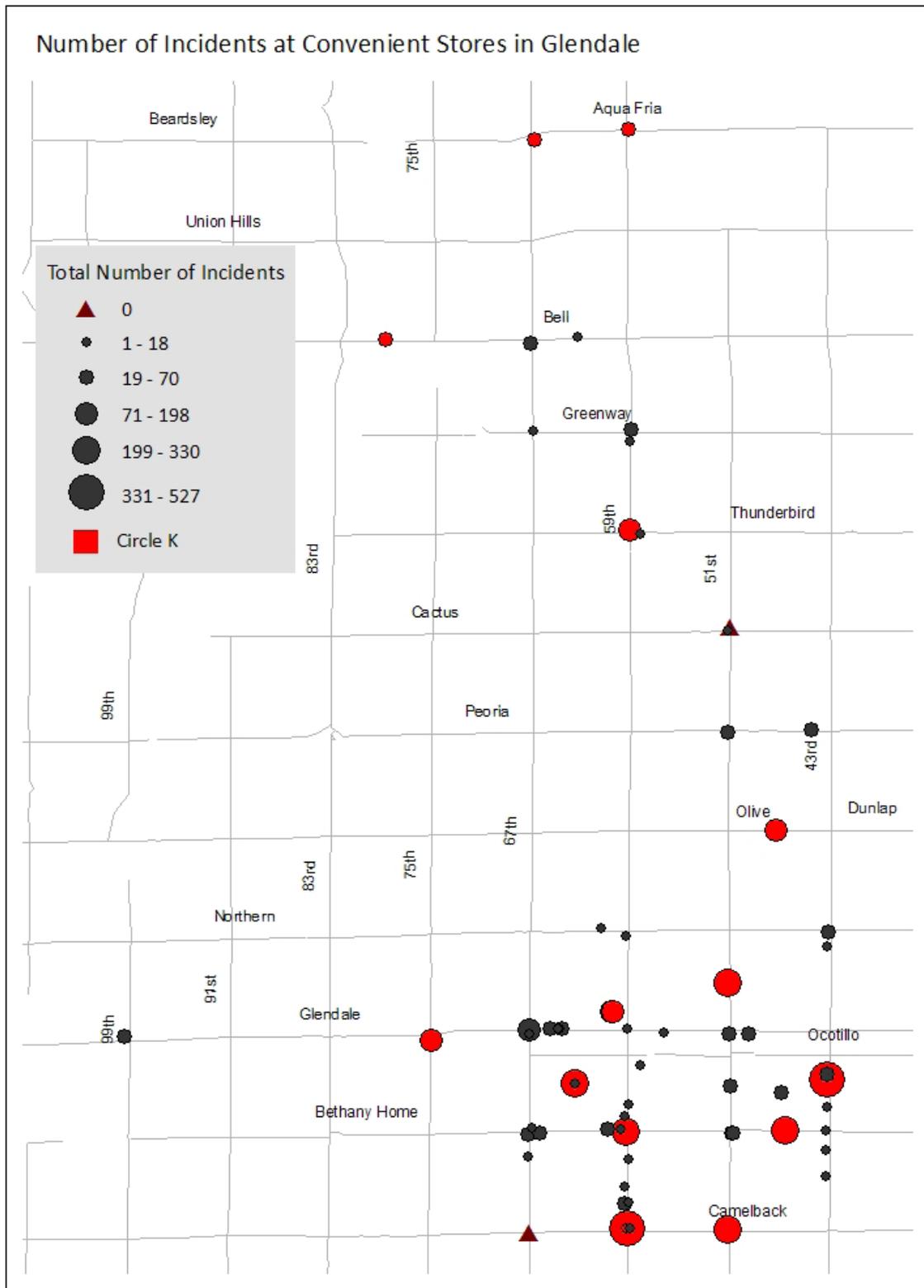**The Contribution of Circle K to Convenience Store Crime and Disorder**

The size and impact of the crime and disorder problem at Circle Ks is demonstrated in Table 4. For example, Circle Ks represent just under one-quarter of all convenience stores in Glendale, but those Circle K stores account for nearly 80% of all incidents at convenience stores. Circle Ks represent about one-third of convenience stores in Mesa, but account for 53% of incidents at Mesa convenience stores. The trend is similar in Tempe.
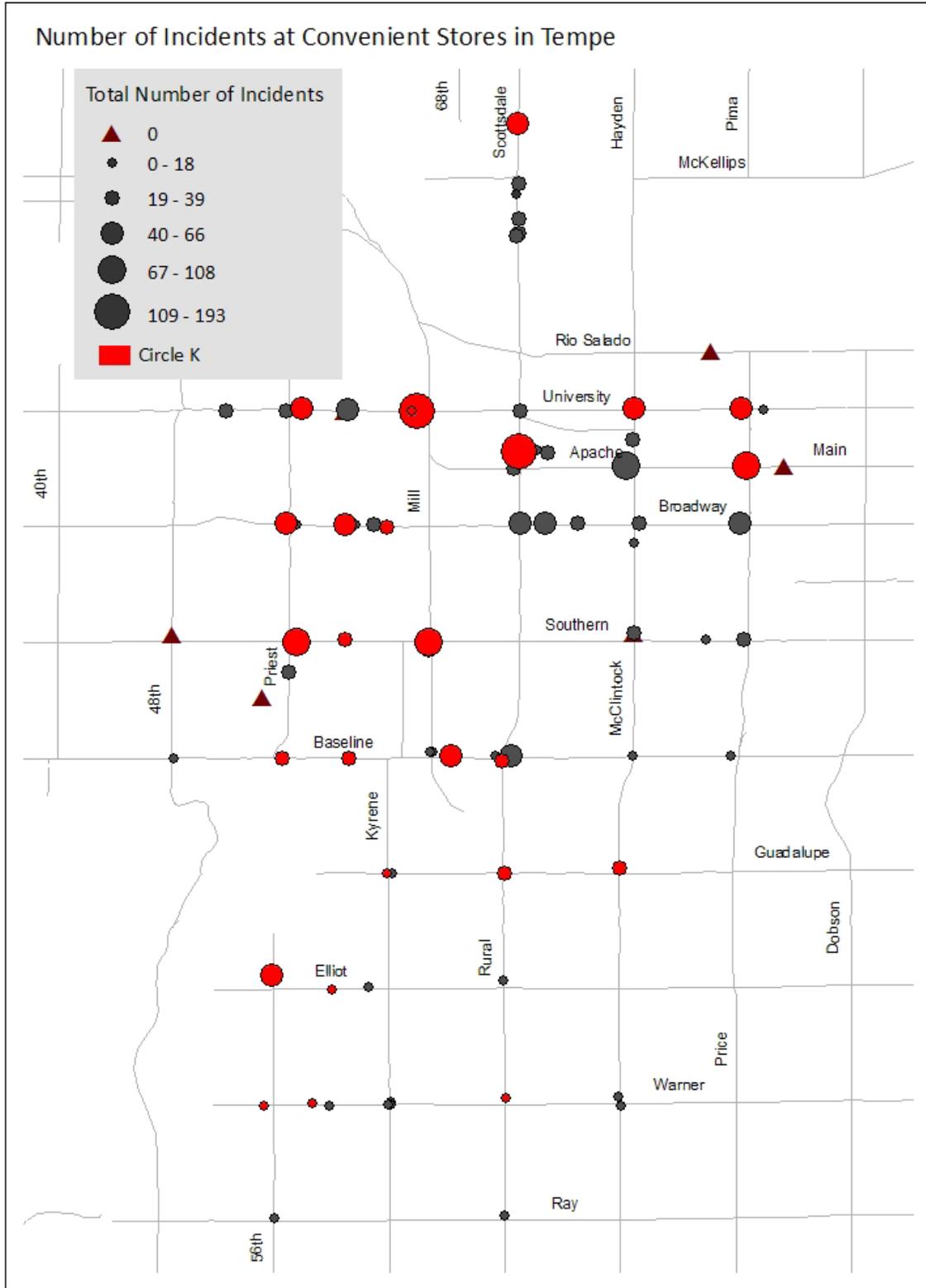
Table 4: The Contribution of Circle K to Convenience Store Crime and Disorder
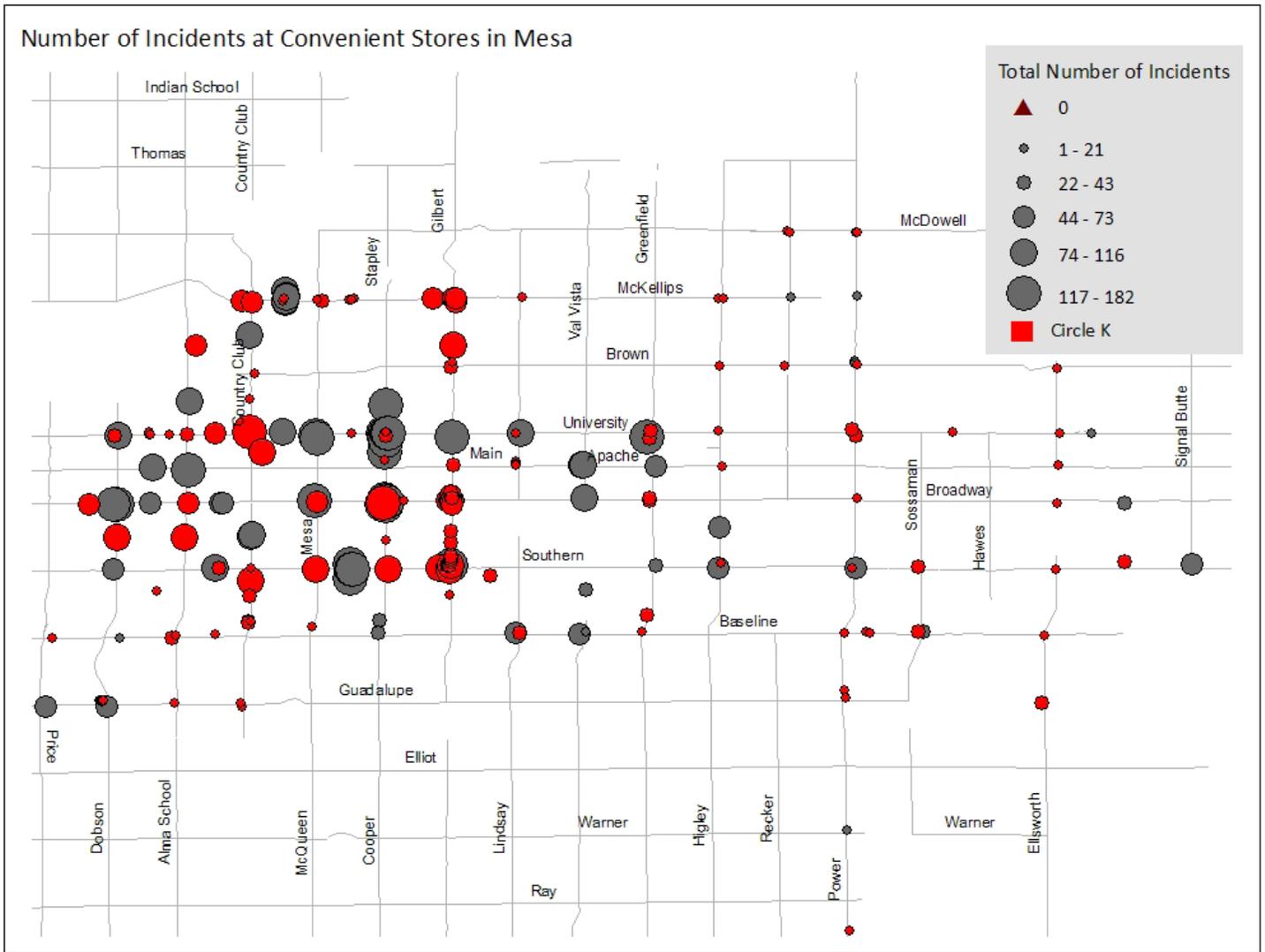
Glendale Circle Ks		Mesa Circle Ks		Tempe Circle Ks	
% of Stores	% of Incidents	% of Stores	% of Incidents	% of Stores	% of Incidents
23%	**79%**	31%	**53%**	33%	**55%**

The Possibility of Confounding Factors

One possible explanation for Circle K stores being disproportionately responsible for crime and disorder might be related to their location. In other words, Circle K's might be found at locations or in communities where crime is more likely to occur. To examine this issue we mapped the locations of convenience stores in each community and examined the crime and disorder at Circle K's and surrounding convenience stores.   A visual inspection of the maps presented below shows that in general convenience stores located near Circle K's experience substantially less crime and disorder, particularly in Glendale and Tempe. This suggests that even when taking into consideration the location of the convenience store, Circle Ks generate more crime and disorder.

Number of Incidents at Convenient Stores in Glendale

Number of Incidents at Convenient Stores in Tempe

Total Number of Incidents

- ▲ 0
- · 0 - 18
- ● 19 - 39
- ● 40 - 66
- ● 67 - 108
- ● 109 - 193
- ■ Circle K

Number of Incidents at Convenient Stores in Mesa

Conclusions

These analyses indicate that Circle K's within the three jurisdictions studied are unique when compared to other convenience stores in that: 1) they are disproportionately and regularly used in the commission of crime and 2) the prevalence of criminal activity at these locations has resulted in a substantial public nuisance.

Recommendations

1. Convene a formal working group comprised of Glendale, Mesa, and Tempe Police Departments and ASU's CVPCS faculty and staff. Officials representing each agency should include a sworn officer of sufficient rank (e.g., lieutenant or commander), one crime analyst and/or a crime prevention specialist.

2. The working group should identify other local law enforcement agencies that might be interested in collaborating to reduce crime and disorder at Circle Ks.

3. ASU should further study responses to crime and disorder at Circle K's by local police and Circle K Corporation. The results of this study should be appended to this report, along with a comprehensive set of recommendations that might be used to address crime and disorder at Circle K stores.

About the Center for Violence Prevention and 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 their 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.

For more information about the Center for Violence Prevention and Community Safety, please contact us using the information provided below.

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