

5-2010

## Assessing the impact of police order maintenance units on crime: An application of the Broken Windows Hypothesis

Steven Andrew Pace  
*University of Nevada, Las Vegas*

Follow this and additional works at: <https://digitalscholarship.unlv.edu/thesesdissertations>



Part of the [Criminology Commons](#), [Criminology and Criminal Justice Commons](#), and the [Law Enforcement and Corrections Commons](#)

---

### Repository Citation

Pace, Steven Andrew, "Assessing the impact of police order maintenance units on crime: An application of the Broken Windows Hypothesis" (2010). *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 372.  
<http://dx.doi.org/10.34917/1607001>

This Thesis is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Thesis in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Thesis has been accepted for inclusion in UNLV Theses, Dissertations, Professional Papers, and Capstones by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact [digitalscholarship@unlv.edu](mailto:digitalscholarship@unlv.edu).

ASSESSING THE IMPACT OF POLICE ORDER MAINTENANCE UNITS ON  
CRIME: AN APPLICATION OF THE BROKEN WINDOWS HYPOTHESIS

by

Steven Andrew Pace  
Bachelors of Arts  
University of Nevada, Las Vegas  
2007

A thesis submitted in partial fulfillment of  
the requirement for the

**Master of Arts in Criminal Justice  
Department of Criminal Justice  
Greenspun College of Urban Affairs**

**Graduate College  
University of Nevada, Las Vegas  
May 2010**

Copyright by Steven Andrew Pace 2010  
All Rights Reserved



## THE GRADUATE COLLEGE

We recommend the thesis prepared under our supervision by

**Steven Andrew Pace**

entitled

### **Assessing the Impact of Police Order Maintenance Units on Crime: An Application of the Broken Windows Hypothesis**

be accepted in partial fulfillment of the requirements for the degree of

### **Master of Arts in Criminal Justice**

William H. Sousa, Committee Chair

Tamara Madensen, Committee Co-chair

Alexis Kennedy, Committee Member

Anna Lukemeyer, Graduate Faculty Representative

Ronald Smith, Ph. D., Vice President for Research and Graduate Studies  
and Dean of the Graduate College

**May 2010**

## ABSTRACT

### **Assessing the Impact of Police Order Maintenance Units on Crime: An Application of the Broken Windows Hypothesis**

By

Steven Andrew Pace

Dr. William H. Sousa, Examination Committee Chair  
Assistant Professor of Criminal Justice  
University of Nevada, Las Vegas

High levels of violent crime and disorder area concentrated within certain neighborhoods of northwest Las Vegas, Nevada. In April 2009 a police order-maintenance unit designed to reduce minor and major offenses was initiated in these areas. Drawing on the Broken Windows Hypothesis, the unit combined detailed crime analysis with extensive police efforts to address specific community problems. This paper discusses the implementation and impact of the police order-maintenance unit during its operation.

## ACKNOWLEDGEMENTS

I would first like to thank the Las Vegas Metropolitan Police Department for allowing this project to occur. Also I would like to pay special thanks to Captain Csaba Maczala, Lieutenant Karen Francis, Lieutenant Dan McGrath, and Patrick Baldwin for all their support during the project. Additionally, I would like to thank Dr. Sousa for mentoring me through this process and supporting this research. Finally I would like to thank Dr. Tamara Madensen, Dr. Alexis Kennedy, and Dr. Anna Lukemeyer for all the time they dedicated in assisting towards the thesis. Finally, I would like to express my deepest appreciation to my fiancée, Ms. Amanda Benbow for all her support.

## TABLE OF CONTENTS

ABSTRACT .....	iii
ACKNOWLEDGMENTS .....	iv
LIST OF TABLES .....	vii
CHAPTER 1      INTRODUCTION .....	1
CHAPTER 2      LITERATURE REVIEW .....	6
Policing History .....	6
The Early Days of Policing .....	8
Road to Reform .....	10
Professional Crime Fighters .....	11
The Reform Strategy (Traditional Model) .....	13
Transition from Foot Patrol to Motorized Patrol .....	14
Transition to 911 Systems .....	15
Failure of Past Policing Strategies .....	15
Kansas City Preventative Patrol Experiment .....	17
Preventive Patrol .....	18
Directed Patrol .....	18
Proactive Patrol .....	19
Community Oriented Policing .....	19
Broken Windows .....	20
Paying Attention to Disorder .....	22
Order Maintenance .....	23
Zero Tolerance .....	23
Hot Spots .....	24
CHAPTER 3      METHODOLOGY .....	26
Intervention/Hypothesis .....	26
Sampling .....	28
Design .....	30
Data and Variables .....	33
Independent Variable .....	33
Dependent Variable .....	34
Analytical Plan .....	35
CHAPTER 4      EVALUATIONS AND FINDINGS .....	38
Project Findings .....	38
Serious Offenses in the Target Area .....	39
Minor Offenses in the Target Area .....	42
Self-Initiated Field Activity .....	45

CHAPTER 5	DISCUSSION .....	49
	Limitations .....	52
	Recommendations for Future Research .....	53
	Conclusion .....	53
APPENDIX I	LVMPD NWAC JURISDICTION MAP .....	55
APPENDIX II	LVMPD BAC JURISDICTION MAP .....	56
REFERENCES	.....	57
VITA	.....	60



## LIST OF TABLES

Table 1	Calls-for-service Data 2006 .....	29
Table 2	Calls-for-service Data 2007 .....	29
Table 3	Time Periods.....	30
Table 4	Experimental and Control Area Demographics .....	32
Table 5	Self Initiated Field Activity Codes Defined .....	34
Table 6	Minor Crime Types Defined .....	35
Table 7	Self Initiated Field Activity Time 1 and 2 Mean Average per Day .....	40
Table 8	Self Initiated Field Activity Time 3 and 4 Mean Average per Day .....	41
Table 9	Self Initiated Field Activity Time 2 and 4 Mean Average per Day .....	42
Table 10	Minor Offenses Time 1 and 2 Mean Average per Day .....	43
Table 11	Minor Offenses Time 3 and 4 Mean Average per Day .....	44
Table 12	Minor Offenses Time 2 and 4 Mean Average per Day .....	45
Table 13	Serious Offenses Time 1 and 2 Mean Average per Day .....	46
Table 14	Serious Offenses Time 3 and 4 Mean Average per Day .....	47
Table 15	Serious Offenses Time 2 and 4 Mean Average per Day .....	48

## CHAPTER 1

### INTRODUCTION

Serious crimes such as homicide, shootings, robberies, stabbings, and other violent offenses are calls-for-service (CFS) found in many communities in the United States. These communities may also have problems with various incivilities such as graffiti, narcotics sales, prostitution, and vagrancy. When an area contains a high concentration of crime or police CFS, this area may be referred to as a hotspot or problem area (Braga 2001).

Police departments are tasked with developing practical strategies to reduce serious crime in areas that display a high volume or percentage of CFS. One problem police administrators face is anticipating where this concentration of crime will be and how best to deploy their resources effectively to deal with it (Ratcliffe, 2010). Because problem areas may consume a higher percentage of police officers handling reactive CFS, it could be argued that this takes time away from the officers' ability to conduct proactive contacts with citizens or actually "police" the neighborhoods that have more problems with serious offenses. While police departments often devote substantial resources to "fighting crime" and serious offenses, minor offenses are routinely overlooked and may not be given much priority.

The priorities that citizens place on crime are often not the same as police departments. A citizen's perception or fear of crime is very real to that person. One example could be a vagrant harassing an elderly woman at night on her way home as she

walks down a lonely sidewalk. Vagrancy may not seem too dangerous to the police, but to an elderly individual walking home at night this could be very threatening.

One theoretical (and practical) concept used in policing that is associated with proactive enforcement by paying special attention to minor offenses is the Broken Window Hypothesis (Wilson & Kelling, 1982). The theory argues that if minor incivilities or disorder are more closely paid attention to then the area will become less susceptible (or present fewer opportunities) to violent offenses because criminals will feel less comfortable operating in those areas. Also violent offenses will decrease because the community members of a neighborhood come to accept a certain level of informal social rules that are enforced. If informal social control by the community members is to be reestablished, then the issue of disorder must be examined. If not, the informal social control may breakdown and members of that neighborhood may withdraw from the community because they are fearful.

The theory also stresses the importance of strengthening contacts between police and citizens. If contact between police and citizens is strong then they may be able to work together to address the minor offenses as a means of dealing with potential future serious problems before they occur. While the Broken Windows Hypothesis is controversial, employing a number of officers specifically dedicated to conducting proactive enforcement in problem areas has been demonstrated to be effective in communities (Kelling & Sousa, 2001). The Broken Window Hypothesis will be discussed later in detail.

The aim of the strategy is to identify neighborhoods, public spaces, or places affected by a significant increase in disorder or serious crimes such as the ones discussed

above. Instead of officers simply responding to CFS in these areas as reactive entities, squads of specially trained police officers are specifically assigned to the hotspots to do proactive enforcement and order maintenance in the problem area. Normal CFS are still handled by the officers assigned to their respective beats however the order maintenance team may interact more with the citizens in the communities and get to know the problems indigenous to their area in an attempt to assist residents with re-establishing the informal social control as a means to deal with disorder and serious offenses.

Generally, these officers deploy to an area (hotspot) and conduct proactive policing in an attempt to reduce disorder and crime and lower the CFS in the hotspots. It is hoped that these officers will pay close attention to minor offenses so that the area will be less attractive for criminals to commit crimes. Also, by re-connecting with citizens, police may have the opportunity to learn about potential problems before they occur, thus, exercising a strategy of crime prevention rather than its reactive counterpart: crime fighting.

The current study examines a geographical target area within Las Vegas identified as a hotspot by the high volume of CFS and incidents reported, then assess the effectiveness of Broken Windows policing on reducing the number of minor and serious crimes in the hotspot. The intervention involves a Las Vegas Metropolitan Police Department (LVMPD) order maintenance team that conducts proactive policing by increasing interactions with citizens and enforcement activities in an area identified as a hotspot.

In this study, it is hypothesized that a specially designated squad of police officers who pay special attention to minor offenses and increase communication with citizens

will reduce both minor and major offenses in the target area. Secondly, and probably more importantly, this experiment looks at the reduction of CFS for major offenses in the experimental area. The ultimate objective in this study is to examine if there is a change in the targeted areas' CFS in minor and major crimes after the deployment of a police order maintenance team. This study will also attempt to support previous research on evaluating effective policing strategies. Kelling and Sousa (2001) posed the question: do police matter? This question and related research will be further examined in subsequent chapters. However, the question still looms: do police have any impact on crime? Kelling and Sousa point out that traditional criminologist will argue that police do not matter, and that the cause of crime is caused by various social conditions such as poverty and racism.

Chapter Two includes a discussion on the history of policing from the time that police were heavily influenced by politicians to when police began to view themselves as professional crime fighters. A discussion on the emerging police technologies such as the use of 911 systems and their impact on policing will be reviewed. Here, the paper looks at the transition from when police officers left the "beats" in communities to patrolling in motorized vehicles and rapidly responding to CFS. This then leads into a review of how American modern police are now organized, again describing the effects of 911 systems and police operations. Finally, Chapter Two examines the different aspects of proactive policing and the Broken Windows Hypothesis, which is the theory under examination in this study. Further contained in this section is a discussion of order maintenance, proactive policing styles, zero-tolerance and the application of Broken Windows Policing by the New York City Police Department (NYPD) in the mid 1990s. Chapter Three details how the order maintenance team was deployed to the target area and the methods

used in this study including a detailed description of the independent variable and outcome measures. In Chapter Four, a discussion and review of the findings from the study and potential policy implications will be examined. Finally, in Chapter Five, a discussion on potential future research projects and policing strategies will be examined, as well as some of the limitations of this study.

## CHAPTER 2

### LITERATURE REVIEW

When discussing Broken Windows Policing, much confusion has occurred as to exactly what it represents. Equating ideas such as zero-tolerance, saturation, and Community Oriented Policing are common in the current literature. Many of these issues appear to be interrelated and pieces of them may fit together within a theoretical standpoint. In the sections that follow, I discuss these terms and the differences between them. Before I do this however, I will briefly discuss the history of policing as it relates to the transition from early 20<sup>th</sup> century American Policing to the development of the Reform Strategy (Traditional Model), to the development of proactive policing concepts.

#### Policing History

Police administrators constantly face deploying a limited number of personnel to handle various problems within their respective jurisdictions. The general consensus is that it appears there are too few personnel for the amount of problems to be solved within a jurisdiction. In the current age of policing with 911 systems and crime mapping, the job of a police administrator is complicated and their ability to anticipate “where to deploy their resources” is not always clear (Ratcliffe, 2008). This may be due to the inherent nature of the American policing landscape, which is rooted in reactivity such as rapid response to CFS and generalized field investigations (Goldstein, 1979).

Much of today’s difficulties with managing resources can be traced to policing decisions in the 1940s and 1950s. With the transition of police officers conducting primarily foot patrols to operations in motorized vehicles during the 1950s, a disconnect between police and citizens occurred (Kelling & Moore, 1988). This transition - and its

subsequent impact on the policing profession - has been referred to as the Traditional Model of Policing or the Reform Strategy and take the stance of police as “crime fighters” (Goldstein, 1990).

As a result of this, it could be suggested that policing has moved away from a preventative model to a performance-oriented culture (Ratcliffe, 2008). This performance culture encourages police to go get the bad guy by making as many arrests and issuing as many citations as possible. Police administrators generally equate the number of arrest and citations made with the idea that this alone will reduce crime and disorder. Whether or not this is accurate remains questionable however this demonstrates the crime-fighting mentality of the performance oriented culture of policing.

In Goldstein’s (1979) work on Problem Oriented Policing, he points out that the Tradition Model stresses the following factors; increasing the size of the police agency, random patrol across all parts of the community, rapid response to call-for-service, and generalized field investigations. Eck and Maguire (2000) suggest that simply increasing the size of the police force does not necessarily have an effect on the overall crime rate. Police departments felt that implementing the strategy of randomized patrol would create the feeling to citizens that police were around more than they actually were (Kelling et al., 1974). This brings up an interesting point about increasing patrol levels. If there is empirical evidence that suggests increasing the amount of officers out on the streets on motorized patrol does not impact the crime rate, then what does (Kelling et al., 1974)? Additionally, do police even impact crime at all (Kelling & Sousa, 2001)?

It may be better to suggest that by placing police officers in the specific areas in need of elevated patrol might affect the overall crime rate. Sherman (1995) argued that



police may be more successful if their efforts were more focused in a specific area. This idea makes sense - if the majority of incident reporting originates from a specific geographic area, then instead of merely having a large department with officers spread thinly across the landscape, it might be advantageous to have a few extra patrol units specifically dedicated to working a problem area. If a large percentage of CFS are reported in this area and a patrol intervention had its intended effect then it may be likely that the overall CFS would drop at that location. Sherman, Gartin, and Buerger (1990) examined this closely in their research. What they discovered was that a small percentage of address and street intersections (3.3 %) generated approximately 50.4 percent of CFS in Minneapolis. We will examine this issue further when discussing some of the failures of the Reform Strategy.

### *The Early Era of Policing*

The term “law enforcement” is rather inaccurate. This term conveys the meaning that police are engaged in enforcing laws the majority of the time, when rather it could be argued that police spend most of their shift “policing” or settling disputes along with taking enforcement action (Sousa, 2010). The term policing conveys a more accurate picture of what police actually do on a daily basis. The meaning behind policing has changed over time and it could be argued that the modern American police culture equates the terms “policing” and “crime fighting” to mean the same thing. Sousa (2010) found when conducting field research with the New York City Police Department (NYPD) that officers routinely did not engage in “enforcing laws”. Rather police officers spent the majority of their time handling minor disputes and issuing verbal warnings. Formal enforcement action such as arrests and citations were rarely exercised.

In 1829, Sir Robert Peel organized the first major metropolitan police department in London, England. This department was different from previous policing agencies due to various reasons such as its size, organization, and mission. During this time, Peel believed that the first priority of a police department should be crime prevention. Keeping this in mind patrol officers would walk along “beats” within their jurisdictions. It could be assumed that during this time officers and citizens developed relationships, and responsibility of problems were shared between both parties. This may have been accomplished because the officers working the “beats” were engaged enough with the citizens that they understood the indigenous problems of the neighborhood and were able to provide some type of early intervention (crime prevention) before the problem became bigger. Therefore, instead of taking a reactive stance, a proactive preventative approach may have been adopted. Additionally, citizens may have felt more secure and feared crime less in their neighborhoods because of their relationship with police and the “informal rules” established in a community. Due to the enforcement of such “informal rules” with the assistance of police it could be argued that citizens shared a stronger bond a shared commitment of problems within their neighborhood.

This idea is further supported by Ratcliffe (2008) who notes that the primary mission of public policing in London during the 19<sup>th</sup> century was crime prevention. Ratcliffe also makes reference to one of the second priorities of the police force during that time period: “detection and punishment of offenders”. Later on, this second priority would become the primary focus for modern policing (Ross, 2005). The move from a prevention based approach focusing on early crime prevention and problem solving eventually morphed into a reactive model used by several police departments today

(Weisburd & Eck 2004). There are three eras in American policing. These include the political, reform, and community oriented eras.

### *The Road to Reform*

During the 18<sup>th</sup> and 19<sup>th</sup> century, policing in general was intimately involved with the political process. This is a far cry from the way policing is organized and viewed today as independent and professional organizations (Kelling & Moore, 1988). Kelling & Moore attempt to illustrate in their essay that a series of decisions led the direction of policing from a primarily crime preventative approach to a reactive professionally autonomous organization that provided rapid response to serious crime. One of the benefits of the change was that police organization would no longer be susceptible to political influence. At first, however, political influence over policing created what is commonly referred to as the “political era” of American policing.

During the early days of American policing, politicians wielded power and authority. Early police organizations aligned themselves closely with political leaders as a means to assert their legitimacy. Because of this close relationship between the police and politicians; often times positions of employment were based on loyalties to certain political leaders (Kelling & Moore, 1988). As a consequence, police routinely publicly supported certain political leaders. This was one of several broad functions that police agencies conducted during the turn of the 20<sup>th</sup> century. Other services that police provided were more social services related, like temporary housing for immigrants, running food banks, and problem solving in local neighborhoods. During this time, police maintained a close relationship with the communities they served (Kelling & Moore, 1988). This may have been a consequence of the decentralization of policing

commands. The majority of the problems in any community were solved by the local “beat” officer for that area. The officer on this beat worked the area and as a result understood the problems unique to that area. As a result of this relationship, police and citizens were better able to solve problems and manage disorder before it escalated. Kelling and Moore (1988) point out that these early policing strategies were beneficial in the respects that police and citizens shared the responsibility of local problems and police offered important social services. They also illustrate that this era had its weakness as well. Due to political influence and issues with supervision, corruption became commonplace. Police often were the enforcement arm of the politicians they served. Brutality and illegal activity within the police ranks were tolerated and common.

#### *Professional Crime Fighters*

Corruption and issues surrounding control of police by political leaders had become a bigger issue during the early 20<sup>th</sup> century. Efforts to reform the relationships between police, politicians, and citizens remained largely ignored until the early 1930s. During the 1930s, various early police leaders such as August Vollmer and J. Edgar Hoover were attempting to spread their vision of reform. This marks the beginning of the “Reform Era”. Key issues for this reform were eliminating political influence on policing matters and developing centralized control of personnel (Kelling & Moore, 1988). With this effort, it was hoped that police organizations would become professional autonomous agencies responsible for fighting crime. This led police to establish their own legitimacy as professional agencies that could address local crime issues without the authority of political leaders. The police based their authority and legitimacy on enforcing laws. This is the shift in policing where we can see the slow move towards crime fighting and drift

away from the connection police and citizens once had especially with the introduction of motorized patrol. Enforcing laws became the mechanism for police to assert their legitimacy and the connection between police and citizens began to diminish thus creating a reactive policing approach. Also during this era, focus on the “means” and not the “ends” were emphasized (Kelling & Moore, 1988). The means consisted of promoting the self-interest of the agency, i.e. formal training, better equipment, use of technology, and organizational management, rather than the ends (the quality of services provided by police) centralized control over personnel also marked part of this reform. Police argued that by increasing the effectiveness of the police organization (i.e. the means) would better enable police to respond to crime. As observed later, this became a problem because police began to lose important connections with citizens. Once these connections evaporated shared responsibility of neighborhood disorder problems now became the sole responsibility of the citizens because police were “too busy” handling serious felony crimes and putting the bad guy in jail.

Because the mission of police now was primarily to enforce laws, they began to move towards a management of crime philosophy where they were viewed as “law enforcement” entities with a narrow focus, and as a result, prevention of crime was no longer a priority. The mindset of police now was they were there to enforce the laws, and problem management was not their responsibility or it was viewed as a social service problem. With the acceptance of the new professional policing model, centralized control of personnel and record keeping of activities became important (Kelling & Moore, 1998). The primary mission of police was now to enforce laws and apprehend criminals. Only a hundred years before with the introduction of the London Metropolitan

Police Department was this new philosophy seen as the second priority with prevention of crime being the first. Now the order of priorities had been switched. This may have been a consequence of the various policing decisions that occurred during the early and mid 20<sup>th</sup> century.

### The Reform Strategy

From the 1930s to 1960s American policing was rapidly changing. Police no longer relied on local politicians to gain legitimacy. Now the focus of policing was to enforce laws and fight crime. During this era, several new strategies and technologies would become available to police. One strategy police began to utilize was having officers rapidly respond to CFS across a larger geographic area. The technology that aided police in accomplishing this task was removing officers from foot patrols to driving in motorized vehicle. This became known as “rapid response” to CFS and is a major component of the Reform Model of policing. Another focus in this era was the attempt by police to centralize their organization. Having a centralized chain of command and organization allowed police administrators to further gain legitimacy as an independent entity and distance their profession from any political influence. Another technology that was introduced in this era was the use of 911 systems. This would further impact the distance created between police and citizens because it further eliminated communication. Various problems have been associated with the reform model. One such problem is the belief that rapidly responding to CFS would allow to catch criminal in the act of committing a crime and as a consequence lower crime. There have been a few studies that have challenged this assumption. One study concluded that the rapid response component has had little impact on overall crime or even the chances of making

an arrest (Weisburd, 2004). Rapid response is reactive in nature and plays up the “crime fighting” mentality of American modern policing.

#### *Transition from Foot Patrols to Motorized Patrol*

As mentioned earlier, police officers were responsible for conducting foot patrols within their respective beats. It is plausible that while conducting their patrols on foot they routinely interacted with the local residents of that area. From this we may be able to imply that a bond or relationship formed which fostered communication of local problems. Because police understood the problems of an area, they could assist the residents in negotiating the rules of that neighborhood (Wilson & Kelling, 1982). With the invention of various technological advances and subsequent decisions in policing to make the field “more professional” new technologies were introduced to facilitate this emerging change, which assisted in the movement towards “reactive response” (Kelling & Moore, 1988).

One such new tool for police to utilize was motorized patrol. By removing police officers from foot patrols and putting them into vehicles they could more quickly respond to crimes as they were occurring and extend their coverage areas (Kelling & Moore, 1988). Police administrators also felt that this strategy would create the feeling for citizens and potential offenders that the police were everywhere; however research on unpredictable patrol patterns demonstrated this not to be the case (Kelling et al., 1974). The findings suggested that randomized patrol did not impact the crime rate.

In addition to this transition came the notion that motor vehicles would assist police in apprehending potential offenders because they would be able to more quickly respond and perhaps catch the criminal at the scene (Sparrow, Moore, & Kennedy, 1990).

The issue of being able to get to the scene faster to apprehend criminals was a component for removing officers from foot patrols and sticking them into motorized vehicles.

Spelman and Brown (1981) argue that police response time do not impact the likelihood of apprehending an offender but rather the amount of time it took a citizen to report a crime did.

### *Transition to 911 Systems*

Another consequence of the Reform Era was the introduction of various new technologies. The introduction of motorized patrol, was previously discussed and its impact on the relationship between citizens and police. It is believed that after removing officers from foot patrols the unique connection between both parties began to erode. This disconnect was further enhanced with the introduction of 911 systems. As believed by the police administrators of the time, this new technology would allow police to respond faster to the scene of a crime thus increasing the ability of police to “get the bad guy” and “fight crime”. However, as we find later though, various new studies during the 1970s would challenge the prevailing wisdom of rapid respond and crime fighting. Kelling and Coles (1996) make the argument that 911 systems drain policing resources and interfere with the police to deal with the root problems because 911 systems continually distances police from the citizens they services.

### *Failure of Past Policing Strategies*

During the mid 1970s, problems with rapid response to crime were becoming evident (Kelling & Coles, 1996). Police had now reached a point where they had perfected the “means” and making their process standard however the ends (quality service) were being neglected. With the introduction of various new technologies such as



motorized patrol and 911 systems the “ends” became less of a priority for police to address. The aspect of prevention took a back seat for police because crime fighting, apprehending criminals, and enforcing laws was now the priority. Aspects to examine and evaluate the effectiveness of police response were now in question. It was argued that crime was on the rise during this time and if police were better able to handle crime then why were we observing the continued rise. This marks the beginning of several studies that looked at the issues of response time, impact on crime, and citizen perception of fear.

Prior to discussing the implications of these studies, it is important to mention that during the 1960s and 1970s a few important events occurred in American policing. The first is President Johnson’s 1967 Commission on Crime. This further added legitimacy to the idea of rapid response to crime. It also viewed police as “crime fighters” and asserted that their primary function was to enforce laws and apprehend criminals (Kelling & Coles, 1996). Another significant event that occurred around this time period was the decriminalization of several minor offenses, such as public drunkenness.

Because police were focused on catching serious criminals in the act, minor offenses or quality of life issues were largely ignored. Issues such as vagrancy, juvenile delinquency, and nuisance offenses were seen as a “waste of time” for police, and time would better be spent trying to respond to the serious crime problems. In addition these various legislative decisions were affecting police discretion and supporting the decriminalization of minor offenses. These quality of life issues may seem minor to the police however citizens may view them as extremely important. As previously mentioned, the priorities of police are not always the same as the citizens and because of

this, a lack of the understanding of the real problems in an area arises and reactive response becomes the prevailing model in use.

It could be argued that if a disconnect between police and a citizen exists, then minor problems may not be addressed. If such minor problems are not dealt with, then the quality of life issues that affect the residents in a neighborhood may reach a point where citizens either leave the area or withdraw. This leaves the area more susceptible to further disorder related crime and then eventually serious offenses begin to emerge because criminals feel that if minor offenses are acceptable then serious offenses may be as well. Potential offenders may feel more comfortable to commit serious offense because their disorder related behavior goes unchecked (Wilson & Kelling, 1982). As these authors point out that like a broken window, signs of continual disorder signal to potential offenders that such behavior is tolerable and the informal social control of the area is weak. Broken windows will be discussed later in the sections to follow.

#### *Kansas City Preventative Patrol Experiment*

Difficulties with random police patrol have been documented elsewhere, including the Kansas City Preventative Patrol Experiment (Kelling, 1974). The experiment revealed that simple random preventative patrol had no effect on the crime rate. Kelling (1974) found that in both the control and experimental area revealed that elevated patrol levels did not reveal a decrease in crime. There has been much confusion about the outcome of this experiment. Citizens did not notice a difference in elevated patrol levels. As mentioned above, these findings suggested that more police presence in an area did not necessarily cause a reduction in crime (Radtke, 2008). This leads to the obvious conclusion that an evaluation of such policy needs to be examined in order to

continuously develop better policing tactics with the goal of reducing crime and its impacts on a community.

### Preventative Patrol

In light of the strategies used under the Reform Model of policing such as randomized patrol and rapid response, the discussion now turns to some new techniques used by police departments that do more than just react to the community and crime. These concepts include directed patrol, proactive patrol, and community oriented policing. The idea with these concepts is to be a proactive entity in the community versus waiting for crime to happen and responding to it. As a consequence of some of the various studies examining the effectiveness of policing, begin to emerge, a move towards working with citizens and looking at problem solving became more prevalent in the late 1980s and early 1990s. This marks the move into the Community Policing Era. What follows is a discussion of these strategies and how they have been employed in police agencies.

#### *Directed Patrol*

Directed efforts to “fight crime” are a tactic employed by many police agencies. As previously mentioned, empirical evidence has demonstrated that crime can sometimes be localized to a specific geographic area (Braga, 2001). If the majority of incident reporting over an entire jurisdiction originates from a specific geographic area then special attention to this location may be warranted. Braga (2001) also indicates that focused police intervention in a localized area may result in “meaningful reductions in crime and disorder”. LVMPD employs directed patrol units to areas that appear to have

higher incident reporting, however these units rarely spend a substantial amount of time in any one area - therefore the chances of any measurable success may be limited.

### *Proactive Patrol*

Proactive patrol refers to officer initiated activity. This means that instead of simply responding to an event an officer may observe and create an event themselves. This could range from a vehicle stop to observing a person selling narcotics. Proactive patrol in this case may be equated with zero-tolerance (Sherman, 1997). By this I mean that some departments use this strategy to enforce any infraction of the law they observe. This can be observed when police conduct traffic enforcement on a highway. Confusion can arise when discussing this terms and opponents of the Broken Windows theory often argue that zero-tolerance is the same thing as broken windows (Grien, 1999). This is false due to the fact that discretion on the part of the officers is very important with Broken Windows (Wilson & Kelling, 1982).

Sousa (2010), for example, found that often-formal sanctions such as an arrest were not made by officers employing broken windows policing. Regaining informal social control and allowing the residents of a neighborhood to not fear taking action on disorder is more in line with what the Broken Windows Theory encompasses. Zero-tolerance limits the discretion of its officers and pushes for prosecution of every offense. In the 1990s the Bratton administration adopted the broken windows philosophy and it appeared to be somewhat successful however there have been critics of what actually caused the reduction in crime during this time period.

### *Community Oriented Policing*

Recent research has indicated that when police organizations partner with the community it may lower the level of reported citizen fear (Weisburd, 2004). Community Oriented policing programs began to emerge in the late 1980s and early 1990s. This approach took into account that citizens have an opportunity to take informal action to maintain some social control in their neighborhoods. Radtke (2008) points out that an example of this includes neighborhood watch programs. By creating a sense of partnership with the police it may be suggested that people fear reporting criminal incidents less. It may also promote a better sense of informal social control over the community. It could also be argued that if a community has a good system of informal social control then they will be more apt to report the minor incivilities that occur in their neighborhood. If this is the case then it may be possible to suggest that there is a link between minor incivilities and serious offenses when it come to citizens level of fear to report incidents.

### *Broken Windows*

The idea of selecting an area high in crime and employing teams of police officers to conduct proactive enforcement is an idea that dates back to early modern American Policing. However, a theory was not formally introduced until the 1980s. Broken Window's Theory maintained the hypotheses that if an area is infested by high volumes of crime or CFS and is left untouched, then the area will remain relatively in the state that it is currently in or may decline even further and succumb to more criminal activity. The theory, developed by Wilson and Kelling (1982), claimed that if petty or misdemeanor crimes were addressed then major crimes may be prevented. Wilson and Kelling

explained this by arguing that if there was a severe lack of informal social control in a neighborhood then the residents in this area would not act or report crime due to various reasons such as fear. This could be attributed to citizens leaving the area or because the good citizens who are there become afraid to report any criminal activity. As a result of these two factors it may be suggested that the level of minor incivilities may increase to a certain threshold where the area is now more susceptible to major serious offenses because the criminals in the area feel more comfortable to commit their offense without fear of being caught. Therefore the area succumbs to more criminal activity as a result of the lack of informal social control and the acceptance of further criminal activity in that particular neighborhood.

As mentioned earlier, this idea of Broken Windows policing can be traced back even further. In 1829, Sir Robert Peel reorganized the London Metropolitan Police Department and assigned officers for foot patrol to “beats” or geographical locations in the city. The officers were responsible for maintaining a visible presence in the areas and working with the local “beat” populace in an effort to deter crime. From this it may be suggested that the people were not actually any safer by merely the presence of a police officer but that they felt safer and were more apt to report minor incivilities in their neighborhood because they were not afraid of any potential repercussions (Kelling, Deickman, Pate, & Brown, 1974).

Much has changed since the days of conducting foot patrols however the core fundamental concept remains unchanged, to deter criminal activity and improve the quality of life in communities. In 1990 Police Chief William Bratton of the New York City Police Department adopted the Broken Windows philosophy to policing. With the

assistance of New York City Mayor Rudy Giuliani, the city transitioned to a broken windows mentality in 1993 and improved the methods of arrest procedures and processing for criminals. As a result of the police department aggressively enforcing misdemeanor laws, a reduction in crime began to emerge (Kelling & Sousa, 2001). The crime decline in New York during the mid 1990s will be discussed further in sections to come. One issue that should be made clear is that Zero Tolerance Policing is not the same thing as Broken Windows Policing. Broken Windows is a proponent of officer discretion while Zero Tolerance is not (Sousa, 2010).

It was assumed based on Broken Windows theory that if police paid attention minor incivilities, then major offenses may be decrease by such actions and therefore a change in the area would be seen. The idea that high visibility of police presence and proactive enforcement may create an atmosphere of deterrence is one small aspect of what the Broken Windows Theory encompasses.

Regaining informal social control over the area by its residents is another critical component of the theory. In order to assess the effectiveness of police saturating an area while practicing Broken Windows Policing, it is paramount to conduct experiments that evaluating the policies implemented by the department utilizing this type of proactive strategy. This allows for the empirical evidence obtained by the research to either lend or not lend credit back to the theory it originated from. More importantly, it allows the police to determine if their actions are effective or not. Finally, Broken Windows Policing provides the theoretical framework to conduct this study.

### *Paying Attention to Disorder*

Kelling and Coles (1996) point out that there may be a certain point where disorder may begin to heavily saturate an area that the neighborhood may now be more susceptible to serious offenses. If issues of disorder are addressed then serious offenses may be prevented. Police may be able to assist citizens to reestablish the “informal rule” of the community by expressing that certain behavior is unacceptable. It is suggested that police may be able to accomplish this by enforcing minor offenses or paying attention to disorder. Kelling and Sousa (2001) reveal in their research while conducting ride-a-longs with the various precincts at the NYPD that officers routinely would use methods that did not involve enforcement action. Instead, the majority of what their activity consisted of was informally handling and solving problems in the neighborhoods they patrolled by communicating and assisting citizens in regaining informal social control over their neighborhood.

### *Order Maintenance*

The notion of Order Maintenance is the mechanism by which police may employ Broken Windows in the field. Order Maintenance consists of paying attention to disorder and attempting to address the quality of life issues that affect the citizens in an area. This may include problem solving with citizens in an area. Issues such as vagrancy, narcotics use, or juvenile delinquency are some issues that may be addressed by both police and citizens. This sense of partnership while working together in an area may curb disorderly behavior in an attempt to decrease the frequency of the nuisance events and prevent opportunities for serious offenses to occur.



### *Zero Tolerance*

Zero Tolerance emphasizes the enforcement of any offense and does not distinguish between minor and serious offenses. It does not matter what the severity of the crime is as long as enforcement action is administered. The problem with this is that it is one labor intensive and two it is impossible to arrest everyone for everything. Additionally, use of such a policy may not last that long. The question then becomes what happens to an area after the Zero Tolerance policy is discontinued? Research on hotspots reveals that police crackdowns are rather ineffective after the police intervention is discontinued (Sherman, 1990). It is suggested that after the intervention is discontinued then the same problems reemerge.

An example of this could be related to narcotics sales. If police come into an area to conduct Zero Tolerance policing and begin to take everyone to jail for everything, drug dealers may simply walk across the street (displace) and sell their drugs on that street corner. The issue is narcotics and if you only focus on making arrest and issuing citations police may only temporarily displace the problem. Zero Tolerance has also been referred to as the “bullying style” of policing and a means for police to target minorities. Zero Tolerance is commonly associated with the Broken Windows Theory however as mentioned previously they are very different. Broken Windows encourages high discretion and problem solving while Zero Tolerance discourages police discretion.

### *Hot Spots*

Clustering of crime in public spaces continues to be a continual problem in dealing with disorder and serious offenses. Weisburd (2000) suggests that the majority of crime may occur in a relatively small area. Weisburd asserts that if this concept is

understood then police may be able to deal with the problem from a proactive nature by employing various methods and problem oriented policing strategies. This approach allows police to slowly move away from the notion of randomized patrol across jurisdictions. When police know where the problems are specifically they can then develop proactive preventative strategies to address serious and disorder offenses in public spaces. Spelman and Brown (1984) concluded that police response times did not increase the likelihood of catching a criminal in that act.

What did matter was the amount of time it took for a citizen to report the crime. If a citizen is afraid to report a crime or is withdrawn the chances of apprehension are limited. Focusing on specific geographic locations where crime is occurring and paying attention to the problems unique to the area (i.e. the quality of life issues) may impact the crime and the individual's perception or fear of crime in the area (Kelling et. al. 1974).

Criminologists have generally agreed that a hot spot is an area with elevated criminal incidents and a heightened risk for victimization (Eck, 2005). Past research has demonstrated that a small percentage of individuals may be responsible for a large percentage of crime in an area (Sherman, 1997). As mentioned previously, this is suggested in a study conducted in Minneapolis looking at the incident reporting for street address in an area. It was discovered that 50.4 percent of the total number of incidents generated came from a relatively small number of persons reporting, approximately 3 percent (Sherman, Gartin, & Buerger, 1989).

What he found was that recent research has indicated that police are becoming more accepting of the idea of focusing a specific police intervention in a very specific geographical region by using policing crackdowns or hot spot policing.



## CHAPTER 3

### METHODS

#### Intervention/Hypothesis

This study is a test of the Broken Windows Hypothesis. An LVMPD “order maintenance team” operated in a target area for a period of 84 days and performed order maintenance functions. It was hypothesized that after the deployment of the team, three things would happen. First, officer self initiated field activity would increase (SIFA). Secondly, there would be an observed reduction in minor and major crimes from pre-intervention time’s verses post-intervention times and third this change would not be observed in the control groups or other comparisons. If this were the outcome, it could be suggested that the treatment (the police intervention) produced the observed effect in the experimental group. This may be plausible because past research has suggested that a small area may account for the majority of crime and that if police focus their attention to these “hot spots” then a reduction in overall crime may be reduced (Sherman 1995).

The order maintenance team was selected by the bureau commander of LVMPDs North West Area Command (NWAC). An existing police squad familiar with the experimental area, already operating in NWAC was chosen by the bureau commander. The police squad was then designated as NWAC’s order maintenance team in April 2009

Training was conducted with the order maintenance team prior to their deployment to the experimental area operating under the new order maintenance mandate. The team was provided with an extensive lecture on Broken Windows Policing, order maintenance, and the mandate which they were operating under.

The mandate for the order maintenance team consisted of communicating to the officers that their purpose for being deployed to the experimental area was to learn the unique problems of that area. The team was told that some of the ways they could accomplish this task was to more frequently communicate with citizens in the area and attempt to learn where the problem address were and who the prolific offenders in the area were. The order maintenance team was also told that they did not have to meet a quota for arrest or citations. The team was instructed on the difference between zero tolerance and Broken Windows in terms of appropriate enforcement actions. It was explained to the team that informal actions such as a warning would be appropriate for situations they deemed to use it in. They also were told that when conduction officer self initiated field activity such as vehicle and person stops to keep the informal/formal enforcement options.

If a reduction in minor and serious offenses is observed in the target area after the team deploys, we may conclude with a degree of certainty that if order maintenance is used by police as a proactive strategy to address minor offenses then there may be a relationship between these efforts. The targeting of minor offenses through aggressive enforcement coupled with order maintenance may cause a reduction in major crimes which would in turn lend support to the originating hypothesis.

It is hypothesized that a reduction in the CFS or major crimes will be attributed to proactive enforcement of minor crimes, increases in SIFA, and most importantly the activities of the police order maintenance team. Comparison of means tests are utilized in analysis of the data collected. The following research questions examined for this study are as follows:

**Hypothesis 1:** Proactive policing (i.e., Broken Windows) on the part of the order maintenance team will lead to an increase in proactive enforcement activity within the target area. This hypothesis corresponds to the first outcome / dependent variable, i.e. enforcement activity as measured by self-initiated field activity (SIFA).

**Hypothesis 2:** Proactive policing on the part of the order maintenance team will lead to a decrease in minor offenses in the target area. This hypothesis corresponds to a second outcome / dependent variable, i.e. minor offenses as measured by calls for service for minor offense codes.

**Hypothesis 3:** Proactive policing on the part of the order maintenance team will lead to a decrease in serious crime. This hypothesis corresponds to a third outcome / dependent variable, i.e. serious crime as measured by reports for serious offense codes.

### *Sampling*

Sampling included a geographic area identified by a high volume of violent CFS (major crimes) and incident reporting provided by official crime data from the LVMPD. The experimental and control areas were chosen based on three criteria. The first were the similar major and minor CFS in all areas. Secondly, the demographics that made up the area were similar. Third, the areas were chosen based on the experiential knowledge of the area by police officers that identified the hotspots chosen as places that receive a larger percentage of their violent CFS.

A geographic location consisting of the areas between Vegas Blvd. and extending north to Cheyenne Ave. then from Jones Blvd. extending west to Rampart Blvd. consisted of the target area V5 and V6. Variables that make up the sector beats such as mean income, race, age, and education level are similar in make-up. Crime rates also

appeared to be closely similar in reference to CFS generated and based on the experiential knowledge on the area by police and the CFS from 2006 and 2007 (see Table's 1 and 2).

*Table 1*

Major and Minor CFS 2006

Area	Major Crimes	Minor Crimes
Experimental	488	6,146
W Control	309	4,147
U Control	470	4,170

Note: Information obtained from LVMPD's official crime records

*Table 2*

Major and Minor CFS 2007

Area	Major Crimes	Minor Crimes
Experimental	473	6,880
W Control	290	3,875
U Control	358	3,875

Note: Information obtained from LVMPD's official crime records

### *Design*

The study employed a quasi-experimental research design utilizing a pre and posttest approach. CFS for major and minor crimes, as well as SIFA, were examined in the experimental area and the comparison areas. The study employed several different time periods for comparison purposes and to control for seasonal effects. The initiative started on April 25, 2009.

*Table 3*

#### Time Periods

Time Period	Dates
T1	February 3, 2008-April 25, 2008
T2	April 26, 2008-July 18, 2008
T3	January 31, 2009-April 24, 2009
T4	April 25, 2009-July 17, 2009

Three comparisons were performed. One comparison involved examining CFS and SIFA during the experimental 84-day time period (T4) compared to the previous 84-day time period during the same year (T3). The purpose of this step was to determine if change in key variables could be detected after the intervention began. However, because key variables may be affected by the change from the spring months to the summer months within the same year, a second comparison examined CFS and SIFA



during the experimental 84-day period (T4) compared to the corresponding 84-day period during the previous year (T2). Finally, to further examine a potential seasonal effect, the timeframe encompassing T3 to T4 (168 days in 2009) was compared to the corresponding 168 days in 2008 (T1 to T2). These comparisons were used in comparing both the experimental and control areas.

This study involved a target and two comparisons. The “target” area, which received the police intervention, is comprised of two adjacent sector beats (V5 and V6). The first comparison area is located just adjacent to the target area (sector beats W1 and W2). These areas can be seen in Appendices I and II. Examination of this area placed special emphasis on observations of any potential displacement or diffusion, possibly as a result of the treatment.

The second comparison area (comprised of sector beats U1 and U3) is located approximately 3 to 4 miles from the target area. This area is similar to the target area and the first comparison area, but its distance from the target area made the possibilities of displacement or diffusion unlikely. This area served to establish general crime trends for comparability against the target and other comparison areas. Both the intervention and control areas are similar in makeup. They are both comprised of a mixture of business and low-income residential housing neighborhoods and apartment complexes. Previous studies in social sciences have suggested that matching different areas or controlling for such variables as demographics allows for more evidentiary support if a change is observed and that this change is as a result from the introduction of the independent variable (Fritsch, Caeti, & Taylor, 1999).

*Table 4*

Area Demographics

Area	Median Age	Average Household Size	Percent Higher Education	Median Income
Experimental	30.6	2.5	15.3	16,6565
Controls	33.2	2.56	11.6	19,380

Source: 2000 Census Data. U.S. Census Bureau

The hypotheses predicted that three things would happen after the deployment of the order maintenance team. First there should be an increase in officer SIFA. Secondly, a decrease in minor offenses in the experimental area would be observed. Finally, major crimes would decrease in the experimental area after the deployment of the order maintenance team.

Both measurements for minor and major crimes were taken simultaneously each day for the all time periods (T1 – T4). As mentioned earlier, CFS and SIFA were treated and measured as two distinct outcome variables. Since the order maintenance team focused specifically on proactive enforcement and building relationships with citizens, we believed that crime or serious offenses would be reduced as minor incivilities are more closely paid attention to through aggressive enforcement action, order maintenance activities, more frequently communicating with citizens.

Both minor and major crimes were tracked through official data collected by the LVMPD. SIFA in the intervention area was analyzed and compared against the other outcome measures (minor and major crimes). All crimes are classified according to the category they fall into as defined by the Nevada Revised Statute.

The treatment (police intervention) was introduced to the experimental area during T4. The order maintenance team was not deployed to the control areas. All areas involved in this study still maintained normal levels of police activity except the target area, which received an increased in the level of patrol presence due to the intervention.

### Data and Variables

#### *Independent Variable*

The treatment was defined as, the introduction of an eight-member squad of police officers. The unit deployed four days a week and operated between the hours of 2:00pm to 12:00am. The team deployed Wednesday through Saturday. All members were uniformed police officers and operated as marked patrol units (squad cars). These units were single-man; therefore eight marked patrol units were operating in the target area during the time the team was deployed (T4). The squad was not be mandated to respond to any normal CFS. Their objective was to conduct all proactive contact with citizens and pay attention to minor crimes in the experimental area

The treatment (order maintenance) was introduced on April 25, 2009 (T4). 168 additional observational time points were taken, starting with time day one on April 25, 2009, extending to observational time point 168 on July17, 2009 (end of T4). The order maintenance team is separate from normal swing shift patrol squads, however for the purpose of analysis; the order maintenance team was primarily looked at for this

respective time slot (2:00pm to 12:00 am). Normal patrol squads continued their routine activities and handle CFS in all areas (intervention and controls).

#### *Dependent Variable*

##### *Self Initiated Field Activity (SIFA)*

The first of the outcomes variables measured was officer self initiated field activity (SIFA) in the experimental and control areas. The SIFA included vehicle stops (467) and person stops (468). Due to official reporting mechanisms, we were unable to measure the other activity police conduct during their shift such as unofficial citizen contacts<sup>1</sup>. Self-initiated officer activity was examined in the all areas to observe if SIFA increased or decreased. This corresponds to hypothesis one (H1).

*Table 5*

#### Officer Self Initiated Field Activity

Code	Description
467	Officers proactively conduct a stop on a motorized vehicle
468	Officers proactively conduct a stop on a person

#### *Minor Crimes*

---

<sup>1</sup> Unofficial contacts with citizens were commonly understood by officers in LVMPD as reaching out to citizens and simply talking to them without having any probable cause to stop them.

The second outcome measure included measuring minor offenses. Minor offenses are categorized as the following crimes; drunk (408), fights calls (416), other disturbance (416B), juvenile disturbances (416A), suspicious situation (425), suspicious person (425A), suspicious vehicles (425B), and keep the peace (437). The description of these crimes can be seen below in Table 5.

*Table 6*

Minor crimes included in analyses

Code	Description
416 – Fight Calls	Citizen calls for fight related disturbances
416A	Citizen calls for juvenile related disturbance
416B – Other Disturbances	Citizen calls for loud music call
425	Citizen calls for a suspicious situation
425A	Citizen calls for a suspicious person
425B	Citizen calls for a suspicious vehicle
408	Citizen calls for assistance with an intoxicated person
437	Citizen calls for assistance with keeping the peace

There were two reasons why these offenses were chosen for examination and classified as minor crimes in this study. The first is that these were the most commonly reported CFS in the both the target and comparison areas' jurisdiction (based on official LVMPD crime statistics). Secondly, these incivilities are closely related to quality of life issues. Studies have suggested that a link exists between an individual's perception of their neighborhood in reference to degree of physical or social incivilities present, and

their reaction to this crime, which in turn may cause them to withdraw and thus make the area more vulnerable to serious offenses (Ferrarro, 1994; Miethe, 1995)

### *Major Crimes*

A similar scale for major crimes was utilized. For the purpose of this study, four serious offenses were examined. These offenses include the following; robbery (407), persons with a gun (413), homicide (420), and sexual assault (426). These offenses were chosen due to the fact that the LVMPD deemed them as the most serious offenses.

A measure of the CFS were taken at T1 to T3 prior to the deployment of the order maintenance team and then during T4. This included both major and minor crimes as defined earlier. SIFA was also measured during these time periods.

Various studies have utilized before and after measurement designs, which have shown that a change could be measured utilizing this methodology and that it was rather effective (Press, 1971).

### *Analytical Plan*

The data for CFS and SIFA was obtained from the Las Vegas Metropolitan Police Department's Department Operations Center (DOC). There were a few steps involved in conducting research for this study. All crime data for the experimental and control areas reported were collected by uniformed patrol officers handling normal CFS which was generated by a citizen, analyzed, and then translated in to the official crime data utilized by this study.

It was hypothesized that a reduction in the major offenses would be observed after the introduction of the order maintenance team, therefore a measure of this volume was taken at the successive time periods both pre/post interventions to assess if a change occurred. While the team was deployed, a measure of all variables, i.e. major and minor crimes, and SIFA was taken on a daily basis to monitor their effectiveness and assess if a reduction occurred. This corresponds to hypothesis one, two and three (H2 and H3). A t-test was utilized to assess any changes that occurred between times.

## CHAPTER 4

### EVALUATIONS AND FINDINGS

#### Project Findings

The LVMPD order maintenance team was deployed to V5 and V6 for a period of 84 days (T 4). The treatment was the order maintenance team in the intervention area (V5/V6). Their duties included a variety of functions not limited specifically to enforcement action. They more frequently exited their patrol cars and communicated with citizens to learn about the problems that were unique to that area. They additionally gained an understanding of who the continuing problem individuals and addresses were. The order maintenance team was specially trained on Broken Windows Policing and was taught the difference between their function and zero tolerance policing.

Additionally, the team was instructed on the various aspects of order maintenance policing such as assisting citizens to reestablish informal social control. Successful applications of order maintenance policing were discussed with the team prior to their deployment to the intervention area. Some of these applications included examples from New York City in the 1990s (Kelling & Sousa, 2001). They were also explicitly reminded that they needed to pay attention to the minor offenses and observe what the priorities of the citizens in the area were.

The order maintenance team was not required to hand in a certain number of citations or arrest at the end of each shift. There was no quota imposed. Instead, the team was asked to interact more frequently with the residents in the intervention area to learn what the priorities of the citizens were. Most often, formal enforcement action was substituted for informal measures such as verbal warnings. There were four different time



periods under examination, T1 through T4. These time periods were examined for a few different reasons. For T3 and T4, the purpose was to observe what the area's serious and minor offenses were prior to the introduction of the order maintenance team in the intervention area as well as what the control areas looked like in terms of minor and major CFS. Additionally SIFA was examined pre and post intervention (T1 through T4). Due to the fact that a seasonal effect may influence the number of serious and minor offenses reported from a winter to summer time period, the previous year during the exact same time period was examined.

#### Self-Initiated Field Activity

The experiment predicted that officer self initiated field activity would increase after the introduction of the police order maintenance team. This corresponded with hypothesis one. SIFA was an outcome variable examined in both the comparison and experimental areas. It was observed that SIFA had a significant increase in the experimental and control areas when comparing the T2 to T4 (see Table 9). This increase demonstrated that SIFA did increase after the deployment of the order maintenance team.

Table 7 compares SIFA for T1 and T2. In the experimental area, SIFA decreased by 7.1 percent. In W control SIFA decrease by 17.8 percent between T1 and T2. In the U comparison area, a slight increase in SIFA was observed by 0.4 percent. None of these results indicated any statistical significance.

*Table 7*

Self Initiated Field Activity (SIFA) Time Period 1 and 2

		T1	T 2	Percent Change
Experimental	Total	708	658	-7.1%
	Mean per day	8.43	7.83	
W Control	Total	373	311	-17.8%
	Mean per day	4.5	3.7	
U Control	Total	423	425	0.4%
	Mean per day	5.4	5.06	

Note: t-tests revealed that the SIFA change for the experimental, W, and U controls were not statistically significant from period 1 to 2.

Time period 1 was January 08 – April 08. Time period 2 was April 08 – July 08.

Table 8 displays SIFA activity for T 3 and T4. The SIFA for the experimental area showed an increase by 1.2 percent from T3 to T4. In the W control area, SIFA showed a decrease 17 percent. U control displayed an increase in SIFA by 7.7 percent from T3 to T4.

Table 8

Self Initiated Field Activity (SIFA) Time Period 3 and 4

		T 3	T 4	Percent Change
Experimental	Total	1147	1161	1.2%
	Mean per day	13.65	13.82	
W Control	Total	559	464	-17.0%
	Mean per day	6.65	5.52	
U Control	Total	686	739	7.7%
	Mean per day	8.17	8.8	

Note: t-tests revealed that the SIFA changes for the experimental, W and U controls were not statistically significant for period 3 and 4.

Time period 3 was January 09 – April 09. Time period 4 was April 09 – July 09.

Table 9 displays SIFA comparing T2 to T4. During the course of T4, in the intervention area, an increase in SIFA was observed. When comparing T2 and T4 in Table 9, an increase in the SIFA activity was observed by 76.6 percent in the experimental area. A t-test revealed that these results were statistical significant. The same trend was seen in both comparison areas as well. In W control area, SIFA was up by 49.2 percent. In U control, SIFA increased by 59.7 percent. One reason there may have been such a significant increase of SIFA in the control areas is from other initiatives that may have been taking place at the same time this experiment was going.

One such experiment is the Safe Village Initiative that took place in Bolden Area Command where W and U control areas were located. This was a strategy that was

implemented to reduce violent offenses and focused on increasing police visibility, enforcement actions, and community outreach in Bolden Area Command. This differs from the current strategy due to the order maintenance component. The Safe Village will be briefly discussed in the next chapter.

*Table 9*

Self Initiated Field Activity (SIFA) Time Period 2 and 4

		Time Period 2	Time Period 4	Percent Change
Experimental	Total	658	1161	<b>76.6%*</b>
	Mean per day	7.83	13.83	
W Control	Total	311	464	<b>49.2%*</b>
	Mean per day	3.7	5.52	
U Control	Total	452	739	<b>59.7%*</b>
	Mean per day	5.06	8.08	

Note: \*Statistically significant  $p < .001$

Time period 2 was April 08 – July 08. Time period 4 was April 09 – July 09.

### Minor Offenses in the Target Area

It was hypothesized that minor offenses would go down after the introduction of the order maintenance team. In both the intervention and control areas the number of minor offenses varied throughout all four time periods. The reason these specific minor offenses were chosen was because they were the most commonly reported in both the experimental and control areas. Additionally, previous research on Broken Windows

Policing has indicated that the various minor incivilities chosen may be consistent with what citizens routinely viewed as problematic to them such as the ones selected in this study. It was observed that minor offenses increased when comparing T2 to T4.

*Table 10*

Minor Offenses Time 1 and 2

		T1	T 2	Percent Change
Experimental	Total	1785	1936	8.5%
	Mean per day	21.25	23.05	
W Control	Total	919	1049	14.1%
	Mean per day	10.94	12.49	
U Control	Total	1064	1014	-3.0%
	Mean per day	6.44	7.17	

Note: t-tests revealed none of the groups yielded statistically significant results. Time period 1 was January 08 – April 08. Time period 2 was April 08 – July 08.

As consistent with what would normally be observed in the transition from the winter to summer months, Table 10 displays a seasonal effect which is observed in the experimental area and W control from T1 to T2. Table 4 displays CFS for minor offenses. The experimental area showed an increase by 8.5 percent from T1 to T2. In W control there was an observed increase by 14.1 percent in CFS for minor offenses. U control showed a decrease of 3.0 in CFS for minor offenses from T1 to T2.

Table 11 displays CFS for minor offenses comparing T3 through T4. An increase of 7.8 percent in CFS for minor offenses was observed in the intervention area. This could be an indication of a seasonal effect. Another explanation could be that with the order maintenance strategy, citizens may have felt as though officers were more accessible for reporting the minor quality of life offenses that bothered them. In W control, CFS for minor offense increased by 3.2 percent while U control also showed an increase in CFS for minor offenses by 2.7 percent.

*Table 11*

Minor Offenses Time 3 and 4

		T3	T4	Percent Change
Experimental	Total	1852	1994	7.8%
	Mean per day	22.05	23.74	
W Control	Total	986	1018	3.2%
	Mean per day	11.74	12.12	
U Control	Total	1084	1113	2.7%
	Mean per day	6.75	7.21	

Note: t-tests revealed none of the groups yielded statistically significant results. Time period 3 was January 09 – April 09. Time period 4 was April 09 – July 09.

Table 12 compares T2 to T4. There is an increase in minor offenses from T2 to T4 in the intervention area by 3.0 percent. This may be explained by arguing that as the order maintenance team became more accessible to the public, citizens felt more able to

report more minor crimes. There is also an increase in the mean number of reported minor offenses by 9.8 percent in U control area. W control area observed a decrease in minor CFS by 3.0 percent.

*Table 12*

Minor Offenses Time 2 and 4

		T2	T4	Percent Change
Experimental	Total	1936	1994	3.0%
	Mean per day	23.05	23.74	
W Control	Total	1049	1018	-3.0%
	Mean per day	12.49	12.12	
U Control	Total	1014	1113	9.8%
	Mean per day	7.17	7.21	

Note: t-tests revealed none of the groups yielded statistically significant results. Time period 2 was April 08 – July 08. Time period 4 was April 09 – July 09.

### Serious Offenses in the Target Area

Serious offenses that were tracked in both the intervention and control areas were the LVMPD's index crimes and consisted of; homicide, robbery, sexual assault, and assaults with a gun.

Table 13 displays CFS for serious offenses in all 3 areas from T1 to T2. From T1 through T2 there was a decrease in the mean average number of offenses per day in both comparison areas. In W control, serious CFS showed a decrease between T1 and T2 by 8.6 percent. In U control there was a decrease in serious CFS by 3.0 percent. The

experimental area showed an increase in serious CFS from T1 to T2 by 14.2 percent. It is somewhat unusual for a decrease to be observed from a winter to summer time period as seen in both W and U control areas from T1 to T2. Often times, a seasonal effect is observed when going from a winter to summer time period. A seasonal effect is when there is a slight increase in the number of reported offenses from one time period to another (summer to winter months). The experimental area displayed a more traditional pattern, as the area transitioned from winter to summer months, CFS increased by 14.2 percent. Several factors could explain the decrease observed in W control area. For example the commander at Bolden Area Command (which is where W and U control are located) may have had some initiatives going on during these time periods. This was before the introduction of the order maintenance police team to the intervention area.

*Table 13*

Serious Offenses Time 1 and 2

		T1	T2	Percent Change
Experimental	Total	85	97	14.2%
	Mean per day	1.01	1.15	
W Control	Total	49	45	-8.6%
	Mean per day	0.58	0.54	
U Control	Total	67	65	-3.0%
	Mean per day	0.8	0.77	

Note: t-tests revealed none of the groups yielded statistically significant results. Time period 1 was January 08 – April 08. Time period 2 was April 08 – July 08.



In Table 14, CFS for serious offenses is compared between T3 and T4. W control area showed an increase in serious offense by 50 percent during this time comparison (T3 to T4) while the intervention area observed a decrease in serious CFS by 1.3 percent. U control showed a 30.8 percent increase from T3 to T4. It appeared as though a traditional seasonal effect did not take place in the experimental area during this time period.

*Table 14*

Serious Offenses Time 3 and 4

		T3	T 4	Percent Change
Experimental	Total	80	79	-1.3%
	Mean per day	0.95	0.94	
W Control	Total	38	57	50.0%
	Mean per day	0.45	0.68	
U Control	Total	52	68	30.8%
	Mean per day	0.62	0.81	

Note: t-tests revealed none of the groups yielded statistically significant results. Time period 3 was January 09 – April 09. Time period 4 was April 09 – July 09.

Table 15 displays compares T2 and T4. The experimental area observed a reduction in serious offenses by 18.3 percent when comparing T2 to T4. A t-test revealed that this was not statistically significant<sup>2</sup>. During this same time frame an increase in

<sup>2</sup> At the  $p < .10$  level, a t-test revealed statistical significance in the intervention area after the introduction of the order maintenance team.

serious offenses was observed in both control areas. In W control area, an increase 25.9 percent was observed. In the U control area, an increase of 5.2 percent was also seen. The intervention area showed a reduction in serious CFS versus the increase observed in both the comparison areas. This is relevant to police leaders because they compare the current year's CFS to the previous year. When comparing T2 to T4 the reduction far surpasses any decreases in serious offenses observed in either comparison area during any of the time periods.

*Table 15*

Serious Offenses Time 2 and 4

		T 2	T 4	Percent Change
Experimental	Total	97	79	-18.3%
	Mean per day	1.15	0.94	
W Control	Total	45	57	25.9%
	Mean per day	0.54	0.68	
U Control	Total	65	68	5.2%
	Mean per day	0.77	0.81	

Note: t-tests revealed none of the groups yielded statistically significant results. Time period 2 was April 08 – July 08. Time period 4 was April 09 – July 09.

## CHAPTER 5

### DISCUSSION

Although only one of the three measures showed a statistically significant change in behavior, the results may suggest that deploying an order maintenance team to a very specific geographic location, utilizing a Broken Windows Policing strategy, may result in a reduction in violent offense. The underlying pattern showed that if minor crimes are more frequently paid attention to and an order maintenance component is implemented, major crimes may be reduced.

#### Self Initiated field Activity (SIFA)

Comparing self-initiated field activity during the experimental condition to activity one year prior, a statistically significant increase was observed. In the experimental area there was an increase in SIFA by 76.5 percent. Both comparison areas showed an increase in SIFA as well, however, but at much lower levels than seen in the experimental area. When comparing the time period immediately prior to the experimental condition, we found that SIFA in the target area increased by 1.2 percent. These results are important when paired with the findings that the experimental areas' serious offense also decreased by 18.56 percent when comparing to rates one year prior. In direct contrast, both comparison areas showed an increase in serious offenses for that same time comparison. Hypothesis one asked the question of whether there would be an increase in SIFA after the introduction of the team. Based on the results, it can be suggested that SIFA did increase after the introduction of the order maintenance team.

## Minor Crimes

Minor crimes exhibited no real consistent pattern besides an increase from winter to summer months in most time periods. Hypothesis two predicted that minor crimes would decrease after the introduction of the order maintenance team. This did not occur when examining the period before the team and during it. There was an increase in minor offenses by 7.76 percent during this time period. When comparing the condition period to one year prior, we observed an increase by 3 percent. It could be argued that after the introduction of the order maintenance team, police became more accessible to the citizens in the experimental area. By the citizens feeling as though officers were more accessible then it might be feasible that they also felt more comfortable in reporting minor offenses. This may be why we observed the increase in minor offenses within the target area. In W comparison area there was a decrease by 3.24 percent in minor offenses from the period immediately prior to the target period and a reduction by 3 percent from the year prior. The order maintenance team did not operate in W control area.

## Serious Offenses

The results revealed some interesting findings in both the experimental and comparison areas. Between the period one year prior to the target period and the experimental period, there was a reduction in serious offenses by 18.3 percent in the experimental area. This may not have yielded statistically significant results however police leadership was pleased with a reduction in serious offenses in the intervention area. In W control there was an increase in serious offenses by 26.6 percent. In U control there was an increase in serious offenses by 4.62 percent, comparing the same two periods. Just examining these percents is an indication that something occurred.

Whether the decrease in the experimental area or subsequent increase in the controls where the cause of the treatment or some confounding influence is unknown due to the findings not revealing statistical significance. It can be argued that something happened and this was a decrease in serious offenses after the introduction of the order maintenance team. Hypothesis three predicted that serious offenses would decrease after the introduction of the order maintenance team in the experimental area. This was observed when comparing statistics in the same periods in 2008 and 2009. A similar pattern was revealed when examining the results of major crimes in the period immediately preceding the experimental period. In the experimental area a decrease of 1.25% was observed. W control showed an increase of 50 % while U control observed an increase in serious offenses by 30.77 %. These results did not reveal statistical significance however they demonstrate that something occurred and that a traditional seasonal effect was not observed between winter 2009 and spring 2009 periods for the experimental as in the comparison areas. This is different then what was observed the previous year when comparing the same Jan-April and April-July periods in 2008 for the experimental area. During this time period the experimental area observed an increase in serious offenses by 14.2 percent while both controls showed a decrease. For the 2009 periods the opposite effect has now occurred. This poses the question of displacement.

### Displacement

It is unknown what caused the reduction in serious offenses in the target area while both comparison areas showed an increase from the immediately preceding time period to the target period and when comparing the prior year's period to the target period. There could have been an unknown factor influencing the reduction in serious

offences within the experimental area and causing the increase in the comparison areas. Criminals may have felt less comfortable to operate in the experimental area after the order maintenance team arrived. It could be plausible that criminals simply displaced to W control area and this is why we see the increase in serious offenses. Then again, it could have been something else. Due to the fact that results from serious and minor offenses were not statistically significant it is hard to say definitively what happened. Based on the results diffusion is unlikely. Police leadership were pleased with the results and felt that any reductions were indications of success.

### Limitations

Because this was a quasi-experiment - the sector beats, order maintenance team, and crime types were not chosen at random. This study utilized a pre/post test design that attempted to examine whether there was a relationship between police conducting order maintenance and any change in SIFA, serious and minor offenses. Because police use special systems to track police activity, it is very hard to capture the informal activity that police so frequently are engaged in such as order maintenance and relationship building. Most of this activity, at least for the order maintenance team consisted of re-building relationships with citizens and learning the quality of life offenses that consistently troubled the neighborhoods.

It would have been more desirable to have the order maintenance team deployed to the intervention area for a longer period of time to observe what trends in the serious and minor offenses emerged. The activity the order maintenance team was routinely conducting was very informal and non-enforcement related however they would enforce minor quality of life issues. This type of activity was aimed at addressing the minor

offenses in the intervention area in hopes of decreasing serious crime by making the area less susceptible for criminals to commit future serious offenses.

There are several limitations to this study. It is not a true random experiment, the areas are not exactly the same, it is hard to capture order maintenance, and we did not employ any surveys or conduct interviews to see how the citizens felt or if they noticed a change in the areas pre/post intervention.

#### Recommendations for Future Research

Give the limited amount of time the order maintenance team was deployed to the experimental area as well as the size of the team, it is recommended that future order maintenance teams deployed in LVMPD's jurisdiction or elsewhere remain in the intervention area for a longer period of time. Based on previous research and this study's findings, it is advised to allow for approximately a nine to twelve month deployment of an order maintenance team to the intervention area. This longer time frame would allow for a more comprehensive analysis and more data points to measure. It would also be suggested to include a citizen satisfaction survey to both the intervention and control areas prior to and after the team had deployed to the experimental area. Additionally, some type of measure should be developed to capture the order maintenance activity that future teams would be engaged in.

#### Conclusion

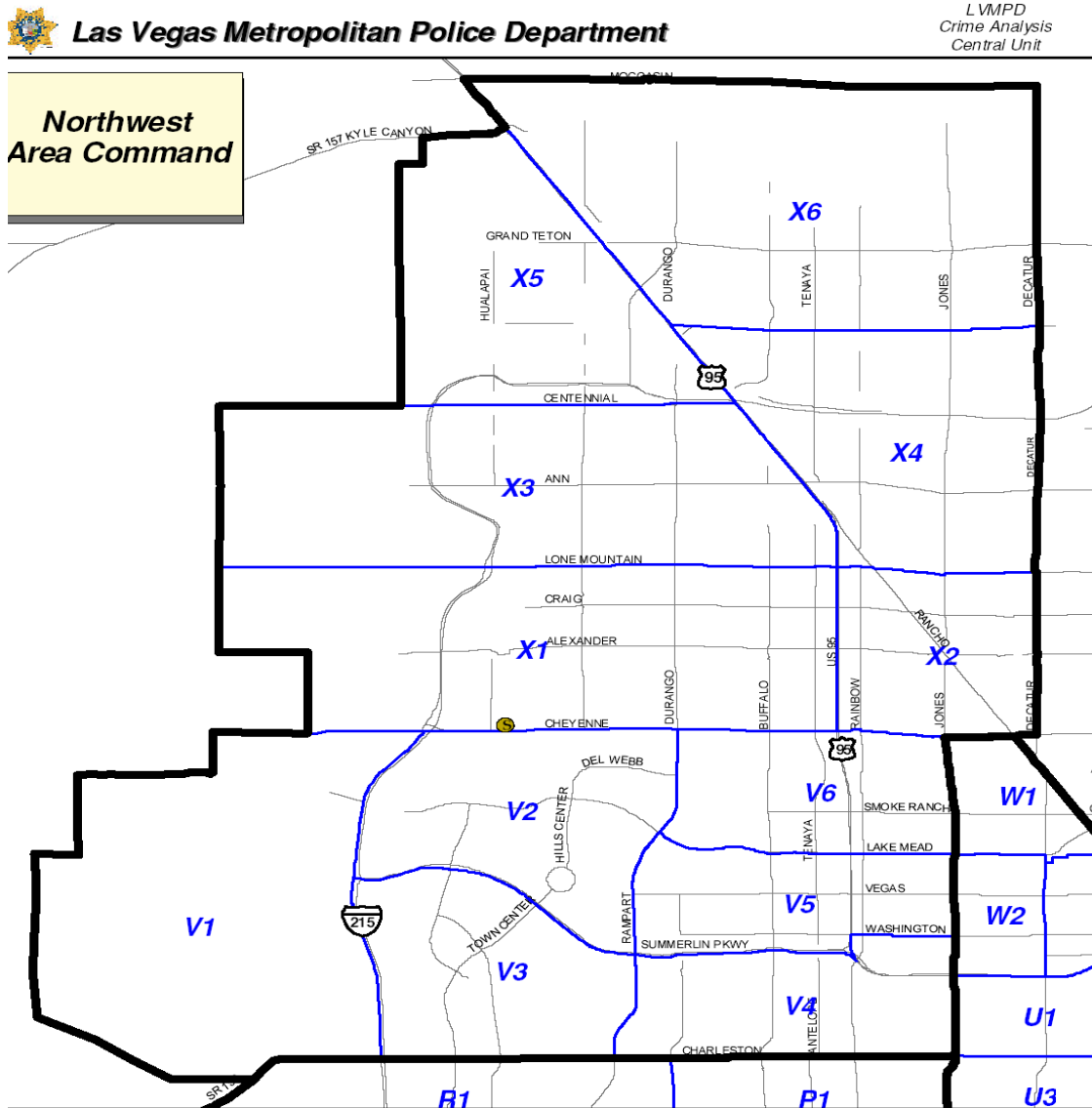
Previous research on Broken Windows Policing suggests that if minor offenses are more closely paid attention to then as a result serious offenses may decrease as well (Kelling & Coles, 1996). This is evident in New York City with the implementation of the Broken Windows Policing philosophy to address minor offenses in the subway

systems as well as other areas in the city. Violent crime is still trending down in these areas. This research has shown that order maintenance police units may be a more effective approach at reducing violent crime in areas than simply arresting and citing everyone. That is zero tolerance policing and what has been commonly practiced at LVMPD. This experiment was brief however it demonstrated that if officers were trained in order maintenance policing they could still go to an area and operate just as effective if not more while serious offenses were being reduced even if the reduction was not statistically significant. It is hoped that this study will be used to promote further research in order maintenance policing within police departments as means to deal with serious crime versus continually perpetuating the views and strategies exercised by the reform model.



# APPENDIX 1

## LVMPD NWAC JURISDICTION MAP



Map shows  
Area Command and Sector/Beats  
Effective July 1, 2005

 **Metro Substation**

1 0 1 2 Miles

Crime Analysis Maps are produced solely to meet the needs of the Las Vegas Metropolitan Police Department. Please contact Crime Analysis at 229-3782 or 229-2929 regarding this or other products.

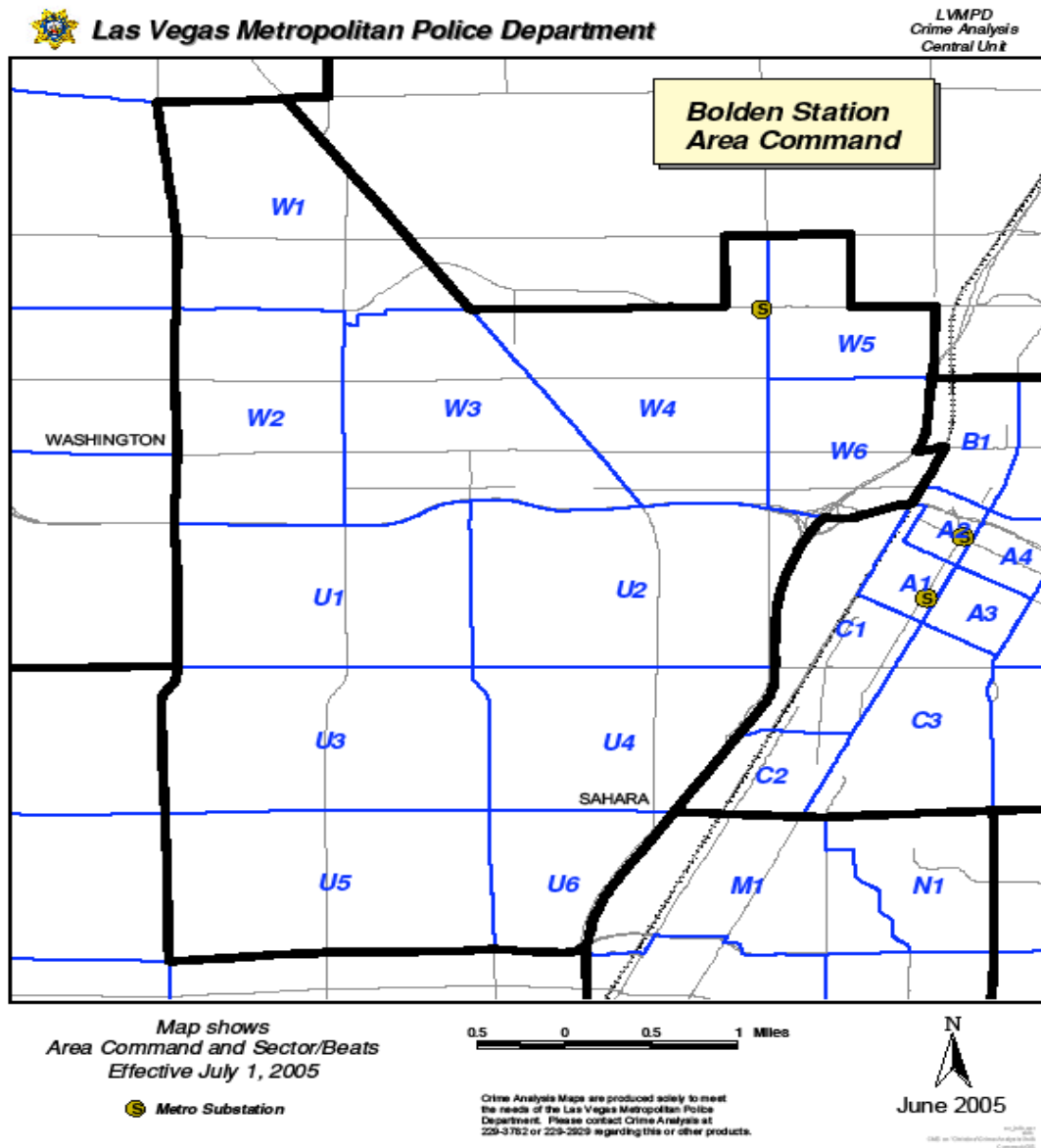


June 2005

4/10/05/01  
005 in CrimeAnalysis/005  
Command/05

## APPENDIX 2

### LVMPD BAC JURISDICTION MAP



## REFERENCES

- Braga, A. (2001). "The Effects of Hot-Spots Policing on Crime." *Annals of the American Academy of Political and Social Science* 578, 104–125.
- Chaiken, J., Lawless, M., & Stevenson, K. (1974). *The Impact of Police Activity on Crime: Robberies on the New York City Subway System*. New York. NY: Rand Institute.
- Eck, J. & Maguire, E. (2000). "Have changes in policing reduced violent crime?" An assessment of the evidence. In A. Blumstein & J. Wallman (Eds.), *The crime drop in America* (pp. 207 – 265). Cambridge, UK: Cambridge University Press.
- Ferraro, K. (1994). *Fear of crime: Interpreting victimization risks*. Albany: State University of New York Press.
- Fritsch, E., Caeti, T., & Taylor, R. (1999). Gang suppression through saturation patrol, aggressive curfew, and truancy enforcement: A quasi-experimental test of the Dallas anti-gang initiative. *Crime and Delinquency*, Vol 45, 122.
- Goldstein, H. (1979). Improving policing: a problem-oriented approach. *Crime and Delinquency*, 25 (2), 236-258.
- Goldstein, H. (1990). *Problem-oriented policing*. New York: McGraw-Hill.
- Kelling, G., Pate, A., Dieckman, D. & Brown, C. (1974). *The Kansas City preventive patrol experiment: A summary report*, Washington D.C. Police Foundation.
- Kelling, G. & Sousa, W. (2001) Do police matter? An analysis of the impact of New York City's Police Reforms Civic Report 22. *New York: Manhattan Institute for Policy Research*.
- Kelling, G. & Coles, C. (1996). *Fixing broken windows: Restoring order and reducing crime in our communities*. New York: Free Press.
- Kelling & Moore (1988). The evolving strategies of policing. *Perspectives on Policing*, (4) 1-16, National Institute of Justice. U.S. Department of Justice
- Miethe, T. (1995). Fear and withdrawal from urban life. *Annals of the American Academy of Political and Social Sciences*, 539, 14-27
- Press, J.C. (1971). *Some Effects of an Increase In Police Manpower In the 20th Precinct of New York City*. New York. NY: Rand Institute.

- Radtke, T. (2008). *Safe Village Initiative: A quasi-experiment evaluating the impact in West Las Vegas*. Unpublished master's thesis. University of Nevada, Las Vegas, Las Vegas, NV.
- Ratcliffe, J. (2008a). *Intelligence-Led Policing*, Cullompton, Devon: Willan Publishing
- Ratcliffe, J. (2009). "The structure of strategic thinking", in J.H. Ratcliff, (ed.), *Strategic Thinking in Criminal Intelligence*. Sydney: Federation Press.
- Ross, N. (2005). Higher up on the food chain: putting cops where they belong. Paper presented to the Problem Oriented Policing Conference 2005. Charlotte, NC: [www.popcenter.org](http://www.popcenter.org).
- Sherman, L., Gartin, P., & Buerger, M. (1989). Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology*, 27, 27-55.
- Sherman, L. W. (1990). "Police Crackdowns: Initial and Residual Deterrence." In M. Tonry and N. Morris (Eds.), *Crime and justice: A review of research*, Vol. 12. Chicago: University of Chicago Press
- Sherman, L., & Rogan, D. (1995). Effects of gun seizures on gun violence: Hot spots patrol in Kansas City. *Justice Quarterly*, 12, 673-694.
- Sherman, L. W., Gottfredson, D., Layton, D., MacKenzie, Eck, J., Reuter, P., and Bushway, S. (1997). Preventing crime: What works, what doesn't, what's promising—A report to the attorney general of the United States. Washington, DC: United States Department of Justice, Office of Justice Programs.
- Sherman, L & Weisburd, D. (1995). General deterrent effects of police patrol in crime "hot spots": A randomized controlled trial. *Justice Quarterly*, 12, 625-648.
- Smith, M. (2001). Police-led crackdowns and cleanups: An evaluation of a crime control initiative in Richmond, Virginia. *Crime & Delinquency*, 47, 60-83.
- Sousa, W. (2010). Paying attention to minor offenses: order maintenance policing in practice. *Police Practice and Research*, 11, 45 – 49.
- Sparrow, M., Moore, M. & Kennedy, D. (1990). *Beyond 911: A New Era for Policing*. New York: Basic Books, 1990.
- Spelman, W. & Brown, D.X. (1984). Calling the police: Citizen response of serious crime. Washington, DC: Police Executive Research Forum.
- Wilson, J. Q; & Kelling, G. L. (1982). Broken windows. *The Atlantic Monthly*, 249, 29-38.

- Weisburd, D. (1997). Reorienting crime prevention research and policy: From the causes of criminality to the context of crime. Washington, DC, U.S. Government Printing Office
- Weisburd, D. & Taxman, F. (2000). Developing a multi-center randomized trial in criminology: The case of HIDTA. *Journal of Quantitative Criminology* 16 (3), 315-39.
- Weisburd, D., & Eck, J. (2004). What can police do to reduce crime, disorder, and fear? *Annals of the American Academy of Political and Social Science*, 593, 42-65.
- Weisburd, D. & Braga, A. (2003). "Hot spots policing". In Crime prevention: *New approaches* (pp. 337 – 355), A. Kury & J. Obergfell-Fuchs.
- Worrall, J. (2006). Does targeting minor offenses reduce serious crime? A provisional, affirmative answered based on analysis of county-level data. *Police Quarterly*, 9, 47-72.

## VITA

Graduate College  
University of Nevada, Las Vegas

Steven Andrew Pace

### Degrees:

Bachelor of Arts, Psychology, 2007  
University of Nevada, Las Vegas

Thesis Title: Assessing the Impact of Police Order Maintenance Units on Crime: An Application of the Broken Windows Hypothesis.

### Thesis Examination Committee:

Chairperson, William H. Sousa, Ph.D.  
Committee Member, Tamara Madensen, Ph.D.  
Committee Member, Alexis. Kennedy, Ph.D.  
Graduate Faculty Representative, Anna Lukemeyer, JD. Ph.D.