



Data Driven Approaches to Crime and Traffic Safety Shawnee, Kansas 2010 - 2013



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**An Evaluation of Data-Driven Approaches to Crime and Traffic Safety in
Shawnee, Kansas: 2010-2013**

Prepared for the Department of Justice,
Bureau of Justice Assistance, Smart Policing
Initiative and the Shawnee Police Department

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Contents

Contents2

Executive Summary3

Introduction.....5

Focus Group Methodology and Findings.....7

 Purpose, Training, Effectiveness, and Sustainability of DDACTS.....9

 Purpose of DDACTS 10

 Training 13

 Perceived Effectiveness of DDACTS..... 16

 Perceived Sustainability of DDACTS in Shawnee..... 20

 Follow-Up Focus Groups..... 24

 Summary..... 27

Business Survey: Methodology and Findings 30

 Findings..... 30

 Respondent Comments 51

Community Survey: Methodology and Findings 53

 Findings..... 56

 Comparing the Findings from the Business and Community Surveys..... 75

 Summary..... 77

Data Analysis: Methodology and Findings 77

 Data Analysis: Pre and Post Comparison of Means With Two Groups 79

 Displacement and Diffusion of Benefits..... 86

 Summary..... 90

Conclusion and Recommendations 91

References 94

Appendix..... 96

Executive Summary

This report describes the results of a study funded by the Department of Justice, Bureau of Justice Assistance, Smart Policing Initiative¹ to study the implementation of Data-Driven Approaches to Crime and Traffic Safety (DDACTS) by the Shawnee Police Department from July 6, 2010 until July 6, 2013. Specifically, the research project examined the effects of DDACTS on vehicle theft, vehicle burglary, robbery, and vehicle collisions in a selected target zone. In addition, the study examined officer attitudes toward the implementation of DDACTS, as well business and resident perceptions.

An analysis of officer focus group interviews shows evidence of a shift in culture and officer “buy-in” within the Shawnee Police Department, especially with the divisions of the department most closely associated with the DDACTS initiative. Specifically, participants in the patrol, traffic, supervisors, and command staff focus groups revealed a close awareness of the purpose of DDACTS, and the strengths and weaknesses of the approach toward training. Moreover, the majority of the participants in these focus groups believe that DDACTS is an effective and sustainable initiative. There are some exceptions. The dispatch and investigations focus groups revealed less awareness of the purpose of DDACTS, but similar perceptions about DDACTS training as other areas of the department. However, dispatchers and detectives are significantly less positive regarding the effectiveness and sustainability of the DDACTS initiative.

Surveys of businesses and residents in the target zone showed that a majority of respondents perceive a greater police presence and more traffic stops. Most respondents believe DDACTS has improved the quality of life in Shawnee. Most respondents rate the relationship between SPD and residents and businesses as very good to excellent. In addition, respondents support high-visibility, targeted traffic enforcement.

A pre and post-test comparison of means evaluation design with two comparison groups examined the effects of the DDACTS initiative on vehicle burglary, vehicle theft, robbery, and collisions. The findings reveal a greater reduction in crime and collisions in the DDACTS zone compared to the control zone and the rest of Shawnee. The following statistics show the 3-year post-test period for the DDACTS zone:

- Vehicle Burglary was reduced by 32.86%
- Vehicle Theft was reduced by 40.32%
- Robbery was reduced by 70.37%
- Collisions with injuries were reduced by 24.39%

¹ Smart Policing Initiative 2011-DB-BX-0001

- Collisions without injuries were reduced by 24.18%
- Total Target Crime was reduced by 39.52%
- Total Collisions were reduced by 24.20%

Additional analyses were conducted to test for crime displacement and diffusion of benefits. The findings of these additional analyses revealed no strong evidence of displaced target crimes due to DDACTS. There is statistical evidence of the diffused benefits of the DDACTS initiative on vehicle theft and total target crimes; that is, the crime reducing effect of DDACTS extends beyond the DDACTS zone for these crime categories.

Introduction

The City of Shawnee, Kansas is located on the western edge of the Kansas City metropolitan area and has a population of 63,740. The Shawnee Police Department is a medium sized municipal law enforcement agency and currently employs 88 sworn officers and 22 civilians. Between 2007 and 2009, Shawnee witnessed an *increase* in part one violent crime while nationally, during the same time period, there had been a *decline* in these types of crime. Due to economic conditions at the time, the department eliminated crime prevention positions and a command level position. This resulted in a 4.5 percent reduction in the number of sworn officers. In response to the aforementioned factors, the department began seeking a means to reverse the crime trend without adding additional staff.

In March, 2010, the Chief of Police and members of the Command Staff² attended a National Highway Traffic Safety Administration (NHTSA) presentation regarding a policing model known as Data Driven Approaches to Crime and Traffic Safety (DDACTS) during the annual Kansas Department of Transportation Safety Conference. They learned how other pilot locations had used this policing method, with existing staff, to reduce crimes and collisions in hotspots. The leadership of the Shawnee police department decided to utilize this model as a means to reduce crimes and collisions in Shawnee.

In June 2010, the first DDACTS implementation workshop in the nation was hosted by the Shawnee Police Department. A presentation was given to the members of the Shawnee Police Department's Command Staff and Crime Analysis Unit; the purpose of which was to learn the principles of DDACTS and to develop an implementation and operational plan. Later that month (June

² Command staff members are ranking officers above the Sergeant level; Captain, Major, Deputy Chief, and Chief.

22-24, 2010), in-service training on the DDACTS model and implementation was held for members of the department³.

Following the training, and as part of the implementation process, members of the department's Special Investigation Unit (SIU) spent a day making contacts with businesses located along the 75th Street corridor (see below). This area was selected for the DDACTS intervention due to the disproportionately high number of crimes and collisions which occur there in comparison with the rest of the city. The members of SIU explained the DDACTS model and notified the businesses that there will be increased police presence and activity along 75th St. In addition to these contacts, managers at the six apartment complexes in the area were contacted by Crime Resistant Community Program (CRCP)⁴ officers. The apartment managers were told the police department will be applying some new policing principles along 75th Street that will increase police presence and enforcement of all traffic laws. At the completion of these preliminary steps, DDACTS was launched on July 6, 2010.

In early 2011, the department applied for a federal grant through the Department of Justice, Bureau of Justice Assistance's Smart Policing Initiative to evaluate DDACTS. In September, the department was notified that it was awarded the grant. Final budget approval was received in late November 2011 and grant-funded research began in December 2011. The present report is based on work accomplished between December 2011 and July 31, 2013. In order to examine the effectiveness of Data-Driven Approaches to Crime and Traffic Safety (DDACTS) in Shawnee, three research

³ The training was a two hour block of instruction presented during each of the three days to sergeants, officers, detectives and dispatchers.

⁴ Crime Resistant Community Program (CRCP) uses specially trained patrol officers from the department to maintain communication and assist with problem solving in multi-housing complexes. The officers are assigned to one or more multi-housing properties.

methodologies were utilized. First, we conducted focus group interviews, consisting of randomly selected officers and other employees from across the department, to examine the effects of operational change on the department. Second, surveys were conducted of businesses and residents in the DDACTS zone (the 75th Street corridor between Switzer Road and Quivira Road) in order to gauge public perceptions about the DDACTS initiative. Finally, we collected data on the DDACTS target crimes (vehicle burglary, vehicle theft, robbery, and total target crimes) and collisions for three years prior to the implementation of the DDACTS initiative in July 2010, and three years following the implementation, in the DDACTS zone, a control zone along Shawnee Mission Parkway, and for the rest of Shawnee.

The balance of this report consists of the methods and findings for each methodology. The report concludes with a summary of the findings and recommendations for the department in relation to their sustained utilization of the DDACTS initiative in Shawnee.

Focus Group Methodology and Findings

Operational change in police organizations can be difficult (Willis, Mastrofski, and Weisburd 2007). Departments attempting to move from long-held police practices, based on random patrol and responding to calls for service, to proactive, crime prevention-focused operations can frequently experience resistance from officers with traditional training and mindsets (Lurigio and Rosenbaum 1994). The DDACTS initiative is a permanent, department-wide philosophy, as opposed to a temporary program (such as a “crackdown”) that ends once the successful completion of a task (i.e., reducing crime), has been achieved. Since DDACTS is intended to be a sustainable initiative, we seek to determine whether officers from all assignments, ranks and experience levels are accepting this new

approach that, for some, may not resonate with what they know to be “policing.” Specifically, we want to know whether traffic enforcement officers and district patrol officers, some of whom have been selected and trained in traditional police practices, can adapt to, and see the value in, a new philosophy which frequently requires them to use their undirected time⁵ in a more structured manner (Famega, Frank, and Mazerolle 2005).

Focus group interviews were conducted to assess officer and staff attitudes toward the adoption and implementation of the DDACTS initiative. Each focus group represented one of the main organizational units of the department: patrol, traffic, supervisors, investigations, command staff, and dispatch. With the exception of the command staff focus group, which included all command staff members, the focus groups consisted of 4-6 randomly selected officers (or civilian staff, in the case of dispatch). Due to the relatively large population of patrol division officers, two focus groups for patrol were conducted. In addition to officers assigned to patrol, we used focus groups to examine officer attitudes toward DDACTS among members of command staff, investigations, and dispatch.

The first round of research focus group meetings took place between February and April, 2012. One group, dispatch, was not scheduled until May, 2012. Follow up meetings with many of the officers from these groups were conducted in May and June, 2013.

By the time the research focus groups were scheduled, there were already issues that had come to the attention of members of the command staff with regard to officer activity in the DDACTS zone. An audit of officer activity in the DDACTS zone revealed that activity goals set in the original DDACTS operational plan were not being met. Therefore another group of officers from all levels

⁵ This is *discretionary* time when officers are not answering a call for service.

(command, supervisory and line level) was assembled by the Deputy Chief of Police, Rob Moser.

Although termed by the Deputy Chief a “focus group,” it is more accurately described as a work group as it was tasked with improving the level of activity by officers in the DDACTS zone. This group conducted three meetings, the first of which took place in December 2011; subsequent meetings were held in January and April, 2012. The results from this group’s work are described in greater detail in the focus group follow up.

Purpose, Training, Effectiveness, and Sustainability of DDACTS

Each focus group was asked the following questions based on four central foci related to the adoption and implementation of the DDACTS initiative in Shawnee: **purpose, training, effectiveness, and sustainability**. Although adjustments were made to the instruments to accommodate the different administrative units of the department, several questions were asked in common. Officer attitudes concerning the **purpose** of DDACTS were measured using the following two questions: (1) What is your understanding regarding what DDACTS is trying to accomplish? And (2) What do you consider to be a DDACTS activity? The adequacy **of training** and education provided by the department was measured using the following question: Did you receive training on the DDACTS approach, and what do you recall was the content of that training? This item was adjusted slightly for command staff: Do you think that training and professional development on the DDACTS approach has been adequate?

In addition to the analysis of quantitative data, we also sought to examine the subjective attitudes of officers concerning the **effectiveness** of DDACTS. The following item was used for all focus groups: In your opinion, do you believe DDACTS has had a positive or negative impact on crime and/or crashes? One of the most important objectives for the Smart Policing Initiative concerns **sustainability**.

In order to examine officer attitudes concerning sustainability of DDACTS in Shawnee, we asked each focus group the following question: In your opinion, do you think DDACTS is a sustainable approach to law enforcement?

Purpose of DDACTS

Traffic Officers

When asked about the purpose of the DDACTS initiative in Shawnee, the majority of participants in the traffic focus group gave a response which is very closely aligned with operational guidelines of DDACTS (NHTSA, 2009): they felt that the purpose of DDACTS is to create a cost effective method for reducing or eliminating collisions and crime. Conversely, several members of the traffic unit revealed some lack of awareness regarding the purpose of the initiative, despite the efforts by command staff and supervisors to provide this information to officers. For example, one officer stated that DDACTS is merely data analysis and is merely a “fancy name” attached to the enforcement activities that police have always engaged in. Another traffic officer felt that the only thing that differentiates DDACTS from past enforcement efforts is the implementation of a lower tolerance for traffic violations.

Patrol Officers

During the focus group discussions with patrol officers, opinions regarding the purpose of DDACTS from participants in the patrol division focus groups were consonant with the stated guidelines. Several patrol officers accurately stated that DDACTS is designed to catch major criminals who violate the law in small ways; high visibility is a major goal of DDACTS, which is being carried out through the use of lights and sirens. Also, DDACTS was designed to focus on activities during a small

and specific time frame, on certain days, and in certain areas only. For example, several patrol officers indicated that the purpose of DDACTS is to give police the ability to “flood an area with a lot of officers and lights” in order to stop or deter crime. Other officers accurately stated that DDACTS activities include traffic stops, pedestrian checks, and voluntary contacts.⁶ Similarly, according to several patrol division officers, enforcement activities prior to DDACTS were similar, but with higher tolerance for small violations.

Investigations

According to participants the investigations division focus group, the purpose of the DDACTS initiative is to lower crime and reduce accidents in crime hot spots. In terms of activities, several investigators stated that DDACTS consists of traditional police activity, but officers went from patrolling all of the Districts to focusing on high visibility enforcement in District Two.

Supervisors

Several participants in the supervisor focus group accurately described the purpose of the DDACTS initiative in Shawnee as a method to focus on crime and collision hot spots using high visibility to reduce crime and crashes. One supervisor stated that DDACTS is an acronym assigned to commonsense enforcement: the officers know the hot spots in each district and in the city; DDACTS is merely a tool to keep the officers sufficiently focused on these areas. Another supervisor added that “DDACTS is not implying that officers do not know where to go or what to do, but it is designed to help

⁶ According to one patrol officer, there initially was a suggestion to implement foot patrol, but due to foot patrol’s lack of coverage area and inability to provide high-visibility enforcement, the number of citizen contacts would be unacceptably low by DDACTS standards.

officers make a concentrated effort to do something that they might not do under other circumstances.” One supervisor was concerned with the potential “danger of DDACTS sucking people out of other districts with the focus on District Two. Cops do need to maintain district patrol, and focus on the DDACTS area only when they are able.”

Dispatch

The participants in the dispatch focus group accurately perceived that the purpose of DDACTS activities was to engage in high visibility law enforcement (including traffic stops, pedestrian checks, and many contacts with residents) which is used to deter crime. In sum, dispatchers’ perception of the purpose of DDACTS correlates closely with the operational guidelines (NHTSA, 2009).

Command Staff

According to the command staff focus group, the purpose of DDACTS is to utilize limited resources in the most effective way possible in order to lower crime and crashes. This is done by having officers enforce the law with a lower tolerance and high visibility. Most importantly, DDACTS is evidence based. As one participant in the command staff focus group stated, “we have a lot of data that tells us where and when crime or crashes are occurring and we were able to narrow those times and that focus down on specific days and times, we want to put cops in those areas with their red and blue lights flashing in order to affect the behavior of motorists and criminals.”

One of the emergent themes from the command staff focus group was the premium placed on one-on-one contact with citizens; ostensibly, this will halt the activities of potential offenders so that they will not commit a crime or cause a collision. As one participant in the command staff focus group

put it, this is not a new idea; “it’s going where the patrol officers already know crime to be. The difference is that this philosophy allows officers to continue focusing on a specific location so that they can actually root out crime.”

Training

Traffic Officers

According to several participants in the traffic officer’s focus group, the DDACTS training offered by the department was “put out there” for the line officers, but how exactly they should *perform* DDACTS was not explained fully. This perception is at odds with the department’s documented efforts to train officers on the operational plan for high visibility patrol in June 2010 mentioned previously. Several participants in the traffic focus group felt that since the enforcement methods are essentially the same as traditional policing, the specifics did not need to be explained (although they were anyway, as previously mentioned). In a similar way, emphasis was attached to the importance of putting “time and effort” into enforcement in District Two, but the final benefits were not explained in detail; again, this perception contradicts what was actually provided by the department.

Patrol Officers

Similarly, several participants in the patrol officers focus group stated that the DDACTS training provided by the department outlined the basic purposes of DDACTS, but there were no specifics. This perception contradicts what was provided by the department, which included detailed Block Training on the DDACTS approach in June 2010. However, several patrol officers stated that they didn’t need training because the enforcement is the same as what they were taught to do as police. In general,

DDACTS activities include vehicle stops, traffic stops, apartment checks, any contacts (voluntary or otherwise), being a visible presence, and using the red and blue lights. All of these activities are traditional police work, differing only in that officers must be very “nit-picky” in order to get their required contacts. According to one patrol officer, the DDACTS initiative is “just traditional police work; it is merely focused in specific areas and require a higher officer presence. A lot of the training that did take place focused on how to explain the low tolerance stops and high presence to unsettled civilians.”

Investigations

Despite the department’s documented training efforts, several participants in the investigations focus group felt that the department did not explain how DDACTS should be carried out or what exactly DDACTS specific activities were; the “why” behind the DDACTS strategy was also left unexplained. Again, this perception contradicts what was actually provided by the department. Several investigators stated that the implementation of DDACTS initiative consisted of, “go do this because I said so.” These investigators perceived that the DDACTS was implemented as an executive order instead of a cooperative department effort.

Dispatch

One issue heavily discussed within the dispatch focus group was the relationship between officers and staff and newcomers. According to several participants in the group, the DDACTS initiative was clearly explained, but DDACTS supporters are people that have not done enforcement on the streets for 15 or more years. Several dispatchers claimed that this segment of the staff does not understand how an enforcement initiative like DDACTS affects everything else the department is supposed to do, such as responding to calls for service to West Shawnee.

Supervisors and Command Staff⁷

According to participants in the supervisors' focus group, DDACTS training consisted of a day of in-service training; the department provided a three-day workshop in June 2010. One of the positive things about the DDACTS initiative is that it doesn't require a lot of training, as attested by several participants in the command staff focus group. The training has been centered on "informal information sharing and on-the-job training." As one participant put it, when DDACTS was first implemented, the department "hit the ground running, because it seemed like it required so little training, but that back-fired in that there was no time to let it sink and answer questions that might have come up." The quick implementation may have affected training future officers; Field Training Officers (FTO's) may not have had time to adjust to the change in culture introduced by implementation of the DDACTS initiative. One participant raised the issue of allowing time for FTO's "on the same page", which is important, "because they are responsible for training the future of the department and explaining to them this new culture. "

The command staff focus group feels that the best way to address officer acceptance of the DDACTS initiative is through better communication rather than enhanced training. Thus, "proper communication of the (DDACTS) concept" is important so that the officers can adjust to the DDACTS initiative. Participants agreed that communication allows officers to obtain ownership of the initiative; it allows the line troops to be included in the development of the plan. As one commander stated: "I don't know if it (the training) necessarily wasn't adequate, but I think it probably could have been

⁷ We combine the analysis of supervisor and command staff attitudes toward training in the DDACTS initiative due to a lack of responses from the former group. This is not an indication of a lack of interest in training by supervisors; rather it is indication of agreement within the group concerning what the training consisted of.

improved. . . Maybe with a little more communication; I know we tried hard, but we didn't get a lot of buy in at the beginning.”

Perceived Effectiveness of DDACTS

Traffic Officers

Several participants in the traffic officer focus group believed that the effectiveness of the DDACTS initiative can be viewed in terms of how it is affecting crime and collisions, how citizens respond to it, and how it affects officers. The traffic officer focus groups are evidently aware of the data which indicates that DDACTS is having a beneficial effect on crime and collisions along 75th Street. There also seems to be a reduction in radio traffic, so it appears that crime and 911 calls are down as well.⁸ According to several officers in the traffic unit, residential citizens don't seem to mind the increased presence in District Two, but business owners don't like their parking lots being used for traffic stops. The business owners seem to believe that it will be detrimental to business and their way of life.⁹ According to several traffic officers, the DDACTS initiative could be viewed in a negative light in that it tends to “suck in all of the cops” on patrol to a single area, as opposed to allowing them to stay in their districts or randomly patrol the whole city.

Patrol Officers

Overall, participants in the patrol officer focus group think the DDACTS initiative is “a positive thing.” DDACTS seems to be effective in reducing crime and crashes mostly because of the easy-to-see flashing lights that indicate police presence. However, several patrol officers stated that officers have

⁸ This has not been verified.

⁹ This assertion was not supported by the business survey.

to somehow balance new expectations with traditional calls for service, house watches, reports, and everything else they have to do. Another perceived negative effect mentioned by participants in the patrol officer focus group centered on how the DDACTS initiative allegedly takes officer initiative, personality, and judgment out of the job. Several patrol officers stated that they would patrol their district prior to the implementation DDACTS; now there is more of a tendency to focus on 75th Street and leave other areas unattended. Similarly, some of the patrol officers stated that, in the past, officers were able to use their discretion to decide when to make a stop or write a ticket; with DDACTS, however, officers feel that their discretion has been reduced or eliminated.

Another concern with the effectiveness of the DDACTS initiative raised by several patrol officers focused on the utility of DDACTS for traffic enforcement. Several patrol officers stated that crashes cannot be reduced because collisions will happen “no matter what” due to things that cannot be affected by deterrence such as road conditions, vehicle conditions, drunk drivers, drivers sleeping at the wheel, and so on.

In addition, several patrol officers mentioned that a lot of civilians dislike DDACTS (a finding not found in the survey of residents). The initiative makes it appear as if the police are clamping down on small crimes while ignoring serious criminals. It was also pointed out that civilians do not like being pulled over for tiny violations that they have never heard of; the officers said they feel like “idiots” when they have to explain the minor violations they are stopping people for.

Participating officers cited the potential for crime displacement, although they seemed unsure about where and how much. Consensus was reached among participants in the patrol officer focus group was that some displacement was *inevitable*; as one patrol officer pointed out, “if criminals want

to, they will commit a crime; where they commit it may change, but they will commit it.” However, the officers conceded that, in their opinion, DDACTS seems to be working, does not seem to be causing a lot of displacement, and might even be creating a diffusion of benefits.

Investigations

According to participants in the investigations focus group, the effects of the DDACTS initiative can be seen in either a positive or a negative light. Although the investigations focus group were impressed by reports from the crime analysis unit indicating that DDACTS was lowering crime and crashes, they were more cynical about the response from the residential and business communities in the area. Several detectives stated that citizens believe DDACTS to be a negative thing: “residents dislike DDACTS because they worry about what is going on to the large police presence (which contradicts the findings of the community survey we conducted). Similarly, several detectives stated that business owners are worried about losing good business because of the police presence and the use of business parking lots to make traffic stops. This opinion was not supported by the findings of our survey of businesses.

Supervisors

Like the investigators focus group, several participants in the supervisors focus group stated that the DDACTS initiative seems to have both positive and negative effects. The numbers show DDACTS as having a positive effect on crime and crashes. However, several supervisors expressed cynicism regarding the emphasis on data analysis in the DDACTS initiative. As one officer put it, “the officers make the numbers, and can make the numbers look however you want: directed patrol is directing how statistics appear. The root causes of crime are still in place and unaffected by DDACTS

(population density, housing, income, etc).” In addition, several supervisors claimed that Lenexa is experiencing the effects of the DDACTS initiative in terms of both diffusion of benefits and displacement, depending on the exact location¹⁰.

Dispatch

Overall, the dispatch focus group gave the impression that they believed that the DDACTS initiative has had more negative effects than positive effects. Several of the focus group participants had strong opinions concerning displacement; whatever criminals are inclined to do, they will go somewhere else and do it¹¹. Specifically, they indicated there seemed to be displacement to other areas of Shawnee, in terms of calls for things like auto burglaries: if DDACTS is going on one night, the next morning there will be a lot of reports from elsewhere in the city because the officers are not out there patrolling their districts. DDACTS is pulling officers into District Two¹² which affects police response time to other areas of the city when there are emergency calls. If citizens knew that there was nobody west of Interstate 435 for several hours at night, they would “flip out; rightfully so.” On top of that, Dispatch claims that they still get calls to the targeted apartment complexes in the DDACTS area. It is not that DDACTS is a bad thing or having a totally negative effect; it is just that District coverage is important as well.

Command Staff

¹⁰ Analysis showed no evidence of displacement of crime to the neighboring City of Lenexa.

¹¹ One participant in the dispatch focus group opined that the purpose of DDACTS seems to essentially be to “scare criminals to other areas.”

¹² The initial operational plan involved officers from all districts spending time conducting DDACTS activities. This was the operational plan in place when the original focus groups were conducted. It has since been modified.

According to the command staff focus group, measuring the effectiveness of the DDACTS initiative is not necessarily easy or straight forward. One participant stated that it is possible that the Crime Resistant Community Program (CRCP) has had an effect on the reduction of crime on the 75th Street corridor. On the one hand, it might seem unlikely that CRCP has any effect on the out of town criminals that come to 75th Street and cause problems. On the other hand, it is possible that by keeping trouble makers out of the apartment complexes, CRCP also removes their associates that come and commit crimes in Shawnee. For several participants in the command staff focus group, one unequivocally positive effect of DDACTS is the reduction of collisions and the abundance of traffic information and collision rates that has been made available.

Perceived Sustainability of DDACTS in Shawnee Traffic Officers

Overall, participants in the traffic officer focus group seem to think that DDACTS is a sustainable initiative. The main concerns are that DDACTS may continue to lower crime in the short run, but the drop in crime will level off eventually. Speaking for several traffic officers, one officer stated that DDACTS could eventually result in diminishing returns: "I think it [DDACTS] will get to the point where it just levels off and there is just not a whole lot more that you can do and whether or not we are there it's hard to say. I think it is a sustainable approach as long as the expectations aren't there to continue to drop the crime rate at a level with the first." There also seems to be some concern as to what (if anything) will happen if people think DDACTS is profiling minorities because they reside in apartment complexes in target areas. Citizen disapproval could potentially hinder the long term implementation of DDACTS.

Patrol Officers

The patrol focus group participants disclosed several concerns related to the sustainability of the DDACTS initiative. One of the concerns which emerged from the discussion centered on the perceived “diminishing returns” of DDACTS. “According to several participants, the DDACTS initiative is less beneficial now than when it first started; now criminals know to avoid Shawnee, so all of Shawnee has seen diminished returns (this opinion is not supported by our analysis of the data). Several of the same patrol officers likened DDACTS in its current form to “beating a dead horse.”

Another concern related to the sustainability of the DDACTS initiative is the change from patrol-based policing to DDACTS, which is a data-centered, proactive initiative of DDACTS. According to several participants, officers already knew where the problem areas were located (prior to DDACTS) but it (knowledge of the problem areas) was intuitive and not based on data. According to several patrol officers, the DDACTS initiative is sustainable as long as there are numerous cars and officers available, a small area to focus on, and a balance between DDACTS and all the other activities. According to several participants, DDACTS is taking the “fun” out of the job; officers are trained to make arrests, and sometimes are (allegedly) asked to “stand down.”

Another concern with sustainability was embodied in the perception of some officers that DDACTS did not consist of established guidelines. Several officers agreed that if limits and guidelines for DDACTS are set and not changed all the time, then the approach could be sustainable. It should be noted that the DDACTS guidelines have not changed since the implementation of the initiative in July 2010; however, some operational changes have been made to accommodate the findings of the work group assembled by Deputy Chief Rob Moser. In order to improve officer engagement in DDACTS

activities this group developed a new operational plan which changed which district officers were responsible for conducting the HVTE of DDACTS.

Investigations

Participants in the investigations focus group also identified several issues related to the sustainability of the DDACTS initiative. Several of these issues are due to a lack of understanding of the DDACTS initiative or how it is implemented in Shawnee. For example, this focus group agreed that if DDACTS focuses on crime hot spots, it could be sustainable if the DDACTS area was made to move where the crime spikes are. Since the selection of the DDACTS target zone is based on crime *and* traffic hot spots, merely moving police to emergent crime hot spots is not consistent with DDACTS guidelines. Another point of confusion regarding investigators in relation to the DDACTS initiative is its status as a department-wide philosophy rather than a voluntary program. For example, several participants noted that DDACTS could be made sustainable if it was more of a voluntary initiative, as opposed to a perceived executive order. In addition, several investigators stated that the Crime Resistant Community Program (CRCP) is now a strictly volunteer program¹³, and it is much more effective that way, as opposed to being forced on the department. The consensus of the group was that DDACTS might be sustainable in a different or alternative form, but not in its present form. However, this perception is largely driven by a lack of understanding regarding what the DDACTS initiative is.

Supervisors

According to several participants in the supervisors focus group, the DDACTS initiative is sustainable if care is taken to not “run the force ragged” and if an effort is made to patrol districts and

¹³ Previously officers were assigned to participate in the CRCP program whereas the officers currently participating volunteered for the assignment.

respond to calls for service as well. According to several supervisors, DDACTS can be sustained and accepted among officers more readily by letting them “do it on their own terms,” and not be overbearing. The DDACTS initiative provides the structured commitment the line troops need in order to stick with the increased enforcement, but it will not be sustainable in its present form if the city dynamics and demographics change drastically; the location, times, and man power will have to be altered with the passage of time. Sustainability is also affected by how word on the street travels among criminals; they will learn to avoid 75th Street or example. Crime in general will lessen or level off or relocate, so DDACTS might be sustainable, but it will have diminished returns.

Dispatch

Participants in the dispatch focus group did not seem to think that DDACTS is a sustainable approach to dealing with crime for Shawnee. It is possible that Shawnee does not have enough officers to properly sustain the initiative in the way that it should be done and serve the rest of the Shawnee at the same time. Furthermore, as hot spots change and the DDACTS zone has to be expanded or shifted that is going to make it even more taxing for the officers to do DDACTS and other enforcement.

Command Staff

According to the command staff focus group, the DDACTS initiative should be sustainable because it is easy to do and it doesn’t cost anything; similar efforts in the past have not been successful or long term simply because they were not evidence based, but DDACTS is using data to direct enforcement and will be used for the deployment of resources in the future. Several commanders added that another element that should contribute to DDACTS sustainability is that it is being done

department wide; this provides sufficient personnel and square mileage so as to lessen burnout among officers. However, the opinion of several participants was that regardless of how effective DDACTS is at preventing crime, most officers did not get into police work to prevent crime; they got into police work to catch bad guys. As one commander stated, “a lot of the young men and women did not get into police work to...you know, if it is a race horse, it has got to run. And you have got to let it run every once in a while, or it gets really frustrated. And most of these men and women did not get into police work to prevent crime; they got into police work to put handcuffs on people. And, I think, that is the hard part of the psyche and the psychology to overcome.” According to several commanders, one of the hardest parts about sustaining DDACTS will be overcoming that type of officer psychology. They stated that a combination of apprehension and prevention needs to be developed if DDACTS is going to be a long-term initiative.

Follow-Up Focus Groups

Research Focus Groups

Before discussing the findings of the research focus group follow-up meetings, it should be stated that these meetings were less structured than the original focus group meetings. This is due in part to scheduling difficulties with the original focus group members. It is also due to observations of the work group sessions which had been conducted earlier by Deputy Chief Moser. The observations made during the work group sessions provided some evidence of a shift in acceptance of DDACTS prior to the follow up focus group interviews. In addition, some officers of the research focus groups were also a part of the work group.

The follow-up focus group interviews were conducted in May and June of 2013 with patrol, traffic and command staff¹⁴. The purpose of the follow-up focus groups was to determine whether officer attitudes had changed since the initial round of focus groups regarding the effectiveness and sustainability of the DDACTS initiative. Overall, increasing positive support for the DDACTS initiative was evidenced by participants in the combined focus group consisting of patrol and traffic. Specifically, several officers revealed that they believed that DDACTS was working; in addition they were less concerned with displacement (in fact, they opined that diffusion of benefits was likely occurring due to DDACTS). Regarding sustainability, there were few concerns with issues raised in the previous year such as the perceived disconnect between calls for service and DDACTS activities.

Work Group

As stated previously, the impetus for creating this work group was twofold, increase officer understanding of DDACTS' role, and encourage greater activity in the DDACTS zone. As evidenced by the information gathered in the initial round of study focus group interviews, some of the focus group members expressed dissatisfaction with the DDACTS initiative.

Command Staff audits of officer activity in the DDACTS zone during this time revealed that time and activity goals were not being achieved. There were instances where officers were not being assigned to conduct DDACTS work, and some officers were not engaging in HVTE at all while spending time in the DDACTS zone. These facts lead Deputy Chief Rob Moser to assemble the work group to investigate the lack of activity in the DDACTS zone and to explore possible solutions.

¹⁴ Attempts were made to schedule follow-up focus groups for investigators and dispatch, but these attempts were aborted due to scheduling conflicts. Moreover, we determined that the groups that were assembled provided sufficient data to assess changes in culture over a one year time period.

This group met initially during December 2011 with the intent that any operational changes decided upon by this group would be implemented in January 2012. The work group met again in April 2012 to assess the progress and determine if further changes were needed.

The first evidence of a cultural change toward acceptance of DDACTS was exhibited through the active engagement of the officers in the work group to voice opinions regarding the deficiencies in the original operational plan for implementing DDACTS. The officers in this group sought solutions rather than list reasons DDACTS should be discontinued.

In the original DDACTS operational plan, there was little guidance provided to supervisors on whether they were to assign particular district officers to conduct the activities for the tour of duty or if the shift supervisor should just leave the completion of DDACTS activities to the discretion of officers to do as time allows. Due to the lack of a specific plan for DDACTS assignment, the supervisors noted that it was difficult to hold officers accountable for completing the DDACTS activity, and without being able to hold individual officers accountable, it was difficult to pinpoint the reason why DDACTS activities were not completed.

The original plan also required officers from all geographic areas of the city to participate in HVTE in the DDACTS zone. As evidenced in the original focus group interviews, this caused concern for the officers. They had been trained to maintain “district integrity” in the past because of a need to respond swiftly to calls for service in their assigned district. Now, with DDACTS, they were required to abandon their districts for the period of time in which they were patrolling the DDACTS zone.

The new operational plan addressed officers’ concerns, eased the supervisory burden, and allowed officers in geographic locations distant from the DDACTS zone to stay in their districts. The new plan

returned some autonomy to officers. When not assigned to the districts encompassing, and adjacent to, the DDACTS zone officers could conduct patrol activities the way in which they were accustomed. Once the concerns of these officers were taken into account and addressed in the new operational plan, acceptance of DDACTS by these officers increased.

Summary

Following the issuance of the new operational plan created by the work group, the majority of the focus group participants have a clear, working understanding of the DDACTS approach, although there appears to be some lack of understanding among some investigators and dispatchers (where some continue to see DDACTS as a “program” rather than a department-wide philosophy, for example). However, there is a noticeable change in culture occurring within the department. For example, at the first work group meeting led by Deputy Chief Moser in December 2011, it was unclear whether officers had embraced DDACTS; in April 2012, there was an observable change in officer attitudes toward DDACTS. Officers discussed their mostly positive experiences regarding the operational changes which resulted from the December 2011 and January 2012 meetings. For example, the Chief had previously set a goal for officers to make four contacts per hour when conducting HVTE in the DDACTS zone. In practice this was a difficult standard to meet so the members of the work group were given the opportunity to adjust this number lower. The officers refused, stating collectively that it would give them “something to shoot for”. Officer morale was observably higher, and it was clear that the DDACTS philosophy was becoming “normalized” in the department’s culture.

One possible explanation for the seeming improved acceptance may be due to the change in the operational plan which was put in place by the work group. The officers had direct input into

strategy to assign officers to conduct the DDACTS activity. The members of this focus group did not alter the goals of DDACTS; they made suggestions on how to deploy officers during a shift that was ultimately adopted as the new operational plan. This plan also assists supervisors in knowing who is assigned to DDACTS patrol during their shift.

Although there is consensus concerning the purpose of DDACTS, attitudes toward the adequacy of training and professional development offered by the department are mixed. Across the different units, there is general agreement that *communication issues* (ostensibly between command staff and the rest of the department) may be more salient than the type or frequency of training. In any event, I recommend that the department consider providing additional professional development opportunities, at regular intervals, in order facilitate the change to proactive, prevention-oriented, data-driven policing.

There was some variation across units concerning the perceived effectiveness of DDACTS. The patrol, traffic, supervisors, and command staff attitudes concerning DDACTS effectiveness are mostly positive; investigations and dispatch are more critical. Most respondents who believe that DDACTS is working tend to think that the initiative has been most effective reducing traffic accidents. Both investigations and dispatch raised concerns about resident perceptions of the police following the implementation of DDACTS. In addition, dispatch believes that too many department resources were focused on the DDACTS zone, to the exclusion of residential areas in the western sections of the city.

A similar pattern of results was produced regarding the sustainability of the DDACTS initiative. Overall, patrol, traffic, supervisors, and command staff focus group respondents believe that DDACTS is a sustainable approach to policing in Shawnee. As one member of command staff commented, “It

[DDACTS] has done nothing but confirm the intuition and the understanding of your very competent, very seasoned street cops.” On the other hand, alternative sentiments exist with dispatch and investigations. In a sentiment echoed by several dispatchers and investigators, one detective stated that “[DDACTS is sustainable] if you get rid of other things. . .there are a lot of other stresses on these guys, and then to give them DDACTS plus everything else they have to do is frustrating.”

In sum, there is evidence of a shift in culture and officer “buy-in” within the Shawnee Police Department, especially with the divisions of the department most closely associated with the DDACTS initiative. Specifically, participants in the patrol, traffic, supervisors, and command staff focus groups revealed a close awareness of the purpose of DDACTS, and the strengths and weaknesses of the approach toward training. Moreover, the majority of the participants in these focus groups believe that DDACTS is an effective and sustainable initiative. Although there are some individual exceptions, the dispatch and investigations focus groups revealed less awareness of the purpose of DDACTS, but similar perceptions about DDACTS training as other areas of the department. However, dispatchers and detectives are significantly less positive regarding the effectiveness and sustainability of the DDACTS initiative.

One more possible contributor to a cultural shift is the length of time in which the DDACTS philosophy has been in place. DDACTS is a part of the formalized training of new officers in Shawnee. The principles of DDACTS are a part of the Field Training and Evaluation Program, and since July 2010, thirteen officers have been hired and trained (nearly 30 percent of the total officers assigned to road patrol) in this philosophy. One member of the work group hired since July 2010 indicated that DDACTS has been no problem for him because this is all he has known since he started at Shawnee.

Business Survey: Methodology and Findings

The success or failure of the Data-Driven Approaches to Crime and Traffic Safety (DDACTS) initiative in Shawnee depends to a large extent on support from community stakeholders. Stakeholders include, but are not limited to, business owners and employees, residents, school officials, and clergy. In order to assess the level of support in the community, and their perceptions of the DDACTS initiative, we developed surveys for both businesses and residents in the 75th Street corridor.

The City of Shawnee GIS specialist, Doug Hemsath, provided a list of businesses licensed in the area. The instrument used for the business survey included 17 multiple choice items and 2 open-ended questions. Prospective business respondents were given one survey along with a self-addressed, postage paid, envelope. Ninety-three surveys were distributed.

The command staff of the police department distributed the survey instrument because they are very familiar with the purpose of the DDACTS intervention and the study, and would be able to answer any questions that might arise from business respondents.

The surveys were distributed on June 8, 2013. Upon completion of the survey distribution all command staff members reported to have received a generally positive reaction from those they contacted at each business. Completed surveys were collected throughout July 2013. There were a total of 57 completed surveys received that time (a response rate of 62 percent).

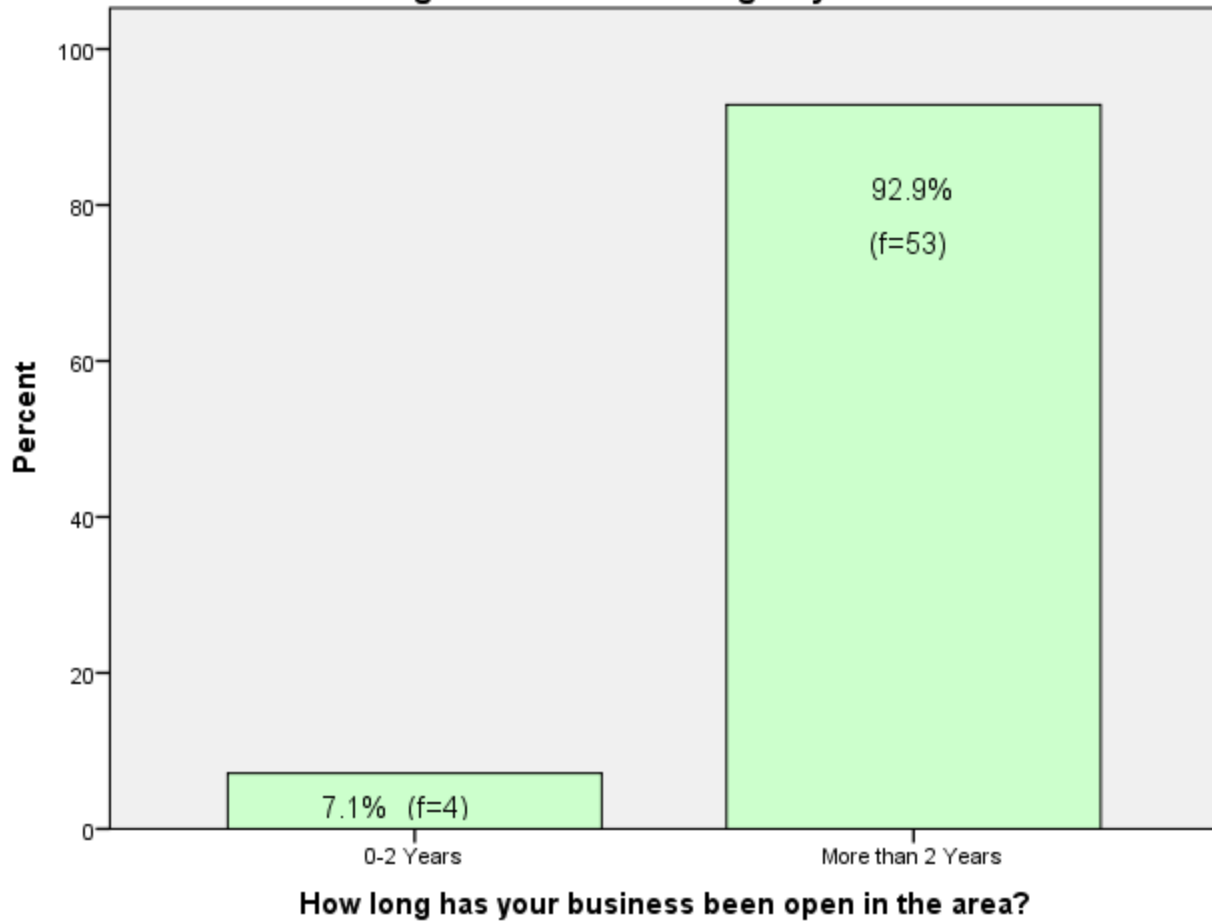
Findings

Because the DDACTS initiative has been in effect since July 2010, it is necessary to disaggregate participating business establishments in the 75th Street corridor by business longevity. Specifically, due to the “age” of the DDACTS initiative, we asked respondents whether they had been open two years or less, or more than two years. Businesses open for two years or more would be able to share

their perspective regarding the 75th Street corridor prior to the implementation of DDACTS. Figure 1 shows that the majority of business respondents (92.9 percent) have been open in the 75th Street corridor for two years or more (the next two survey items were designed for the aforementioned group of respondents).

These results show that the respondents from the 75th Street corridor are chiefly established businesses, which indicates that they have a significant stake in public safety and community quality of life; they likely recognize that their continued existence depends on a safe environment which is attractive to potential customers.

Figure 1. Business Longevity

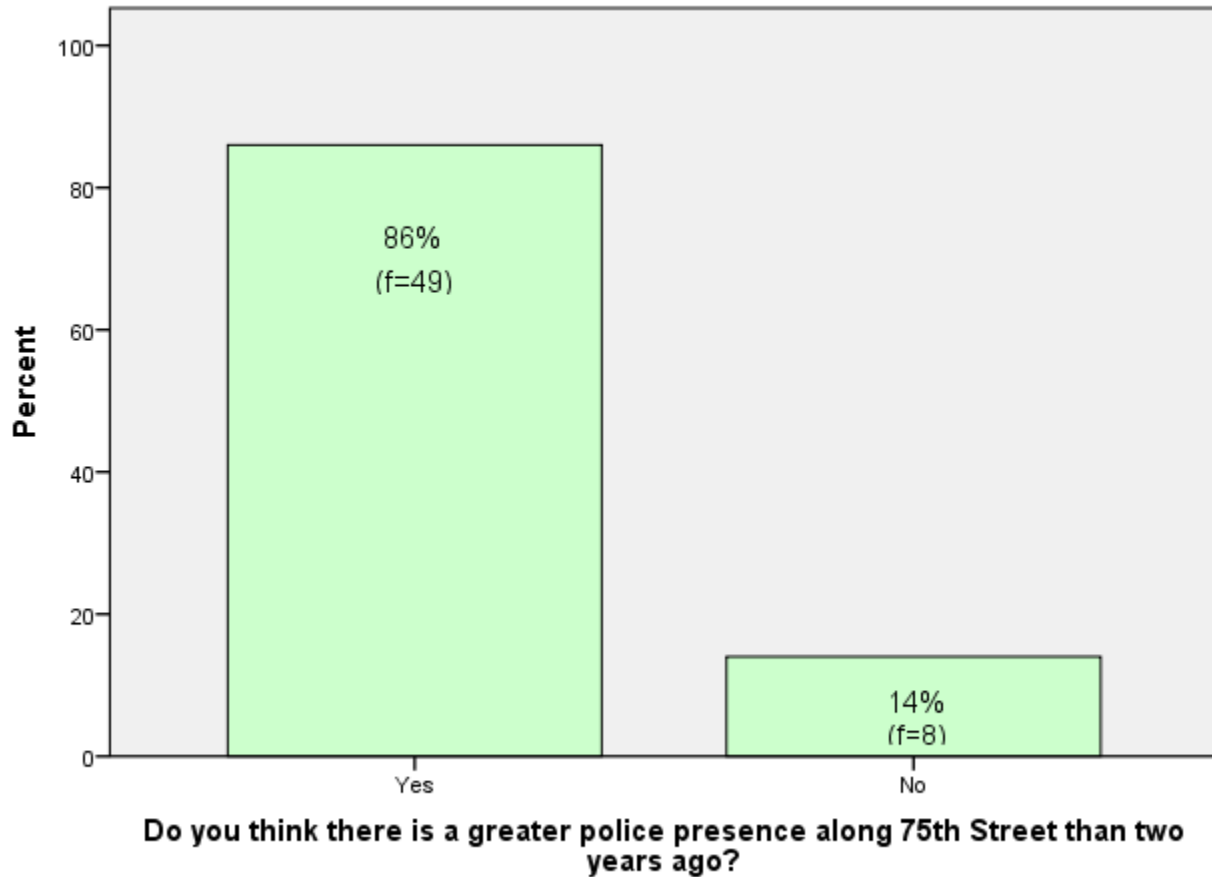


The DDACTS initiative emphasizes location based, high-visibility traffic enforcement (HVTE).

The success or failure in DDACTS in Shawnee depends in part on whether the public takes notice of the increased police presence in the 75th Street corridor. The first question for established businesses (those open for two years or more) focuses on their perception of change in police presence. Figure 2 reveals that business respondents who have noticed a greater police presence along 75th Street than two years ago (86 percent) outnumber those respondents who have not noticed an increase (14 percent). Thus, the enhanced presence of the Shawnee Police Department due to the DDACTS

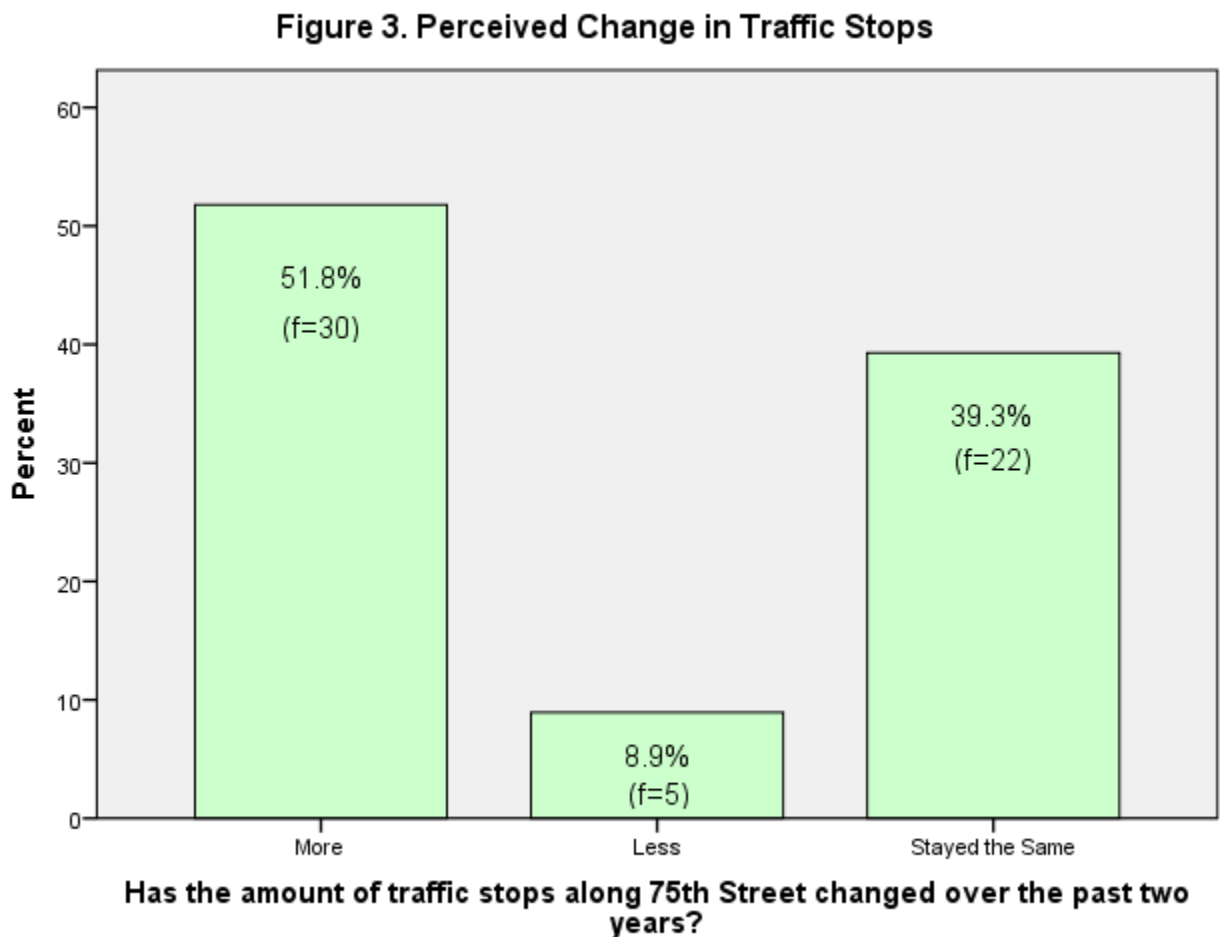
initiative in the 75th Street corridor has been noticed by members of the business community in the area, which affirms DDACTS directive of high-visibility enforcement.

Figure 2. Perceived Change in Police Presence



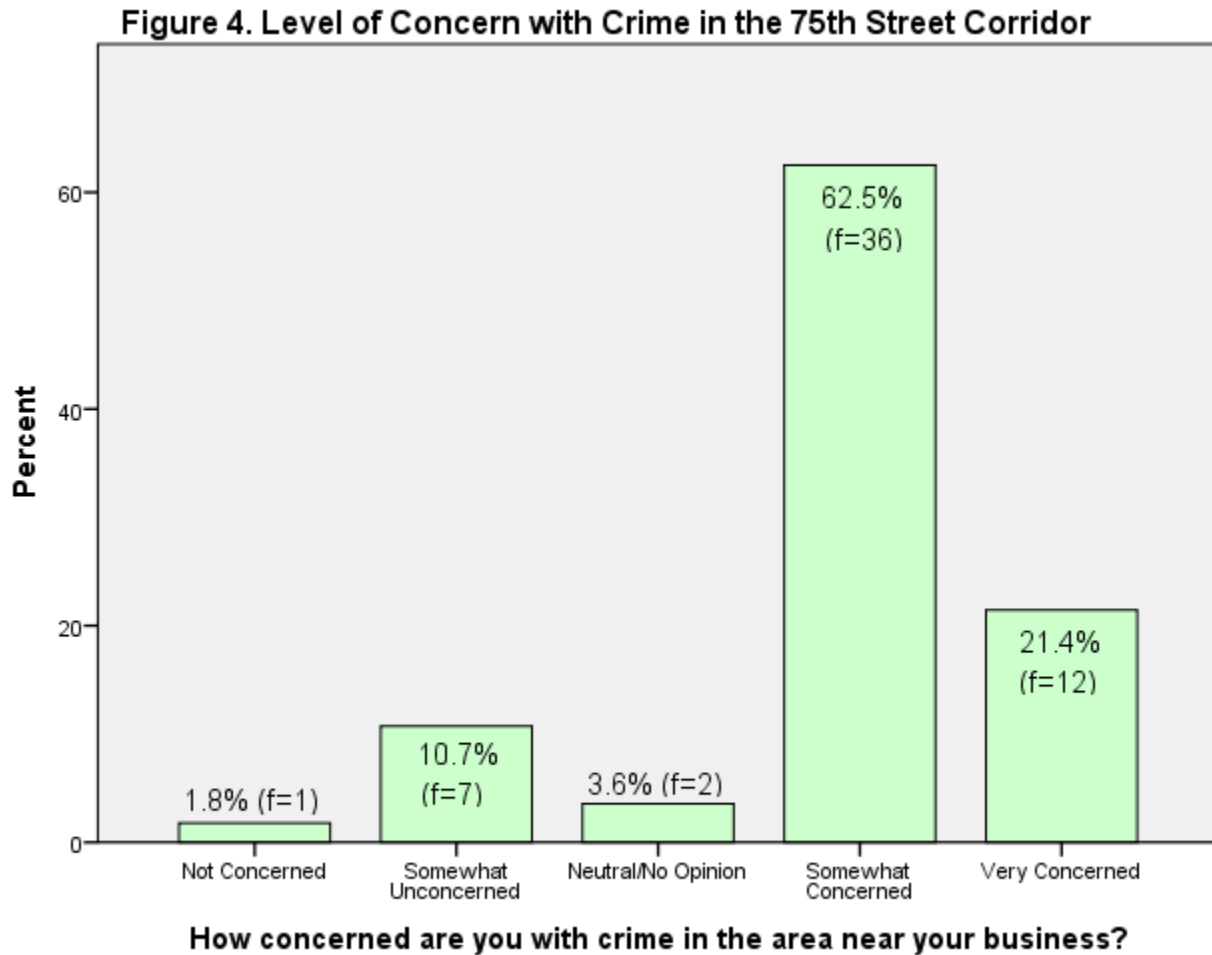
DDACTS targets locations where high incidents of crime and crashes overlap and uses high visibility traffic enforcement to proactively contact members of the public with the goal of reducing crashes and crime. One way to directly measure the effectiveness of this aspect of DDACTS is to examine whether respondents observe the police engaging the public with traffic stops. Results for the third survey item complement those for the previous question: more than half (51.8 percent) of business respondents open for two years or more have observed more traffic stops in the 75th Street

corridor over the past two years (Figure 3). Only 8.9 percent believe there are less traffic stops than two years ago. This finding is consistent with the DDACTS operational goal of increasing the perceived number of police-citizen contacts in the target area.



The 75th Street corridor was selected as the “DDACTS Zone” because it exhibited disproportionately higher levels of crime and traffic collisions than other areas in Shawnee. Thus, it is expected that business respondents will be at least somewhat concerned with crime and traffic crashes in the area near their businesses. The next two survey items examine this question. The findings are

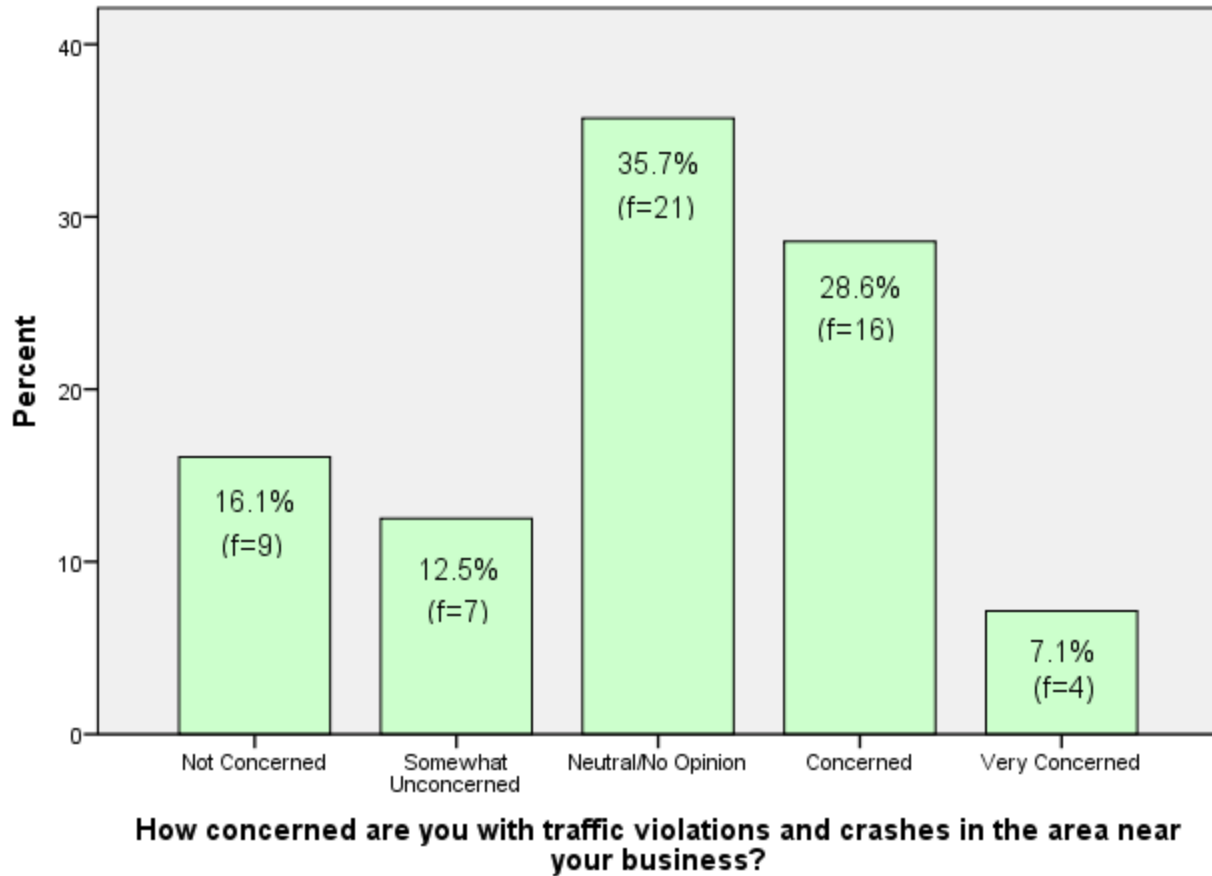
consistent with this hypothesis: the percentage of business respondents who are somewhat concerned or very concerned about crime in the area near their businesses is 83.9 percent, regardless of business longevity (Figure 4). This finding is not surprising given that these establishments are open for business in an area found to have a disproportionate number of crimes.



The previous item focused on business concern with crime in their vicinity. Similarly, it is expected that respondents will also be at least somewhat concerned with traffic violations and crashes in the 75th Street corridor. This hypothesis is supported from the findings for Question 5: business

respondents' concern for traffic violations and crashes does not match their concern for crime in the area. As shown in Figure 5, 35.7 percent of businesses are concerned or very concerned about traffic violations and crashes (recall that 83.9 percent of respondents were somewhat concerned or very concerned about crime in the area). There are several possible explanations for this relative lack of concern with traffic problems. First, the placement of some businesses may not be conducive to observation or awareness of traffic-related problems; this may explain why a majority of respondents (35.7 percent) were "neutral" or had no opinion. Second, it is likely that some respondents who do observe traffic more directly are situated on a section of the corridor that is relatively free of traffic violations and crashes. Finally, concern with traffic violations and crashes may not be as proximate to some business respondents compared to concern with threats such as robbery, assault, or vehicle burglary.

Figure 5. Level of Concern with Traffic Violations and Crashes

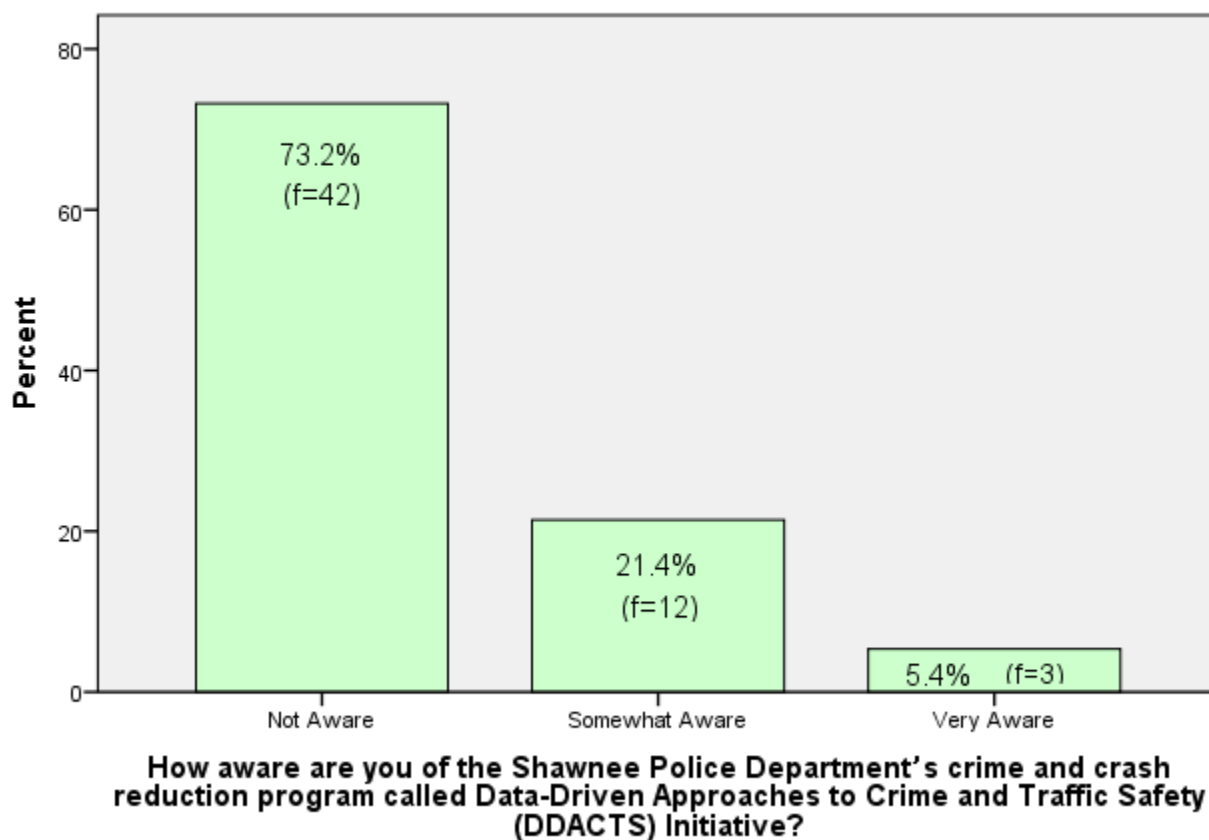


The sixth survey question directly asks business respondents about their awareness of the DDACTS initiative.¹⁵ Most business respondents (73.2 percent) claim to be unaware of the DDACTS initiative, but this is most likely an issue of name recognition (Figure 6). It appears that although business establishments in the target zone have noticed a greater police presence and more traffic stops over the past two years, the majority of businesses have not connected these police practices to any particular initiative. This finding is not surprising given that DDACTS does not have the public

¹⁵ Prior to the implementation of DDACTS, the Shawnee Police Department sent their Special Investigation Unit out to provide information about the initiative to the businesses along 75th Street. In addition, the department released several statements to the press.

exposure that characterizes some older, better-known police philosophies or operational strategies such as “community policing.” It is likely that awareness and recognition of the DDACTS initiative will be enhanced as it continues to be implemented, over time, alongside some of the better-known police initiatives that have become the subject of public attention.

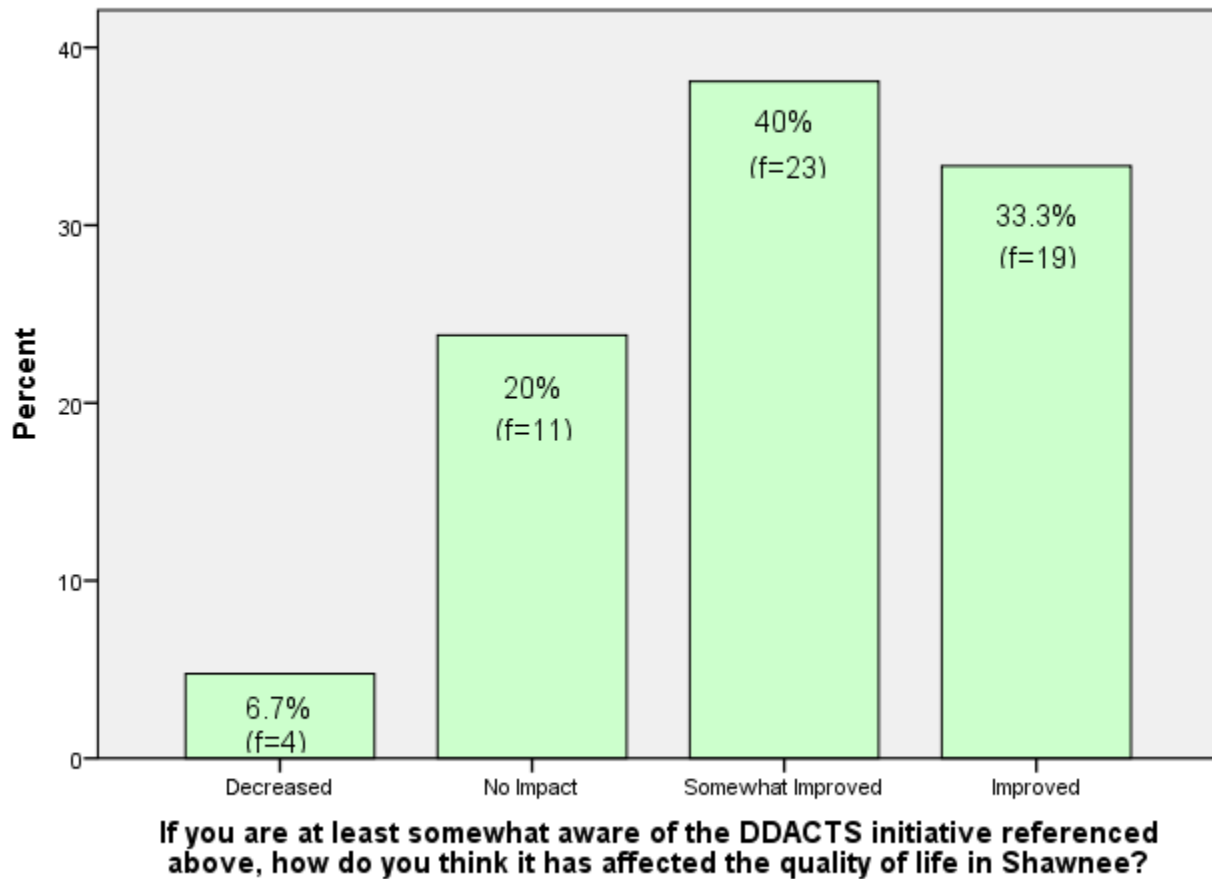
Figure 6. Awareness of DDACTS



Respondents who were at least somewhat familiar with DDACTS were asked about its impact on the quality of life in Shawnee. Seventy-three percent of business respondents at least somewhat

familiar with DDACTS believe that the initiative has improved or somewhat improved the quality of life in Shawnee (Figure 7).

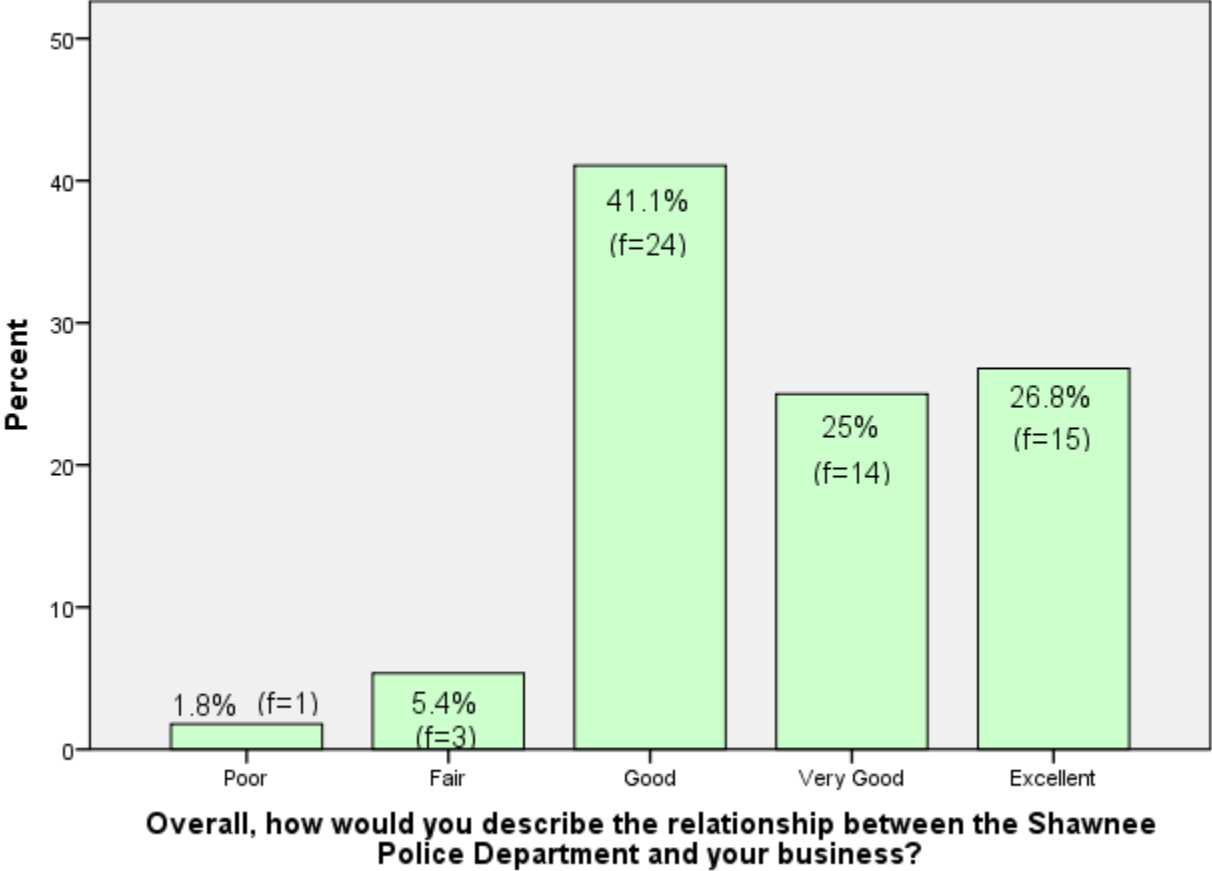
Figure 7. DDACTS and Quality of Life in Shawnee



As noted previously, the DDACTS initiative requires high-visibility policing and increased police-citizen contacts, thus the success or failure of a police initiative such as DDACTS hinges in part on the relationship between the police and public stakeholders. The majority of business respondents (51.8 percent) report that the relationship between the Shawnee Police Department and their businesses was very good or excellent (Figure 8). A minority of respondents (7.2 percent) report that their

relationship with the police department was poor or fair. This finding of positive support from the business respondents is favorable to the sustainability of DDACTS.

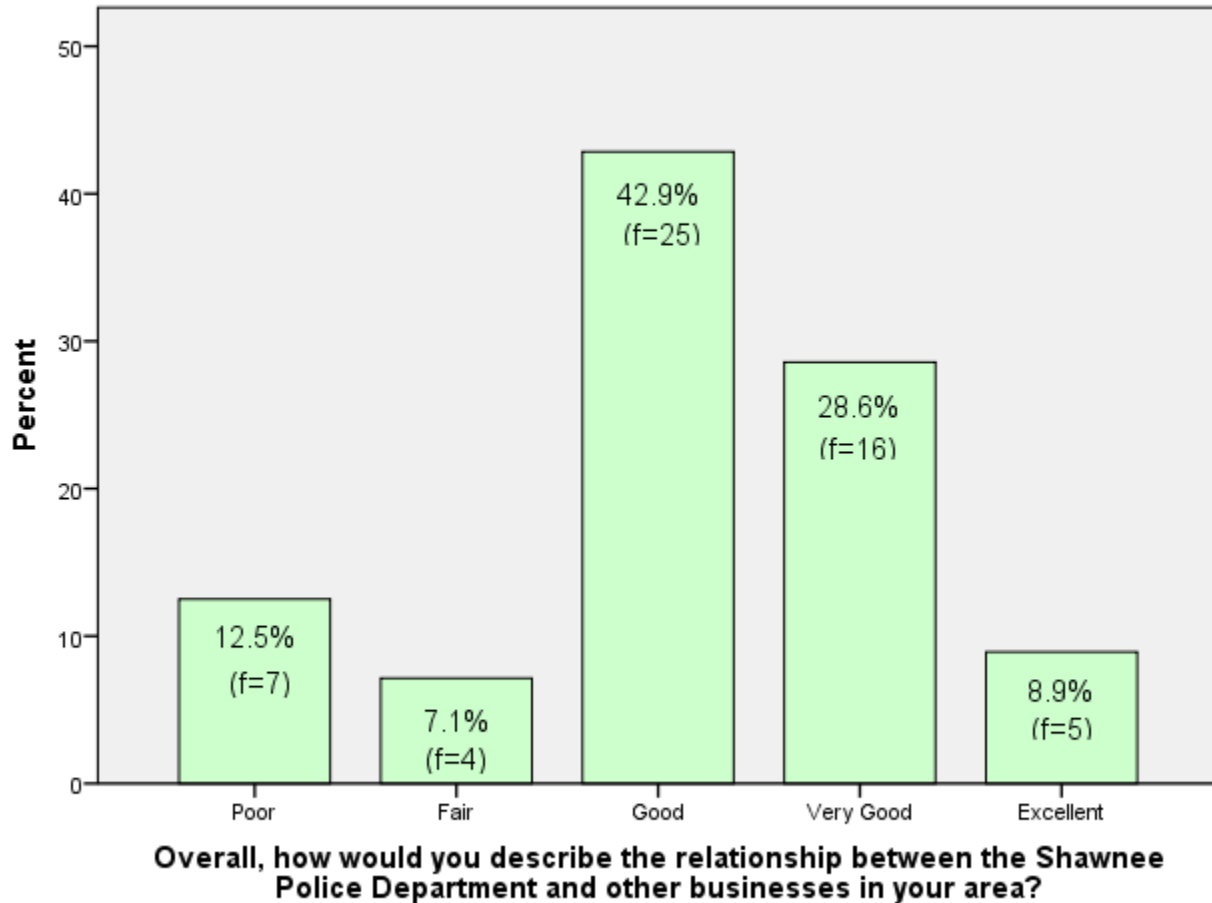
Figure 8. Relationship Between SPD and Business



As a related item to the previous question, businesses were asked about their perception of the relationship between the police and other businesses in the 75th Street corridor. As shown in Figure 9, business respondents believe that the relationship between the Shawnee Police Department and other businesses is good or very good (71.5 percent) or excellent (8.9 percent). Over 19 percent of respondents believe that the relationship between the police department and other businesses is poor

or fair, which is significantly higher than the previous item (only 7.2 percent believed that the relat

Figure 9. Relationship Between SPD and Other Businesses



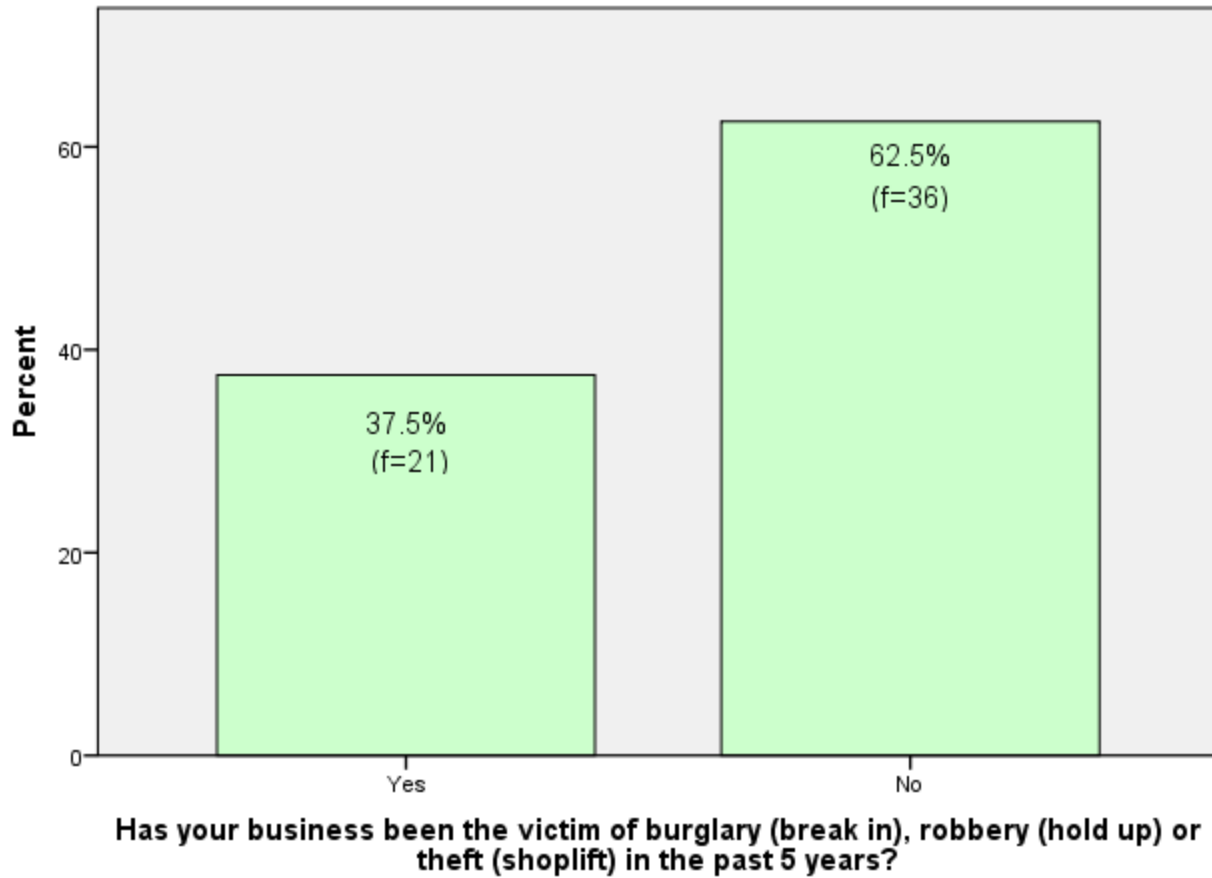
ionship with the police was poor or fair).

The tenth item on the business survey measures self-reported burglary, robbery, or theft victimization over the past five years (Figure 10). Although the majority of business respondents in the 75th Street corridor report no victimization from burglary, robbery, or theft in the past 5 years (62 percent), 37.5 percent of the respondents did report being victimized at least once during the same time period.

In order to further clarify the responses to this item, an additional open-ended survey question asked respondents who had answered affirmatively to the victimization item to recount the approximate month and year in which the crime had occurred.¹⁶ Findings reveal that crime was almost evenly split for periods prior to the implementation of DDACTS and thereafter. One business which had been the victim of several robberies, reported that there had been no robberies in the last three years.

¹⁶ The purpose of this question was to examine respondents' personal experience of crime—had they been a victim before DDACTS but not after or vice versa? Since we asked about a 5 year period, we can take the second (open-ended) part of the question and show how many occurred before July 6, 2010 and how many after the beginning of DDACTS.

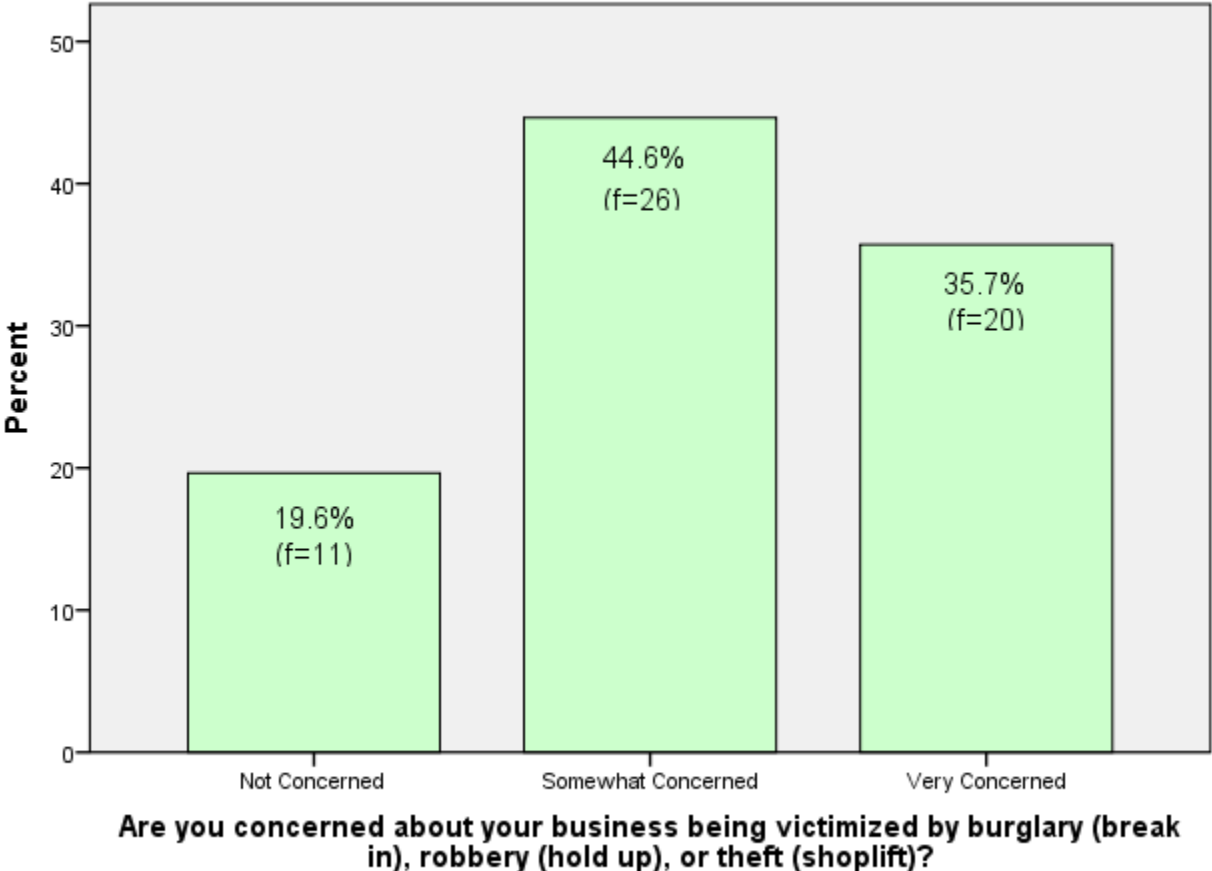
Figure 10. Self-Reported Burglary, Robbery, or Theft Victimization



Although most businesses have not been victimized by burglary, robbery, or theft in the past 5 years, 80.3 percent of respondents are somewhat concerned or very concerned about their businesses being victimized (Figure 11). Less than one-fifth (19.6 percent) are not concerned about being victimized. As mentioned previously, the 75th Street corridor was selected for the DDACTS initiative due to the fact that is a relatively high crime area in Shawnee. Knowing the concern for victimization is important information; the fear of crime expends resources that should be channeled toward

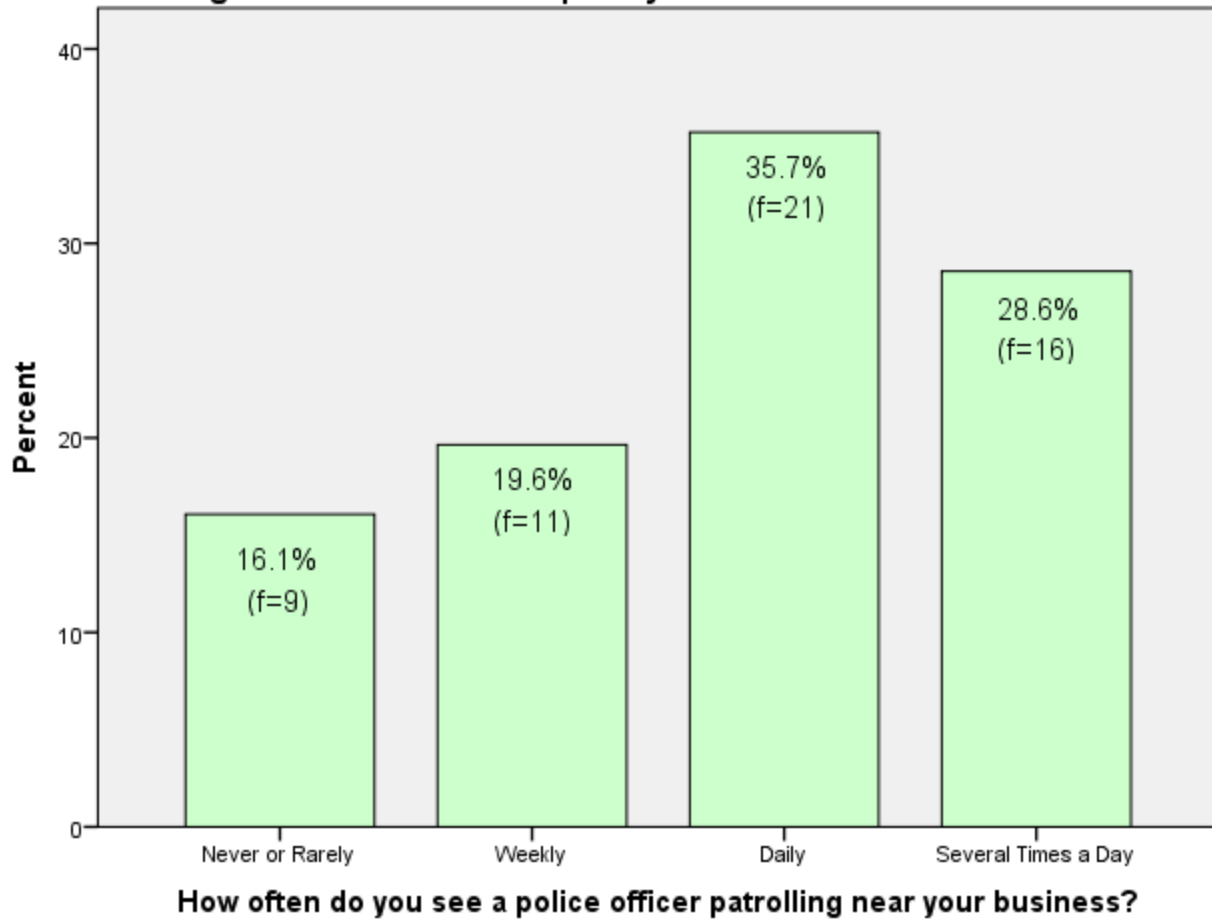
conducting commerce. Efforts to ameliorate victimization concern may result in economic gain for businesses and an enhanced relationship between the police and business stakeholders.

Figure 11. Concerned About Burglary, Robbery, or Theft



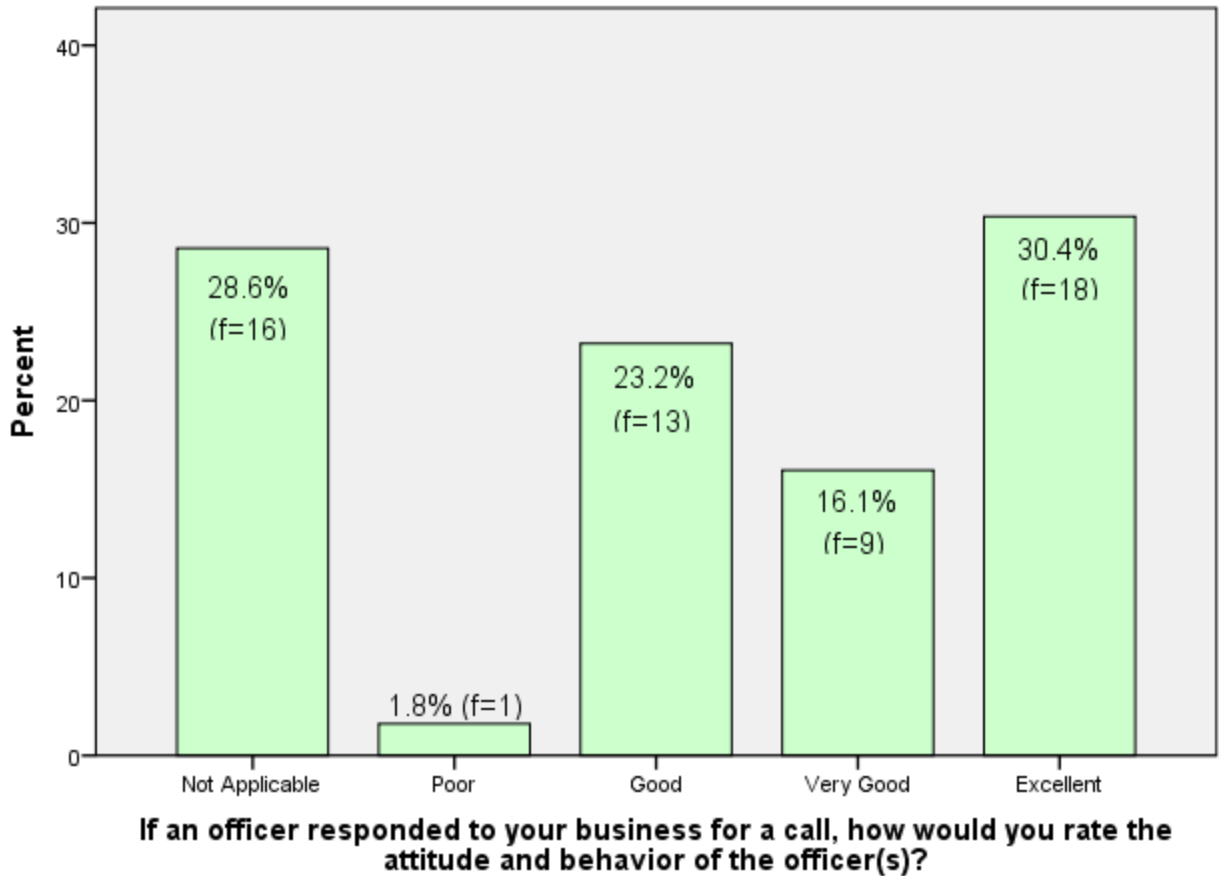
In order to examine business perceptions of the volume of police activity, the survey included an item asking business respondents how frequently they observe police patrolling in the vicinity of their businesses. A majority (64 percent) of business respondents report observing police patrols daily or several times a day (Figure 12). In sum, business respondents indicate that police presence has not only increased over time, the frequency of observed police patrols is occurring with a frequency consistent with the premium placed by the DDACTS initiative on high-visibility enforcement.

Figure 12. Perceived Frequency of Patrol Near Business



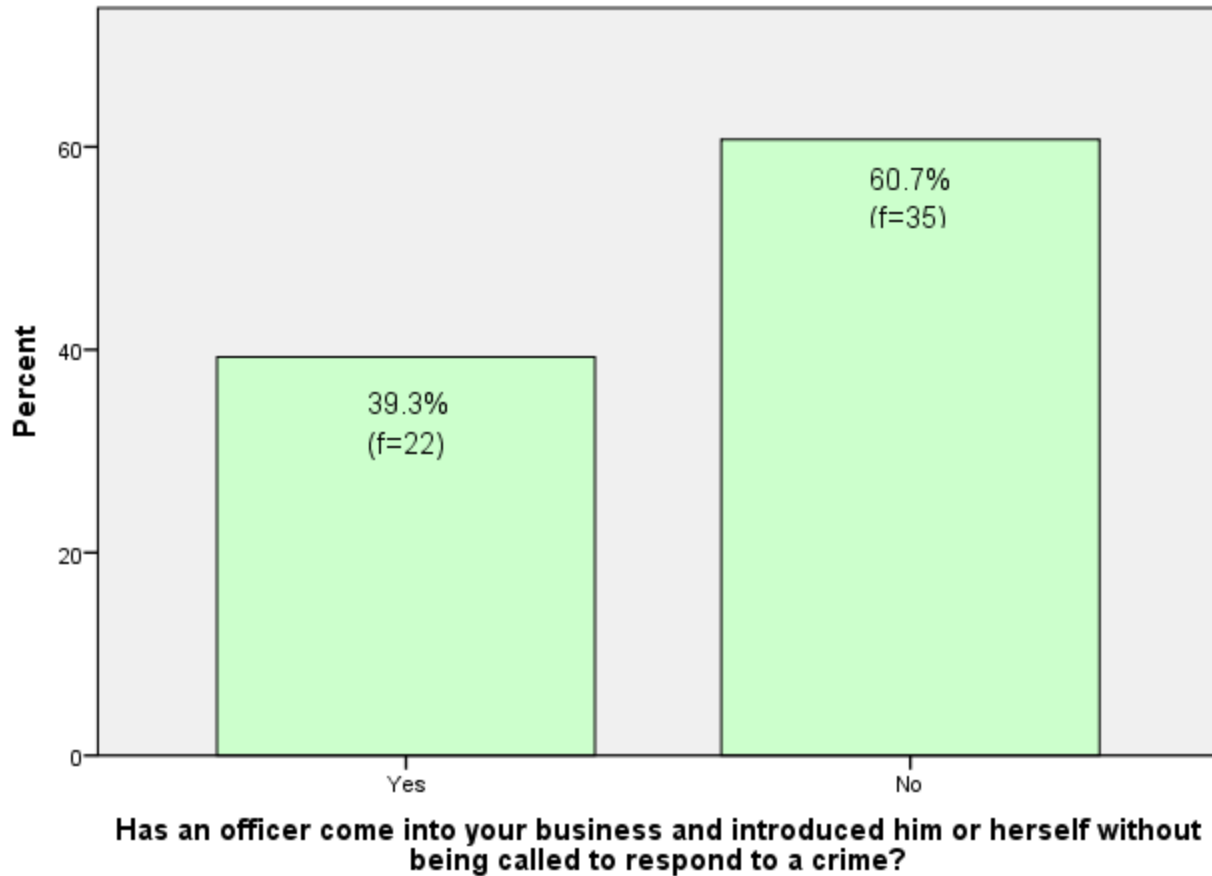
The majority of business respondents (65 percent) who have interacted with a police officer rate the officer’s attitude as very good or excellent (Figure 13). This finding is consistent with the responses for items eight and nine: the relationship between business respondents and the Shawnee Police Department supports proactive initiatives such as DDACTS, and thus increases the likelihood of sustaining such operational approaches.

Figure 13. Rating of Attitude and Behavior of Responding Officer



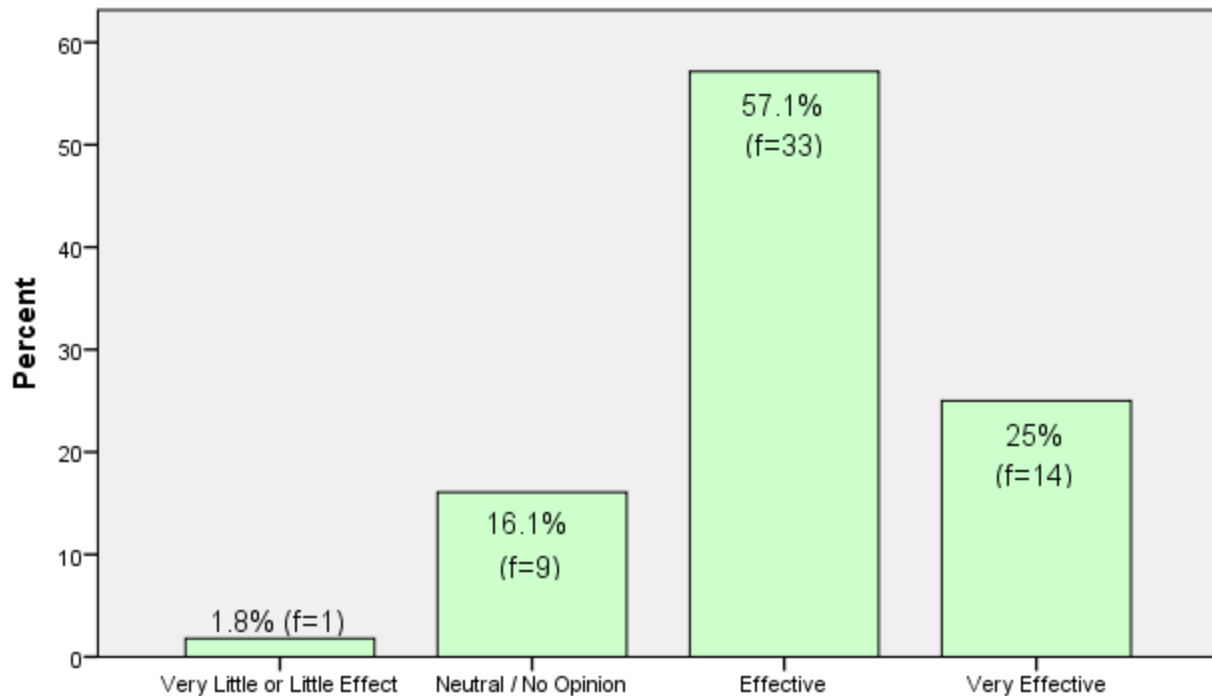
As stated previously, building relationships with business stakeholders is critical to the sustainability of the DDACTS initiative. Although 60.7 percent of business respondents report no officer introductions without being called to respond to a crime, 39.3 percent report such an introduction (Figure 14). Given the often conflicting schedules of businesses and police officers engaged in a proactive policing strategy, this finding is hardly a cause for concern (especially in light of the previous results measuring the relationship between businesses and the police). Still, there is room for improvement and may dovetail with related efforts to educate the public regarding the DDACTS initiative.

Figure 14. Officer Introduction Without Being Called



Unlike previous questions which focused on respondent observations, the following questions ask for an opinion regarding the effectiveness of various police tactics. A significant majority (82.1 percent) of business respondents rate high-visibility traffic enforcement as effective or very effective (Figure 15). It is clear that business respondents believe in the effectiveness of a highly-visible, proactive police presence in the 75th Street corridor.

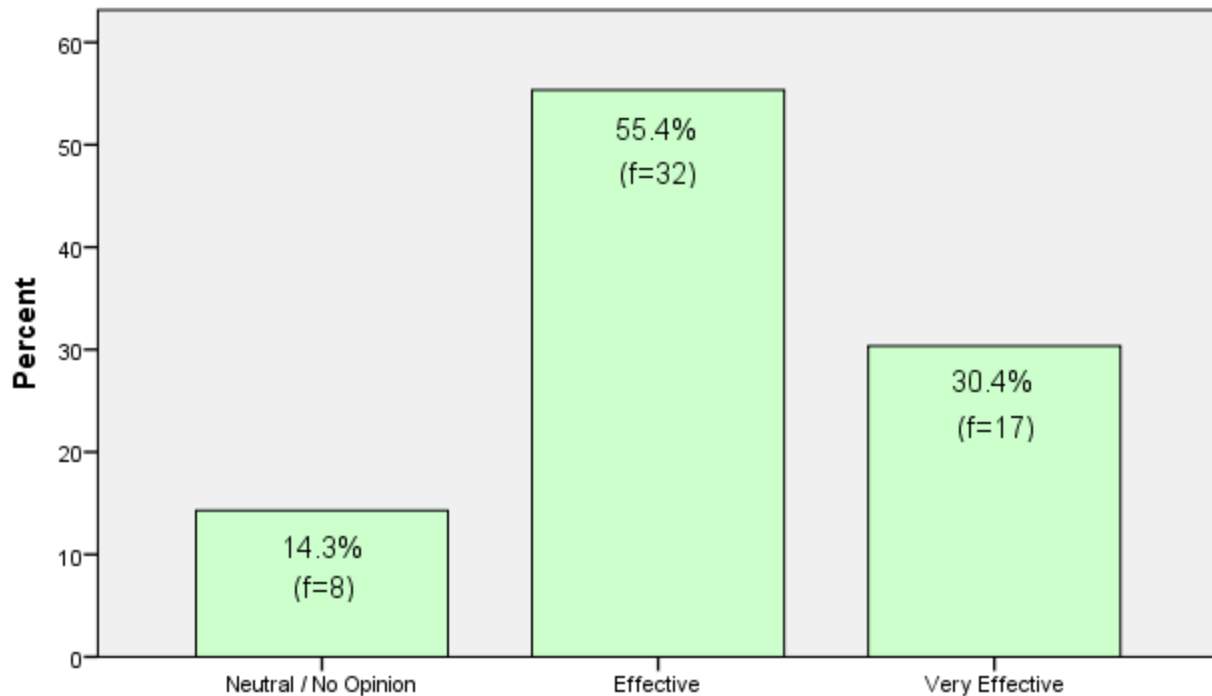
Figure 15. Perceived Effectiveness of High-Visibility Traffic Enforcement



Please rate the effect, in your opinion, that each of these police tactics would have on reducing the occurrences of crime and crashes near your business and surrounding area: High-visibility traffic enforcement (stops for traffic violations)

Nearly 86 percent of business respondents rate random patrol by officers in marked cars as effective or very effective (Figure 16). One possible explanation for this finding is that the public continues to hold a traditional view on the role of police. One of the goals of traditional patrol is create a perception of *omnipresence* in order to deter crime. From their vantage point, it is possible that some citizens are unable to discern between “random patrol” and the policing presence they observe due to the DDACTS initiative.

Figure 16. Perceived Effectiveness of Random Patrol

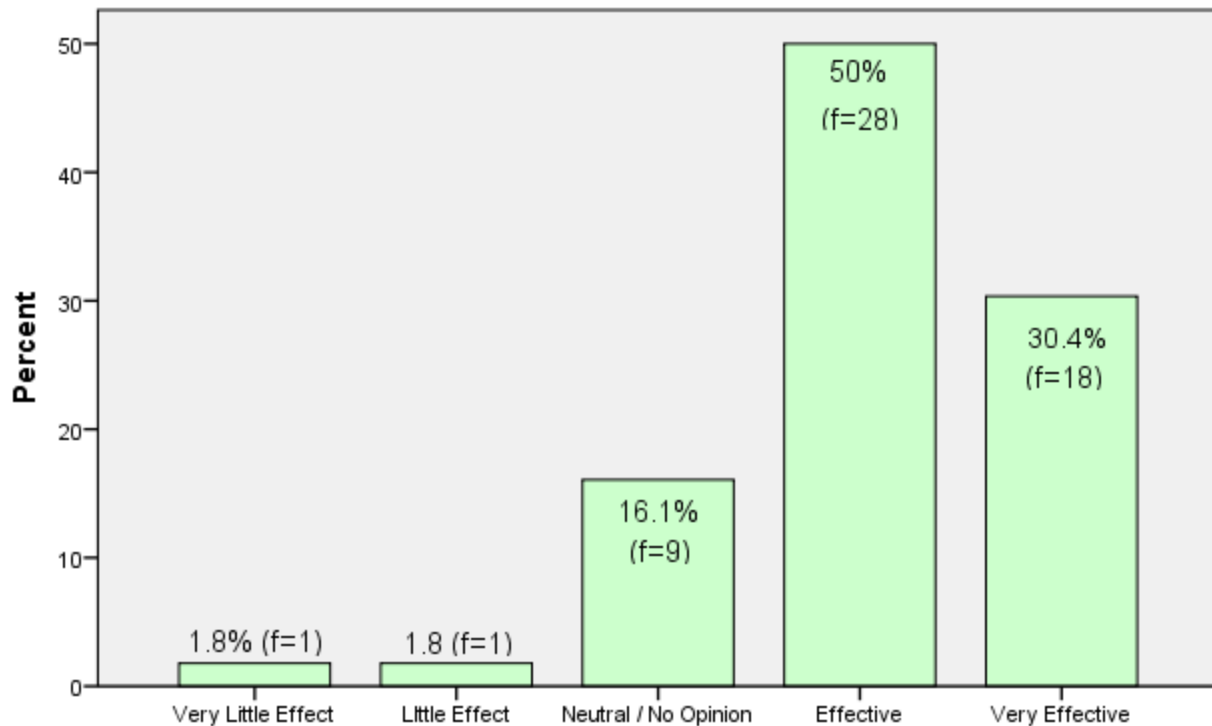


Please rate the effect, in your opinion, that each of these police tactics would have on reducing the occurrences of crime and crashes near your business and surrounding area: Random patrol by officers in marked police vehicles

Over 80 percent of business respondents rate targeted patrol as effective or very effective (Figure 17). Targeted patrol is defined as patrol that is directed to certain areas which is based on crime and crash data. Smart policing emphasizes the use of evidence and evaluation to guide police in the deployment of officers and the allocation of resources. DDACTS uses data to reveal hotspots for crime and traffic crashes; this information is used to “target” the location and time when police patrol can potentially be most effective.¹⁷

¹⁷ Our evaluation of crime and collisions over a three year period has shown that it plays a significant role in reducing certain types of crime and vehicle collisions, but, will people know that without doing their own research and study? It would seem intuitive that targeted patrol would be the most

Figure 17. Perceived Effectiveness of Targeted Patrol



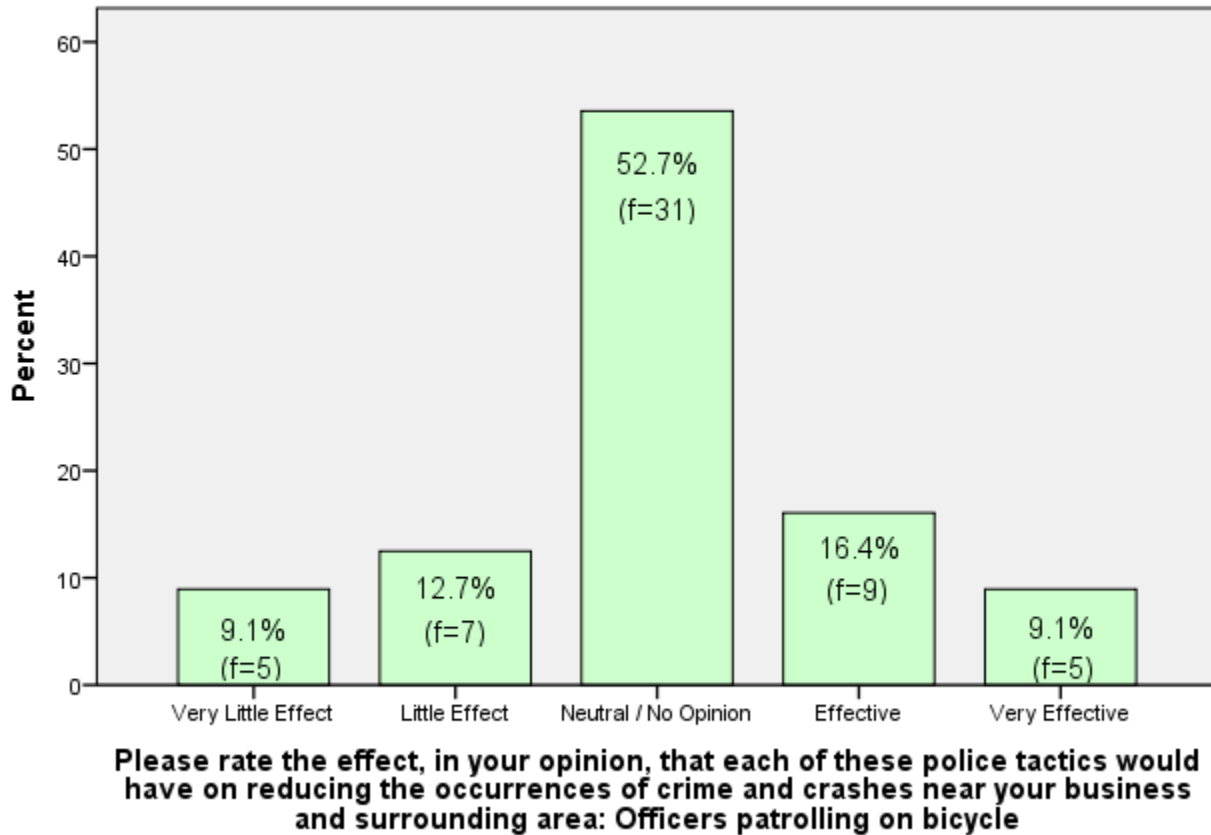
Please rate the effect, in your opinion, that each of these police tactics would have on reducing the occurrences of crime and crashes near your business and surrounding area: Targeted patrol by officers

As a community policing tactic, bicycle patrol is relatively well-known to the public. We also wanted to know the perceptions of business respondents regarding the effectiveness of bicycle patrols. In addition, this item is used to test respondents' sense of what is effective, and the degree to which

effective means of reducing crime and crashes and, as such, it would be selected as "effective" or "very effective" more often than the other choices, however, the responses show that not to be the case. Overall the respondents believe random patrol to be more effective than targeted patrol. This is an issue within policing, so it should come as no surprise that the community at large would carry these perceptions. This reveals that, when we have the opportunity, we should correct these misperceptions with facts.

they are focused on the goal of the DDACTS initiative (i.e., to reduce crime *and* crashes). Over 25 percent of business respondents rate bicycle patrols as effective or very effective (Figure 18).

Figure 18. Perceived Effectiveness of Bicycle Patrol



Respondent Comments

The final item on the business survey asked respondents to share any additional comments or concerns not covered by the previous survey items. Several themes emerge from the responses. First, several respondents mentioned that they had noticed increased police presence which was adding to the overall safety of the area. Here is a summary of the comments received:

- I highly appreciate police being around my business. I feel secure.
- Good Job.
- Police visibility is good. We have experienced minor graffiti on property but police presence seems to have stopped this.
- I have noticed the police presence and I'm glad to see there's an effort being made to keep the area safe.
- Thank you all for making us feel safe in our environment.
- I appreciate the Department's concern for safety in Shawnee.
- We have officers drive through our parking lot several times a day most days. As a bank this definitely helps us feel safer. There are a lot of crashes at our intersection of 75th and Switzer but not sure having police patrol more or would reduce that. It's just a tricky intersection. Overall, we are very happy with the Shawnee police.
- My interaction with the Shawnee Police Department has always been very good. I like their presence along 75th & Nieman. I think that their heavy exposure on the weekends helps keep people more responsible with their driving and helps keep criminals out of the area.
- More concerned with the possibility of crime due to the fact that our complex [shopping center] is pretty empty. Would like to see more businesses in our complex.

Three business respondents commented on the officer demeanor and attitude:

- The police officers that come in are always friendly and talk about what they are doing to help the city. Please keep patrolling 75th Street it is working! Thanks for your selfless service to our community!
- [T]he police department does a great job and always helpful: friendly.

- I have called 3 times in 2 years and all 3 were good experiences with quick response.

Two business respondents requested additional police presence:

- Shawnee Police has been great in all interaction with our business. Would like to see more visibility in our area Nieman between 75th & 79th.
- We have hit and runs behind our offices (back side of Wal-Mart) and no one to account for the damage on our vehicles. More patrolling would be helpful.

One respondent had a concern about the impact that increased police was having on business:

- While I very much appreciate Shawnee police's work, I do notice a significant drop in business when extreme police presence is being enforced on 75th. I understand this goes hand and hand with my business. Just wanted to voice an opinion and be happy to discuss in more detail if needed. I feel a lot of folks just avoid 75th. Pushing traffic police might be looking for to other throughways. Glad to help with more information anyway I can!

Community Survey: Methodology and Findings

As previously noted in the business survey report, the DDACTS initiative relies heavily on the cooperation of community stakeholders. In order to examine the attitudes and perceptions of residents, we formulated a community survey in Spring 2013. We began the survey distribution by obtaining all of the addresses in the DDACTS, 75th Street corridor, from Shawnee, GIS Specialist, Doug Hemsath. Mr. Hemsath identified a total of 2,597 addresses which included 1,825 multi-family housing units (apartments), 610 single family homes and 162 duplexes. The distribution plan was to direct the residents to an on-line survey via a postcard sent to them through the US Postal Service. The web address for the online survey was printed on the postcard and the survey instructions were printed in both English and Spanish. The postcards were mailed on February 12, 2013. The first on-line survey

was completed on February 13, 2013. The initial number of responses was encouraging, however, by April 30, 2013; the total number of on-line responses stood at 142 and of those only 36 indicated they lived in an apartment. It was deemed necessary to employ some alternative strategies in order to bolster not only the overall return rate but especially the return rate of those living in the apartment complexes.

The next distribution strategy was accomplished through a partnership with two elementary schools that draw students from the DDACTS area, one of which is located on 75th Street. The other is located about one mile away but draws students from one apartment complex in the DDACTS area. The school in the DDACTS area sent home 350 printed surveys (in both English and Spanish) with students. We provided a cover letter requesting that those who have already completed the on-line version not complete this survey. We also requested that those who received multiple surveys because they have more than one child bringing surveys home to only complete one survey for the family. These surveys were sent home with students on March 11 and were requested to be returned on March 14, 2013. On March 14, 109 surveys were returned to the school. Sixty of those surveys were Spanish language surveys. In the on-line version we received only one Spanish survey.

The other elementary school identified only 33 families who live in the apartment complex along 75th Street. We again sent surveys home on a Monday and requested they be returned on Thursday. Following the Thursday return date, only 5 completed surveys were returned. However, after that time another 6 surveys were brought in. We received 11 total surveys from them.

The next strategy was to work with a religious congregation, New City Church, which holds services in the DDACTS area at 75th Street and Nieman Road. Matt Miller, one of the ministers learned of the survey and wanted to assist with the project. Matt knows that many of his congregants live in

the DDACTS area. He said that he would distribute surveys asking that those attending services, who live in the DDACTS area, and who have not already completed a survey, take a few minutes to complete a survey following Sunday services. Matt asked those who were going to take the survey to complete it and turn it in before they left the premises. Matt turned in 15 surveys but only 6 of them were completed.

At the end of these efforts, a total of 268 surveys had been completed. There were 2597 addresses identified in the DDACTS area. Following the initial distribution of the postcards, 165 post cards were returned because the property was vacant or because it was a bad address. This was a net of 2432 potential survey addresses. The response rate at that time was 11 percent while the goal was a 20 percent return rate. The final attempt to improve the return rate was to target the apartment complexes again. The strategy this time was to use printed surveys distributed with the assistance of management at the various complexes along 75th Street. The surveys were printed in English and Spanish.

In a final effort to improve the response rate, one more strategy was attempted which involved going directly to the apartment complexes located along 75th Street. On April 30, 2013, printed survey copies were delivered to the six apartment complexes. The surveys were left at each complex office in the following numbers.

Table 1. Distribution of Community Survey by Apartment Complex and Survey Language

Apartment Complex	English Surveys	Spanish Surveys
Carlyle	100	50
Thomas Brook	50	25

Haverford West	50	25
The Retreat	100	50
Fox Run	150	75
Westbrook Glen	100	50

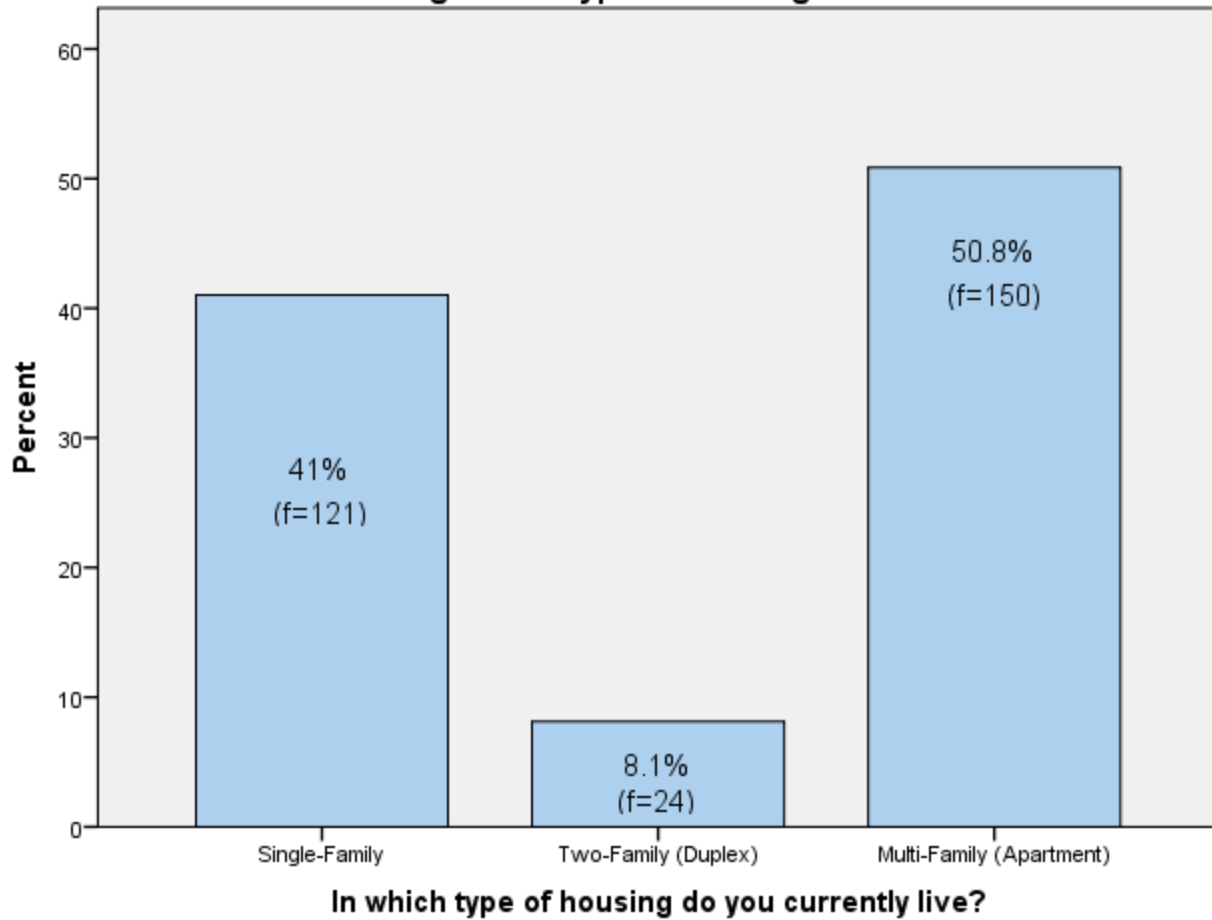
The complex manager was briefed on the purpose for the surveys and an informational poster was to be displayed with the copies. A cover letter was affixed to each survey requesting the participation of those who did not previously complete an online or paper survey. These surveys were collected through July 9, 2013.

By that time 173 postcards from the initial mailing had been returned noting that the address was vacant or the postcard could not be forwarded. The net total of potential survey addresses settled at 2424. The final sample size was 307 which yielded an overall return rate for the community survey of 12.7 percent. Figure 19 depicts the distribution of returned surveys among the various housing types.

Findings

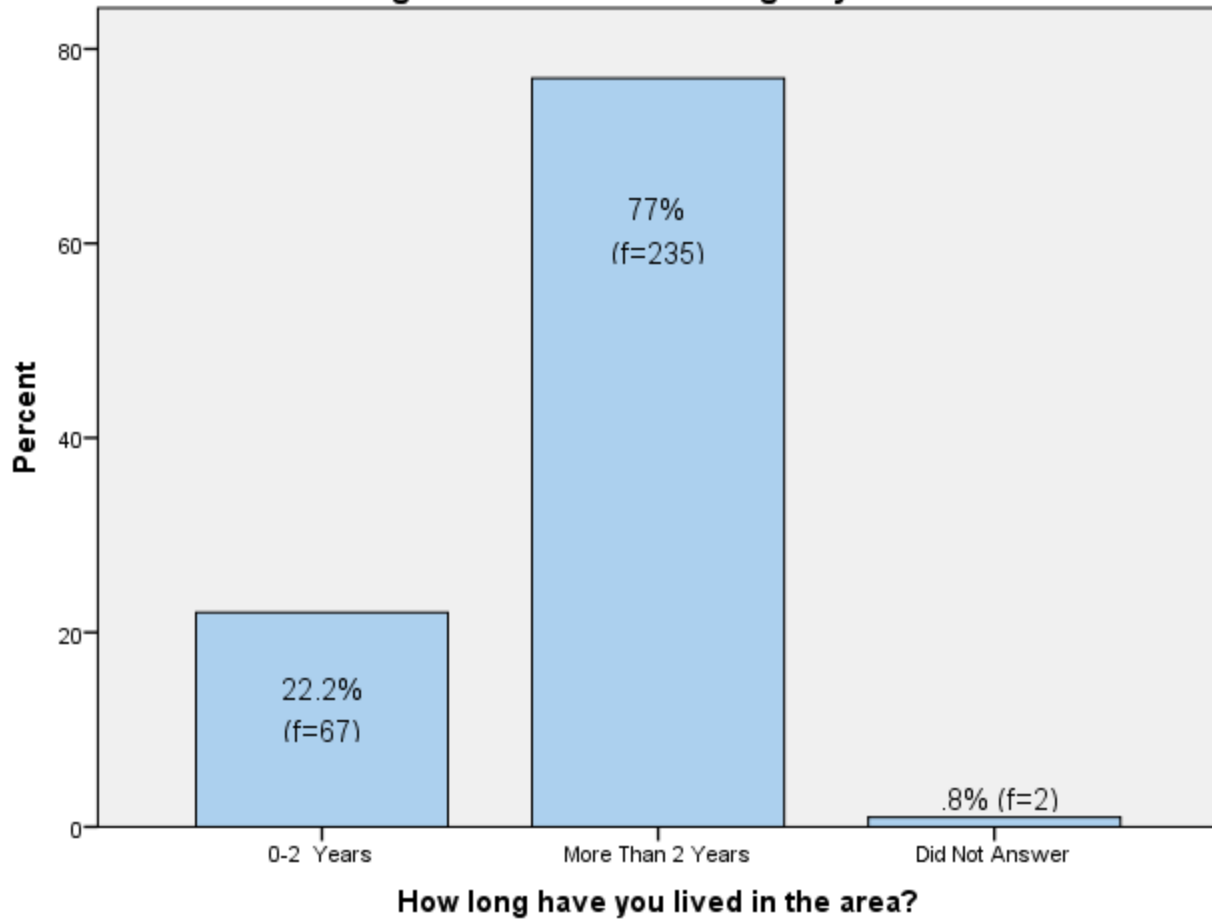
Residents in the 75th Street corridor live in one of three types of housing: single-family home, two-family (duplex), or multi-family apartment. Figure 19 reveals that 50.9 percent of respondents live in an apartment. The next-largest category of housing for respondents is single-family home (41 percent), with only a small percentage (8.1 percent) living in a duplex.

Figure 19. Type of Housing



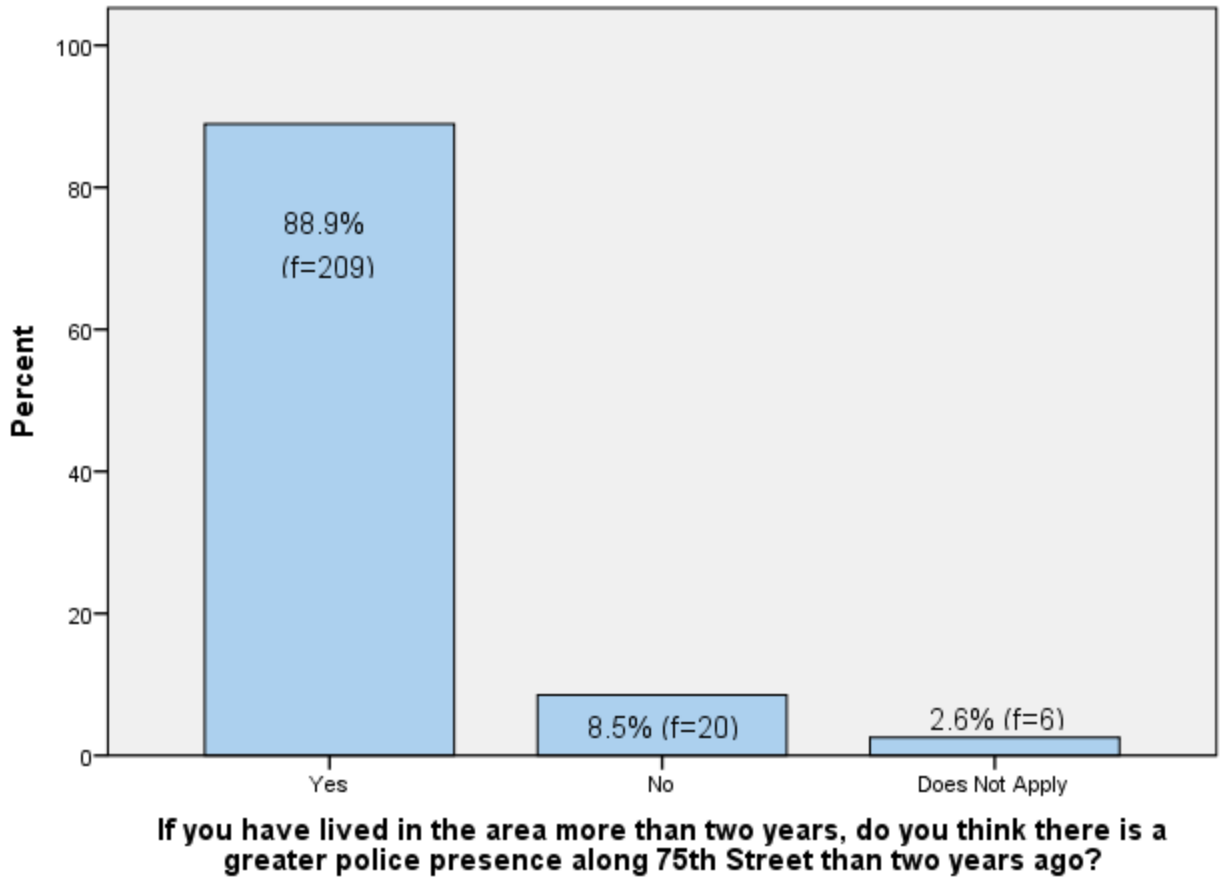
Due to the time frame of the DDACTS initiative, we asked respondents how long they had lived in the area. Seventy-seven percent of respondents answered that they have lived in the area for more than 2 years (Figure 20). In addition, this information was used for two contingency items focusing on perceptions of police presence and traffic stops, respectively.

Figure 20. Residential Longevity



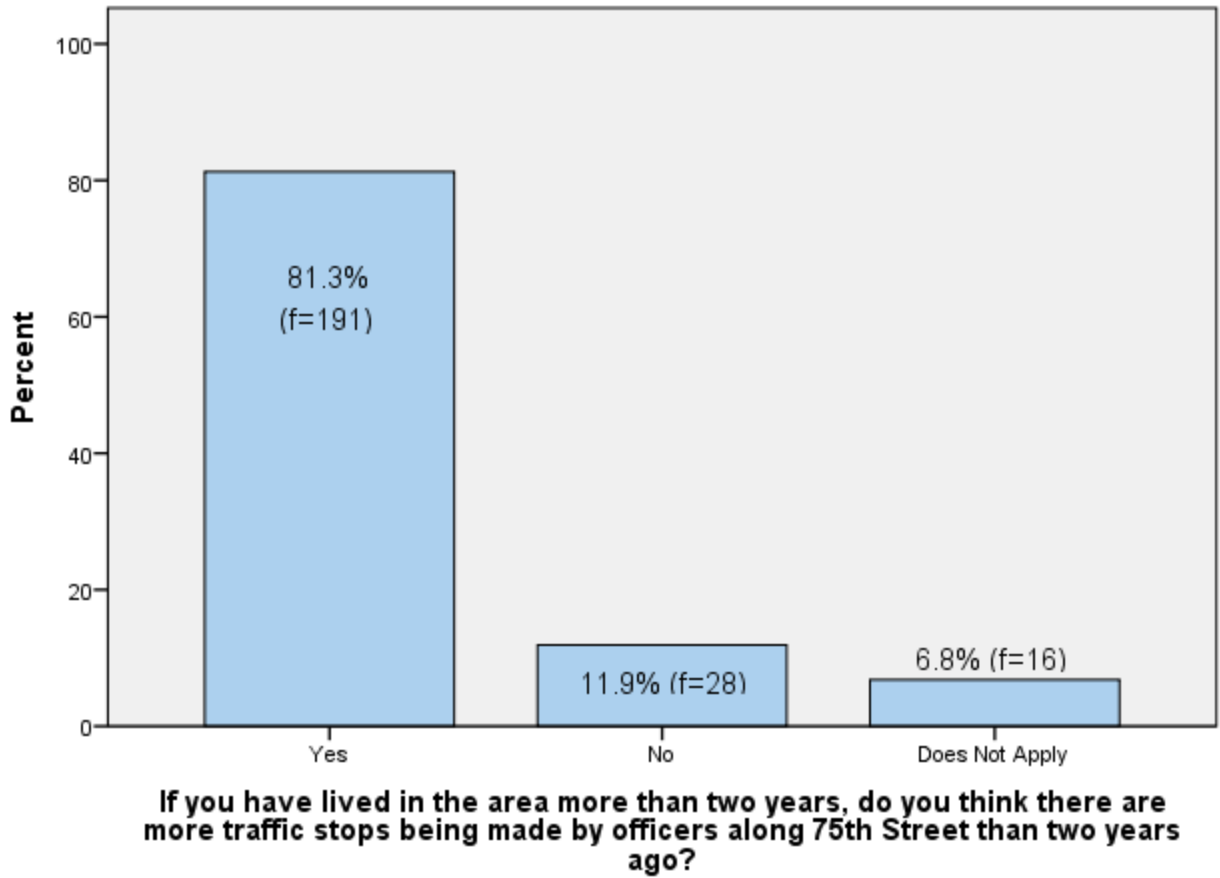
Because, the DDACTS initiative emphasizes high-visibility policing, respondents living in the 75th Street corridor who have lived in the area more than two years were asked if they noticed a greater police presence along 75th Street over the past two years. Nearly 89 percent of respondents stated that they have observed a greater police presence in the area (Figure 21). This finding is consistent with the DDACTS directive of high-visibility police presence.

Figure 21. Perception of Police Presence



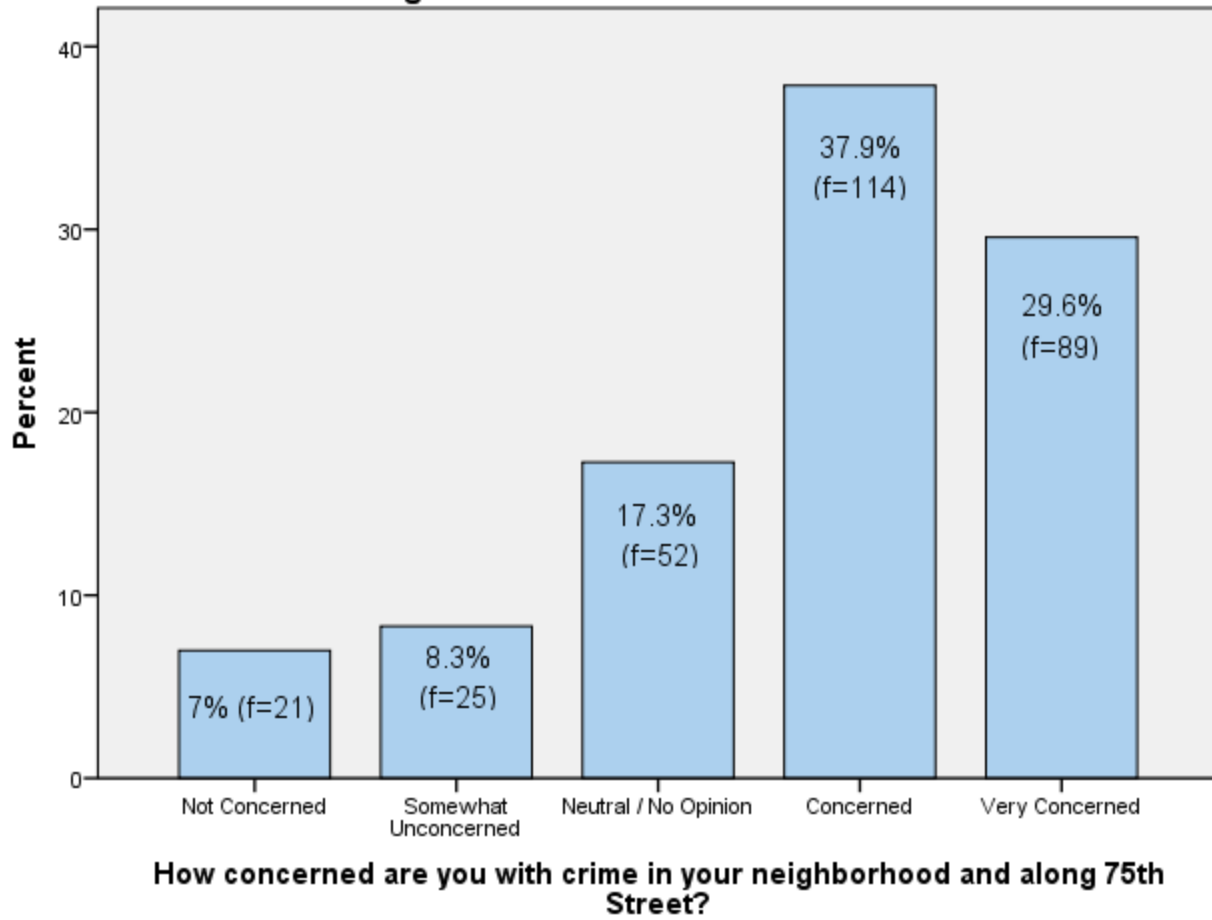
DDACTS also emphasizes the importance of police-citizen contacts. Thus we also asked respondents who have lived in the area more than two years whether they had noticed an increase in traffic stops along 75th Street. Figure 22 shows that 81.3 percent of respondents have noticed an increase in traffic stops along 75th Street in the past two years.

Figure 22. Perception of Traffic Stops



In order to examine residential concern with crime, we asked residents to what extent they are concerned with crime in the area. Nearly 68 percent of residents are concerned or very concerned with crime (Figure 23). Given that the area was selected as the DDACTS target zone partially due to disproportionately high levels of crime, this finding is not unexpected.

Figure 23. Concern With Crime



Similarly, we also asked residents about their concern with traffic violations and crashes. More than 59 percent of respondents stated they were concerned or very concerned with traffic-related problems (Figure 24). This finding is not surprising given that residents ostensibly drive in the 75th Street corridor on a daily or nearly-daily basis, thus facilitating concern with traffic violations and crashes in the area.

Figure 24. Concern with Traffic Violations and Crashes

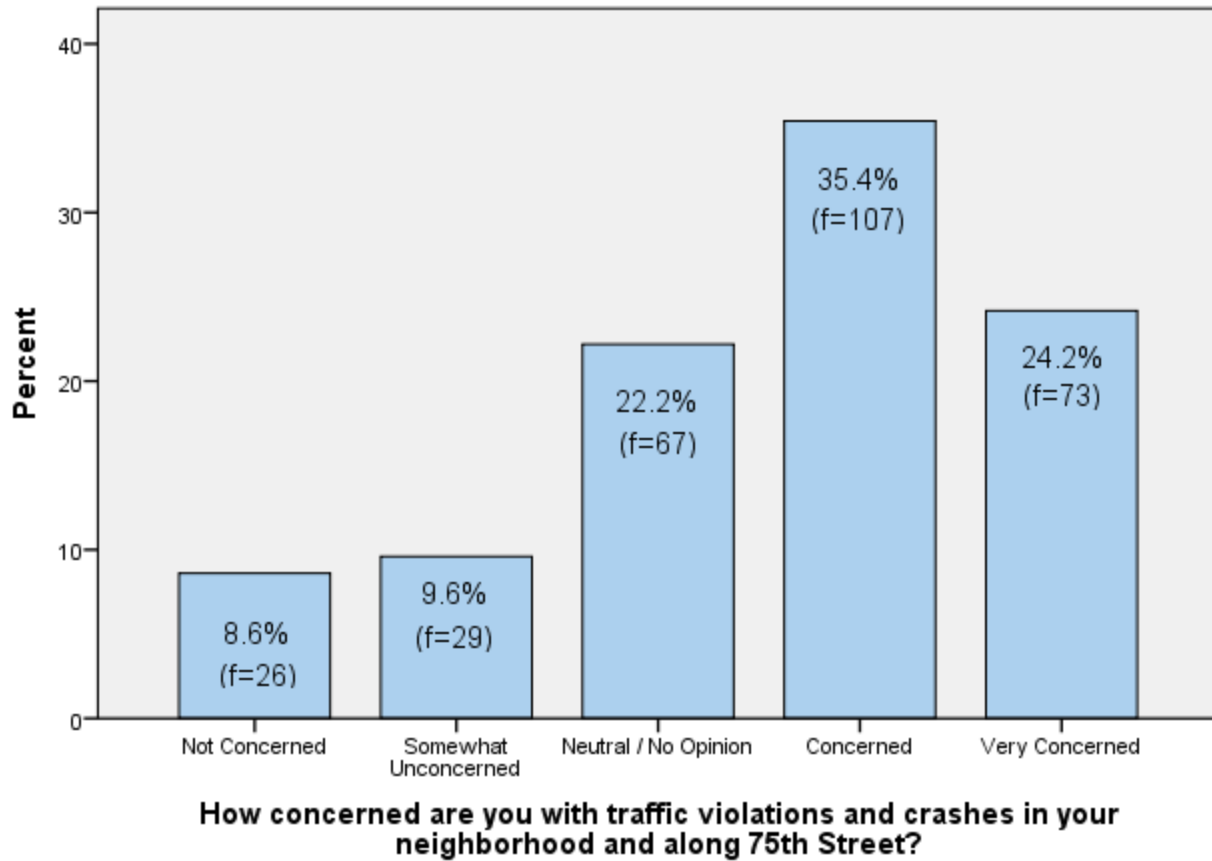
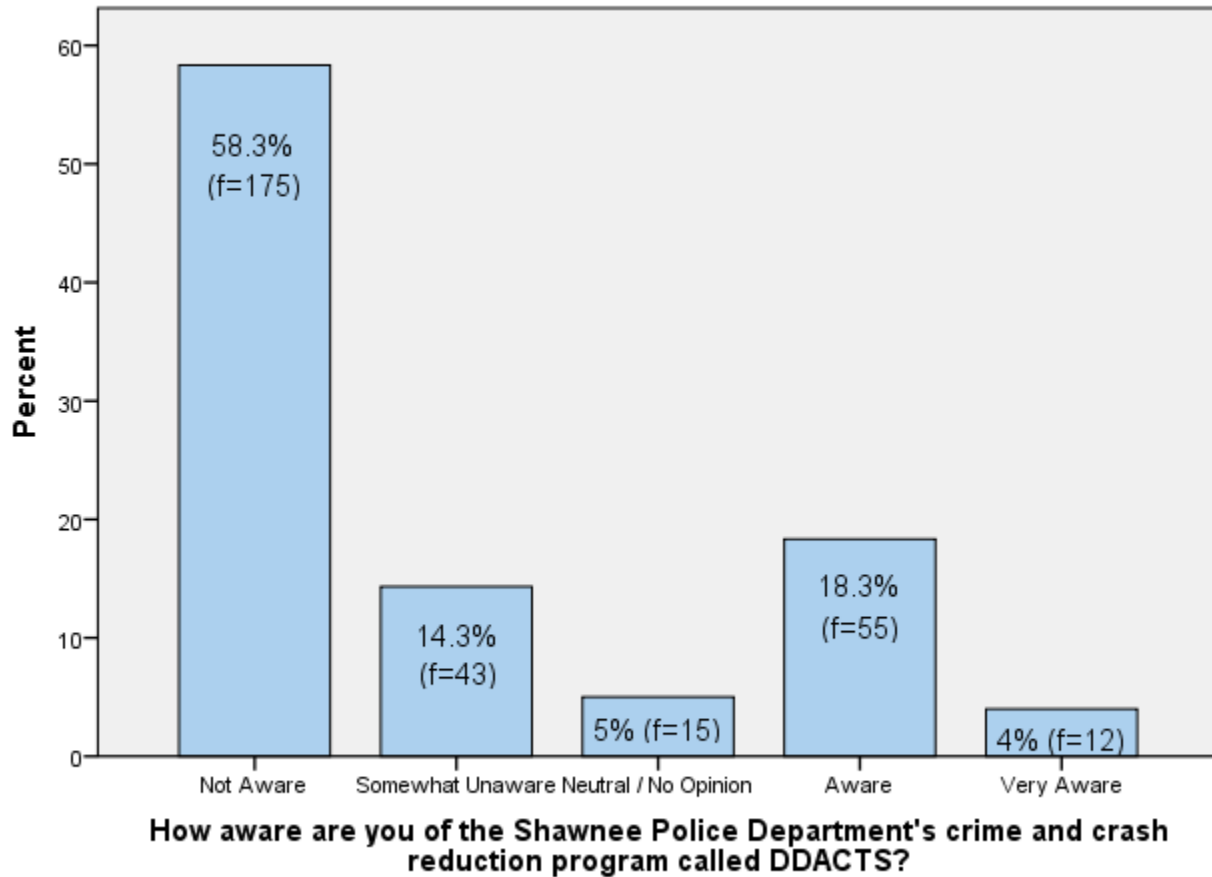


Figure 25 summarizes the findings for residents' awareness of the DDACTS initiative. Slightly more than 58 percent of residents responded that they were not aware of the DDACTS initiative.¹⁸

¹⁸ It should be noted that the Shawnee Police Department released several informational statements regarding the DDACTS initiative prior to its implementation in 2010.

Although many residents have observed the *effects* of DDACTS in their area, most are unaware of the name of the initiative.¹⁹

Figure 25. Awareness of DDACTS

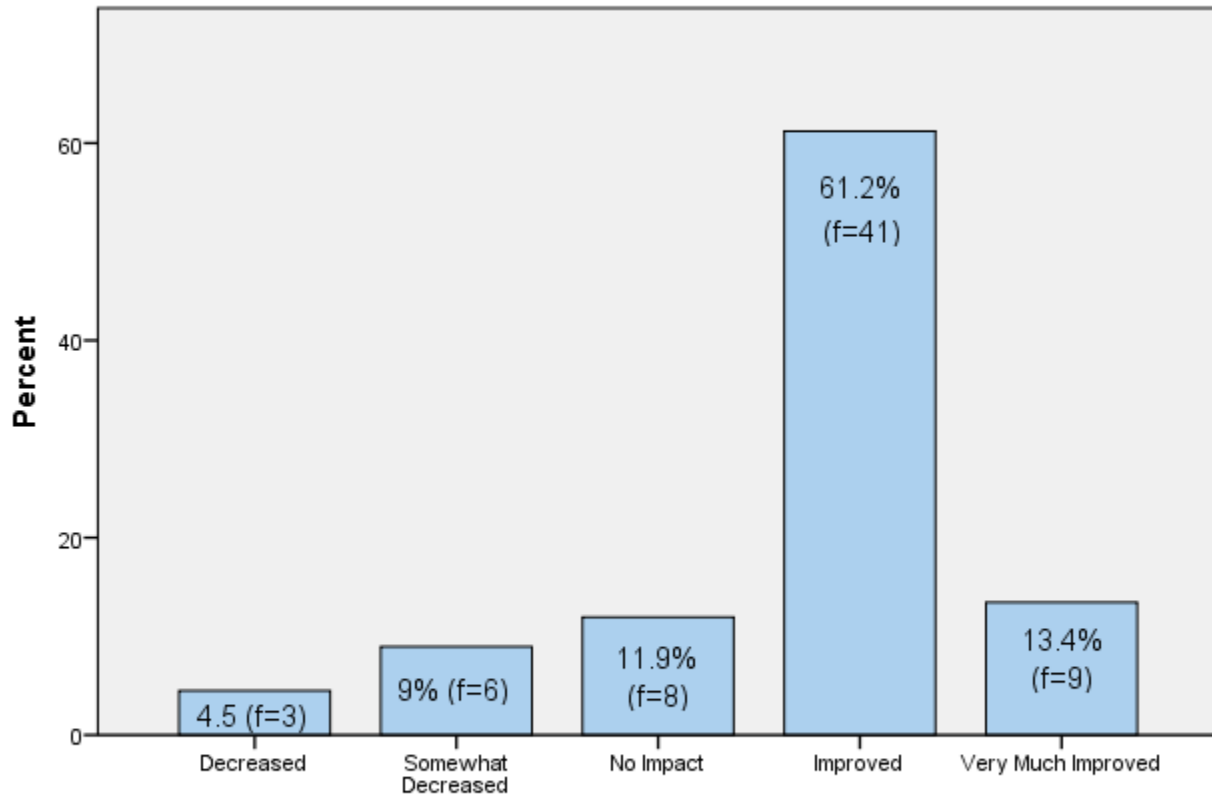


Residents who were at least somewhat aware of the DDACTS initiative were asked how DDACTS has affected the quality of life in the area. Almost 75 percent of respondents answered that they believe DDACTS has improved or very much improved the quality of life in the area (Figure 26). This is

¹⁹ The Shawnee Police Department is currently developing a plan to educate the public about the DDACTS initiative, and their role as stakeholders, in cooperation with the police, in community safety and quality of life.

an important finding and shows that the segment of the public at least somewhat familiar with DDACTS “by name” is connecting the results of the initiative they observe with an increase in perceived quality of life.

Figure 26. DDACTS and Quality of Life

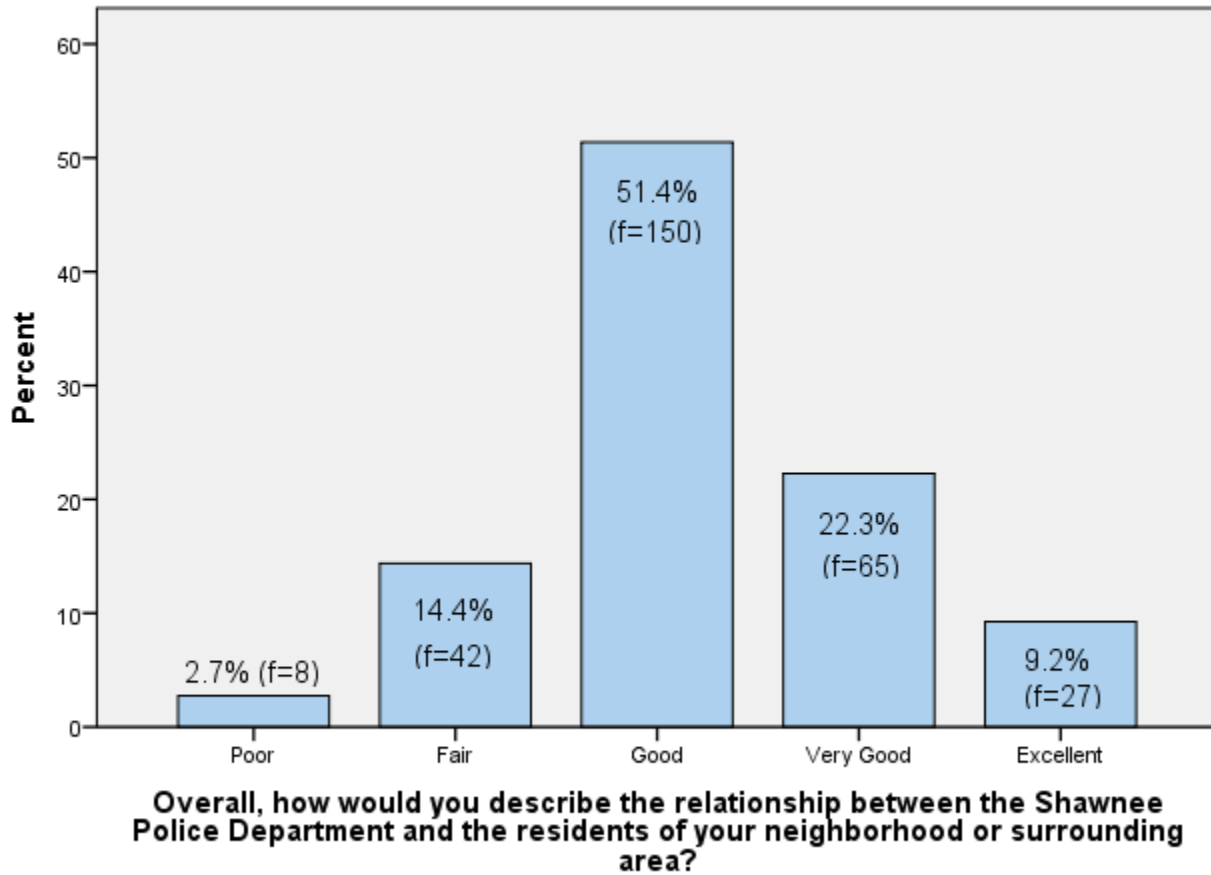


If you are at least somewhat aware of DDACTS, how do you think it has affected the quality of life in your neighborhood and along 75th Street?

Residents living in the DDACTS zone are important stakeholders in the initiative. We thus asked residents about relationship between them and the Shawnee Police Department. Nearly 83 percent of residents stated that they had at least a good relationship with the police, with 31.5 percent stating that the relationship is very good or excellent (Figure 27). Strategically, this is an important finding in

support of the sustainability of DDACTS in Shawnee, as it is apparent that there is a positive, foundational relationship between the public and the police.

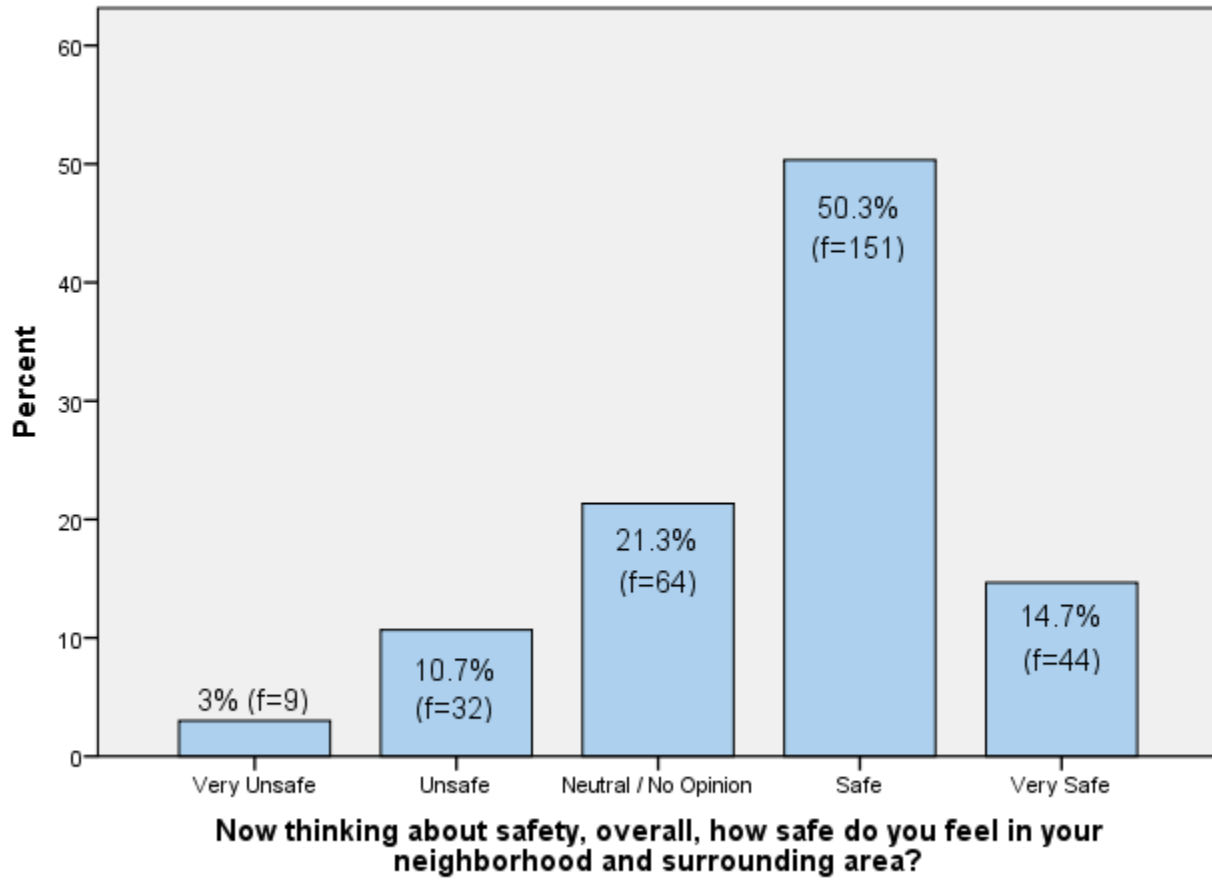
Figure 27. Relationship Between SPD and Residents

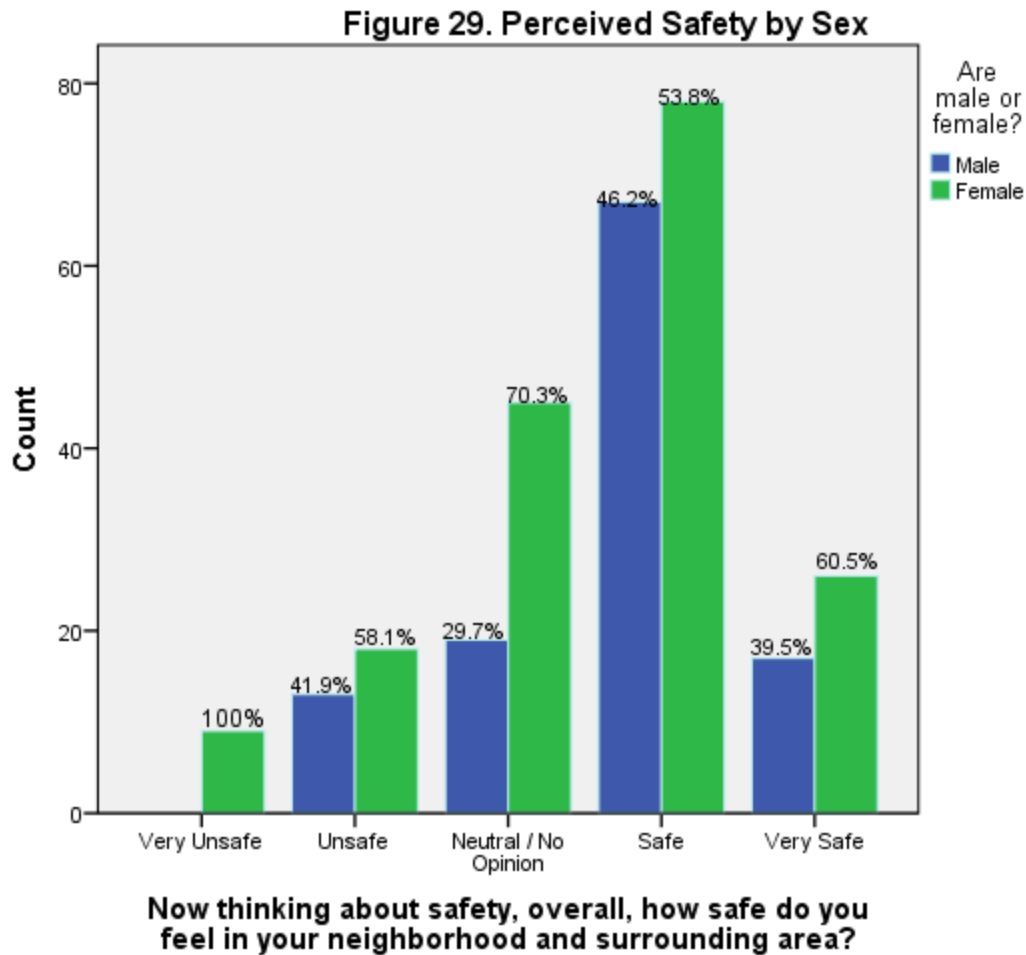


Sixty-five percent of residents feel safe or very safe in their neighborhood (Figure 28). Cross-tabulation with sex revealed a statistically significant (chi-square=11.23, p=.02) difference between males and females on perceived safety (Figure 29). Female respondents are more likely than males to feel unsafe or very unsafe, and slightly more likely than males to feel safe or very safe. The key difference is found in the neutral / no opinion response: females are far more likely than males to

respond with a neutral or no opinion response, a finding consistent with previous research (Scott 2003).

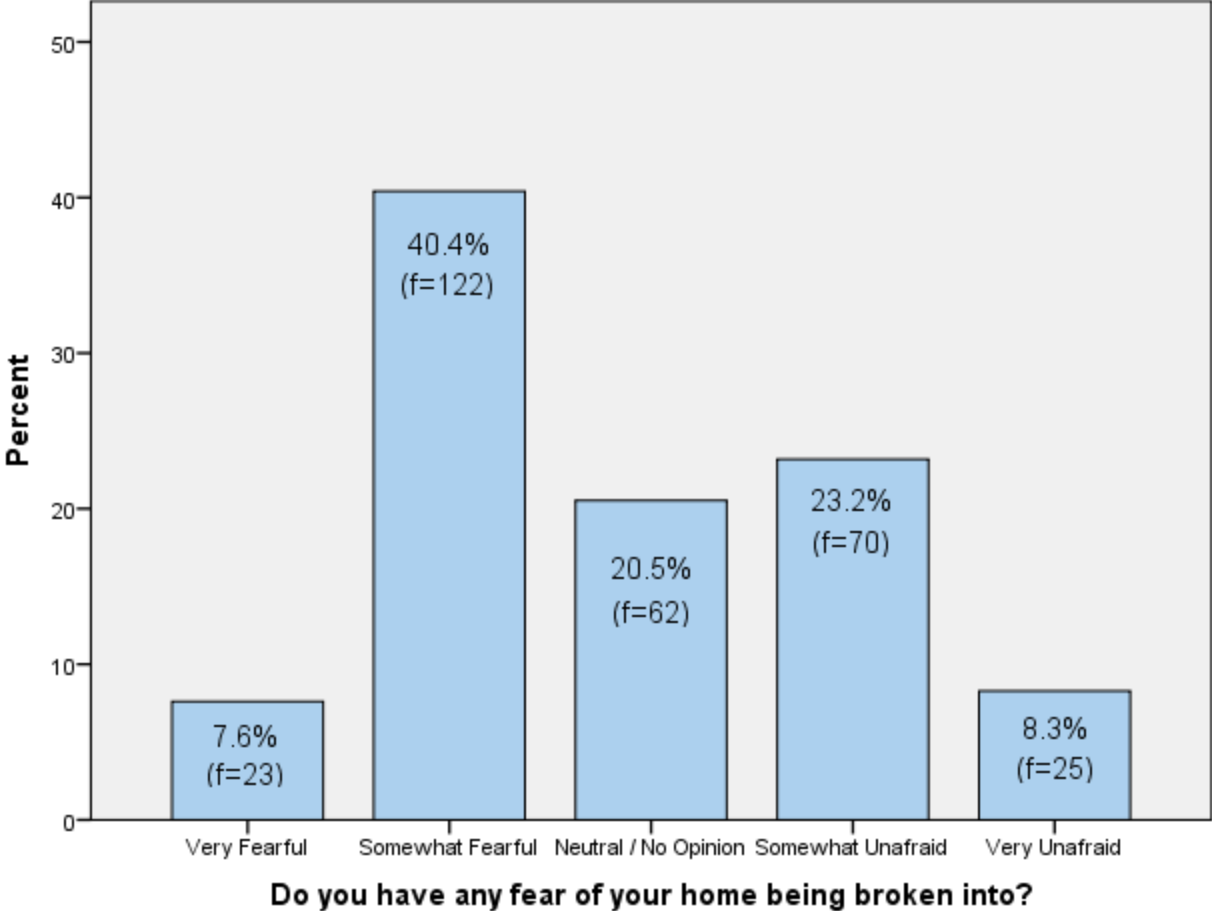
Figure 28. Perceived Safety

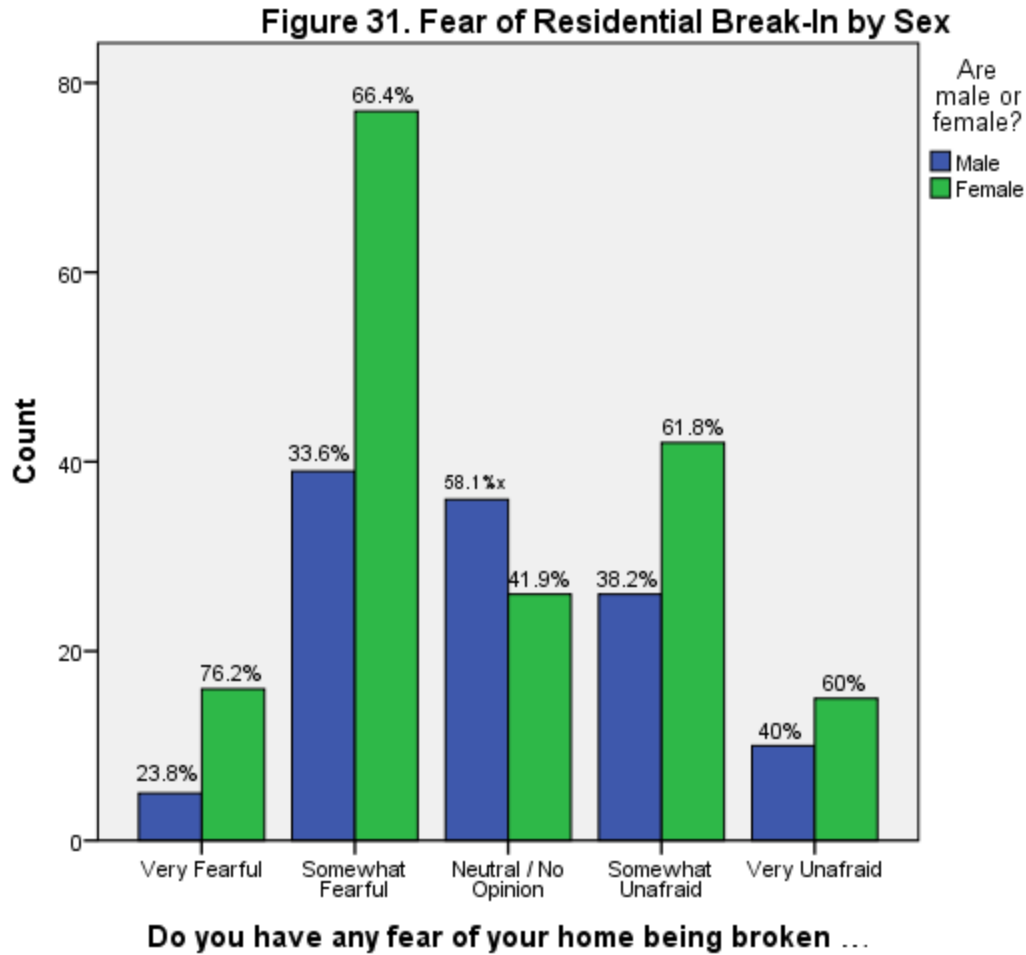




Forty eight percent of residents are fearful or very fearful of residential break-in (Figure 30). This finding is hardly surprising given the proportion of residents in apartment complexes (see Figure 1), but crosstabulation with residence type did not reveal any statistically significant relationship with fear of residential break-in. However, crosstabulation with sex (see Figure 31) revealed a statistically significant difference between males and females on fear of residential break-in (chi-square=12.8, p=.012).

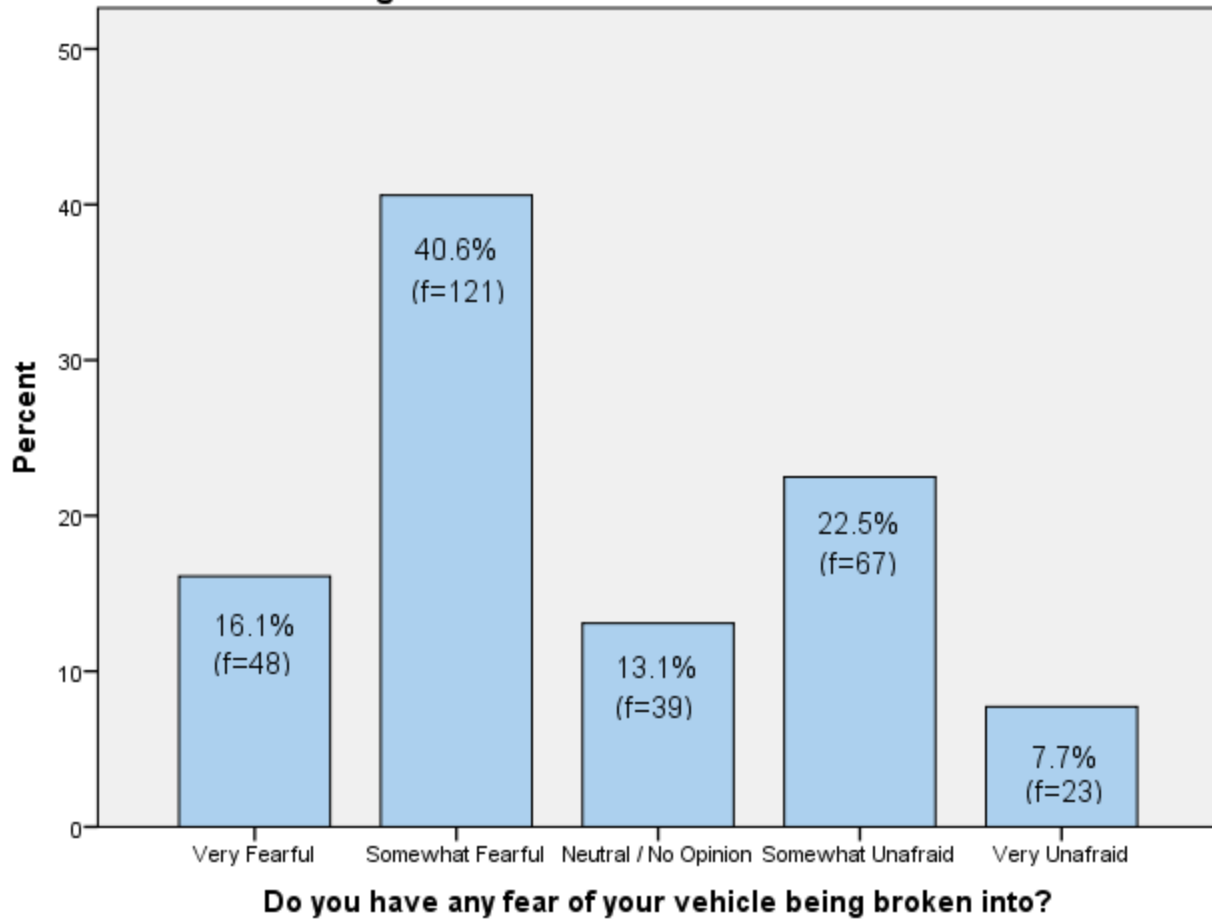
Figure 30. Fear of Residential Break-In





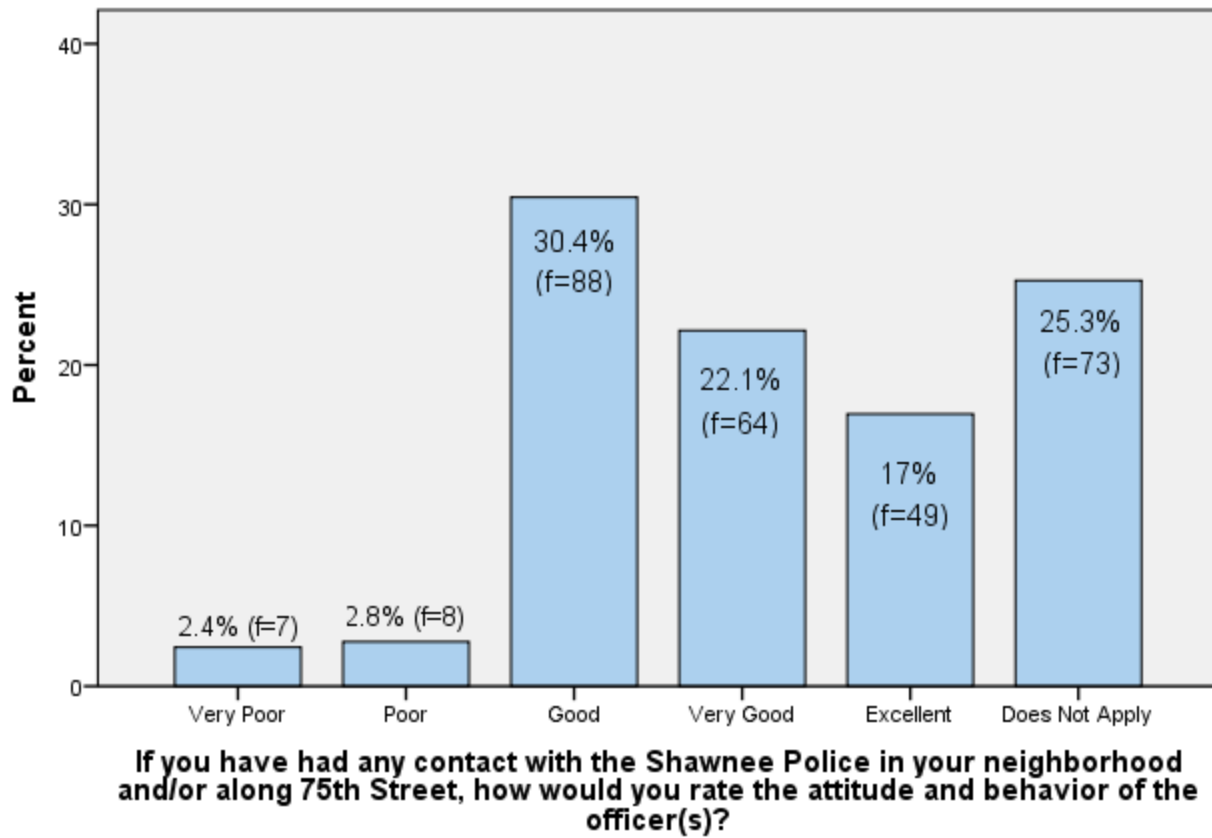
Similarly, 56.7 percent of residents are concerned about vehicle break-in (Figure 32). We hypothesized that apartment dwellers would have enhanced fear of vehicle break-in due to the risk of theft presented by apartment parking lots. Contrary to our expectations, crosstabulation with residential type did not reveal any statistically significant differences in fear of vehicle break-in by residence type.

Figure 32. Fear of Vehicle Break-In



DDACTS places emphasis on police-citizen contacts. The quality of these contacts is important to the relationship between residential stakeholders and the police. Almost 7 out of 10 residents (69.5 percent) who have had contact with a police officer from the Shawnee Police Department rate the attitude and behavior of the officer as good, very good or excellent (Figure 33). This finding reinforces the previous finding reported in Figure 27 which summarized the results assessing the relationship between residents and the Shawnee Police Department: the relationship between residents and the police is very strong, which bodes well for the sustainability of the DDACTS initiative.

Figure 33. Rate Attitude of Officer



The final survey items asked residents to rate the effectiveness of various policing strategies. Figure 34 summarizes the findings for the effectiveness of high-visibility traffic enforcement. Almost 72 percent of residential respondents rate high-visibility traffic enforcement as effective or very effective. This finding is consistent with previous research which finds public support for aggressive traffic enforcement (Chermak, McGarrell, and Weiss 2001).

Figure 34. Effectiveness of High-Visibility Traffic Enforcement

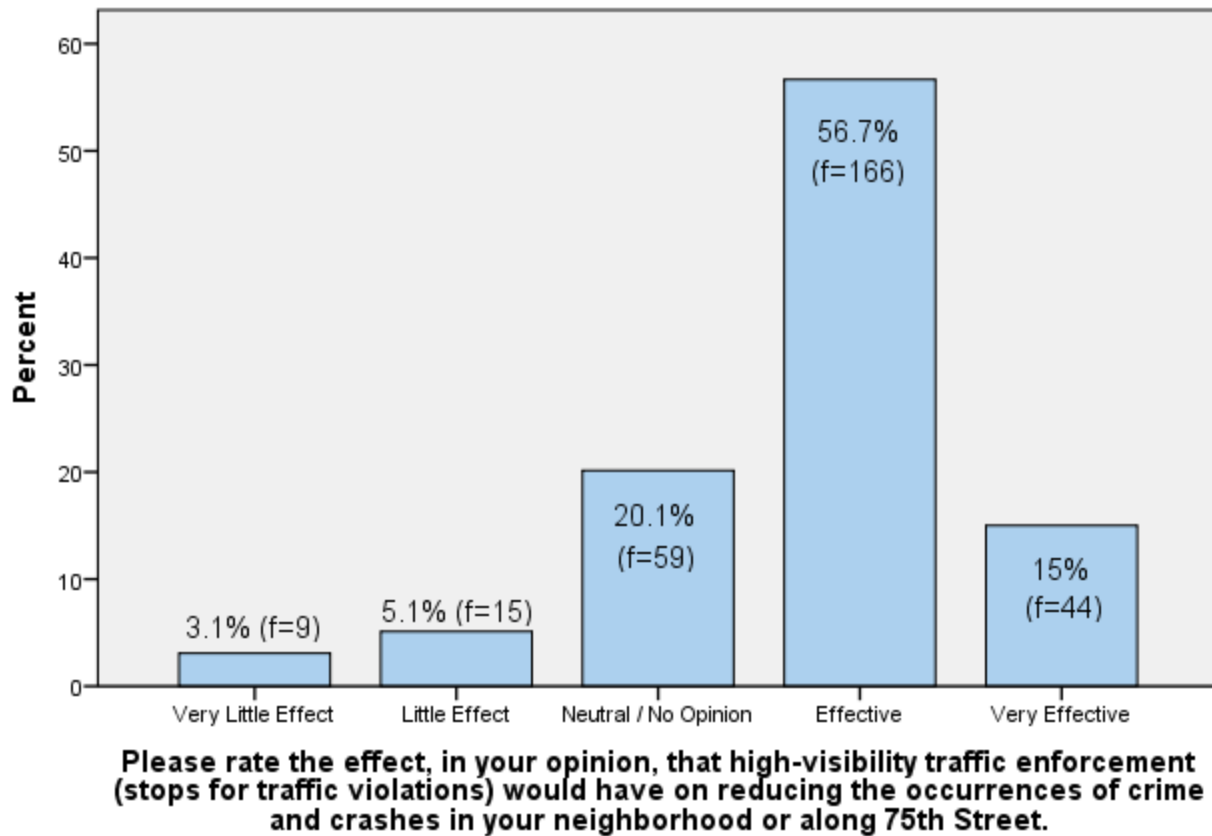


Figure 35 shows the findings for the residential rating of the effectiveness of a traditional style of policing; random patrol. Just under 82 percent rated random patrol as effective or very effective, 10 percentage places higher than the rating for high-visibility traffic enforcement. This finding is important in that it reveals that the public remains attached to a traditional model of policing, while simultaneously rating the high-visibility policing favorably.

Figure 35. Effectiveness of Random Patrol

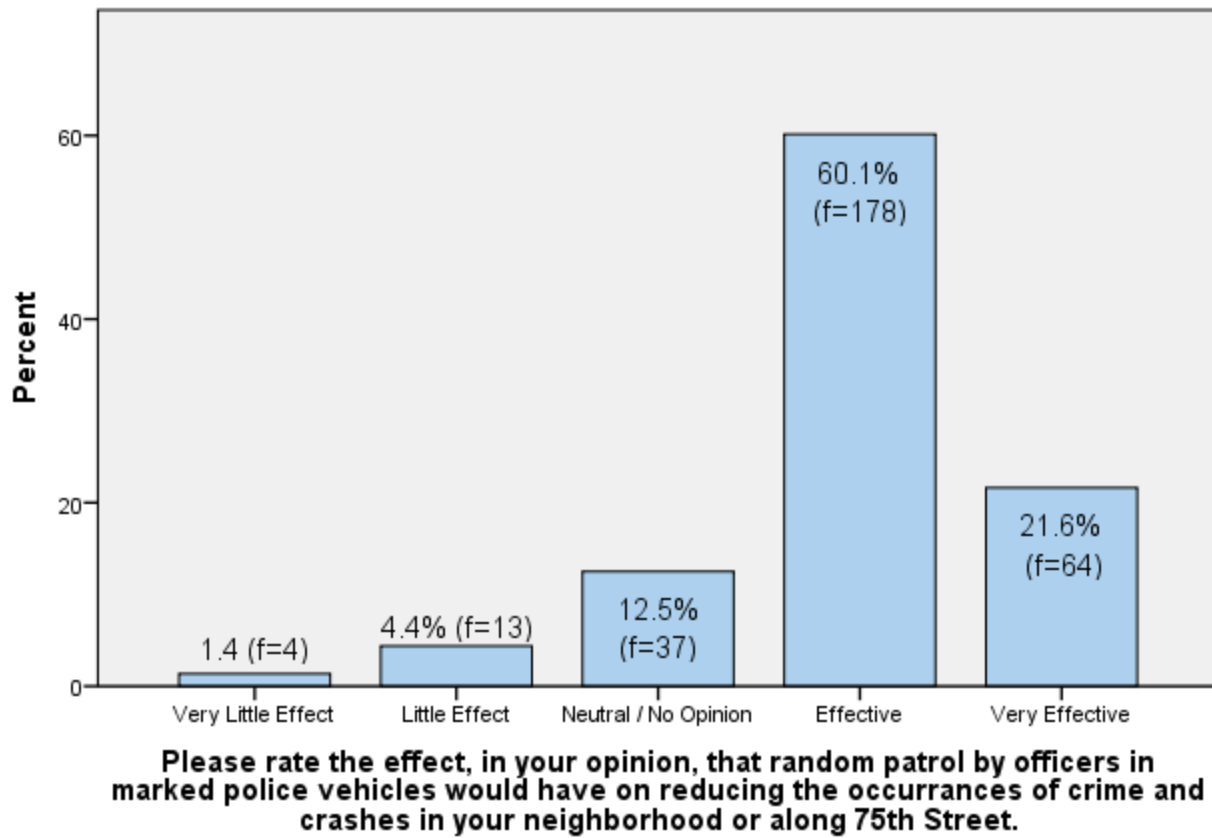
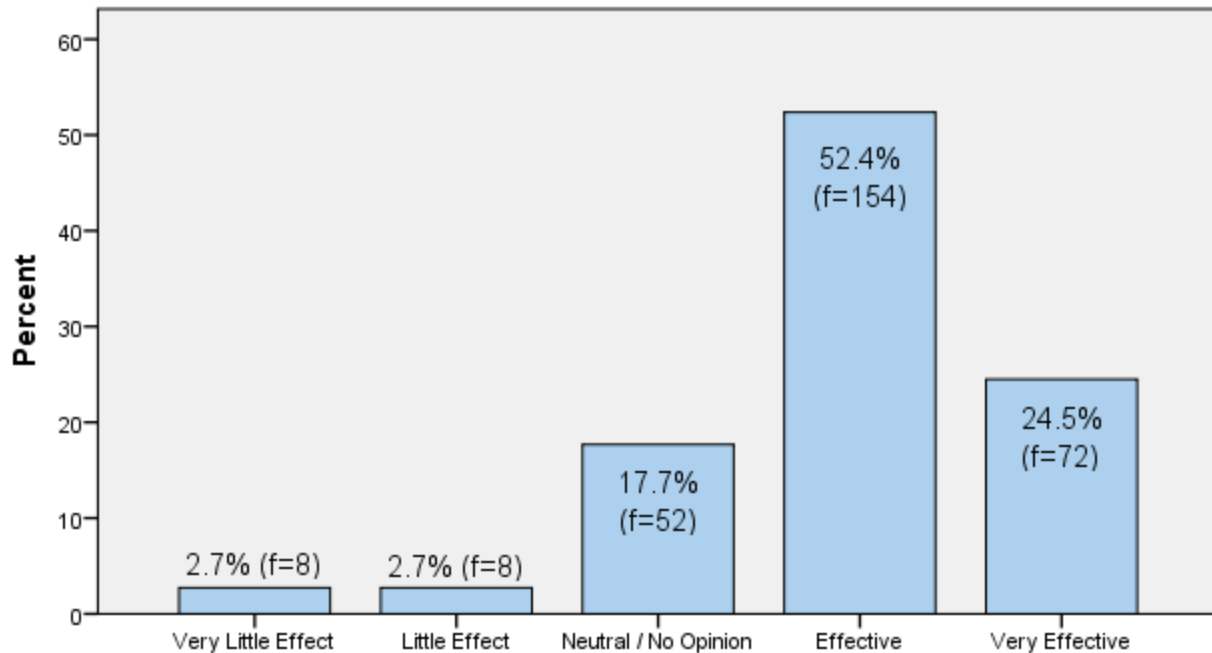


Figure 36 summarizes the findings for residents' rating of the effectiveness of targeted patrol²⁰.

Nearly 77 percent of residential respondents rate targeted patrol as effective or very effective.

²⁰ Targeted patrol is defined as patrol which is directed to certain areas based on crime and crash data.

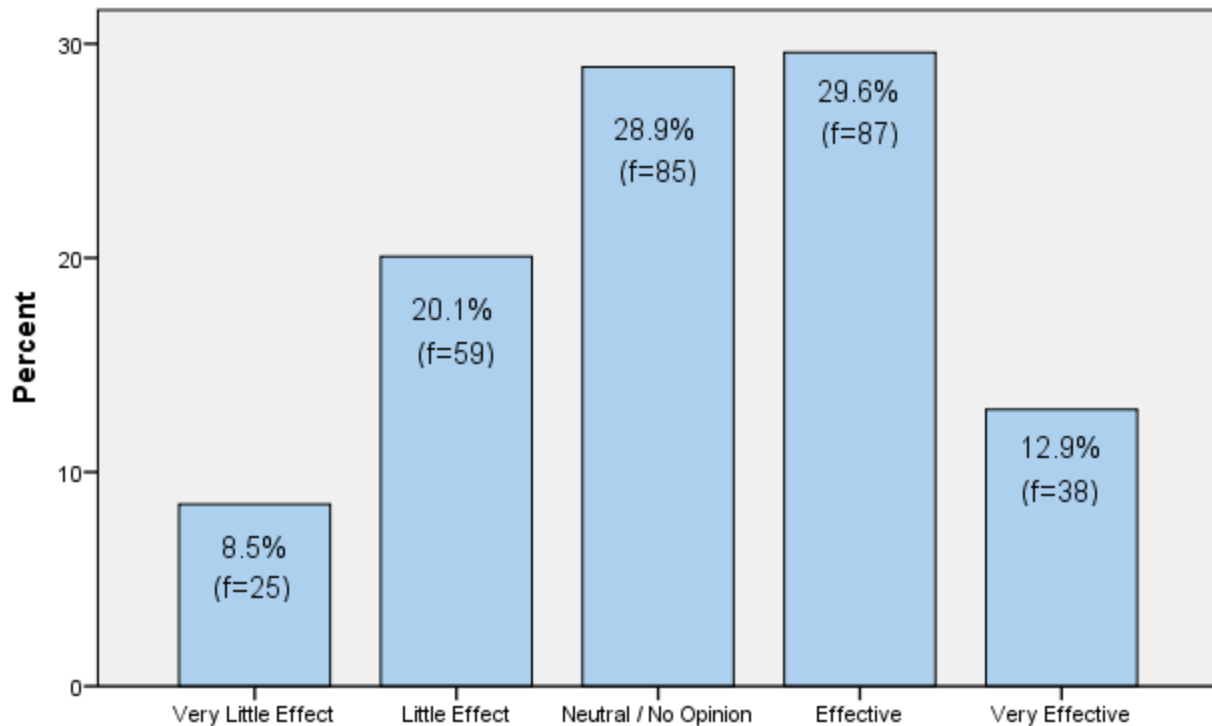
Figure 36. Effectiveness of Targeted Patrol



Please rate the effect, in your opinion, that targeted patrol by officers (patrol that is directed to certain areas, which is based on crime and crash data) would have on reducing the occurrences of crime and crashes in your neighborhood or along 75th Str

Conversely, compared to other policing strategies, residents are not as enthusiastic about the effectiveness of bicycle patrol, although it is ostensibly better known than high-visibility traffic enforcement or targeted patrol. Almost 43 percent of respondents rated bicycle patrol as effective or very effective.

Figure 37. Effectiveness of Bicycle Patrol



Please rate the effect, in your opinion, that patrol by officers on bicycles would have on reducing the occurrences of crime and crashes in your neighborhood or on 75th Street.

Comparing the Findings from the Business and Community Surveys

Several areas of congruence between business and residential respondents emerge from the survey findings. First, 86 percent of business respondents and almost 89 percent of residential respondents perceive a greater police presence compared to two years ago. This result supports the DDACTS goal of using high visibility traffic enforcement to reduce social harm as an effective initiative in Shawnee. A second area of agreement between the two surveys concerns perceived quality of life in Shawnee: 73.3 percent of business respondents and 74.6 percent of residential respondents who were at least somewhat aware of DDACTS state the quality of life in the 75th Street corridor had improved or very much improved over the past two years. A third matter of concordance between the two surveys

involves the quality of relationships with the police. Nearly 93 percent of business respondents and 82.9 percent of residential respondents stated that they had at least a good relationship with the police. Similarly, a fourth point of accord exists between the two surveys on officer behavior and attitude: 69.7 percent of business respondents and 69.5 percent of residential respondents rate the attitude and behavior of the officer as good, very good or excellent.

There are also several examples where the survey findings lack congruence. For example, 81.3 percent of residential respondents observed an increase in traffic stops over the past two years; conversely, almost 52 percent of business respondents reported that they had observed an increase in traffic stops over the past two years. This is not surprising given that business may not reside in the 75th Street corridor, thus they may not drive in the area as frequently as residents. Similarly, differential findings on concern about traffic violations and crashes were found in the survey findings. Specifically, business respondents are not as concerned as about traffic violations and crashes as residential respondents: 35.7 percent of business respondents stated that they are concerned or very concerned with traffic-related problems versus 59.6 percent of residential respondents.

Concern about crime also yields disparate findings: business respondents are more concerned about crime; 83.9 percent stated they are concerned or very concerned about crime compared to 67.5 percent of residential respondents. This finding may be explained by the exposure to strangers which is inherent in retail business, thus increasing the likelihood of business victimization.

There are two areas of moderate discord between the two surveys regarding operational police strategies. Over 80 percent of business respondents rated high-visibility traffic enforcement as effective or very effective, whereas 71.7 percent of residential respondents rated high-visibility traffic

enforcement as effective or very effective. The other area of difference was with the rated effectiveness of bicycle patrol. Just over 25 percent of business respondents rated bicycle patrols as effective or very effective, versus 42.5 percent of residential respondents

Summary

Overall, the findings reveal that high visibility traffic stops have been noticed by those who live in the area and many of them perceive that it has improved the quality of life as well. Moreover, the findings show that the relationship between the community and the police is solid, making efforts such as DDACTS, which depend heavily on public support, more likely to be effective and sustainable. However, more should be done to educate businesses and those living in the area on the DDACTS policing strategy and benefits of using data to focus police resources. A casual observer may interpret the higher police presence as being directed at a certain population rather than the location which experiences disproportionately higher crime and traffic crashes.

The disparate concern over crime and crashes between the business respondents and the community respondents provides valuable insight regarding their respective concerns and will assist the police department in points of emphasis when providing education to them.

Data Analysis: Methodology and Findings

The primary source for crime and collision report data used in this analysis is the police records management system (PRMS). This computer based reporting software was developed by the City of Shawnee and has been used for all reports for more than a decade. It is compliant with the Kansas Incident Based Reporting System (KIBRS). In order to capture and analyze the data from PRMS, the

Crime Analyst utilizes a software product known as ATAC Workstation.²¹ This software is used to extract, clean, and filter the report data for analysis.

The data source for officer activities and time spent in the DDACTS zone was another tracking database created by the City of Shawnee called Strategic and Tactical Operations to Reduce Misconduct (STORM). This database is available to officers through their in-car computers. When officers are working in the DDACTS zone, they log the time they begin their targeted patrol in the area and they log the time when they have finished. The officers also note the number of contacts and the disposition (arrest, citation, warning, or field interview) of each while working in the area.

The target zone was selected by the Crime Analysis Unit because it is an area where crime and traffic accident hot spots overlap. The location of the target zone is within patrol district two and is referred to within the department as the “75th Street Corridor” as 75th Street is the main traffic way between Switzer Road and Quivira Road at the southern end of the city. The entire target zone is bounded on the north by 71st Street and by our city border to the south and by Switzer and Quivira on the east and west respectively. The area encompassing the target zone is 0.8 square miles, and represents 2 percent of the area of Shawnee. The current resident population is 5004, which is approximately 8 percent of the total population of the city. The control zone includes the area between Switzer and Quivira Roads on the east and west respectively and between Johnson Drive to the north and 67th Street to the south. Shawnee Mission Parkway, which bisects the area, is a major traffic way through the area. The area encompassing the control zone is one square mile and represents 2.3 percent of the area of Shawnee. The current resident population of this area is 3732

²¹ Automated Tactical Analysis of Crime (ATAC) Workstation is a proprietary software product of BAIR Analytics.

which is approximately 6 percent of the total population of the city. Table 2 shows comparison data for, area, population, land use, target crimes, and collisions.

Table 2. Data comparison between the 75th Street Corridor (Target Area) and the Control Zone.

	75 th St.	% of City Total	Control Zone	% of City Total
Area	.88 Sq. Mi.	2.05%	1.0 Sq. Mi.	2.3%
Population Estimate Current	5,004	7.73%	3,732	5.76%

Land Use Categories		% of 75 th St. Corridor		% of Control Zone
Single Family	610	23%	775	40%
Duplex	162	6%	70	4%
Multi-Family Units	1825	68%	1009	53%
Business Licenses	104	4%	64	3%

		% of City		% of City
Total Target Crime-Pretest 3 yr. avg.	97	38.4%	70	27.7%
Total Collisions-Pretest 3 yr. avg.	104.67	14.8%	161.33	22.88%

Data Analysis: Pre and Post Comparison of Means with Two Groups

In order to examine the effects of the DDACTS initiative on target crimes (vehicle burglary, vehicle theft, robbery, and the total of those target crimes) and traffic collisions (collisions with injuries, collisions without injuries, and total collisions) in the target zone along 75th Street in Shawnee, we use a pre and post-test comparison of means with two comparison groups. Adding control or comparison groups reduces the threat to internal validity posed by other possible sources of change in target crimes and collisions.²² The pretest consists of three years of target crimes and collision data

²² *History* is the threat to internal validity which is attenuated by the use of comparison groups.

prior to the implementation of DDACTS in the treatment and target zone on July 6, 2010, in the control zone along Shawnee Mission Parkway, and for the remainder of Shawnee (areas not included in either the target zone or control area) as a second area of comparison. The posttest is composed of target crimes and collision data for the subsequent three years in the aforementioned areas.²³ In addition, data for enforcement activity in the target zone was collected; this information consists of arrests, citations, written warnings, field interview cards (FICs), total hours, and total contacts.

Table 3 shows the findings for target crimes and collisions in the target zone along 75th Street. There was a statistically significant ($p < .05$) reduction in total target crimes (down 39.52 percent). The largest reduction in target crimes occurred with robbery (down 70.37 percent). Although the reduction in robbery is not statistically significant at the .05 level, partially due to the small number of robberies in Shawnee, it is statistically significant at the lower threshold found at the .10 level. Vehicle burglary (down 32.86 percent) and vehicle theft (down 40.32 percent) were also reduced in the DDACTS zone. Similarly, all three categories of collisions were reduced by nearly 25 percent in the target zone following implementation. The reductions in crashes without injuries and total crashes are statistically significant ($p < .10$).

²³ *Maturation* as a threat to internal validity is controlled for by examining multiple time points.

Table 3. Target Crimes and Collisions in DDACTS Zone: Pre- and Post-DDACTS

Pre: 7/6/07 - 7/5/2010	Pre DDACTS						Post DDACTS						P-value	% Change
Post: 7/6/2010 - 7/5/13	-3	-2	-1	Avg	SD	Total	1	2	3	Avg	SD	Total		
Auto Burglary	43	30	67	46.67	18.77	140	32	40	22	31.33	9.02	94	0.2712	-32.86%
Auto Theft	54	37	33	41.33	11.15	124	16	27	31	24.67	7.77	74	0.1009	-40.32%
Robbery	7	6	14	9.00	4.36	27	5	2	1	2.67	2.08	8	0.0856	-70.37%
Collisions with Injuries	15	12	14	13.67	1.53	41	10	8	13	10.33	2.52	31	0.1214	-24.39%
Collisions without Injuries	106	78	89	91.00	14.11	273	75	68	64	69.00	5.57	207	0.0659	-24.18%
Total Target Crime	104	73	114	97.00	21.38	291	53	69	54	58.67	8.96	176	0.0457	-39.52%*
Total Collisions	121	90	103	104.67	15.57	314	85	76	77	79.33	4.93	238	0.0548	-24.20%

* = p-value < .05

Findings for target crimes and collisions in the control zone along Shawnee Mission Parkway are shown in Table 4. It is notable that, unlike the DDACTS zone, there are no statistically significant reductions in target crimes or collisions at any conventional threshold of significance. Moreover, collisions with injuries (42.86 percent) and vehicle burglaries (0.90 percent) increased in the control area over the three years following implementation of the DDACTS initiative. The largest reductions in the control zone are for robbery (down 41.18 percent) and collisions without injuries (down 20.92 percent). More modest reductions in the control zone are found for vehicle theft (down 8.54 percent), total target crime (down 6.19), and total collisions (down 14.46 percent).

Table 4. Target Crimes and Collisions in Control Zone: Pre- and Post-DDACTS

Pre: 7/6/07 - 7/5/2010	Pre DDACTS						Post DDACTS						P-value	% Change
Post: 7/6/2010 - 7/5/13	-3	-2	-1	Avg	SD	Total	1	2	3	Avg	SD	Total		
Auto Burglary	34	38	39	37.00	2.65	111	41	45	26	37.33	10.02	112	0.9582	0.90%
Auto Theft	42	14	26	27.33	14.05	82	19	36	20	25.00	9.54	75	0.8236	-8.54%
Robbery	4	6	7	5.67	1.53	17	2	3	5	3.33	1.53	10	0.1347	-41.18%
Collisions with Injuries	25	15	9	16.33	8.08	49	21	23	26	23.33	2.52	70	0.2254	42.86%
Collisions without Injuries	17 4	13 7	12 4	145.0 0	25.94	435	10 0	11 6	12 8	114.6 7	14.05	344	0.1495	-20.92%
Total Target Crime	80	58	72	70.00	11.14	210	62	84	51	65.67	16.80	197	0.7285	-6.19%
Total Collisions	19 9	15 2	13 3	161.3 3	33.98	484	12 1	13 9	15 4	138.0 0	16.52	414	0.3450	-14.46%

* = p-value < .05

For additional comparison, we also examined data for target crimes and collisions for the rest of Shawnee (see Table 5). Reductions in crashes without injuries (down 17.90 percent) and total crashes (down 16.57 percent) in the rest of Shawnee were statistically significant ($p < .05$); however, with the exception of a modest abatement in crashes with injuries (down 7.22 percent), all other categories of target crimes and collisions reveal increases over the period of the posttest. Robbery had the largest increase (up 65 percent), with more reserved increases in vehicle burglary (up 2.33 percent), vehicle theft (up 4.07 percent), and total target crime (up 4.49 percent).

Table 5. Target Crimes and Collisions in Rest of Shawnee: Pre- and Post-DDACTS

Pre: 7/6/07 - 7/5/2010	Pre DDACTS						Post DDACTS						P-value	% Change
Post: 7/6/2010 - 7/5/13	-3	-2	-1	Avg	SD	Total	1	2	3	Avg	SD	Total		
Auto Burglary	153	185	178	172.00	16.82	516	179	163	186	176.00	11.79	528	0.7529	2.33%
Auto Theft	103	65	53	73.67	26.10	221	59	76	95	76.67	18.01	230	0.8778	4.07%
Robbery	6	7	7	6.67	0.58	20	9	8	16	11.00	4.36	33	0.1630	65.00%
Collisions with Injuries	101	56	106	87.67	27.54	263	70	86	88	81.33	9.87	244	0.7267	-7.22%
Collisions without Injuries	658	611	586	618.33	36.56	1855	553	462	508	507.67	45.50	1523	0.0304	-17.90%*
Total Target Crime	262	257	238	252.33	12.66	757	247	247	297	263.67	28.87	791	0.5672	4.49%
Total Collisions	759	667	692	706.00	47.57	2118	623	548	596	589.00	37.99	1767	0.0291	-16.57%*

* = p-value < .05

The target zone, compared to the control area and the rest of Shawnee, experienced greater reductions in every category of target crimes and traffic collisions except collisions with injuries (see Table 5). These findings support the crime reducing and traffic safety aims of DDACTS.

Table 6. Summary of Change in DDACTS Zone Versus Control and Rest of Shawnee

Pre: 7/6/07 - 7/5/2010	% Change in DDACTS	% Change Control	% Change Rest of Shawnee
Post: 7/6/2010 - 7/5/13			
Auto Burglary	-32.86%	0.90%	2.33%
Auto Theft	-40.32%	-8.54%	4.07%
Robbery	-70.37%	-41.18%	65.00%
Collisions with Injuries	-24.39%	42.86%	-7.22%
Collisions w/o Injuries	-24.18%	-20.92%	-17.90%*
Total Crime	-39.52%*	-6.19%	4.49%
Total Collisions	-24.20%	-14.46%	-16.57%*

* = p-value < .05

In order to examine the impact of law enforcement activities in the DDACTS target zone on the reductions in target crimes and collisions, correlation coefficients²⁴ between the intensity of enforcement activities with target crimes and collisions were analyzed (see Table 7). Overall, enforcement activities appear to have the strongest effect on collisions. For example, in the third year of the DDACTS initiative, there was a statistically significant reduction in collisions due to the intensity of total contacts ($r=-0.60$) and warnings ($r=-0.82$). Similarly, there was a statistically significant

²⁴ For this part of the analysis, Pearson correlation coefficients (r) were calculated. A Pearson correlation coefficient is a bivariate (between two variables) measure of association. A Pearson correlation coefficient provides information about the *strength* and *direction* of a bivariate relationship. The strength of a bivariate relationship is determined by the size of the absolute value of a coefficient. The closer a coefficient is to 1, the stronger the bivariate relationship. The direction of a bivariate relationship is indicated by the sign of the coefficient. A positive coefficient indicates that the two variables are co-varying in the same direction; conversely, a negative coefficient indicates that the variables are changing in opposite directions.

reduction in collisions due to the intensity of citations in Year 1 ($r=-0.60$) and for the total three-year posttest ($r=-0.33$).

Although there is an indisputable relationship between the intensity of enforcement activities and the reductions in collisions, there are no statistically significant correlations between the intensity of enforcement and the reductions in crime. Evidently, a certain level of visible enforcement in the area was suitable to discourage potential offenders, and additional enforcement does not have any additional effect on target crimes. Conversely, the effect of enforcement activities on collisions is clearly linear; enhanced enforcement results in fewer collisions. As the Koper Curve Theory suggests, a minimum amount of high visibility police presence in a hotspot location is necessary to effect a reduction in crime (Koper 1995). In addition to simple police presence, Koper found that stops lasting between 11-15 minutes had the greatest residual effect on crime and disorder and that stops longer than 15 minutes in a hotspot do not necessarily equate to greater effects. Our correlations seem to bear this out. Shawnee officers were given a broad goal of a minimum of two hours per shift (8 hours) to be spent on High Visibility Traffic Enforcement (HVTE). They were given no direction as to how the two hours should be divided. That being said, officers did not spend two hours at a time conducting HVTE, but instead as a series of shorter duration periods which could range from a few minutes to over an hour. Officers averaged just over two stops per hour during these enforcement times. Further study of the data would be required to determine the precise dosage which had the greatest effect on the target crimes; however, the goal of this intervention was not to determine how little time would have the greatest effect, the goal was to have a very visible presence through conducting stops in the target zone. Additional study may also be warranted regarding the strong negative relationship between increased time and increased reductions in collisions.

Table 7. Pearson Correlations Coefficients and t-Values for Enforcement Activity with Total Target Crimes and Collisions

Variable	Total Target Crimes				Collisions			
	Year 1	Year 2	Year 3	Total	Year 1	Year 2	Year 3	Total
Total Hours	0.36	0.10	-0.07	0.10	-0.31	0.17	-0.49	-0.21
Total Contacts	0.32	-0.09	0.03	0.06	-0.37	-0.01	-0.60*	-0.27
Arrests	0.49	-0.45	0.47	0.15	-0.17	-0.01	-0.28	-0.16
Citations	0.51	-0.04	0.46	0.23	-0.60*	0.01	-0.36	-0.33*
Warnings	0.09	0.04	0.16	0.04	-0.10	-0.03	-0.82*	-0.24
FICs	0.07	0.10	-0.44	-0.09	0.00	0.08	-0.33	0.02

* = p-value < .05

Displacement and Diffusion of Benefits

Frequently, critics of crime prevention efforts dismiss the positive findings of these initiatives by pointing out the presence of crime displacement or the movement of a crime problem from one location to another. However, several criminologists have suggested that concern with crime displacement is exaggerated (Eck 1998, Ratcliffe 2002) and that a more likely outcome of most crime prevention efforts is a diffusion of benefits to the wider community (Ratcliffe and Makkai 2004). In the present study, several participants in the focus group discussions expressed their concern that crime in the DDACTS zone would be displaced to Lenexa, KS a community bordering Shawnee. Following the four-step procedure suggested by

Bowers and Johnson (2003), we examine for the presence of displacement of target crimes, and for possible diffusion of benefits, to Lenexa²⁵.

The starting point suggested by Bowers and Johnson (2003) is to calculate the gross effect (GE) of the initiative, which in this case is DDACTS. In order to calculate the Gross Effect of DDACTS, the frequency of each target crime (and total target crimes) after the implementation of DDACTS in the target zone is subtracted from the frequency prior to implementation:

$$\text{Gross Effect (GE): } R_b - R_a$$

where R_b is the frequency of crimes in the target zone prior to the implementation of DDACTS and R_a is the frequency of crimes in the target zone after the implementation of DDACTS. Table 8 summarizes the Gross Effect of the DDACTS initiative on target crimes in the DDACTS zone. The largest Gross Effect of DDACTS was on robbery, followed by vehicle theft, total target crimes, and vehicle theft respectively.

Table 8. Gross Effect of DDACTS on Target Crime

Target Crime	Frequency Prior to Treatment (b)	Frequency After Treatment (a)	Gross Effect ($R_b - R_a$)
Vehicle Burglary	140	94	46 (-32.86%)
Vehicle Theft	124	74	50 (-40.32%)
Robbery	27	8	19 (-70.37%)
Total Target Crimes	291	176	115 (-39.52)

The next step is to determine whether DDACTS was the likely cause of lower crimes levels observed in the posttest. This is accomplished by calculating the Net Effect (NE) of DDACTS:

$$\text{Net Effect (NE) = } R_b / C_b - R_a / C_a$$

²⁵ The current Lenexa Chief of Police, Tom Hongslo, was the patrol commander during the time frame in which the data was collected. Chief Hongslo told us the Lenexa Police Department conducted no special enforcement or interventions in the displacement zone during the time frame of our study.

where R_b is the frequency of crimes in the target zone prior to the implementation of DDACTS, R_a is the frequency of crimes in the target zone after the implementation of DDACTS, C_b is the frequency of crimes in the control zone prior to the implementation of DDACTS, and C_a is the frequency of crimes in the target zone after the implementation of DDACTS. Table 7 shows the Net Effects of DDACTS on target crimes. According to Bowers and Johnson (2003), a positive Net Effect indicates evidence the initiative was responsible for the reduction in crime. As Table 9 reveals, the Net Effect for all target crimes and total target crimes is positive, suggesting that the DDACTS initiative is the cause for the observed reductions in target crimes.

Table 9. Net Effect of DDACTS on Target Crimes

Target Crime	R_b / C_b	R_a / C_a	Net Effect
Vehicle Burglary	1.26	0.84	0.42
Vehicle Theft	1.51	0.99	0.52
Robbery	1.59	0.80	0.79
Total Target Crimes	1.39	0.89	0.50

The third step in the procedure to examine the presence of displacement and diffusion of benefits is to calculate the Weighted Displacement Quotient for target crimes:

Weighted Displacement Quotient (WDQ) =

$$\frac{D_a / C_a - D_b / C_b}{R_a / C_a - R_b / C_b}$$

where R_b is the frequency of crimes in the target zone prior to the implementation of DDACTS, R_a is the frequency of crimes in the target zone after the implementation of DDACTS, C_b is the frequency of crimes in the control zone prior to the implementation of DDACTS, C_a is the frequency of crimes in the control zone after the implementation of DDACTS, D_b is the frequency of crimes in Lenexa prior to the implementation of

the DDACTS initiative, and D_a is the frequency of crimes Lenexa after the implementation of DDACTS. Table 10 shows the weighted displacement quotients of the target crimes. For automobile theft, the negative numerator of the WDQ is consistent with diffusion of benefits due to DDACTS; moreover, the overall positive WDQ is also consistent with diffusion of benefits. Similarly, the negative numerator of the WDQ for total target crimes is consistent with diffusion of benefits. The overall positive coefficient for the WDQ for total target crimes is also consistent with diffusion of benefits. Conversely, the positive numerators of the WDQs for vehicle burglary and robbery are consistent with displacement. The overall negative coefficients for both target crimes is also consistent with displacement, but are both close to zero (a WDQ of zero indicates no displacement or diffusion of benefits); hence no conclusion can be made that vehicle burglaries or robberies are being displaced to Lenexa due to the DDACTS initiative in Shawnee.

Table 10. Weighted Displacement Quotients for Target Crimes

Target Crime	$D_a / C_a - D_b / C_b$	$R_a / C_a - R_b / C_b$	WDQ
Vehicle Burglary	.02	-0.42	-0.05
Vehicle Theft	-0.09	-0.52	0.17
Robbery	0.01	-0.79	-0.01
Total Target Crimes	-0.01	-0.5	0.02

The fourth and final step is to calculate the Total Net Effect of the DDACTS initiative, taking into the presence displacement and diffusion:

Total Net Effect (TNE) =

$$[R_b C_a / C_b - R_a] + [D_b C_a / C_b - D_a]$$

The Total Net Effect of robbery was not calculated because the Weighted Displacement Quotient (WDQ) for robbery approaches zero (see Bowers and Johnson 2003). The analysis summarized in Table 11 indicates

additional evidence of the diffused benefits of the DDACTS initiative in Shawnee. The positive second terms for vehicle theft and total target crimes indicate the presence of diffusion of benefits. Moreover, the positive Total Net Effects for vehicle theft and total target crimes provide additional evidence that DDACTS was effective at lowering total target crimes, after taking into the account the confounding effects of displacement and diffusion. Although the negative second term for vehicle burglary is consistent with displacement, the result is not strong enough to warrant any changes in policy. The positive overall result (TNE=44) for vehicle burglary shows that DDACTS was effective at lowering total target crimes, after taking into the confounding effects of diffusion and displacement.

Table 11. Total Net Effect of DDACTS on Target Crimes

Target Crime	$R_b C_a/C_b - R_a$	$D_b C_a/C_b - D_a$	TNE
Vehicle Burglary*	46	-2.00	44.00
Vehicle Theft	38.84	6.33	45.17
Robbery*	N/A	N/A	N/A
Total Target Crimes	97.54	2.16	99.70

* = Following Bowers and Johnson (2003), total net effect is not calculated when the Weighted Displacement Quotient (WDQ) is zero or near zero. The WDQ for robbery is -0.01.

Summary

A pre and post-test comparison of means with two comparison groups was utilized to examine the effects of DDACTS on crime vehicle burglary, vehicle theft, robbery, and collisions. The findings reveal a reduction in crime and collisions in the 3-year post-test period in the DDACTS zone is greater for all target crimes and categories of collisions:

- Vehicle Burglary was reduced by 32.86%
- Vehicle Thefts was reduced by 40.32%
- Robbery was reduced by 70.37%

- Collisions with injuries were reduced by 24.39%
- Collisions without injuries were reduced by 24.18%
- Total Target Crime were reduced by 39.52%
- Total Collisions were reduced by 24.20%

Additional analyses were conducted to test for crime displacement and diffusion of benefits. The findings of these additional analyses revealed no strong evidence of displaced target crimes due to DDACTS. However, there is statistical evidence of the diffused benefits of the DDACTS initiative on vehicle theft and total target crimes; that is, the crime reducing effect of DDACTS extends beyond the DDACTS zone for these crime categories.

Conclusion and Recommendations

It is evident from the findings of this study that the DDACTS initiative has been successfully implemented by the Shawnee Police Department, and has been shown statistically to be an effective means of reducing certain crime types and crashes in locations where high numbers of crimes and crashes overlap (crime and crash hotspots). It also appears the benefits of DDACTS may extend beyond the target location to areas in close proximity, and there is no strong evidence that DDACTS causes significant displacement of crime to similar locations. Moreover, there is a plethora of evidence for the sustainability of the initiative. This conclusion is not only based on statistical evidence of reduced crime and crashes sustained over three years, but also on focus group data collected from officers across the department and from survey data collected from businesses and residents in the target zone. For example, an analysis of officer focus groups revealed a shift in culture from traditional, reactive policing to the data-driven, proactive framework of DDACTS. The level of officer “buy-in” developing within the Shawnee Police Department, especially with the divisions of the department

most closely associated with the DDACTS initiative, enhances the chances of a sustainable initiative. Similarly, a majority of community respondents who are aware of the initiative believe that DDACTS has improved the quality of life in Shawnee. Likewise, they perceive the relationship they have with the Shawnee Police Department as very good or excellent, and there is community support for targeted, high-visibility enforcement.

Based on the findings of this study, we have several recommendations for the Shawnee Police Department in their ongoing policies regarding the DDACTS initiative. First, we recommend ongoing efforts to promote proactive, data-driven, place-based policing within the department and the community. Specifically, efforts should focus on those areas of the department which appear the most reluctant to accept the change to DDACTS: investigations and dispatch. Similarly, we recommend ongoing efforts to promote the DDACTS initiative to the community, as many residents and businesses claim to be unaware of DDACTS.

Second, we recommend that the department continue to monitor the overlap between target crime and collision hot spots. Specifically, we recommend the department explore Risk Terrain Modeling (Caplan and Kennedy 2010) as a strategy to forecast emerging areas of concentrated crime and collision problems in the city based on the potential aggravating effects of convenience stores, fast-food restaurants, bars, and other facilities that lower informal social control. This is especially important as new commercial and residential development occurs within the city. The department's Crime Analysis Unit currently has the personnel and computer equipment to effectively utilize this cutting-edge technology.

Finally, we strongly recommend that the work group discussion with commanders conducted by Deputy Chief Rob Moser be continued when adjustments to the operational plan are deemed necessary. The work groups have resulted in operational adjustments to the implementation of DDACTS, with the direct input from officers of all ranks. The use of the work group meetings in this manner presents an example of what Willis (2013) describes as the “marriage between science and craft”; in the work group meetings conducted by Deputy Chief Moser, data from research and crime analysis were considered along with field experience when formulating the new operational plan. In addition, based on the observation of these work group meetings, we believe these discussions have encouraged a “shared reality” (Blaber, 2008) of this policing philosophy and had a positive effect on promoting the objectives of the DDACTS initiative to officers in the field.²⁶ Based on what we learned in the work group meetings, we contend that there has been an improvement in officer morale, as it relates to DDACTS, in part due to the improved communication between command staff and the rest of the department. While not appropriate in all circumstances, we believe this model can be utilized when introducing and implementing future initiatives.

²⁶ Blaber (2008) says this about shared reality; “I was reminded of how important it is to see the world around us through the minds and eyes of others. To understand how others interpret reality, we have to interact with them, and we have to share information. Sharing information creates a shared reality. Not only does it make the whole wiser than the individual parts; it also serves as an effective system of checks and balances to correct misinterpretations by individuals that don’t have all the pieces to the puzzle.”

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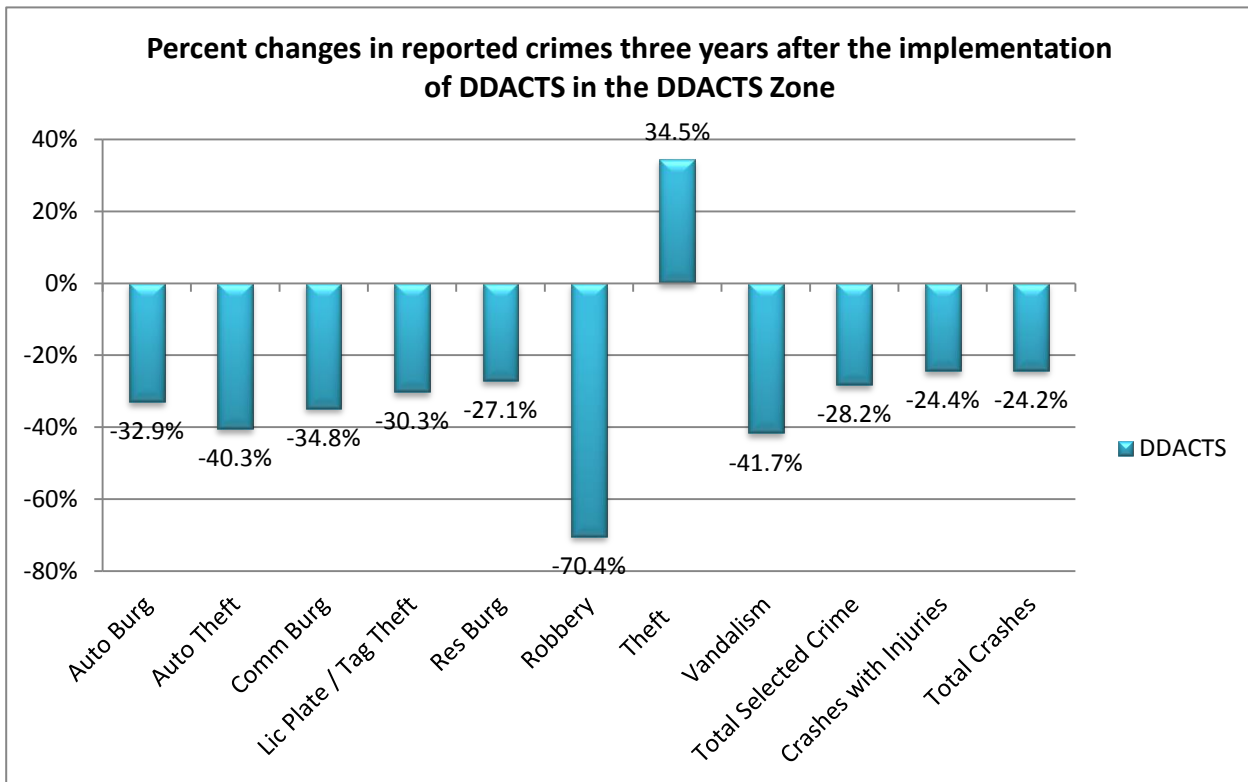
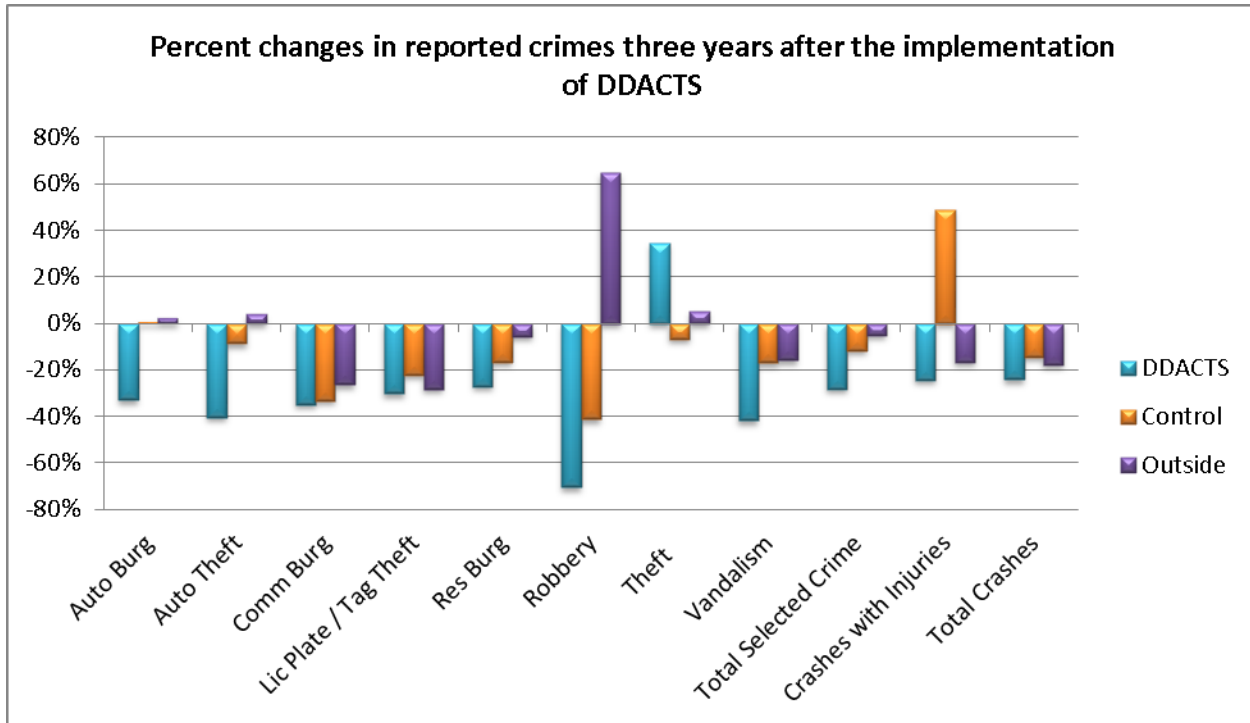
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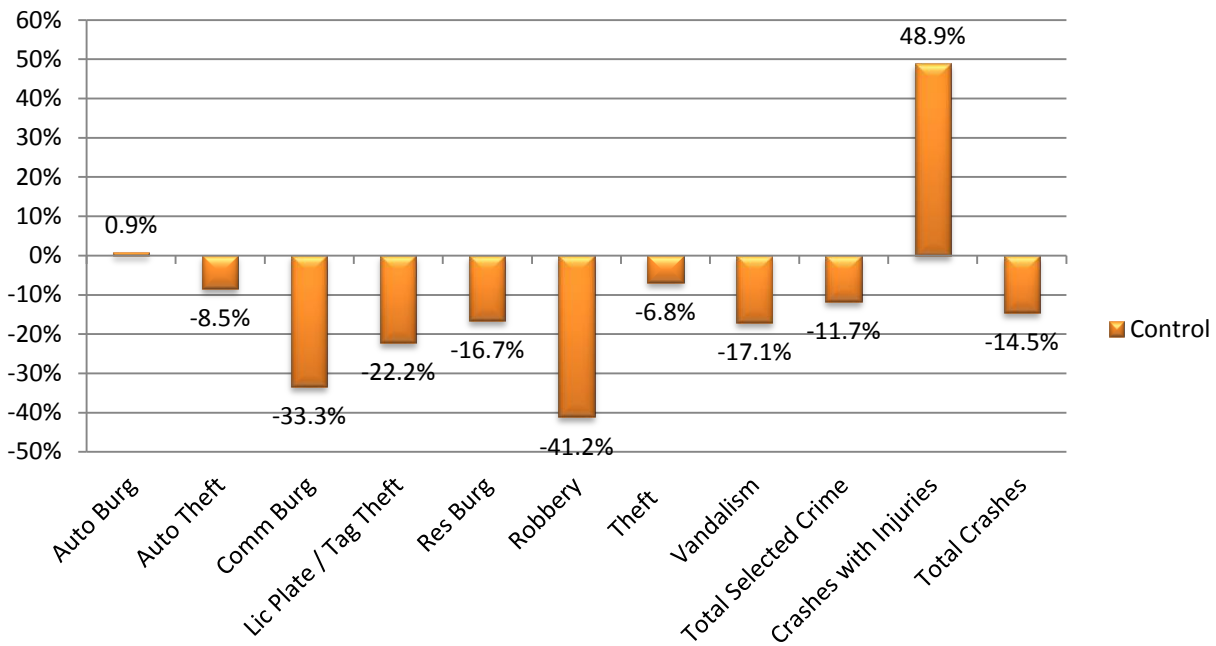
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Appendix



Percent changes in reported crimes in the Control Zone three years after the implementation of DDACTS.



Percent changes in reported crimes in the rest of the City three years after the implementation of DDACTS

