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Hotspot Homes: An Analysis of the Situational/Contextual Factors, Windows of Opportunity, and Attempted Burglaries on Repeatedly Burglarized Residential Homes

Joshua W. Donnelly

HOTSPOT HOMES: AN ANALYSIS OF THE SITUATIONAL/CONTEXTUAL FACTORS,

WINDOWS OF OPPORTUNITY, AND ATTEMPTED BURGLARIES ON REPEATEDLY

BURGLARIZED RESIDENTIAL HOMES

By

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Abstract

This research study designed to inform the reader on the phenomenon of repeat burglary

victimization as it applies to single residential family homes. This research used Henderson

Police Department data to examine the prevalence of repeat victimization, and the situational

factors that accompany this phenomenon. The main concept that is being examined in this paper

is the time period in which most repeats happen, the analysis will be conducted using a 6-year

time frame divided into equal time blocks. Repeat attempted burglaries are also analyzed to

identify any similar patterns amongst these crimes. The study is composed of approximately

3,700 reported cases of burglary and attempted burglary in the City of Henderson, Nevada from

years 2011-2016.

Keywords: Repeat Victimization, Hotspots, Target Attractiveness, Suitable Targets, Time

frame.

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DEDICATION

This thesis, as well as the pursuit of my Master's and Doctoral degrees, is dedicated to my mother and father, Desiree and Bill (William) Donnelly. You both did everything in your power to make sure that I had a good life regardless of the adversities that you both faced. It is because of you both, your sacrifices, that I am able to engage in my pursuit of happiness. I would not have the perseverance to face life's hurdles, the will to keep pushing, nor the understanding that a good life is not simply gifted but earned through hard work and sacrifice if it would not have been for the example that you both have shown me and continue to show me throughout my entire life.

Throughout my childhood, we suffered not only the collateral consequences, but the direct consequences of crime due to my other sibling's engagements. Their decisions to partake in a life of crime had not only affected me, but the entire family as well. While this may have been difficult, it was also my biggest source of inspiration to dedicate my life to the field of criminal justice and criminology. This sparked a fire in me, to pursue a life dedicated to helping people in any way that I can, and now I believe I have found the perfect outlet for this passion, academia.

I would also like to dedicate this to my little sister Summerose Donnelly. Throughout my life I have tried to pave a way for you to follow, to set a good example, to have someone you can finally look up to. I hope that you can now see to always have the courage to follow your dreams and passion, and that through hard work, you can achieve anything, it really does "pay off".

It is important for you all to know that I wake up every day with that fire which was sparked in me so many years ago. I wake up every day with that tenacity to pursue a greater

purpose, to live a good and honest life, and to make a difference in the world. I owe it all to you,

my loving and supportive family.

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CHAPTER 1- INTRODUCTION AND THEORETICAL FOUNDATION

Introduction-

The FBI crime clock calculates that a burglary occurs every 20 seconds in the United States. With burglaries being such a prevalent issue within our society, criminologists have sought to examine the issue in order to provide viable solutions in the forecasting and prevention of burglaries. While burglaries have generally been on the decline in the United States, there were still an estimated 1.5 million burglaries nationwide reported the 2016 Uniform Crime Report compiled by the FBI. Victims of burglaries have suffered damages totaling an estimated $3.6 billion dollars in 2016, with the average loss per burglary around $2,360 (FBI UCR, 2016). The extent of victimization goes much further than monetary damages; peoples' sense of security and safety are violated at an extreme level when their home is burglarized. People often view their homes as a place in the world where they have high levels of privacy, security, and autonomy; when an intruder enters their home with the intention to victimize them, that sense of safety is eradicated.

Examining burglary through a contextualized lens of the repeat phenomenon and how it compares to single incidents is important. It is essential to study and understand the crime of burglaries, and the prevalence of repeat victimization, so that researchers and practitioners can develop ways to combat this issue. Past research has shown that when a burglary occurs at a dwelling, it is likely to become a suitable target for offenders to re-burglarize. These locations are often referred to as "hotspots" or "repeat victimizations". As a direct result of these studies, a "time-window" effect has been established which calculates the likelihood of capturing repeat burglaries occurring at a location during a certain observed time period. The time-window effect

becomes an important area of research to study in order to better forecast the time-periods in which most repeat burglaries occur. With this information police may better focus their resources on problem locations. In addition, we will also be able to examine the most advantageous way to measure repeat burglaries. Beginning by first examining the theoretical foundation and the empirical research, and the current study and the methods used. Followed by the findings, policy implications, and discussion/ conclusion.

Theoretical Foundation

Criminological research suggests that criminal opportunities present themselves across multiple dimensions. Throughout each dimension, there are different explanations on how opportunity manifests itself towards potential offenders. This literature review will address explanations of crime concentration at three levels: macro, meso, and micro. It will show how these theories can be used to explain risk heterogeneity (also referred to as 'flagged risk') across locations at different levels of analysis. For example, macro-level theories can explain neighborhood distribution of criminal activity, with crime concentration patterns emerging in general geographical locations (e.g., to explain why some neighborhoods experience more victimization than others). Meso-level theories can explain crime events by identifying patterns in both victim and offender behaviors and explaining how these behaviors create opportunities for crime in the immediate environment. Micro-level theories can explain the characteristics of a crime opportunity that an offender is likely to find attractive and help explain repeat offending patterns among particular targets.

Risk heterogeneity, a prominent explanation of repeat victimization, asserts that the risk of crime victimization is uneven across potential targets. This theory maintains that particular

characteristics of certain homes can remain generally stable over time and either deter or continue to attract offenders (Johnson, 2009). These characteristics can be used to explain why some homes experience repeat burglaries, while others do not. This explanation does not necessarily assert that the same offenders or known associates return back to the same places they initially burglarized (although, this is always a possibility), but rather, attractive place characteristics can continue to attract offenders who become aware of these vulnerable targets.

This explanation of repeat victimization revolves around the ideal of "target attractiveness". The more attractive a target, the more offenders will attempt to victimize it. Hence, these locations are often referred to as being "flagged" since they continuously provide attractive crime opportunities (Johnson, 2009). As Shane Johnson (2009) stated: "as the variation in target attractiveness increases, so too will the concentration of victimization" (p. 216). Across each level of analysis (macro, meso, micro), many factors influence the opportunity for offenders to find attractive targets, find situations in which someone who could intervene and prevent crime is absent, and find specific characteristics that make some crime targets more attractive than others.

Macro-Level: Crime Pattern Theory

Crime pattern theory seeks to explain crime patterns at the macro- or neighborhood-level. It explains why crime is distributed unevenly across neighborhoods. Crime pattern theory asserts that there is strong geographic patterning associated with the commission of criminal acts and victimization.

Paul and Patricia Brantingham (1993) proposed crime pattern theory and explain how offenders find vulnerable targets. An "action space" is an area in which an offender spends most of his or her time. Action spaces can include shopping malls, schools, parks, concerts, their

home, and so forth, as well as the paths that connect these locations. When an offender moves from one location (also called a node) to another, an awareness space around these places and paths is formed (Brantingham and Brantingham, 1993). Traveling along action spaces to different nodes creates a cognitive map within an offender's awareness space. This cognitive map includes places and pathways that the offender is familiar with. It is within these areas that "suitable targets" are likely to be victimized, which explains why there are high crime numbers in areas where there are high concentrations of offenders (Brantingham and Brantingham, 1993).

Much research supports the assertions of crime pattern theory. Most crime, occurs in areas with a higher concentration of offenders (Hirschfield and Bowers, 1998), resulting in high crime areas. Research also shows that most pathways used in the commission of crimes such as burglary are of short distance from the offenders' homes (Snook, 2004). So, offenders do not travel great lengths to commit burglaries, which is why areas with a high concentration of offenders also have high crime. This helps to partially explain risk heterogeneity. More nearby offenders make attractive crime targets more vulnerable. The greater the number of offenders, the greater the likelihood of re-victimization amongst homes deemed as suitable targets within these actions spaces.

Meso-Level: Routine Activities Theory

Routine Activities Theory was proposed by Cohen and Felson (1979). These theorists argued that crime opportunities are created through the patterns of our daily activities. They assert that victimization occurs whenever an offender encounters a suitable target in time and space in the absence of a capable controller (i.e., someone who can intervene and stop the crime from occurring). All of these elements must be present (and controllers absent) in order for a

crime to occur. When controllers are absent, likelihood of victimization increases, and this helps to explain risk heterogeneity for residential burglaries across locations.

Cohen and Felson's (1979) initial analysis of people's daily activities across the United States found that, unlike previous decades when women were more less likely to obtain outside employment or seek advanced degrees, a substantial proportion of homes were more likely to be vacant during the daytime (Andresen, 2014). The "routine activities" of people going to traditional societal workplaces and schools had changed. Cohen and Felson made the assertion that the rise in burglaries during 1947-1974 was due to capable guardians leaving their homes and motivated offenders knowingly taking advantage of their absence during the day time. A more recent study, conducted by Miethe and Hart (2009) using data from 1997-2007, reported similar findings based on Routine Activities assertions. They found that residential burglaries occurred most in the daytime, and burglary rates were substantially lower at night when more people were likely to be home. As such, risk heterogeneity appears to be influenced by what is present (offenders and attractive targets) and not present (potential crime controllers) in any given environment.

Micro-Level: Situational Crime Prevention

Ronald Clarke (1980) proposed Situational Crime Prevention as a theory that could better explain and help prevent crime events than traditional dispositional theories used by criminologists (e.g., differential association theory, social bond theory). Clarke argues that looking at crime as the "outcome of immediate choices and decisions" (p.482) made by an offender, we can better achieve our goal of crime prevention (Clarke, 1980). This theory examines micro-level processes that occur within an offender's mind before they commit a criminal act.

Given the perfect opportunity, anyone could take advantage and commit a crime. This theory operates under the assumption that everyone is a potential criminal. Clarke points out three features that should accompany any explanation of crime: (1) the explanation must be focused directly on the criminal event and include an examination of the offenders, victims, and crime settings, (2) different crimes require their own analysis and explanation (i.e., we should be crime specific in our approach to crime explanation and prevention), and (3) the current circumstance of the individual and immediate features of the setting should be examined (Clarke, 1980).

Clarke argues that by studying how the occurrence of particular offenses are distributed across time and space and by connecting those patterns to observable characteristics of crime events, we will better understand how to create environments that are less conducive to criminal events. In order to prevent criminal events, we must eradicate attractive opportunities. This can be accomplished by increasing the risk of apprehension, increasing the physical effort needed to commit the offense, reducing the rewards associated with the criminal act, reducing provocations that might encourage offending, and removing excuses offenders might use to justify their behaviors (Cornish and Clarke, 2003). Cornish and Clarke (2003) propose 25 techniques that can be used to accomplish these objectives. Examples of these techniques will be provided at the end of this section.

In summary, this theory asserts that people will be more likely to engage in crime if it is less risky, if they are able to complete the criminal task with little effort, and if there is high reward that outweighs their risk, if they are provoked, or if they can excuse their behavior. Thus, risk heterogeneity across specific targets (i.e., the uneven risk of burglary victimization across

residential locations) can be explained based on whether these situational characteristics are

present at some locations and absent at others.

Table 1
Situational Crime Prevention Techniques

Increase the Effort	Increase the Risk	Reduce the Rewards	Reduce Provocations	Remove Excuses
Harden Targets	Extend guardianship	Conceal targets	Reduce frustrations and stress	Set rules
Control access to facilities	Assist natural surveillance	Remove targets	Avoid disputes	Post instructions
Screen exits	Reduce anonymity	Identify property	Reduce emotional arousal	Alert conscience
Deflect offenders	Utilize place managers	Disrupt markets	Neutralize peer pressure	Assist compliance
Control tools/weapons	Strengthen formal surveillance	Deny Benefits	Discouraging imitation	Control drugs and alcohol

Chart 1:
Theoretical Foundation Visual Diagram

Routine Activities Theory
–
Opportunities within immediate environment.
Risk Het. is affected by what is present (suitable targets, motivated offenders,) and what is absent (controllers, guardians)

Crime Pattern Theory -
Neighborhood Distribution of Crime.
Risk Het. Can be partially explained by greater concentrations of offenders making nearby targets more vulnerable.

Situational Crime Prevention-
Offender Perceptions-
Risk Het. can be explained based on whether SCP characteristics are present at some locations and absent at others.

Risk Heterogeneity- Crime is an uneven distribution

Event Dependency

Event dependency, also known as "boosted" risk (Pease, 1998), is provides an alternative explanation to risk heterogeneity in an effort to explain repeat victimization patterns (Johnson, 2009). This theory asserts that the same offenders or known associates often return to victimize the same places. Basically, the first event increases the likelihood that more events will happen soon after since offenders become familiar and more comfortable with these locations. The risk for any given location is highest immediately following a crime event. Unlike risk heterogeneity, risk is not a time stable factor, according to the event dependency explanation (Johnson, 2009). Risk can change due to offender's routine activities and their level of experience, amongst other things (Short, D'orsogna, Brantingham, and Tita, 2009).

Farrell, et al. (1995) stated that when a burglar first walks down a street where they have never committed an offense, they might see only two types of houses: suitable targets and unsuitable targets. As expected, they will burgle the house deemed most suitable (Johnson, 2008). Next time they walk down that street, they see three types of homes: those they deem unsuitable, those they assume to be suitable, and the known suitable (Farrell, 1995; Johnson, 2008). Theoretically, they should choose the known suitable because they know that it will involve the least effort because they have previously victimized the home and are aware of the layout and risks. This is the embodiment of the boost (event dependency) account. This is due to the fact that the offender now knows the area, the suitability of the targets, and how easily accessible the targets are (Lammers, Menting, Ruiter, & Bernasco, 2015).

This boost process is viewed as a "contagion like process" (Johnson, 2009). There is some research to support this assertion. Studies conducted in the UK (Everson and Pease, 2001) showed that when the time frame between repeat crimes is short, it is likely the work of the same

offender. Another study conducted in the Netherlands (Kleemans, 2001) showed the same findings using data from known offenses. Lammers and colleagues (2015), who tested the hypothesis of whether offenders are likely to return to the same areas and commit crime, found that offenders were more likely to target areas that they had previously victimized. This lends support to the boost account. If an offender had committed a couple crimes in an area, they were likely to return to that area again (Lammers, Menting, Ruiter, and Bernasco, 2015). As the number of crimes increased, the odds increased, at the highest level - 9 or more crimes - the odds factor increased by 8.63 (Lammers, Menting, Ruiter, and Bernasco, 2015)

CHAPTER 2: CONCEPTS OF INTEREST – LITERATURE REVIEW

Repeat Victimization

Empirical research has consistently shown that one of the strongest predictors of future victimization, is prior victimization. As Pease (1998) and Budd (1999) stated, "the power of previous victimization as a predictor of future victimization is unsurpassed by any other variable" (Sagovsky and Johnson, 2007). By understanding this dynamic, crime scientists and practitioners will be able to pinpoint likely crime locations in advance, creating greater opportunities for detection and prevention.

The 1992 British Crime Survey found that only 4% of the people endured 44% of all crime victimizations (Farrell & Pease, 1993). Through an analysis of the British Crime Survey, researchers found that less than 1% of homes experienced 42% of all domestic burglaries (Budd, 2001). Another study conducted in Australia using 1992-1993 data found that approximately 29% of households experienced approximately 51% of the property crimes during that period (Murkherjee and Carcach, 1998, Pg. 6). Pease and Laylock suggested that the most precise hotspot is the repeat victim (Sagovsky and Johsnon, 2007).

Research conducted by Sagovsky and Johnson (2007) found that between June of 2002 and May of 2003, out of 31,347 victims, 3,521 (or 11%) were victims of one or more repeat offenses (Sagovsky and Johnson, 2007). Also, they found that the average risk of a house being burglarized was .02%, while properties that had fallen victim to prior victimization had an elevated risk of .12%. This increase shows that homes that had prior victimizations were six times more likely to experience a subsequent crime.

A study conducted by Lammers and colleagues (2015) also found that areas that have been previously victimized are at an elevated risk of repetitive victimization (Lammers, Menting,

Ruiter, and Bernasco, 2015). An area that had a history of prior victimization had an increased risk even if the initial event was two to three years prior. They also found that homes that had suffered previous victimization would suffer the same types of future victimization (Lammers, Menting, Ruiter, and Bernasco, 2015).

The elevated risk of re-victimization is not a phenomenon that lasts forever, as Farrell and Pease (1993) explain; the elevated risk typically diminishes after a few weeks or months. However, empirical research shows that not only is the initial location at a higher risk for possible re-victimization immediately following a crime event, but locations nearby are also at elevated risks. This is known as the "near-repeat" effect.

Research clearly demonstrates that a small percentage of people/targets are repeatedly victimized and account for a disproportionate amount of crime. Therefore, there is a general understanding that repeat victimization and the time between repeat victimizations must be studied further to truly understand this phenomenon. By researching time between repeat events, we might better understand the dynamics of repeat victimization.

Time Window Effect

The "time window effect" is a concept developed by Graham Farrell (1993). It refers to the observational time period in which repeat victimizations (burglaries in this case) are examined. Generally, most national or state crime reports such as the NCVS or UCR only report the annual number of crime incidents occurring during a given year. This is problematic when trying to determine the extent of repeat victimization since a one-year time period might be too short to show the true rate of repeat victimization. Past research has expanded the one-year time window period in order to provide a more complete understanding of repeat victimization.

A study conducted in 2002 by Farrell, Sousa, and Weisel (2002) used a three-year observational period across three major U.S. cities. Using police data, these researchers examined the extent of repeat victimization in Baltimore, Dallas, and San Diego (Farrell, Sousa, and Weisel, 2002). Farrell and colleagues calculated the proportion of repeat burglaries for each month, beginning with month one and increasing to month 36 for each individual city.

The study found that a one-year time window observational period "captures 42% more repeats than a six-month time window" (Farrell, Sousa, & Weisel, 2002, p.19). Further, a "three-year time window captures 57% more repeats than a one-year window" (Farrell, Sousa, and Weisel, 2002, p.19). They found it beneficial to expand the time window to observe reported crime incidents so that there is a more accurate measurement of the true extent of repeat victimization.

Thus, the time window effect can significantly influence the outcome of repeat victimization studies. Longer observational periods can be beneficial, particularly when examining crimes that are relatively rare. Farrell and colleagues suggested that similar research be conducted in different cities to see if their results would be replicated.

Attempted Crime

Graham Farrell (2016) conducted a study on attempted crime and the crime drop. Farrell attributed the drop in attempted property crime to the security hypothesis. The security hypothesis basically states that due to target hardening and increased security measures, offenders found it harder to commit crime and this decreased victimization rates (Farrell, 2016). Farrell studied recent decreases in completed burglaries, as well as decreases in attempted burglaries.

The study found that there is a "2-4 year delay" in the drop of attempts compared to the rapid decline of burglary (Farrell, 2016). During the first four years in the decline in burglary, attempted burglaries were dropping at a rate of 2.1% while completed burglaries were dropping at 21% (Farrell, 2016). This difference suggests that it may be helpful to analyze both attempted and completed burglaries to inform our understanding of repeat victimization.

CHAPTER 3: CURRENT STUDY

Current Study

This research utilizes Henderson Police Department data on attempted and completed residential burglaries for the time period of 2011-2016. This six-year time frame will allow for a more robust analysis of repeat burglaries than has previously been conducted. The sample of burglary events obtained from this time frame will also provide a sufficient number of addresses for the proposed qualitative study explained below.

 Situational factors which explain the phenomenon of repeat burglaries will be tested to show the descriptive information. After differentiating between single event and repeat burglary locations, an analysis was conducted to determine whether the MOs (Modus Operandi) or methods that burglars used to enter the homes differ between single and repeat locations. Further, the time frames in which most repeats occur were tested in an attempt to identify the time period in which previously burgled homes are most at risk. A second set of analyses were conducted using attempted burglary data to determine if any patterns emerge amongst repeats and attempts. A subsample of high repeat, single family homes have been identified. This subsample was used to examine time stable factors that are apparent at these homes. Locations have been analyzed to understand their surroundings and whether or not these locations have similar characteristics which make them attractive targets for potential offenders.

This research seeks to further inform police and academics about the dynamics of repeat victimization to better understand and prevent these crime events. This knowledge might be used to inform our theoretical understandings of repeat victimization and identify the most common time periods in which repeat victimization occurs.

Limited literature has attempted to examine outcomes associated with the time phenomenon related to repeat burglaries. This research has allowed us to examine the consistency of the time phenomenon across different environments. Prior research has been conducted in larger cities with less transient populations (e.g., Farrell, Sousa, and Weisel, 2002).

After completing an extensive review of the literature, there is a general lack of literature that addresses the consistency of the time between incidents for repeat burglaries. By completing this research study in such a transient location, it will inform criminological research on how likely a repeat is to occur within a given time frame. These cities have population numbers that vastly surpasses the City of Henderson, two of them having populations of greater than million residents and the other having double the population of Henderson.

Target City-

The City of Henderson, Nevada is populated with approximately 300,000 residents. The city is unique due to legalized gambling and the transient nature of the Las Vegas valley and surrounding communities. The City of Henderson has approximately 87,600 single family residences, and approximately 27,000 apartments/condominiums (City of Henderson Housing Counts, 2018).

The county in which Henderson is located in is known as Clark County. This happens to be one of the most transient counties in the region. With data from the 2007-2011 census showing that approximately 89,000 or about 5% of residents had lived in a prior county one year earlier. This can be due to many factors such as legalized gambling, or the high number of workers that need to staff our huge hotel industry. This county also has a high rate of construction, drawing in workers for this trade as well.

The City of Henderson is located right next to Las Vegas. So, it is generally considered to be a part of the "Las Vegas Valley". A substantial amount of the jobs are located in Las Vegas (approximately 1 million employment occupations in Las Vegas, and about 130,000 employees in Henderson) as it is the center of the Valley, there are a lot of residents who commute from Henderson with an average commute of about 22 minutes. (American Community Survey, 2015).

Research Question Summation

Summarized, this research attempts to answer 6 research questions. These research questions seek to expose the descriptive nature of the crime of burglary, and the repeat phenomenon that is prevalent amongst this crime. The questions are as follows:

1. What is the proportion of repeat burglaries in Henderson, Nevada during the years of 2011-2016?

2. What are the situational factors of repeat burglaries and how do they compare to single incident burglaries?

3. What is the best "time frame" in which to examine the repeat phenomenon?

4. When a repeat address has been identified, does an offender use the same point of entry on the first incident as they do on the second incident?

5. Are there any patterns in a series of burglary incidents at a repeat location which include attempted burglaries?

6. Are there any similar characteristics at high repeat locations?

CHAPTER 4: METHODS

Sampling Frame

The sampling frame includes all single family residential burglaries and attempted burglaries reported and documented by police in the city of Henderson from 2011-2016, excluding apartment complexes/condominiums. The sample is a non-probability sample due to the fact that only burglary locations will be analyzed. The sample, which contains approximately 3,700 cases is comprised of burglaries and attempted burglaries that occurred at single family residential homes.

Single family residences were selected because due to data limitations associated with missing unit numbers for condominiums and apartments. Using only single-family residences, we were able to examine more accurate burglary characteristics associated with residential properties. An accurate examination of burglaries within multi-residential dwellings is not possible with the available data since different units would be entered into the same address.

Using purposive sampling, all high burglary (addresses that have experienced two or more burglary incidents) locations were selected for further analysis. This allowed a qualitative analysis of residential homes that experienced the highest number of repeat burglary events. The observational analysis may shed some light on why some residential homes are only targeted once or twice, while others may be targeted more than twice (high repeats). Purposive sampling is used here, for the reason that there will be no field analysis of single incident burglary residences, or addresses with one repeat, due to the fact that it is not feasible to complete such a large study given the time frame.

Research Design

The research design involves an analysis of secondary data, and an analysis of observational data collected through field research. The secondary data analysis has included a quantitative analysis of repeat attempted/completed burglaries and calculated time frames in which most repeats fall under. The observational data analysis included site visits to all high repeat locations. A qualitative observational analysis of the -generally- time stable characteristics of the high repeat residential homes was completed in hopes to identify similar characteristics of homes across this small sub-sample.

Beginning with the secondary analysis, all repeat burglaries have been sorted in order to calculate the proportion of repeats within the given data. After the repeats were identified, an analysis of the types of common MOs used, point of entry, times of day, days of week, monthly and seasonal distribution amongst the repeat burglaries was calculated so that common situational factors may be identified. Each repeat burglary has been examined in order to see if the same MO was used for subsequent repeats after the initial event. The same has been done with time of day, and days of week that repeat burglaries occur on.

As for the time phenomenon analysis, the percentage of repeat burglaries has been calculated for each six-month block period, starting with month (January of 2011), and continuing all the way to month 72 (December of 2016). This was done to show the percentage of repeats captured across the 12 time frames(blocks).

Following the secondary analysis, the small qualitative observational analysis was conducted. This was done at the end of the secondary data analysis, which identified high repeat locations. Once the addresses of the high repeat locations were gathered, I conducted site visits at the high repeat residential homes and examined factors that are generally time stable (factors that

are less likely to have changed throughout the 6 years study duration). Characteristics that were examined are as follows: proximity to high/low traffic streets/pathways, where the house is located on a street segment, is the home in a "well-kept" area (no apparent signs of neighborhood decay).

Secondary Data Measures

The variables examined in this study were: time of day, day of week, monthly distribution, type of MO used, home or away, repeat burglaries, repeat attempts, and a time phenomenon effect. Time of day, day of week, and the monthly distribution are just general statistical calculations to be made amongst when the repeat burglaries are actually occurring. Their conceptual and operational definitions are the same, as just the time and day, day of the week, and month that the burglary/attempt took place.

For type of MO (method used to gain entry), this variable has been used in order to identify any correlations between repeats and whether or not offenders are using the same method to gain re-entry into repeatedly victimized homes. The conceptual definition has been defined as the method or object used to gain entry into a residence. The operational definition is the same, but we have only looked at the types of MOs used in repeat burglaries. The way this has been measured is by calculating the number of times the same MO was used to gain entrance into each single-family home, calculated individually for all repeats. For example, if a home was burglarized 4 times, and three out of the four times the offenders climbed into the back-left window, it would be calculated as 75% of time offenders had the same MO to burglarize that particular address.

Repeat burglaries are conceptualized as a single dwelling/ residence that has suffered repetitive burglaries within a given time period. The operational definition is a single-family

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residence that has experienced more than one break in during the time period of 2011-2016. Repeats have been sorted out of the single burglary incidents, by doing so, a proportion of repeat burglaries to single burglaries was calculated. After that, each repeat address was analyzed to see how many repeats occurred at that single address. The percentage of repeats was calculated for each six-month time frame. This was done by listing all burglaries that had a repeat, and calculating the number of days between each incident. I then created 12 set time frames, and placed each incident into the time frame it belonged in. After all the incidents were placed into the appropriate time frames, I calculated the percentage of repeats that each window contained.

Attempted burglaries were conceptualized as a burglary that was attempted, but for some reason, was not successfully completed. The operational definition for this study is an attempted burglary on a home that has been identified as a repeat address, we did not look at attempted burglaries on non-repeat addresses - although for comparison, these data may be analyzed to examine any differences between single incident homes and repeat homes in regards to attempted burglary patterns. For example, if house A had an attempt in 2013, and another attempt or completed burglary in 2014, or if there was a completed burglary followed by attempts, it will be counted in our sample. On the contrary if house A has only one attempt, and no further attempts or completions, it will not be counted in our "repeat" sample. This will be done to also identify if there are any potential patterns in the dynamic relationship of attempted burglaries and completed burglaries.

A time frame is conceptually defined as an observational period in which the phenomenon that is being studied is observed. As for the operational definition, the time frame to study repeat burglary victimization will be expanded to six years. The time-frame has been

broken down by each six-month block, using an algorithm to calculate the percentage of repeat

burglaries that are captured from block one, to block 12.

The conceptual definition for burglary is as defined by the Nevada Revised Statutes is the

entering of a home, or commercial business, vehicle, dwelling, with the intent to commit a crime

(grand or petit larceny, assault or battery, etc.). However, the operational definition will be the

whether a private single family residential home was burglarized and reported to the police. This

method will be the most reliable because we will be able to use exact addresses in order to

calculate the exact number of repeats.

Attempted burglary is defined conceptually as a burglary that was unsuccessful, whether

the offender could not make entry, or was confronted or stopped by police, etc. The operational

definition is the incidents that were not completed, on single family residences that were reported

and documented by Henderson Police Department.

Observational Data Measures

Variables examined for the qualitative study, were characteristics of homes that are

generally time stable, which new residents would not have been able to change if there was

renters or new residents that moved into these homes during the study period. The characteristics

examined were the proximity to high/low traffic streets/pathways, where the house is located on

a street segment, is the home in a "well-kept" area (no apparent signs of neighborhood decay).

A comparison was then done to see if there are any similarities amongst the homes that have

more than two incidents (1 original incident, and 1 repeat).

The reason the observational study was conducted is because research shows that

generally there is a very small population of victims who experience high amounts of crime

(Farrell & Pease (1993), Budd (2001), Sagovsky & Johnson (2007)). It is important to

understand if this holds true for burglary victim (homes) that suffer high amounts of repeat burglary incidents. It is also important to examine any similar characteristics amongst these homes that may contribute to our understanding of why these are becoming micro locations fostering high amounts of repeat crime.

CHAPTER 5: FINDINGS

Findings

After final data was received from the Henderson Police Department, a sort analysis was conducted to find out the proportions amongst each type of burglary target. The findings are as follows; out of approximately 5100 burglary incidents reported to the police from 2011-2016, approximately 1,310 were from condominiums/apartments, 9 reported hotel room burglaries, 3,744 single family residences, and about 24 other (construction sites, public lots). These numbers include any burglary incident, attempt or completion reported to the police department.

Table 3
Type of Residence Proportion

Type of Address	Total	Percentage
Apartment/Condominium	1,310	26%
Single Family Residences	3,744	73%
Hotel Rooms	9	.2%
Other	24	.50%
Total	**5087**	**≈ 100%**

This research study only looked at the single-family residences (SFRs), so the general population (single incidents with repeat addresses removed) was the 3,744 burglary cases that had a SFR designation. Out of the 3,744 SFR incidents, approximately 10% or 365 incidents, were at addresses that appeared in the data more than once. Out of the 365 incidents, 175 were the first time the address was recorded in the data and 190 incidents were repeats at those

addresses. The 175 SFR addresses experienced approximately 10% of all of burglary incidents

from 2011-2016. While the remaining approximate 3,370 addresses experienced 90% of all of

the remaining burglary incidents. Prior research shows similar findings when it comes to the

percentage (10%) of any population that suffers from repeat victimization (Sagovsky and

Johnson, 2007). After the 175 addresses were identified, analyses were conducted to examine

any situational factors that were prevalent amongst these addresses.

After completing a general data analysis of the sample population data, the average

amount of days between the first incident at an address, and a repeat incident (#2) on the same

address is 466 days with a range between 0 to 1,767 days. The average amount of days between

incident two and a third incident at a repeat address is 222 days with a range from 7 to 639 days.

The average amount of days between a first incident and a third incident is 566 days with a range

of 7 to 1,409 days.

Table 4
Incident and Address Count

Sample Category	# of Incidents	# of Addresses	# of Repeat Incidents
Single Incidents (All Burglaries & Attempts, Excluding Repeat Addresses)	3,370	3,370	0
Sample Population (Repeat Addresses)	365	175	190

Situational Factors

The situational factors being analyzed are as follows: day of week, time of day, whether

the residents were at home or away during the incident, and the month/seasonal distribution.

These analyses will provide descriptive information which will better inform the reader on the

nature of burglaries and repeat burglaries, and whether or not there are any differences between

the two.

Day of Week

For the day of the week analysis, no major differences were found between incidents 1, 2 and 3 and how they compared to the single incident's data, but some small differences were detected between the different groups. These differences will be displayed in a table below.

Most single incident addresses had burglaries that occurred on Friday (18%), but Mondays through Wednesdays showed 16% on each of those days, so there were no major differences. Saturdays (11%) and Sundays (9%) were the lowest amongst the single incident addresses. As for repeat addresses, the original incidents were highest on Fridays (18%) as well. The days with the lowest prevalence of incidents were Saturday (9%) and Monday (12%). While Sunday was the lowest of the single incident days, there was a 5% increase on the repeat addresses incident one showing 14%.

As shown in the table below, there was a notable difference between on Wednesday Repeat Incident 2 (22%) and both the single incident percentage (16%) and the repeat Incident 1 (18%) percentage. The analysis showed that on the second repeat, Wednesdays (22%) and Fridays (22%) were the most prevalent days for a repeat to occur at an address. As for the third incident at a repeat address, there was a substantial percentage (40%) occurring on Sundays, however there were only 15 addresses that suffered 3 incidents (1 original, 2 repeats), so while it shows 40% that equates to six incidents out of 15. As for the repeat addresses which suffered a third incident, Mondays (20%) and Sundays (40%) were most prevalent, with Tuesday (0%) and Wednesday (7%) being the least prevalent days.

What is interesting when you combine incidents two and three of the repeat addresses, Friday (21.6%) and Wednesday (21.6%) become the two most frequent days for a repeat to occur. By using this different unit of analysis, we are able to distinguish differences between

single and original incidents and how they compare to a repeat incident. As repeats offences are

considered to be a different phenomenon than a single or original incident, it is important to

examine the differences.

Table 5
Day of Week Distribution

Day of Week	≈ Single Incidents (N=3,370)	≈Repeat Address Inc_1. (N=175)	≈Repeat Address Inc_2. (N=175)	≈Repeat Address Inc_3. (N=15)	≈Repeat Address Incidents 2&3 (N=190)
Monday	16%	12%	13%	20%	13.7%
Tuesday	16%	16%	14%	0%	13.2%
Wednesday	16%	14%	22%	7%	20.5%
Thursday	14%	17%	10%	13%	10.5%
Friday	18%	18%	22%	13%	21.6%
Saturday	11%	9%	11%	7%	10.5%
Sunday	9%	14%	7%	40%	10%

Chart 2
Day of Week Visual

DAY OF WEEK DISTRIBUTION

■ General Population (Repeat Addresses Removed) Percentage   ■ Repeats Percentage

Monday 16.0% / 13.5%; Tuesday 16.0% / 13.0%; Wednesday 16.0% / 21.0%; Thursday 14.0% / 10.0%; Friday 18.0% / 22.0%; Saturday 11.0% / 10.5%; Sunday 9.0% / 10.0%

PERCENTAGE

DAY OF WEEK
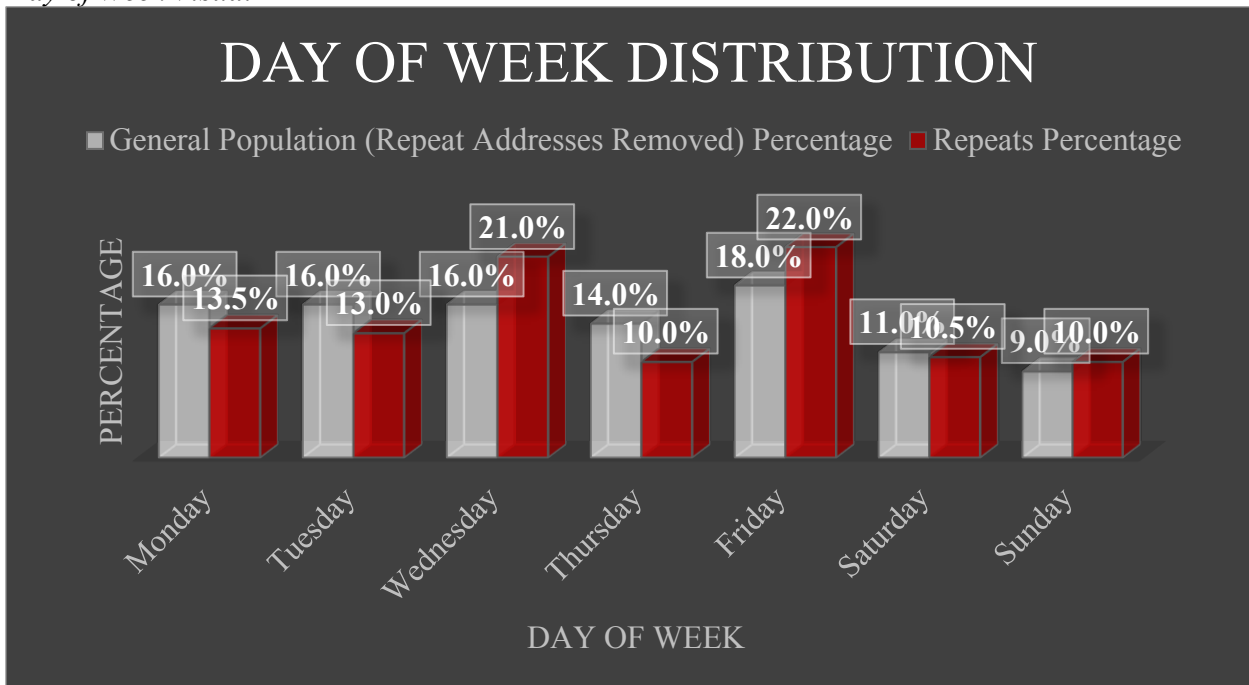
Time of Day

Prior research demonstrates that most burglaries that happen at single family residences occur during the daytime, usually while the household members are engaging in their routine activities such as work, schooling, etc. Analysis showed that this is holds true with this data set as well. In fact, this showed true across the single incidents' data, and across all three categories of the sample repeat population data. The day time burglaries were consistent at around 66-68%, with night time burglaries at around 31-33%.

There were no notable differences between repeats and single or original incidents in general. The high daytime frequency holds true across repeats as well as single and original incidents.

Table 6
Time of Day Distribution

Day or Night	Single Incidents	Repeat Address Inc_1	Repeat Address Inc_2	Repeat Address Inc_3	Repeat Address Inc 2&3
Day	66%	69%	67%	67%	66.8%
Night	34%	31%	33%	33%	33.2%

Chart 3
Time of Day Visual
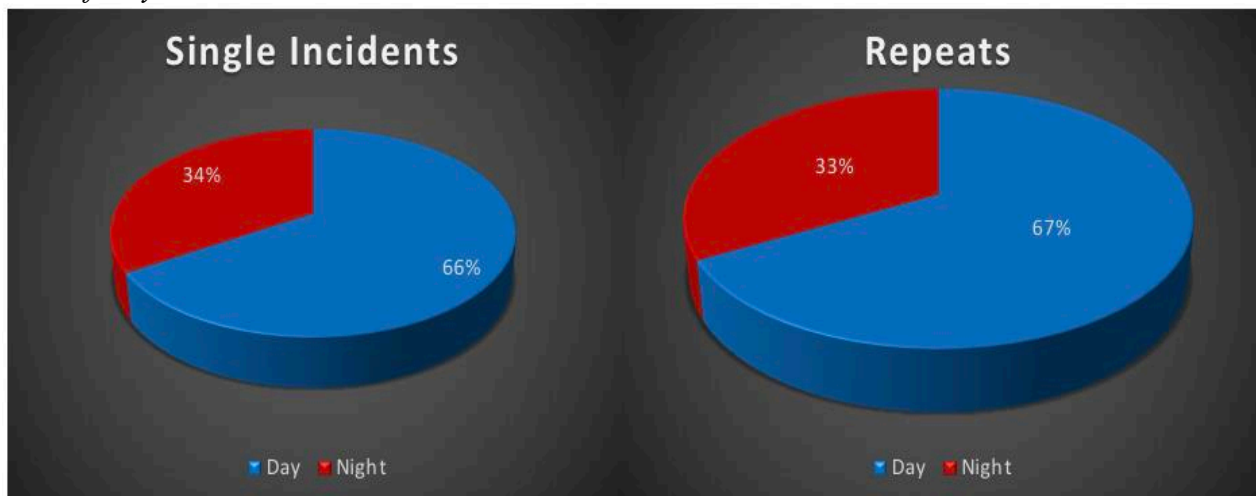
Home or Away

One of the variables tested for was whether or not the victim was at home during the burglary/attempt, or whether they were away. This data was available for five out of the six years, as the Henderson police department did not record this data during 2011, so some missing data does appear in the analysis for the 2011 year. This variable is important to examine because it gives researchers an insight to the offender's risk versus reward mental processes. If there is a general pattern towards the victims not being home during the incident, that lends support to the opportunistic perspective as the cause of crime, given the "perfect opportunity" – least risk involved- an offender is likely to take advantage of the scenario.

As theory suggests, an analysis concluded the same general finding across our single incidents, as well as the sample populations three categories. A substantial majority of cases showed that the victims were not at home during the incidents. Findings will be displayed in a table below.

As for the single incidents, a substantial majority (66%) of victims were not at home during the incident. While approximately 11% were at home during the incident. Our sample population showed similar findings, with 69% being away during the original incident, followed by 81% not being home during the second incident (first repeat) and 100% not being home during the third incident. With the gradual increase of the residents not being home during the majority of the second incidents, and not one single resident being at home for the third incident, this lends possible support to the boost account of repeat victimization because it demonstrates a pattern that gets stronger per incident. This could be because offenders are analyzing the routine activities of the victims and returning to the addresses when they know that the residents will not

be at home. However, without completing offender interviews, the true explanation of the cause will be unknown.

The results showed similar findings across repeats and single incidents, there were no major differences. With repeats, the victims were not at home during the incident a substantial majority of the time.

Table 7
Residents at Home or Away

Sample Category	Home	Away	Other[1]	Total
Single Incidents	11%	66%	23%	**100%**
Repeat Address Inc_1	6%	69%	25%	**100%**
Repeat Address Inc_2	12.7%	81%	6.3%	**100%**
Repeat Address Inc_3	0%	86%	14%	**100%**
Repeat Address Inc 2&3	11.6%	81.6%	6.8%	**100%**

Chart 4
Home or Away Visual
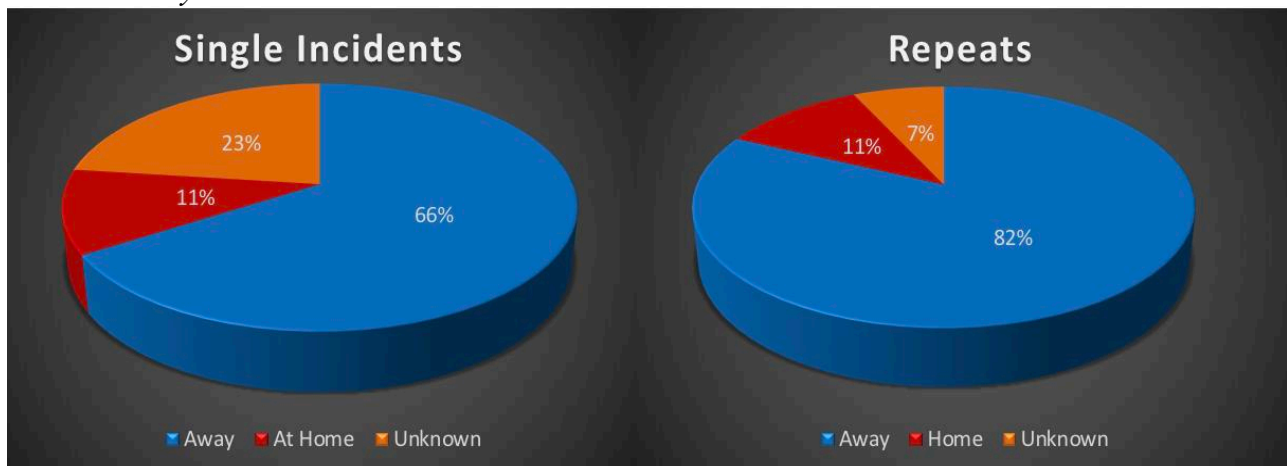
[1] Other category includes missing, vacant, for rent, for sale, evicted, unknown.

Month and Season Analysis

For the single incidents, July (9.6%), August (9.1%), and December (9.3%) were the months with the highest recorded number of incidents. For the repeat addresses - the sample population - the months with the highest frequencies of original (Inc_1) incidents were January (14.3%), June (12.6%), and August (9.7%). As for the second incidents of our sample population, May (11.4%), August (10.3), September (10.3%), and December (10.9%) had the highest frequencies. Lastly, the third incident cases had higher frequencies in February (13.3%), May (33.3%), June (13.3%) and November (13.3%).

Trying to compare across single months does not produce major findings, only relatively small differences. August does appear in the single incidents as well as in the first and second incidents as a month with high frequency. The only substantial difference is the month of May from the third repeat incident category, which had 5 burglaries which accounted for 33% of that group (N=15). For repeats (Incidents 1&2), May (13%), September (10%) and December (10%) had the highest frequencies. When comparing between the single/original incidents, May and September only appear as highest when analyzing repeats, while December has high frequencies in single incidents and repeats.

The table below demonstrates the distribution of repeats across every month beginning with January of 2011 to December of 2016. The totals column reflects the repeat incidents only (Incident 2 + Incident 3).

Table 8:
Monthly Distribution of Repeat Incidents

	2011 INC_1 INC_2 INC_3	2012 INC_1 INC_2 INC_3	2013 INC_1 INC_2 INC_3	2014 INC_1 INC_2 INC_3	2015 INC_1 INC_2 INC_3	2016 INC_1 INC_2 INC_3	TOTALS INC_1 INC_2 INC_3	TOTAL REPEATS (INC_2+INC_3)
January	4 / 1 / 0	6 / 4 / 0	5 / 2 / 0	4 / 1 / 0	2 / 1 / 0	4 / 2 / 1	25 / 11 / 1	*12*
February	0 / 0 / 0	5 / 2 / 0	2 / 3 / 0	3 / 2 / 1	3 / 4 / 0	2 / 3 / 1	15 / 14 / 2	*16*
March	2 / 0 / 0	1 / 2 / 0	1 / 2 / 0	2 / 2 / 0	1 / 1 / 1	1 / 1 / 0	8 / 8 / 1	*9*
April	4 / 0 / 0	1 / 1 / 0	6 / 3 / 0	3 / 3 / 0	2 / 5 / 0	0 / 4 / 0	16 / 16 / 0	*16*
May	1 / 1 / 1	2 / 3 / 0	3 / 2 / 0	3 / 3 / 2	1 / 4 / 1	0 / 7 / 1	10 / 20 / 5	*25*
June	6 / 0 / 0	3 / 0 / 0	7 / 3 / 2	2 / 3 / 0	2 / 2 / 0	2 / 4 / 0	22 / 12 / 2	*14*
July	1 / 0 / 0	6 / 2 / 0	3 / 6 / 1	0 / 2 / 0	3 / 3 / 0	1 / 4 / 0	14 / 17 / 1	*18*
August	3 / 0 / 0	4 / 4 / 0	5 / 2 / 0	1 / 5 / 0	2 / 4 / 0	2 / 3 / 0	17 / 18 / 0	*18*
September	1 / 1 / 0	5 / 0 / 0	1 / 4 / 0	2 / 5 / 0	0 / 3 / 0	0 / 5 / 1	12 / 18 / 1	*19*
October	3 / 0 / 0	5 / 2 / 0	2 / 2 / 0	3 / 3 / 0	1 / 2 / 0	0 / 1 / 0	13 / 11 / 0	*11*
November	3 / 0 / 0	4 / 1 / 0	0 / 2 / 0	0 / 3 / 1	1 / 3 / 0	1 / 2 / 1	9 / 11 / 2	*13*
December	5 / 0 / 0	3 / 5 / 0	0 / 0 / 0	3 / 5 / 0	2 / 5 / 0	1 / 4 / 0	14 / 19 / 0	*19*

By comparing across seasons, results for the single incidents showed that the Summer season had the highest number of incidents at 909 or 27% followed by Winter (N=852) at 25%, while spring and fall were at about 24% each. As for the seasonal distribution of the first incident at repeat addresses, it followed a similar pattern with the Winter (N=54, 31%) season having the highest frequencies followed by Summer (N=53, 30.3%), with Spring and Fall at 19.5% each. Lastly, repeat addressee's incidents 2 and 3 were combined to analyze the difference in actual repeats versus single incidents, and the original incident at a repeat address cannot be counted as a "repeat". By doing this, a small difference was detected in the seasonal distribution of repeat criminal incidents. For the repeats (Incidents 2 and 3), the leading seasons were Spring (N=50, 26%) and Summer (N=50, 26%), with Fall (23%) and Winter (25%) behind them.

Table 9:
Seasonal Distribution

Sample Category	Spring	Summer	Fall	Winter
Single Incidents	(N=802) 24%	(N= 909) 27%	(N=807) 24%	(N=852) 25%
Sample Repeat Address (Original Incidents, #1)	(N=34) 19.5%	(N=53) 30%	(N=34) 19.5%	(N=54) 31%
Sample Repeat Address Inc_2	(N=45) 25.7%	(N=46) 26.3%	(N=40) 23%	(N=44) 25%
Sample Repeat Address Inc_3	(N=6) 40%	(N=3) 20%	(N=3) 20%	(N=3) 20%
Sample Repeat Population (Repeat Incidents 2 & 3)	(N=50) 26%	(N=50) 26%	(N=43) 23%	(N= 47) 25%

Time Phenomenon Analysis

As past research has shown, a one-year period is not an adequate measurement time-frame to understand the true extent of repeat victimization. To fully demonstrate the prevalence of repeat victimization after the one-year period, this analysis expanded the time frame to six years. This was done by calculating the number of repeat incidents that occurred within 6 months period, each of these periods will be referred to as "time frames". Each year (12 months) will be broken into 2-time frames (Two 6-month periods). By beginning with time frame one, we are looking at incidents that occurred within 182 days, or one to six months, and time frame two would be incidents that occurred between 183-365 days or months seven to 12. This same method was applied all the way up to month 72. There are 12 time frames, two for each year in our six-year sample.

For this analysis, all 365 incidents that occurred at our identified 175 repeat addresses had to be written down by hand to calculate the number of days that occurred between incident 1 and incident 2, as well between incident 2 and incident 3. Those calculations (N=190) were then sorted into the different time frames to see the prevalence of repeats within each window. It is important to note that due to data structure, the repeats addresses were identified first, the data

includes all repeats that occurred within that 6-year period (Ex. If there is a burglary recorded in December of 2016, and appeared in the data before, it is counted as a repeat. If there is a burglary in December of 2016, and a repeat in January of 2017, it is not counted in the sample). This means that the last year to count an incident as a repeat is 2016.

Findings from this analysis showed that a one-year period only captured about 59.5% or 113 cases of repeats. In that one-year period, time frame 1 captured 45.74% and time frame 2 captured 14.74%. of the repeats. Most victimization surveys are done an an annual basis, this is problematic because findings from this study demonstrate that while a one year period may capture a substantial majority (59%), it does not fully capture the true extent of repeat victimization.

By expanding the time frame to two years, you capture 21.1% more repeats than the first-year period. Broken down into time frames, time frame 3 (Months 13-18) captured 13.7% and time frame 4 (Months 19-24) captured. Followed by a third-year capturing 8.4% more repeats than the first and second year. When the third year is broken down into time frames, time frame 5 (months 25-30) captured 4.7%, while time frame 6 (months 31-36) captured 3.7% more cases than time frames one through five. Year 4 (time frames 7 and 8) captured 8.4% more cases than prior years. Broken down, with time frame 7 (months 37-42) at 2% and time frame 8 (months 43-48) at 6%. The fifth year captured 2% more than prior years and the sixth year captured .53% more than all prior years by expanding the time frame to six years we were able to capture 40% (Years two through four accounting for approximately 38%) more repeats than if one was to only look at a one-year period.

Table 10

Time Measurement for Repeat Incidents

Time Frame Blocks (Block #. Months)	# of Incidents Within	% of Repeats captured	Cumulative Percentage
1. 1-6	85	44.74%	44.74%
2. 7-12	28	14.74%	59.48%
3. 13-18	26	14%	73.48%
4. 19-24	14	7%	80.48%
5. 25-30	9	5%	85.48%
6. 31-36	7	4%	89.48%
7. 37-42	4	2%	91.48%
8. 43-48	12	6%	97.48%
9. 49-54	2	1%	98.48%
10. 55-60	2	1%	99.48%
11. 61-66	1	.52%	100%
12. 67-72	0	0%	100%

Modus Operandi Analysis

The research question which was not found in prior research was whether or not offenders use the same point of entry recorded on the second incident as the point of entry recorded on the first incident. By examining this, future research can attempt to look at whether it is the same offenders who are returning and know the simplest way to get into the home or if it is more of a flagged characteristic on the home that draws offenders.

An analysis of the point of entrance yielded that in about a third (31%) of the repeat incidents, offenders used the same point of entrance (POE). While this is not a huge number, it is important at around 55 cases, which may have been prevented by target hardening that specific point of entrance. 54% of the cases had different points of entry. Also, approximately 15% of the cases had incidents were the point of entry could not be determined by police, so it was simply

entered in as unknown. This can be explained by both the boost account and flag account of repeat victimization. The boost account explanation would be that the same offenders know that the point of entry is a successful entrance point, they utilize this knowledge if and when they return to the address. The flag account can explain this by asserting that it is a physical "flagged" characteristics in which potential offenders see and utilize these access points.

Due to this finding being able to be explained by both accounts, a cross tab comparison was conducted in order to see if one account was favored over the other. Out of the 55 cases that had the same point of entry, 24 cases also used the same method. Out of the 55 cases with the same point of entry, 10 also had the same day of week. Five cases had the same POE, same day of week, and the same method. When a case meets at least two out of the three situational factors, this could lend more support to the boost account, due to a pattern emerging at a single address.

Chart 5
Same Point of Entry – Repeats Visual
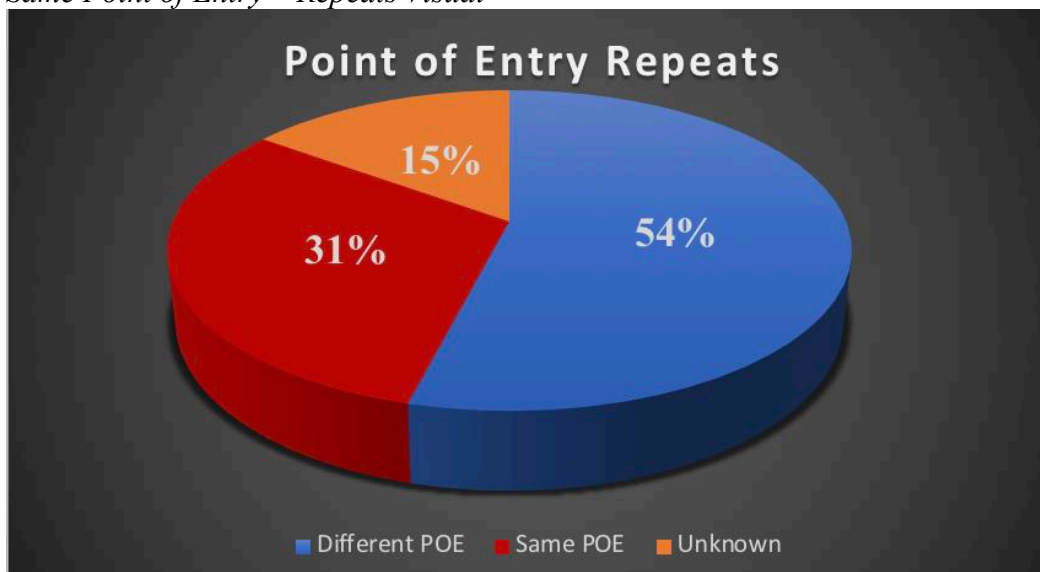
An analysis was also conducted on the methods offenders used to gain entry. The two variables examined was whether or not force was used, and the different types of methods they used to gain entry.

For the single incidents, a majority (61%) of incidents involved use of force to gain entry, and 39% did not. The results showed that in 60% of the original incidents at repeat addresses, offenders used force to gain entrance while 40% of them did not use force or there were no signs of forced entrance. In the second incident at repeat addresses, 63% of offenders used force while 37% did not. In the third incidents, 53% of offenders used force, and 47% did not.

When the use of force is broken down for the single incidents, the most common methods used to gain entry are breaking glass (N= 760, 22%), "kicked" (N= 342, 10%), and using tools to pry things open (N=343, 10%). The same pattern held true for the first incident at repeat addresses, as well as the second incident, although there was unknown data for both the original incidents (N= 53, 30%), and second incident (N=65, 37%). As for the third incident, prying and breaking glass had the highest frequencies as well, with unknowns in the third incidents at (N=5, 33.3%). The table below shows the specific breakdown for each category.

Almost 11% of criminals gain entry simply because the point of entry was left unlocked or open on single incidents. That's about 300 incidents where a criminal gained entry simply because the homeowner did not secure the premises. For the repeat addresses' first incidents, a surprising 40 incidents (23%) also involved an open point of entry for the offender. On the second incident 31 (18%) cases had an open point of entry, and the third incident had 2 (13.3%) incidents with open points of entry.

These MOs are very common amongst all of the single burglary categories, as well as the repeat burglary categories. By securing one's home, or target hardening with tools and methods designed to stop these specific MOs, one could significantly reduce the risk of becoming a victim of burglary. By locking one's doors and windows at night or changing the locks after someone is kicked out, one could also substantially reduce their risk.

Another analysis was done to show whether or not offenders use the same method on the repeat incident as the first incident. The results showed that in about 30% (n=43) of the cases offenders used the same method to gain entrance on both incidents. This could be due to chance, or due to the same offenders or known associates returning to their previous victims and utilizing their choice of MO on how to gain forceful entry.

An interesting finding to highlight is that the in the repeat categories for each incident, the method for how an offender got in is doubled (30% and up) as compared to the single incident cases (15.6%). This can be viewed in the table 12 *Methods Used for Entrance.*

Table 11
Methods Used for Entrance

	Single Incidents N=3,370	Repeat Address Inc_1 N= 175	Repeat Address Inc_2 N=175	Repeat Address Inc_3 N=15	Repeat Address Inc 2&3 N=190
Broke Glass	22%	17%	19%	20%	19.5%
Pried	10%	15%	11%	20%	11.6%
Kicked	10%	7%	10%	0%	8.9%
Unknown	15.6%	30%	37%	33%	36.8%
Open	10.7%	23%	18%	13%	17.4%
Keys	3.1%	3.4%	1.7%	7%	2.1%
Other	30%	4.6%	3.3%	7%	3.7%

Chart 6
Same Method used for Entry – Repeats Visual

METHOD USED TO GAIN ENTRY

30%

70%

■ SAME METHOD   ■ DIFFERENT METHOD
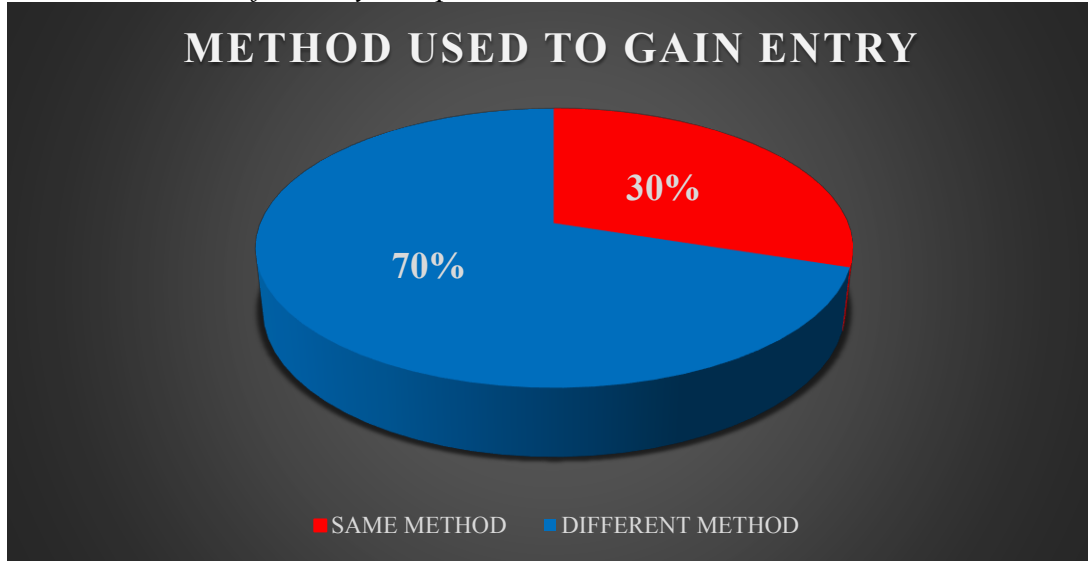
Attempted Burglary Analysis

Attempted burglaries were analyzed in order to discover the proportion of attempts amongst the single incidents, the sample population, and the patterns found in a series of burglary incidents at a repeat address. Burglaries that were not completed are listed in the data as an attempt.

For the single incident population, there are 219 attempts on single family residences. That equates to about 6.5% of the single incidents. Of those 219 cases, the most frequent days were on Fridays (N=44, 20%) and on Thursdays (N=35, 16%). The percentage of people who were at home had a substantial increase (30%) from 11% (when viewing the non-attempt single incidents' data) to 41%. One can draw from this that being at home is statistically significant when it comes to a burglary not being completed. The highest frequency months for the attempts in the general data were January (N=25, 11.4%), June (N=25, 11.4%), and October (N= 23, 10.5%).

In the sample population of repeat addresses, there were 25 attempted burglaries identified. Which calculates to approximately 6.8% of all of our incidents at the repeat addresses. Two types of patterns were identified during this analysis. The first type of pattern of a burglary/attempt series identified, were addresses that suffered an attempted burglary as the first original incident at an address, followed by completed burglaries on the second incident. The second type of series identified was where there was a completed burglary as the first original incident at an address, followed by attempted burglaries on the second or third incident.

For the first pattern for type of burglary/attempt series, beginning with an attempt as the first incident, and a repeat as the second, these accounted for 25% of our attempted burglary population at repeat addresses. Some correlations that were found were that 4 out of 6 (67%) of these occurred during the night time. Also, 50% (N=3) of these series had the same point of entrance on the attempt, as the point of entrance for the second completed burglaries. This shows some support for the boost account of repeat victimization because it suggests possibly that they were not successful during their first attempt but may have returned at a later date to finish and complete the burglary.

For the second pattern of a burglary/attempt series (75% of our attempted burglary population at repeat addresses), there was an attempt counted in one of the "repeat categories" (incident 2 or 3) and a completed burglary on incident one. 100% (N=18) of these cases had an attempt as the second incident, or the "first repeat (Incident 2)" was an attempt. Of these cases, 89% (N=16) involved force, while 11% (N=2) did not involve force. No differences were found in the modus operandi used to gain entrance. The most frequent months were April (N=3, 17%), and August (N=4, 22%). The most frequent days were Wednesdays (N=5, 28%), and Thursdays (N=4, 22%). These cases followed the same trend as the other samples when it came to the

resident being not at home (67%) during the incident, but it did have a significant increase to 30% (increase of approximately 18%) of residents being at home during the incidents. One interesting finding while examining these specific types of burglary/attempt series was that there was an average of 239 days between incidents, which is within a one-year time period, while the average days between incidents with two completed burglaries is just over 400 days. This type of pattern suggests that these homeowners could have done something after the original incident to stop offenders from having a successful second try. Or the attempt or failed burglary could be due to the combination of the short amount of average days between incidents, and the increased presence of residents being at home.

Observational Data Site Visits

After completing the analysis of repeat addresses, it was discovered that only 15 had 3 incidents at the address. This is a relatively small number but holds true with prior research that a small percentage of the population suffers a great amount of victimization. The repeats at the 175 addresses were mostly two incident series, with only that 15 or about 8.5% of the population having a three-incident series.

After trying to discover similarities between the cases, there was nothing to be found that made the cases similar based on situational characteristics other than the similarity between the residents not being at home during all three incidents. Out of the 45 incidents that occurred at the 15 addresses (15 multiplied by 3), residents were at home on only three incidents (6% of the time) and were not at home 84% of the time with 9% of missing data.

Due to limitations of the data, the qualitative portion was not adequately examined. In an attempt to examine some more macro level neighborhood characteristics that the homes resided

in, some field research was conducted, but minimally. The results are as follows to demonstrate some of the contextual factors (environmental factors) of high repeat locations.

The houses (N=15) were each visited, and generally time stable factors were looked at rather than characteristics of the physical homes. One major correlation that was found that about 58% (N=7) of the single-family residents visited were on the corner of a street either before a cross street or before the direction of the street was altered by curves or different construction. Corner houses are more likely to be burgled and this shows to be true across many research studies (Hakim & Buck (1992), Taylor & Nee (1988), Weisel (2002)).

Two of the homes found within two blocks of each other were directly in front of or behind an alley way and facing a medium - high traffic street, the neighborhood that these two homes were in seemed to be of lower income levels. Two of the addresses were found to be a mobile home without the unit listed. Most (N=8) of the homes that were visited where in considerably nice neighborhoods with no signs of decay or neighborhood neglect, which one may imagine this is how a high repeat location would look. Only one of the homes in this sample was located on a cul-de-sac.

The homes were not clustered into one neighborhoods, most were in generally different areas, so that ruled out macro level characteristics of neighborhoods. This lends support to the theoretically foundation that crime is based on an opportunistic level that is much more micro than large macro neighborhood characteristics.

The findings were minimal in this portion. Further research is suggested for this type of analysis. To understand the true effect of high repeat homes, one must have access to the victims so that they can determine, and changes made to the homes during the time frames that are being

studied. Being unaware of changes, makes it difficult for a researcher to understand the true

causes of these crimes.

CHAPTER 6: LIMITATIONS, DISCUSSION, AND CONCLUSION

There were a few notable limitations to this research. One of the main limitations was that I did not have access to the offender names. This was a limitation because this missing piece of information would have allowed me to better test the event dependency account for repeat victimization by seeing if it was the same offenders returning to addresses. Without offender interviews, it is difficult to make the assertion that the correct explanation for repeat victimization is event dependency or the "boost" account.

Another limitation is that I did not have access to the victims' names either. This limitation had an impact because I was unaware of home ownership/occupancy changes throughout the six years. An important aspect to examine may be whether or not it is the physical house that is being targeted or the people whom reside in the residence. By having the victim names, it would have allowed for a more robust analysis, because I would have been able to factor in if the occupants made any changes following a burglary that would have contributed to a failed attempt on the second incident. Victim names would have been especially important in the 18 homes where there was an attempt classified as the "first repeat" (second incident) for the very reason of analyzing whether or not homeowners applying SCP techniques were the cause of the failed burglary attempts.

Due to data and time constraints, I was unable to explore the phenomenon known as "near repeats". This is an important concept to look at because it identifies the homes that were targeted which were in direct proximity to an original burglary. This could be the house directly next door, or a few doors down, or the house across the street. Research has sought to examine this phenomenon because these series of burglaries are often thought to be completed by the same offenders.

Discussion

No previous studied could be identified which examined the relationship between the first point of entry in a burglary and whether or not the second point of entry is the same. The findings showed that in approximately 31% of the cases, or 55 instances, the point of entry was the exact same. Further research should be completed on this relationship. This would lend support to both the risk and boost account of offenders. It could be a flagged risk on a home that offenders view as a suitable easy entrance point. It could also be the same offenders or known associates returning to victimize the same location due to the fact that they would now know that it is a suitable target, rather than risking a new address, why not return to one that is known. Without doing offender or victim interviews, it is hard to determine which account holds truer. It is also possible that both accounts can be equally true.

As with prior research, similar results were yielded in this study in regard to the situational characteristics of the incidents, such as a substantial majority of most burglaries occurring in the daytime across all samples of single family residences. As well as higher numbers in the summertime and around the holidays when offenders know that there is much to be gained from burgling a home. No significant findings suggested any major differences.

As for the attempted burglary analysis, further research should be done on the 18 homes that when an attempt was made on the second incident it failed. By further investigating this, we may be better able to combat the issue of burglary by learning any defensive measures the homeowners took after they suffered victimization from the initial incident.

One major finding of this study was that a one-year time period only captures 59.5% of repeat burglary incidents. This shows why victimization surveys that wish to study the extent of true repeat victimization rates must expand their measurement period to capture the remaining

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percentage of true repeats. The 2-4-year time period captured 38% more repeats than by just looking at one year. By examining these incidents at a more scrupulous level, researchers may be able to better identify what is driving these high numbers of repeats. With Ferrel, Sousa, and Weisal's (2002) study, which tested the time window phenomenon (I tested a similar but different time phenomenon), they found that once you indexed the first year of the time window at 100, you capture on average between the three cities in their study, 157% of the repeat burglaries.

For the observational site visits, one interesting finding was that around 60% of those 12 (a few were removed after problems identifying unit numbers) homes resided on the corners of their streets. This shows that the physical position of one's home on a street actually does matter to offender perceptions of target attractiveness (Hakim & Buck (1992), Taylor & Nee (1988), Weisel (2002)). Corner homes are more likely to be targeted likely to the easy visibility from multiple angles and the higher traffic areas when streets meet together (Hakim & Buck (1992), Taylor & Nee (1988), Weisel (2002)).

The data from this study did not favor the boost account over the flag account or vice-versa. More research needs to be done to determine which is to be more accurate if this is even the case. It is also possible that both accounts hold true under different circumstances and understanding both risk heterogeneity and event dependency are essential to understanding repeat burglaries. Using the findings from this study one can make arguments to support both theories of repeat victimization.

Repeat burglaries followed much of the same patterns shown in the data for single incidents. There appears to be no extreme fundamental differences in the repeat phenomenon and the single incident cases. The study did provide much descriptive information about the

situational factors of burglaries and repeats, as well as the time periods that most repeats fall under, which may be useful for the police department to further understand the issue of repeat burglaries in this city.

Policy Implications

One policy that should be put fourth is how newer homes should be built. If policies can be adopted which regulate target hardening tactics into the foundations of the homes, many burglaries could be prevented. Such as longer screws to place into doorways so that the doors are harder to kick in. Or a film that is to be placed over glass windows and doors that prevents it from shattering. As glass breaking and doors being kicked in were the most common methods used in burglaries, it would be beneficial to apply situational crime prevention techniques of target hardening to the locations that offenders can use to make entry into a home. People should also lock their doors, this policy should be derived from common sense practices, rather than an official policy.

Another policy that should be developed is one routed in situational crime prevention theory, that informs burglary victims of measures that they can take to protect themselves from future victimization. It would be so beneficial to have PSU detectives respond to burglary victims and provide them with education and counter measures that they can take to protect their homes. Homes in nearby vicinities should be educated as well. Especially after seeing that 32% of offenders in the repeat sample used the same point of entry to gain access to the home.

By enacting such a practice, it would allow the police not only to better interact with communities and build community relations, but it would also allow them to over time target harden communities, with the chance of them decreasing their possible calls for service in the future. So ideally, it would knock out two issues at once.

Police should also keep a rolling database of repeatedly victimized addresses. By keeping the database current and updating it whenever another repeat has occurred, it is easier to distinguish patterns between the repeats and the single incidents. It is also important for officers to enter information in a uniform manner. By doing this, analysis can be conducted to show the relationships between variables and the true extent of repeat victimization.

Conclusion

As stated before, further research should be conducted on this topic. While the findings displayed descriptive information in regard to the characteristics of single incidents and repeat incidents, the data was too limited to really draw conclusions as to why this is occurring. One major walk away point from this study is that we will never know the true extent of repeat victimization unless the we truly expand the time frames to longer than 1 year. This study would suggest expanding the time frame to 3-4 years, as we will easily be able to examine over 95% of the repeats that happen within a 6-year period. While some may argue that maybe only the first two years should be analyzed, this would not allow for police to identify these micro location, by expanding the time frame police can identify all micro locations fostering high numbers of burglaries.

Repeat victimization is an important issue to study because it truly effects people's lives. It is understood through research and studies across criminology and psychology the true effects of what on victimization experience can do to someone. It is hard to even fathom what two, or three victimization experiences can do to someone. Especially when we are examining the one place where someone should feel safe and at comfortable, in their own homes. While some scholars may argue that burglary victimization does not compare to more personal victimization types, I would argue that it in fact does compare almost equally to those. People have a great

amount of time, effort, money, feelings invested into their homes, and when that is comfort is taken away from them, the effects can be severely damaging on both a personal and financial level.

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CURRICULUM VITAE

Joshua W. Donnelly

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Objective: As a first-generation college graduate in the field of criminal justice, I would like to bring innovative change within the criminal justice system by learning all that I can from top academics within my discipline and placing that knowledge into action. By obtaining my Doctorate, it would empower me to bring innovative and positive change to communities across the United States in hopes to combat and understand the complex issues of crime. .

Skills & Abilities: My skills and abilities include (but are not limited to):

- Communicate professionally to large audiences.

- Operate all of Microsoft Software Programs (PowerPoint, Excel, Word, Note)

- Analyze data and demonstrate findings by creating visual graphs.

- Conduct research, gather data, operate SPSS.

- Conduct professional interviews, gather survey data by conducting field research.

- Creating surveys.

- Conduct extensive literature reviews.

- Type professionally using APA format.

- Mentoring students.

- Act as a liaison between multiple professional parties.

- Teach lessons to at-risk students on reading, communication, and positive relations with community.

- Convey learned knowledge of criminology and criminal justice field to audiences.

Experience:

<u>All Star Bonding, Inc</u>

2010-2015

Responsibilities included managing financial accounts, as well as to keep track of assets and petty cash. Filing the annual "Qualifying Powers" within each court in Nevada. I was tasked to create an employee handbook/rules and operating procedures for the company by the owner after legal action were brought against the company.

<u>360 Blueprint</u>

2013-2105

Responsibilities included; working with the Reno Police Department in mentoring the "at risk" youths within the community school district, providing volunteer work to the schools within the Washoe County School District.

<u>University of Nevada, Las Vegas</u>

2016- Present

Graduate Research Associate - Tasked with being a researcher and the official liaison between the Henderson Police Department (HPD) and the University of Nevada, Las Vegas for a SMART policing grant known as VECTRS (Principal Investigators: William Sousa, Ph.D., & Tamara Madensen-Herold, Ph.D.). My responsibilities included: communicating professionally between both organizations, scheduling meetings, site visits to HPD, interviewing HPD personnel, creating measurement tools for the analysis

of the VECTRS project, analyzing crime data, creating PowerPoint presentations and visual graphs.

National Science Foundation Grant #1625808

2017- Present

Principal Investigators: Joel D. Lieberman, Ph.D., Terance Miethe, Ph.D.

Graduate Research Associate- I acted as a field research surveyor. My responsibilities included: going door to door within Las Vegas communities surveying residents, serving as a group leader in the field, organizing groups schedules, and organizing the tracts for timely completion.

EDUCATION:

College of Southern Nevada 2013-2014

Dean's List & Honors Distinction, 3.75 GPA.

University of Nevada, Reno 2013-2015

Criminal Justice and Psychology coursework completed, I also volunteered with the Reno Police Department for both years while in Reno.

I also was placed into a Trial and Law course which was taught by two District court judges, this allowed me to learn trial techniques as well as a great amount of information pertaining to criminal law.

University of Nevada, Las Vegas. 2015-2016

 Dean's List. Criminal Justice Coursework. Criminal Justice Graduate.

University of Nevada, Las Vegas. Graduate Career

Criminal Justice MA. 3.93 Cumulative GPA.

Member of Alpha Phi Sigma- Criminal Justice Honors Society

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