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Fear of becoming a victim of crime on a college campus: a visual and factorial experimental design survey analysis of location and demographic factors.

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FEAR OF BECOMING A VICTIM OF CRIME ON A COLLEGE CAMPUS: A VISUAL AND FACTORIAL EXPERIMENTAL DESIGN SURVEY ANALYSIS OF LOCATION AND DEMOGRAPHIC FACTORS

By

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B.S. University of Louisville, 2009
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A Dissertation Approved on

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DEDICATION

This dissertation is dedicated to my family

Mr. Thomas J. Steinmetz

Ms. Amy Michele Steinmetz

Mr. Douglas McDaniel Steinmetz

Ms. Danielle Collins

Mr. Troy Bennett Steinmetz

Mr. Bennett Cole Steinmetz

and

Mr. Jackson Jett Steinmetz

who have supported, encouraged, and inspired me to always be fearless in my endeavors

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ABSTRACT

FEAR OF BECOMING A VICTIM OF CRIME ON A COLLEGE CAMPUS: A VISUAL AND FACTORIAL EXPERIMENTAL DESIGN SURVEY ANALYSIS OF LOCATION AND DEMOGRAPHIC FACTORS

Nancy McDaniel Steinmetz

April 19, 2023

Vanessa LoBue (2013) states that the emotion of fear, "a signal of impending threat" (p. 38) is common among mammals. For over five decades, there has been substantial research into what in society, or our communities, makes us fearful. It is this author's intention to examine how college students' fear of crime or fear of victimization may be heightened or intensified by specific factors that are commonplace on college campuses and areas adjacent to those campuses. Nicole Rader (2004) argues that the fear of crime discourse needs to be expanded to a larger "construct" called "the threat of victimization" (p. 689). Rader suggests that research on fear of crime and perceptions of risk needs to include a third component, constrained behavior, such as engaging in self-protective tactics or limiting activities on or around campus. According to Rader, these three components are engaged in a relationship that is reciprocal, where each informs and impacts (cause and effect) "the threat of victimization"(p. 689). Jackson (2006) argues that "criminological literature reveals a body of knowledge that has struggled to clarify" (p. 254) the concept of risk, and subsequently found in his 2011 study that there was

usefulness in demonstrating the difference between perceived likelihood, perceived consequence, and perceived control for risk, in worry about crime.

This research, which began with my master's thesis, will address some of the limitations disclosed in that research (Steinmetz, 2012) and the subsequent journal article (Steinmetz & Austin, 2013), regarding fear of victimization on a college campus, by utilizing photographs of nine specific locations on or near the University of Louisville's Belknap campus in Louisville, KY. The nine photographs will answer some of the limitations noted by this author's previous research, such as time of day, whether the space is occupied or not, and who is occupying that space. Other factors to be included in this research are the race and gender of those occupying the space in the photographs, as well as additional personal characteristics of the students responding to this research, such as, their race, gender, age, course load (e.g., part time or full time), housing status (live on/off/adjacent to campus), whether or not they have been a victim of crime (property and/or personal), and their level of involvement, outside of classes, on or around campus. Variation in those common-place factors such as time of day, open or occupied space(s), and specific locations, will be used to gauge respondents' assessment of their "threat of victimization" (Rader, 2004.) According to prior research (Rader, 2017; May et. al. 2010; Jacobsen et al. 2020; Hignite & Naumann, 2018, Tomsich et al. 2011), these factors can play a role in the students' assessment of their feelings regarding safety. The data for this survey was obtained through an online survey service (QuestionPro Online Survey). Working under the expectation that, at the time of this survey being conducted on the University of Louisville campus, the university was still adhering to the most current Covid-19 CDC pandemic protocols and guidelines. These

protocols may have served to reduce the number of students, faculty, and staff on campus to help reduce community spread. This survey utilize the Factorial Experimental Design (FED) Methodology. This methodology, developed by Peter H. Rossi (1951), was specifically developed to "assess the judgement principles that underlie social norms, attitudes and definitions" (Auspurg & Hinz, 2014:1). The FED methodology's impact on respondents allows stimuli resembling "real-world" evaluations and compels respondents to make better determinations of judgement principles that bring about evaluations of their fear of crime than do single-item questions (Auspurg & Hinz, 2014).

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CHAPTER 1: INTRODUCTION

> "In looking at the peace that usually obtains in public and semi-public places, in looking at person quietly going about their business, we might find ourselves employing the standard imagery of a continuum that leads from these places and their people to places a little less secure and so on, until we are in the battlefield." Erving Goffman (1971, p. 328)

Goffman's Relations in Public states that people, like animals, fluctuate between two different conditions, "tranquility and mobilization" (p. 328.) It is on that point of fluctuation that researchers, for over 50 years, have conducted hundreds of studies to provide insight into society's fear of crime and what might be the impetus(es) for that fear. Each of those research projects attempted to give empirical credence to the fear to help find solutions or counter measures to help reduce or mitigate the fear that members of society might experience.

One of the places, fear of crime on college campuses, has become a significant area of interest. Bonnie Fisher, one of the most prolific researchers of fear of becoming a victim of crime on a college campus, argued in her 1993 Crime and Fear on Campus, that little "social science" research had been conducted to consider all of the various issues that campus administrators are tasked with addressing, and ultimately to reduce, the risk

and the fear that students and campus employees face each day and night on their college campus. In the almost 30 years since Fisher's 1993 work, a significant number of researchers have been studying the university setting and the perceptions of fear or risk(s) that the campus community experiences. Some of those studies have focused on the general victimization of college students while on campus (Baum & Klaus, 2005), while others focused on physical locations and their features on the campus (Bledsoe & Sars, 2001; Fisher & Nasar, 1995; Steinmetz & Austin, 2013). Other research has focused on the impact that fear of victimization has had on female members of a campus community, as well as the fears experienced by the males on a college campus (Fisher, Cullen, & Turner, 2000; Fisher, Sloan, Cullen, & Lu, 1998; Fisher & May, 2009; McConnell, 1997).

Additional research utilized factors such as gender, age, race, geographical location, etc., to determine which factors may have had the greatest impact on an individual's fear of crime (Baum and Klaus, 2005; Bledsoe and Sar, 2001; Fisher, 1995; Fisher, Cullen and Turner, 2000; Fisher, Sloan, Cullen & Lu, 1998, Fisher and May, 2009; Fisher and Sloan, 1993). Parents and school administrators all have high expectations regarding the time that students spend on campus. Students are looking forward to college life and the events and experiences it has to offer, such as dorm life, new roommates and friends, entry into Greek or professional organizations, social life (parties and athletic events), and classes and class schedules that generally differ from their high school curriculum(Smith & Wertlieb, 2005).

Parents deliver their children into the hands of the administrators, hoping that these next 2-4 years will be filled not only with a high degree of educational attainment

and experiences, but also that these students will be safe in this environment while pursuing their dreams (Fisher, Hartman, Cullen, & Taylor 2002). To inform and perhaps assure both parents and students that the campus community they are joining is "safe", campus administrators and campus security are guided by the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, which was codified into law in 1990. This legislation requires that colleges and universities not only report annually to the FBI any campus crime that falls under the Criminal Offenses, Hate Crimes, VAWA Offenses and Arrests and Referrals for Disciplinary Action , but also that they publish the daily, monthly, and yearly incident call logs from the campus security and/or policing agency (https://doi.org/10.1080/10511253.2017.1282799) on the school's website. Regrettably, Janosik (2003) found that, according to their research, "most" of the 371 respondents, out of 944 members of the International Association of College Law Enforcement Administrators organization, indicated that the Clery Act has done little to improve quality of campus law enforcement policies or procedures or to reduce campus crime or change student behavior, but that it has been effective in improving crime reporting procedures. Reyns & Henson (2021) found that a significant majority of law enforcement agencies serving US institutions of higher learning, do not utilize available crime prevention activities or tools such as CPTED-crime prevention through environmental design, POP-problem-oriented policing strategies (evidence based, problem-oriented community-oriented policing practices), SARA-scanning, analysis response, and assessment (a decision-making guide),

Unfortunately, over the past few decades, the picture of the peaceful campus setting has been challenged by the spread of a variety of criminal acts, such as rapes, date

rapes, murders, assaults, mass campus shootings, hazing incidents connected with band or Greek activities, binge drinking, drug use, etc. These criminal actions, along with the media attention that they have garnered, have tainted the image of college campuses (Fisher et al, 1998; Fisher et al. 2002; Baum & Klaus, 2005; Dobbs et al. 2009; McConnell, 1997). Some describe "the ivory tower as a dangerous environment" (Fisher 1995, p. 86). The National Center for Education Statistics (NCES) reported that for 2018, 19.5 on-campus crimes were reported per 10,000 full-time-equivalent students, for a total of 28,500 criminal events. This report also indicated that, since 2009, the total number of crimes reported has decreased for all reported crimes (e.g., burglary, motor vehicle theft) with the exception that "forcible sex offences on campus increased from 2,500 in 2009 to 12,300 in 2018, a 383 percent increase (nces.edu.gov/fastfacts/display.)

While many of these studies focus on the criminal activities that may happen on a college campus(Sloan, 1995; Volkwein, Szelest, & Lizotte, 1995; Fox, Nobles, & Piquero, 2009), several studies have begun to pay close attention to the actual physical elements found on a college campus. One such study, conducted by Nasar, Fisher, and Grannis (1993), suggested that select physical features may contribute to a climate of fear on campus, and that college campuses are responsible for many of the physical elements found on campus that facilitates criminal activity. Another study, authored by Nasar & Fisher (2000), examined fear of crime for specific locations, and if they are connected to the idea that these locations may or may not offer a clear view for assessment of risk (prospect), hiding places for either the individual or potential offenders (refuge), or opportunities for the at-risk individual to escape. A college student body, as well as the faculty and staff, is generally very diverse in age, race, ethnicity, SES, etc. The college

campus, as noted by Nasar & Fisher, allows for potential offenders to go virtually unnoticed. The diversity of a campus population, and the fact that campuses offer unlimited access and mobility, combine to create a great many opportunities for criminal perpetrators to exploit physical liabilities such as dull lighting, overgrown foliage, and the obscured lines of sight that can often be found on a college campus. Such an environment can lead to an increase in incidents of crime and pose threats to the safety of the student body, the faculty, and the staff.

This study, an expansion of my previous research (Steinmetz, 2012; Steinmetz & Austin, 2013), considers the original hypothesis regarding fear of victimization occurring in eight specific locations on or near the University of Louisville Belknap Campus and one control location, and will address some of the limitations (daytime or nighttime, whether the space is occupied by person(s), the gender and race of those in that space, and the presence or absence of a police officer in that space), that were noted in that research.

The University of Louisville is a mid-western university consisting of three campuses. The profile for the university states that campus population in the fall 2020 semester was comprised of 23,246 students and 6,999 members of the faculty and staff (Profile, 2021). The main campus, Belknap Campus which typically has more than 19,000 students, is located south of downtown Louisville. The second campus, HSC (Health Science Campus) with approximately 4,000 students, is in the heart of the Louisville medical center east of downtown Louisville, and the third campus, Shelby Campus, is located in eastern Louisville, where the Center for Predictive Medicine (a Level 3 biosafety facility) and the Information Technology Resources Center for the US

Department of Homeland Security are located (https://louisville.edu/about/profile, 9/2/2021).

Four locations for this study are based on responses to a previous study (Bledsoe & Sars, 2001), conducted on this campus twenty years ago, which asked students if there were any specific areas on campus at which they do not feel safe. Four of the remaining locations were chosen because they were the most frequented locations, based on the 2019 ULPD crime logs published by the campus police, for which a police presence was required, and in which an incident was registered as a committed crime. The 2019 ULPD crime logs used were pre-Covid 19 impacts and mitigation measures. It was determined that using the call logs data from 2020 or 2021 would have been significantly impacted due to the Covid-19 pandemic during which most classes were virtual, and the Belknap Campus underwent a reduction in the number of on-campus students, faculty, and staff. The ninth location was a location which none of the respondents had ever seen (the back yard of a private home in the East End of Louisville).

CHAPTER 2: LITERATURE REVIEW

It has been noted in most studies that the crime-fear relationship research has been developing for more than four decades (e.g., Ferraro, 1987; Henson & Reyns, 2015; Rader, 2017; Rosenberger, 2015). To include a complete review of all the literature on fear-crime is beyond the scope of this study. However, literature that is most relevant to this study can be found in the following sections.

Fear of Crime

In 1988, Steven Box, Chris Hale, and Glen Andrews, using existing research literature from the 1960s and 1970s, found that there are certain factors (e.g., age, race, gender, incivilities, prior victimization, neighborhood cohesion, confidence in the police, assessment of offence seriousness, and perception of risk) "all combine to form a theoretical account of "fear" (p. 2). The authors argue that social scientists had "discovered" that fear of crime is a major social problem, and that these factors contribute to the "deep-seated sense of personal anxiety" (p. 2)

assessments of offense seriousness, and these factors combine to form a theoretical account of "fear". Alfaro-Beracoecha et. al., (2018) found that fear of crime has a negative effect on subjective well-being. Mark Warr (2000), notes that "criminal

events, at their most elemental level, are frightening events" (p. 452) and that "there are sound reasons for treating crime and fear of crime as distinct social problems" (p. 451). Referencing a study by Skogan and Maxwell (1981), Warr asserts that criminal events capture the attention of the general public in a way that few other events can.

The American public is constantly inundated with news accounts of criminal activities. According to Pew Research (Gramlich, 2020), Gallup surveys conducted have, since 1993, asked U.S. adults if they think that there is more crime in the U.S. and more crime in their area than there was a year ago. According to Gallup, "at least 60% of adults have said there is more crime nationally than there was the year before," when, in fact, violent and property crime rates had downward trends during most of that period. All parts of the mass media, television newscasts, newspaper headlines, and instant alert messages from local and national news agencies, provide the public with a steady supply of criminal events that Warr (2000) characterizes as a "distortion in news coverage of crime" (p. 467). Chris Greer (2009) states that, due to "rapid and relentless development of information and communication technologies"… "media is inseparable from contemporary social life; they are, for many, its defining characteristic" (p. 1) and that "hyper-mediatization" defines "21st Century fears and insecurities" (p. 24). Warr argues that news accounts of crime depend on their "newsworthiness" (p. 467), that the more serious the crime, the less often the crime occurs, therefore, the more serious the crime, the more likely it is to be reported on by the mass media, and "that crimes receive extraordinary emphasis in the mass media." As noted by Warr, hundreds of studies found that the public's "fear of crime" is more common than the actuality of having been a victim of crime. Greer (2009) argues that, with regards to media consumption and

influence, there is “very little research” (p. 5) to prove that the impact of the media’s accounts of crime or the distortion of crime have been “detrimental” (p. 5).

Members of college campus communities are encouraged to sign up for text alerts from the university and the university security division (campus police) for notifications ranging from power outages and weather alerts to current criminal activity that has been reported which still pose a danger or threat to on-campus personnel. Madden (2015) found that respondents indicated that, while there were some issues with the alert system, most viewed it as a “credible and trusted source of information” (p 190). Schildkraut, McKenna, & Elsass (2017) found that student respondents would prefer a tiered system in which text alerts would indicate the degree of importance or urgency of the message and what type of action is recommended (e.g., shelter in place, or areas to avoid). The Federal Register, Vol. 79, No 202, the Department of Education 34 CFR Part 668 Violence Against Women Act; Final Rule, implemented changes to the Clery Act requiring timely warning and emergency notification to aid in the prevention of similar crimes that represent a threat to students and employees. (p 62787, (11) (d, e-iii.) Any college or university that participates in federal financial aid programs must be in compliance with the Clery Act.

Research by Gainey, Alper, & Chappell (2011) suggests that victimization and social and physical disorder such as, “abandoned/vacant buildings, excessive noise, littering/garbage in streets, poor streetlighting, public drinking/intoxication, abandoned/inoperable vehicles, people hanging out in the street (loitering), graffiti, drug dealing (or activities that look like drug dealing), and prostitution” (p. 127) significantly predict fear of crime. Chadee, Austen & Ditton (2007) argue that risk and fear are

separate concerns. The variation of the meanings of "risk" (Adams, 1995, p. 69; Slovic, 2000, p. 195, 232) as cited by Chadee et al., range from: not just the probability of being victimized in a specific period, but rather a combination of probability of victimization and the magnitude of the impact. However, Farrall and Gadd (2004) state that in the United Kingdom the "incidence of the fear of crime is quite low" (p. 130) and that "regular exposure to heightened levels of fear is not that common" (p. 131).

Another consideration regarding fear of crime, is the recognition that researchers and respondents may have very different understandings of the actual meaning and responses to the fear of crime as noted by Pain (2000). Referencing a study by Smith (1987, p. 2), Pain noted that the fear of crime a respondent may experience may be "intermittent or constant" (p. 367) and that each different type of crime (e.g., burglary, car theft, sexual assault) may evoke as different a reaction as the disparateness of the crimes themselves. Further, Pain, referencing other studies, (Valentine, 1989, Stanko, 1990; Pain, 1997) posits that the fear of crime each person feels, adjusts to the social, spatial, and temporal situation, arguing that "we move in and out of shades of fear" (p. 368), over the course of our lives. In researching the relationship between residents' perception of crime and the official crime rates, Hipp (2013) noted that his findings mirrored those of Zimring (1997), "that violent crime is more important for perception of crime in the neighborhood, and not property crime" (p. 63).

The key question for research about fear of crime is, "Who is afraid?" (p. 891) according to Warr (1990.) The focus for much of fear-of-crime research has remained on demographics, such as gender and age (e.g., Stafford & Galle 1984; Warr 1984; Alston 1986). Rader, Cossman, & Porter (2012) suggest that "certain groups of people" may fear

crime more, due to their vulnerabilities, both physical (age, gender, health), or social (race and SES, education, and marital status) characteristics. Grinshteyn, Whaley, and Couture (2022) assert that racial, gender, and sexual minorities experience higher levels of fear of discriminatory violence (p. 11). Noting that research on fear of crime is becoming much more specialized, Warr (1990) suggests that this specialization may lead to overlooking "sociologically significant questions," such as "how are risk judgments formulated when it comes to crime" (p. 892). Warr argues that the social and physical environment is what leads individuals to perceive danger and fear of becoming victims of crime. As noted by other researchers (e.g., Austin & Sanders, 2007; Fisher & Nasar, 1992; Pain, 2000; Skogan & Maxwell, 1981; Wilson & Kelling,, 1982; Steinmetz & Austin, 2013), various environmental cues send signals to individuals of the potentiality of personal danger and, therefore, affect an individuals' fear of crime. Curtis (2012) suggests that the use of sketch maps (e.g., free-recall drawings, drawing on predefined map)with GIS is at a "fecund" (fertile) point for producing new ways to understand environmental fear of crime.

In an August 3, 2020, article by Maggie Koerth and Amelia Thomson-DeVeaux, Many Americans Are Convinced Crime is Rising In The U.S. They're Wrong, featured on Five Thirty-Eight, an American polling/opinion website, citing a 2019 Gallup poll, the authors report that 64% of Americans believed that there is more crime in the U.S. than the year before, when, in fact, the Bureau of Justice Statistics indicate a continual decrease in violent crime since the 1990s. Koerth and Thomson-DeVeaux state that "the country has gotten much, much safer, but, somehow, Americans don't seem to feel that on a knee-jerk, emotional level." However, on an even more recent FiveThirtyEight

Politics Podcast: How To Make Sense Of The Latest Crime Data on September 30, 2021, about the newly released FBI crime statistics for 2020, Jeff Asher, a crime analyst and guest on this episode, noted that these numbers are estimates, and that of the reported major crimes, roughly 70-80% are property crimes and about 20% are violent crimes. Within the number of violent crimes, the U.S. had an approximately 30% increase in murders, which Archer characterized as a massive increase for 2020 (the second highest yearly increase compared to any other year) and an increase of around 6% in other violent crimes (e.g., aggravated assault, rape, robbery, and nonnegligent manslaughter). Asher argues that, overall, major crimes fell by 5% (e.g., theft, burglary) and can be explained by the reduction of social mobility. Brunton-Smith (2011) claims that

> *"it is worth noting that inconsistencies in data collection between police forces, and the incomplete picture these figures offer of less serious offenses, means that our measure of recorded crime is likely to contain a high degree of both random and systematic measurement error. Therefore, we almost certainly are underestimating the magnitude of its effect on fear" (p. 360-361).*

Where decreases are often attributed to specific typical local causes (increase in police presence, changes in laws), the increases in murders and other violent crimes which occurred nationwide are due to bigger, more complex factors such as pandemic-induced stress leading to increased domestic violence, protests in the spring/summer which served to reduce trust in police, de-policing (reduced police stops) and increased gun-carrying. Archer noted that he was not identifying more guns as "the cause" but more as an "accelerant." (16:00).

Fear of Crime in Social Context

As stated earlier, significant research has been conducted to explain fear of crime and to reveal which variables may point to a theoretical account of fear. Variables such as gender, age, race, neighborhood cohesion, confidence in the police, levels of incivilities, past victimizations, perceptions of risk, and assessments of offense seriousness, among other factors, are constantly being assessed and reassessed to determine the impact these factors may have on individuals' perception of risk and safety (e.g., Fisher, 1995; Grover et.al, 2011; Baum, 2005; Fisher et al., 2002; Fisher & May, 2009; Day, 2006; Haynes & Rader, 2015; Boateng, 2018). Braga, Welsh, and Schnell's ((2015) meta-analysis of the evaluation research on the impact of disorder policing strategies found that these strategies were related with "an overall statistically significant, modest crime reduction effect" (p. 568). Andrews and Gatersleben's (2010) work, Perceptions of danger, fear, and preference in a simulated natural environment, suggests that perceptions of danger can be attractive (e.g., extreme sports), while on the other hand, fear can be a particularly "unpleasant emotional reaction coupled with heightened arousal that has become associated with threat to human survival" (p. 479).

One of the factors cited in explaining fear of crime in the social context, is the impact of space or location. Researchers Bonnie Fisher and Jack Nasar (1992) argue that the exterior environment may impact an individual's fear of victimization. Using previous work from Goffman (1971), Warr (1990), and Jay Appleton (1975), Fisher and Nasar, "propose three features (prospect, refuge, and escape) as having an impact on pedestrian behavior and feelings of safety" (p. 37). Goffman (1971) argues that when entering, or about to enter, a location or space, people instinctively search for cues to

danger. To avoid potential danger, people will try to find an escape (Warr 1990). Jay Appleton's theory of prospect and refuge (1975) suggested that humans favor spaces that offer prospect, that is, space(s) that give an open view or a clear field of vision for the area they currently occupy or are about to enter. Appleton's theory also includes the term refuge, which refers to humans scanning space(s) for options within their field of vision that may offer protection from potential danger.

Utilizing the environment to employ defensive and protectionary measures can be traced back centuries. Cozens & Love (2015) stated that human use of forts and castles in the 13th century, and the recognition of the need for "eyes upon the street" by Jane Jacobs (1961, p. 30), were the beginning of Ray Jeffery's CPTED (crime prevention through environmental design). CPTED are design ideas for the physical environment (e.g., buildings, landscaping, pathways, lighting) that make it "possible to use the built urban form to reduce opportunities for crime" (Cozens & Love, 2015, p. 393). Koskela and Pain (2000) argue that "Places may have some influence on fear, but perhaps of equal or greater significance is the ways in which fear shapes our understanding, perception and use of space and place" (p. 279). In a study considering the impact of institutional crime prevention efforts, Jacobsen (2017) constructed a safety scale based on a range of security features, including 16 different security measures (e.g., emergency blue lights, 3 or 4 digit campus emergency number, student patrols, and faculty-staff-student meetings for crime-related issues) which were utilized by 613 four-year public and private degree-granting institutions, "was not found to be significantly associated with either report of violent or property crime on campus" (p. 16). Kyle et al., (2017) found that campus

community members were “tepid at best” when considering “oft-recommended safety policies” (p. 661).

Rachel Armitage (2016) defines CPTED as “a practical response or intervention to crime risks hypothesized by theories” (p. 2), where the goal is the decrease and/or deterrence of crime events. Armitage states that there are several “principles (or elements)” (p. 4) of CPTED, developed by various authors, that have been embraced by notable policing security agencies. The main page for the CDC website site for Violence Prevention (https://www.cdc.gov/violenceprevention/youthviolence/cpted.html) states that the use of CPTED in the development of school safety strategies such as repair, cleaning, upkeep of buildings and grounds for the nearby communities, and strategies for the areas on the school grounds (e.g., grounds, buildings, interiors) reduce opportunities for crime events, and generate outcomes (e.g., warm/welcoming environment, sense of physical/social order, presence of authority figures) that benefit the members of the school and the surrounding community. CPTED strategies are increasingly popular in Europe, South Africa, Australia, New Zealand, Asia, and North America (Cozens & Love, 2015.) The University of Louisville Police department website states that they “actively promote the concept of CPTED, as CPTED strategies enhance facility security through design and use of space” and expresses the belief that CPTED concepts heighten awareness, expose criminal behavior, and promote “higher levels of personal comfort for building occupants” (https://louisville.edu/police/physical-security, accessed 12:30pm 9/8/2021.)

Appleton (1975) suggests that one need not be directly in the space (e.g., looking at a photograph) to assess the openness (prospect) or ability to offer protection (refuge),

but that humans can recognize the idea of prospect and refuge by inferring its qualities. These inferences would be due to "secondary vantage-points," and would be considered "indirect prospect" (p. 89). Fisher and Nasar (1992) note the irony of the notion that people use the concepts of prospect and refuge to avoid danger, and yet, would-be criminals also value these same characteristics. The openness allows would-be criminals a clear view of potential targets, while the refuge areas allow would-be criminals a hiding place from which to launch their attack.

One significant piece of criminological scholarship that addresses the impact space or location has on fear of crime is James Q. Wilson and George L. Kelling's 1982 article in The Atlantic magazine, Broken Windows The police and neighborhood safety. In this article, Wilson and Keeling discuss the published evaluation conducted by the Police Foundation in Washington D.C., of the New Jersey quality of community life "Safe and Clean Neighborhoods Program" that had been instituted in the mid-1970s. The goal of the program was "a way of cutting crime" (p. 1). The key element of that new five-year program was expanding the use of foot patrol officers (walking the beat), which had been previously discredited and all but abandoned. The evaluation of the walking patrol program showed that foot patrol had, in fact, not reduced crime rates, but that the residents of the walking beats seemed "to feel more secure than persons in other areas." The foot patrol, the presence of an officer, elevated the "level of public order" (p. 1). For the patrol officer and the residents of the neighborhood, "order-maintenance" of the area was important, as the residents moved around on their way to work, home, and shopping, and as they encountered people made up of "regulars" and "strangers". As a member of that Police Foundation, Kelling walked many hours with the Newark walking-beat

officers to understand how "order" was defined and what actions were taken to "maintain it" (p. 1). He described one beat at "a busy but dilapidated area in the heart of Newark," "with many abandoned buildings…a train station and several major bus stops" (p. 1). Wilson and Kelling noted that, "at the community level, disorder and crime are usually inextricably linked" (p. 2) positing that those visible signs of crime (e.g., broken windows, graffiti, untended land) send signals that "no one cares" to would-be offenders, which in turn may send a message to residents that crime is on the rise. For the authors, untended property, and untended behavior (vandals, vagrants, drunks, derelicts) lead to a breakdown of community controls. Having a "stable neighborhood of families who care for their homes, mind each other's children"…can change an "in hospitable and frightening jungle" (p. 2), echoing Jane Jacobs' (previously noted) claim for needing "eyes on the street" (1961, p. 30). Wilson and Kelling suggest that the lack of community controls may not necessarily lead to an influx of serious crime, but members of that community may "think" that crime is on the rise, similar to the way that they "felt" that crime rates had dropped under the foot-patrol program. Wilson and Kelling argue that some neighborhoods are essentially too crime-ridden and hopeless, while other neighborhoods may be so stable and serene that police presences may be a wasted scarce resource. The authors argue that the key is to identify neighborhoods that are at the precipice, where "public order is deteriorating but not unreclaimable" (p. 7) and that the police as well as members of each community "ought to recognize the importance of maintaining, intact, communities without broken windows" (p. 8). However, Sampson and Raudenbush (1999) argue that "the relationship between public disorder and crime is spurious except perhaps for robbery" (p. 603). Borovec, Balgač, and Mraović (2019)

found that foot patrols and police interactions with public disruptions in the neighborhood had a positive effect on the public's feelings of safety but found that police in patrol cars had the opposite effect.

Patton & Gregory (2014) found that students who attended a college which employed no security personnel felt less safe than did students attending a college with either security personnel or police officers, which is consistent with research that asserts that the presence of police reduces fear (Boateng, 2018; Wilson & Kelling, 1982). Hignite & Naumann (2018) citing (Wilson & Wilson, 2011), state that almost all public colleges and universities have sworn law enforcement on their campuses. However, Smith, Allen, & Danley (2007) found that not all students are comfortable and happy to see them (law enforcement personnel). They argue that the "criminalization" of African American males (stereotyping and marginality) by police (campus police) on historically White campuses was the most often reported and offensive concern shared by Black male students in their study, which caused "extreme hyper-surveillance and control" (p. 551).

The current perceptions about "confidence in the police", which includes police actions and policing policies in American societies, in the city of Louisville, and possibly on the U of L campus, likely fall on a continuum of opinions that range from "defund the police" to "support the thin blue line." According to a July 14, 2021, Gallup article by Jeffery M. Jones, "In U.S., Black Confidence in Police Recovers from 2020 Low", Black adults' confidence in police has risen from 18% in 2020 to 27% in 2021, while White adults' confidence levels remain relatively unchanged at 56% for 2020 and 2021. Gallup states that "overall, 51% of all U.S. adults currently have confidence in the police, after it dropped to a low of 48% last year" (2020). Wesley Skogan's (2009) research into the

relationship between confidence in the police and concern about crime, found that "reductions in concern about crime flow from increasing confidence in the police" (p. 301). In an April 22, 2021, Courier-Journal article, by D. Costello, then-Louisville Mayor Greg Fisher proposed a $198 million budget to expand various local programs to help "prevent rising violence" without any cuts to the police budget stating "the notion of defunding the police is not practical." This budget proposal by Mayor Fisher was expected to also fund the newly created Office of Inspector General, Civilian Review and Accountability Board, and a deflection pilot project that would send "nonpolice" to respond to emergency calls, thereby expanding "public safety beyond policing." Fernandes (2018) found that hearing sirens and viewing police encounters resulting in arrests play a considerable role in the development and continuation of the neighborhood residents' fear of crime.

In August of 2014, Michael Brown, an 18-year-old Black man was shot and killed by a Ferguson, MO police officer during an altercation. Brown's death sparked protests in the city of Ferguson and spread to other cities in a show of unity with the Black community. With each subsequent death of a Black American at the hands of the police, protests and riots erupted. Returning members of the University of Louisville's campus, students, faculty, and staff as well as the ULPD campus police are likely aware of the March 2020 events surrounding the shooting death by the Louisville Metro Police (LMPD) of Breonna Taylor, in her apartment, just five miles from the main U of L Belknap campus. Reaction to the botched attempt to serve a no-knock warrant on Taylor's boyfriend, which resulted in her death, provided the spark for the eruption of multiple protests by members of the Louisville community, and many communities

outside of Louisville, calling for the police officers involved to be fired and criminally charged. Breonna Taylor's killing and other unjustified deaths of other Black Americans (i.e., Philando Castile, George Floyd, Stephen Clark) by police continued throughout the summer and into the fall of 2021 (Togoh, 2020; Know Their Names). Two competing themes were prominent in the protests and the reactions to the protests: Defund the Police and Protect the Thin Blue Line.

Asking "Can we really defund the police?", Lum, Koper, and Wu (2021) found that "defunding" or "shifting resources away from the police" may not be achievable given the numerous issues for which the police are called upon to act. The authors analyzed a "full year of computer-aided dispatch data for years 2016 or 2017 (p. 8) from nine U.S. law enforcement agencies" (p. 6) where "millions" of calls were analyzed and categorized into fourteen different classifications requesting help from the police. Their findings reveal that not only the callers' expectations of law enforcement's ability to resolve their complaint, but also the inadequacies or availability of other public or private agencies to settle the issues, suggests that shifting resources from police agencies to other governmental or private agencies is, at best, an unproven option and may be unrealistic. Tyler Wall (2020) argues that the idea of supporting the "thin blue line" conveys the message or belief that the police are the "primary force which secures, makes possible, all things said to be at the core of "human" existence: liberty, security, property, sociality, accumulation, law, civility, and even happiness" (p. 1). Wall suggests that the "thin blue line" (TBL) "splits humanity into two warring species, with police as the arbiters for deciding who is human or not, whose lives matter and whose lives don't matter" (p. 5) and "effectively investing the police with the discretionary power to decide on the

humanity or animality—and hence who can be hunted, caged, or killed with impunity—of individuals and entire communities" (p. 8).

Changes occurring after months of protests from both the Louisville Metro Police and the University of Louisville Police Department have resulted in mixed outcomes. A 2021 article in the local newspaper, The Courier-Journal, reported the approval by the Louisville Metro Council of a new contract for the lieutenants of the LMPD which includes a raise, and stated that negotiations were continuing on new contracts for the sergeants and officers. Eight Metro Council members who voted against the contract were disappointed that accountability and transparency measures were not included in the contract (Costello, 2021). Another article in the Courier-Journal on December 8, 2021, "Defund the police" and Breonna Taylor. Exclusive poll shows where Louisville stands, highlights a poll conducted by The Courier Journal, USA Today and Suffolk University's Political Research Center, which found that "45% of Louisville residents have less faith in police because of Taylor's killing, while just 7% said they have more faith" but also noted that "66% of respondents said they would feel safer with more police officers on the job in their neighborhood, while only 11% said they would feel safer with fewer officers working there".

For the ULPD, the university's police, the 2019 Operating Budget, in place well before the March, 2020 death of Louisvillian Breonna Taylor, reveals the most recent information about any changes in practices and procedures used by the department. However, these changes may possibly be a result of the previously noted protests deadly encounters between the police and civilians. This 2019 budget reveals that police officers have been assigned to the northwest area of campus (Initiated Zone Resource Officers) to

increase interactions with the students and surrounding businesses, and monitor for assault incidents. Other budgetary items included the purchase of bullet-resistant vests for all ULPD officers and a mandatory wear policy of those vests for officer safety, purchase of new generation body-worn cameras for all police officers, and updated 911 communication equipment (Operating Budget, 2019). Due to the amount of civil unrest that members of the Belknap campus have either been exposed to directly (assisting other departments in the Taylor or other protests) or indirectly through awareness from news reports of the various protests or riots, adding the variable of a police officer into this study of fear of victimization or fear of victimization on a college campus, was determined to be appropriate.

Neighborhood cohesion or social cohesion in a community, can also be affected by neighborhood residential instability, according to Pabayo et. al., (2020). They argue that residential instability, or residential turnover, can be an indication of social fragmentation, "a breakdown of social bonds between individuals and their community" (p. 5) which is a component of collective efficacy. College campuses and their surrounding areas are constantly experiencing both residential turnover from one academic session to the next as well as a steady flow of the members of the campus community moving from one location to another on or near campus. Research by Barton, Jensen, & Kaufman, (2010) acknowledge that "residential mobility is an inherent feature of the college lifestyle" and that "campuses are not traditional neighborhoods" (p. 247). Lee & Hillinski-Rosick (2011) suggest that students' movements around the campus areas that are familiar to them may promote a feeling of safety, whereas other less traveled areas may be mindlessly avoided (constrained behavior) because they may

require vigilance and engagement of protective strategies. McCormick et al. (1996), as cited by Tomsich, Grover and Jennings (2011) found that women were more fearful than were men when alone on campus and encountering strangers. Ferraro (1996) stated that constrained behaviors were found to have significant influence on the fear of victimization. That is, respondents had a higher degree of fear precisely because they altered their routines and behaviors attempting to lower their risk of being victimized.

Austin and Sanders (2007) noted that incivilities that may impact residents' views of an area, such as graffiti, both gang and hip-hop styles, "play an important role in neighborhood sentiment" (p. 292). In another study, the effects of incivilities become crucial in safety related issues, such as attitudes about the physical environments, but also "with people in the local environment" (Austin, Furr, & Spine, 2002, p. 425). Hipp (2013) suggests that perhaps the question about perceptions of neighborhood crime should consider "whether there are idiosyncrasies, about certain neighborhoods that lead most or all of their residents to inaccurately perceive the amount of crime" (p. 621). Hipp argues that it is possible that features of the environment, signs of disorder (incivilities: e.g., trash, graffiti, loiterers), the presence of racial/ethnic minorities, residents' own personal crime event, or learning about some crime event through social media, may cause residents to be so distracted that their perceptions are not at all related to the actual crime level. There is little doubt that a college campus and the surrounding neighborhood which includes groups of students (and non-students) hanging out on campus, in the streets around the campus, drinking and partying at all hours, day or night, school day or weekend, is rife with these types of idiosyncrasies.

Fear and Gender-Female

Researchers over the past 25 years have established that gender is the most powerful predictor of fear of being a victim of crime (Warr, 2000; Schafer et al, 2006; Day, 1994; Ferraro, 1996; Haynie, 1998; Rountree, 1998). Females in general are more fearful than are males (Fisher & May, 2009; Fox, Nobles & Piquero, 2009; Maier & DePrince, 2020; Jennings, 2007), and it is the fear of sexual violence and harassment that is the basis for their heightened fear (Warr, 1985; Ferraro, 1996). The prospect of incurring physical harm during a sexual assault might also increase the levels of fear for women (Lane and Meeker, 2003). J. Jackson (2009) found that females worry more often about crime than males, partly because they feel less able to defend themselves and that being a victim of a criminal event will have a greater negative impact on them and others like them. Cook and Fox (2012) found that both men and women were "similar in terms of what drives their fear of crime" (p. 148) as did Choe and Merlo (2021) regarding both perceived risk of crime victimization and perceived neighborhood incivilities. Choi and Merlo's research also found that considering gender identification, instead of sex, when assessing fear of crime, regardless of the respondents' sex at birth, determined that those with higher scores on the masculinity scale reported lower levels of fear of crime when compared with respondents with lower masculinity scores.

Historically, when discussing fear of crime, surveys have included more about women's fear of crime, than about men's, and that "beyond any doubt, the gender differential is the most consistent finding in the literature on fear of crime" (p. 48) as Elizabeth Stanko states in her 1995 article "Women, Crime and Fear." Stanko asserts that the questions appearing on surveys typically assume that women's fear of crime is

based on actions happening outside of the home, pointing out that the most popular question on surveys is, “How safe do you feel walking alone in your neighborhood (in this area) after dark (or at night)?” (p. 48). That women are more afraid of becoming victims of all types of crime has firmly been established, but it is their perceived risk of becoming a victim, and their fear of rape in everyday life that is the foundation of their fear (Ferraro, 1996). Ferraro addresses the question of why the findings of studies about fear consistently support the concept that women are more fearful of becoming victims of a crime than are men, even though men are the victims of criminal activity more often than are women in all crimes except sexual assault (rape.) Ferraro notes that multiple studies have found that gender is by far the most important predictor of fear of crime. He further notes that a study by Karmen (1991) revealed that women are more afraid of all types of crime (not just sexual assault) than are men. Current research found that women still report higher levels of fear than men (Mellgren and Ivert, 2019; Cops and Pleysier, 2011; Schafer, Huebner & Bynum, 2006, p. 285; Lee, et al., 2022, p. 5). Ferraro argues that for women to be more afraid of all other crimes than men indicates that there is a difference in how fear impacts women vs. how fear impacts men. The results of Ferraro’s study show that women are more afraid of all victimizations, but this principally is due to their perceived risk of such offenses and their fear of rape in everyday life. Both Stanko’s (1995) and Ferraro’s (1996) assertions continue to be consistent with the more current studies noted above.

Arguing that reported levels of fear for women are three times higher than the levels of fear that are reported by men, Stanko (1995) notes that women’s risk of personal violence (especially assault) is lower than men’s, as claimed by “all official sources”, and

that young men, who had reported "feeling safest", are in fact "the greatest proportion of personally violent victimization"(p. 48). However, Jacobsen, Miller, & Bhardwaj (2020) found that gendered shadow of sexual assault may not be as universal across context as previous research suggests, and that expressions of fear or perceived risk of sexual assault was near absent for women in their study. The authors found that the undergraduate men "articulated—at least as much as undergraduate women—both deep concern and moments of fear in navigating the city surrounding campus" (p. 21), which is consistent with other findings (Dobbs et al. 2009; Ferraro, 1996) when controlling for fear of rape, men's fear of robbery and physical assault is equal to or greater than that of women.

In attempting to explain the basis for women's fear of crime, Stanko first looks to Wesley Skogan and Michael Maxfield's (1981) findings, which state that some evidence suggests that it is the social and physical vulnerability of women, more specifically a woman's fear of sexual assault, that reduces feelings of safety among young women. That is also supported by Ferraro's (1996) findings that "a women's fear of crime is a reflection of women's sexual integrity at risk" (1995, p. 12). Stanko next turns to Mark Warr (1984) and his argument that fear of crime is fear of rape. Given both arguments, that a woman's fear of crime is related to fear of rape or to fear of sexual assault, Stanko asks, how then do we "explain such widespread fear in the context of low number of recorded rapes?" (p. 48). The answer she offers is twofold. The first, is that the fear of rape is not founded in actual victimization experience, but that women feel at greater risk of rape. The second, is that crime against women, especially sexual violence like rape, are either underreported or under recorded. Stanko argues that crime surveys, and the study of crime, focus primarily on the dangers women face from "danger in public at the hands

of strangers"(p. 54), and fail to consider the types of dangers a woman faces within her own home from men that are either members of her family or someone with whom she is familiar. Another researcher that Stanko cites, Rachel Pain (2000), found in her study that women speak about the potential violence they fear as stranger danger, even though they are more frequently victims of domestic or intimate assault. Past research has shown that women's assailants are most likely to be men that are known to the victim, as noted by Pain ((2000), (Pain, 1997b; Crawford et al., 1990; McLaughlin et al., 1990). Research conducted by Jones et al., (2004), about a university-affiliated emergency medicine clinic, compared the characteristics of sexual assaults. The researchers compared the violence and trauma that was committed during sexual assaults by strangers, versus the sexual assault violence and trauma committed by acquaintances, that were experienced by a community-based population of females. Of the 849 cases of sexual assault, 76% of the perpetrators were acquaintances or known to the victim(s). According to Jones et al., Feldhaus, Houry, and Kaminsky (2000) 70% of women reported assaults committed by an acquaintance (e.g., partner) and 30% of women reported assault in which the offender was a stranger.

Research by Gainey, Alper & Chappell (2009) "suggests that females are fearful because they feel at greater risk than males" (p. 134). One of the consequences of the fear of crime, that women constantly face, is the development of coping through constrained behaviors or avoidance strategies for staying safe (Hibdon et al., 2016.). In essence, women must police themselves (Stanko, 1995) by restricting their activities or constraining behavior (Warr, 2000). Women are constantly being socialized through crime prevention campaigns or are given advice on how to avoid becoming a victim.

These tactics make it clear that avoiding crime or victimization is the responsibility of the individual. Women are told to engage in tactics such as not walking alone at night, even not leaving their house (Skogan and Maxfield 1981; Warr 1994), or not dressing provocatively. They are told to monitor their alcohol intake so that they stay alert and vigilant to unwanted advances. Nicole Rader (2017) divides constrained behaviors into two types of behaviors, avoidance behaviors (avoiding going out alone, avoiding going out at night, or avoiding going to certain places) and protective measures (self-defense classes, owning or carrying a weapon, installation of added security, or perhaps getting a watch dog). Other researchers of fear of crime on campus and constrained behaviors, listed other maneuvers, such as keys held in a defensive manner, utilizing campus safety programs, asking someone to watch property when leaving it unattended (Lee & Hillinski-Rosick, 2012), not enrolling in classes based on time (night) or location, carrying mace, avoiding poorly lit areas, or areas with lots of shrubbery (Hibdon et al., 2016), or the use of body alarms (Tweksbury & Mustaine, 2003).

Arguing that women, and their safety strategies, are not always successful in warding off victimization, Stanko claims that this is not a commentary on women's failures, but a commentary on men's violence. In fact, as previously noted above, the study by Ferraro (1996) found that constrained behavior by women actually increases the degree of fear that women feel. Yasminah Beebeejuan's (2017) work on how cities are designed and how the rights that go along with access to urban space are gendered, highlights the argument that "there have been immense challenges for women and other groups seeking a place and public right to be with cities" (p. 6). Beebeejuan cites Tovi Fenster (2005) about "how patriarchal power relations are the most affecting elements in

abusing women's right to the city in different ways to those of men"(p. 219), and "how women's rights become restricted within both public and private space, thereby limiting feeling of belonging" (p. 327). Kelly and Torres (2006) found that women are still fearful of living on campus and walking on campus alone at night, and are fearful of sexual victimization, despite being routinely engaged in campus activities such as serving in the student government, being resident assistants, and leaders of other student groups. According to Hibdon et al. (2016), women are "significantly" more likely to engage in avoidance behaviors and that engagement may not be utilized as a reaction to personal safety concerns but rather as "creatures of habit" (p. 82). Hasinoff and Krueger (2020) found that fear is associated with reduced campus participation and that "those in disproportionally female fearful class", were "always" alert to their surroundings, carry weapons, and avoid certain campus areas and evening courses (p. 602). Braaten (2020) found that females felt less safe than males "walking alone," "waiting alone," "working alone," or being "alone" on campus in various locations at night" (p. 18). Logan and Walker (2021) note that utilization of avoidance strategies is gaining greater notice in research, but other types of safety strategies, such as carrying safety devices, asking others to walk with them to their destination, or just asking for help, need to be considered. Lane, Grover and Dahod (2009) found that males and females who engaged in prevention measures were more afraid. Vania Ceccato and Mahesh Nalla's summary of the article Contested gendered space: Public sexual harassment and women's safety work by Fiona Vera-Gray and Liz Kelly, Part IV chapter 11, in their book Crime and Fear in Public Places, (2020), note that there are two types of safety work that women employ before going into public spaces. The first is violence work, that is the "work

women must do to undo the harms and make their lives livable" (p. 262). The reader is left to imagine what that violence work might mean, perhaps summoning the mental fortitude to leave the home or assessing certain pieces of clothing or hair coverings that make one's body less available (e.g., wrapping/pinning hair ponytail or tucking in scarf ends). The second is safety work, which is work women do to avoid violence in public spaces (e.g., alter routes, using headphones and sunglasses to dissuade personal interactions, scoping out and securing the safest seat on public transportation, things that "make them feel more invisible" (p. 262). Vera-Gray & Kelly state that "Different women at different times, are acutely aware of their surroundings, turn into the presence of unknown men" (p. 217).

Women's fear of sexual violence is impacted by the images and news reports by media, circulating rumors, past personal victimization, vicarious victimization (friends or family members) and warnings from others regarding sexual danger (Pain, 2000; Stanko 1990a; Valentine, 1992; Goodey, 1994; Ferraro, 1996). Box et al., (1988) found, like most other studies, that women are more fearful than men in every age group, but that the gender-fear gap narrows as people grow older. Ziegler & Mitchell (2003) note that in aging and fear of crime research there is a paradox where "older adults are less likely to be victims, they report a higher fear of crime than younger adults" (p. 173), yet they found that in their research, older adults were significantly less fearful than were the younger adults, which is inconsistent with "The majority of studies" (p. 174). The problem regarding fear of crime is not the absence of knowledge (risks associated with many criminal offenses), but the failure of public officials and criminologists to present

to the public the reasoned and understandable versions of the facts of crime. Warr contends that this gap between knowledge and awareness is dangerous (2000).

In trying to narrow that gap between knowledge (risk) and awareness, Senn, Hollander, and Gidycz (2018) ask, "What Works?" with regards to effective sexual violence interventions. Affirming that colleges and universities have, for the past 30 years, been seeking efficient and cost-effective programs that will reduce the rates of sexual assault on campuses, Senn, Hollander, and Gidycz evaluated three "universal programs for college-aged women students" … "that have demonstrated some success in reducing sexual violence" (p. 246). Each of the three programs evaluated included some form of Rozee and Koss's (2001) AAA (Assess, Acknowledge, Act) rape-education framework for developing effective strategies intended to resist or stop rape. All three of the programs assessed "spends half or more of the time focused on acquaintance sexual assault" (p. 252) as "women are more likely to be sexually assaulted by acquaintances yet believes that there is no chance that this could happen to her" (p. 263).

Fisher (1996/2000) states that reporting to law enforcement, by victims of attempted and completed rapes, has been estimated to occur in fewer than 5% percent of actual incidents. Citing the DOJ Criminal Victimization 2016 Bulletin, the Brennan Center for Justice October 2018 article, Sexual Assault Remains Dramatically Underreported, states that nearly 80 percent of rapes and sexual assaults go unreported, and the latest DOJ Criminal Victimization 2018 Bulletin notes that "the percentage of rape or sexual-assault victimizations reported to the police declined from 40% in 2017 to 25% in 2018. Littleton et al., (2017) asserts that "women who experience sexual assault, including completed rape, generally do not report this crime to campus or local

authorities" (p. 437) and that the prevalence of unacknowledged rape among college women has remained largely unchanged in the past 30 years; an average of 60% of college rape victims do not acknowledge their rape" (Littleton et al., 2007, p. 5). The authors suggest that this may be due to how rape is or has been defined, such as sex by force or threat of force, sex with an incapacitated person (victim is unable to consent/deny consent), or by coercion by a dating partner. The CDC Preventing Sexual Violence Fast Facts state that more than 1 in 3 women experienced sexual violence involving physical contact, nearly 1 in 5 women have experienced completed or attempted rape, 1 in 3 female rape victims experienced it for the first time between the ages of 11-17, and 1 in 8 reported it occurred before the age of 10. Rachel King's 2009 review of "current" research regarding females fear of crime on university campuses states that "there is no clear-cut, singular response to understanding fear of crime on a university campus, especially among female campus constituents" (p. 97).

Fear and Gender-Male

In an article by Elizabeth Stanko (1995), the author suggested that studies need to be undertaken exploring men's fear of crime, given that research data consistently shows that men, more specifically, young men, make up the largest percentage of victims of personal crime. The 2019 FBI's National Incident-Based Reporting System (NIBRS) published report states that 520,209 violent crime offenses were reported, stemming from 448,783 violent-crime incidents reported in the United States by 9,042 law enforcement agencies, who submitted reports to the National Incident-Based Reporting System (NIBRS) data. This report states that these reported crime events cover 47% of the total

population. The FBI Crime Data Explorer for All Violent Crime Offender vs Victim demographics for 2019 reported the demographic statistics which indicated that the sex distribution for victims of violent crime is 51% male victims and 49% female victims. The sex of the offenders was 78% male, 17% female, and 5% were reported as unknown. Karen G. Weiss (2010) states that, over the past 30 years, studies regarding sexual violence have focused primarily on rape and sexual assault of women, with few studies examining men's sexual victimization. Weiss argues that prior research has framed the "ways in which rape and sexual assault have been conceptualized over the years…that to envisioning men as victims (or women as aggressors) requires conscious bracketing of preconceived notions about both sexual violence and gender" (p. 276). Using data collected from the (1992-2000) NCVS (National Crime Victims Survey), Weiss found that men encountered a "wide range of unwanted sexual situations" (p. 294) in which the experiences included rape by male stranger(s), attempted rape by female offender, and other unwanted sexual contact by both male and female offenders, and that men's embarrassment and shame concerning the incidents results in failure to inform the police or authorities. Petitt et al., (2017) found that "fear of sexual harm and risk perception are the most important indicators of fear of crime for both genders" (p. 405).

Citing Tjaden & Thoennes, 2006, Choudhary, Coven and Bossarte (2010) put forward "that sexual violence victimization affects approximately three million men in the United States each year" (p. 1524) and found that, of the 59,511 men who participated in the 2005 and 2006 BRFSS surveys (Behavioral Risk Factor Surveillance System), 5.13% reported sexual violence victimization. Hines et al (2011), examining gender differences with regards to sexual assault of college students, found that women were

sexually assaulted at higher rates (twice as likely) than were men, which they noted was consistent with prior research citing (Abbey, 2002; Aizenman & Kelley, 1988; Baier et al., 1991; Banyard, Ward, et al., 2007; Bridgeland et al., 1995; Lottes & Weinberg, 1996; Reed et al., 2009; Rouse, 1988; Ryan, 1998), but note that "the rates of sexual assault among men are concerning" (p. 934-935), and with regards to injury rates, that "both genders can be victimized at similar rates with similar physical consequences" (p. 935). Archer (2019) found that males are less likely than females to be fearful of sexual assault and that they, males, are less likely to engage in self-protective behaviors. Perhaps taking a clue from Elizabeth Stanko's suggestion, regarding a need for the exploration of men's fear of crime, is what prompted the study from Kristen Day, Cheryl Stump, and Daisy Carreon (2003).

Day et al., (2003) argue that the heightened emphasis on research regarding women's fear makes good sense, particularly since women report higher levels of fear concerning public spaces (Johansson & Haandrikman, 2021). However, current "environment-behavior researchers have overlooked men's fear in public spaces" Day et al., (2003, p. 1). Citing the 2000 statistics from the US Bureau of Justice, Day et al noted that women report higher levels of fear in public spaces, compared to men, even though women face greater danger of being victims of violence from domestic disputes and sexual assault in the privacy of their homes. When asked about being afraid to walk alone at night in their neighborhood, 52% of American women, and only 23% of American men, indicated that they felt fearful (US Bureau of Justice Statistics, 2000). The 2019 U.S. Department of Justice's Criminal Victimization Bulletin states that the percentage of violent victimization reported to police by males (36%) was lower than reports by

females (46%), but when the reports of simple assaults were excluded, male and female reports were similar, female (47%) and male (46%.) The report also states that the demographic percentages of violent incidents was comparable to the U.S. population distribution of 51% female and 49% male. Of the approximately 5.1 million violent incidents reported, about 2.4 million incidents had male victims and roughly 2.6 million incidents were female victims. The bulletin also reports that in 2019, "the prevalence of serious crime was higher for males than for females" (p. 24). According to the FBI Crime Data Explorer, for the year 2020, 335,813 males were victims of violent crimes as compared to 316,885 female victims of violent crimes.

Logan and Walker (2021) found that men, when asked about worry about safety, had higher perceived risk of violent victimization occurring in the future than did women, and found that both men and women utilized various safety responses, e.g., avoiding outings at night, asking for help with safety, being walked to car with or by others, talking on cell phones while walking to car, and using safety services or apps. For example, the University of Louisville's Cardsafe Program uses Rave Guardian, a safety phone app which allows a member of the university to instantly dial 911 or the university police department to report a crime and has the capability for the user to set a timer to alert friends and police if they are late in arriving at a pre-determined destination. The university also offers the Campus Escort service that provides members of the university community rides to any destination (car park, residence) that is within a four-block perimeter outside of the campus boundaries.

According to Day et al, (2003), men's fear regarding public spaces has its foundation in being in unfamiliar territory. Either getting lost, or being in a new location,

seemed to increase the anxiety that men felt. Knowing exits or escape routes in familiar places helped men "feel better able to handle potential conflicts" (p. 315). Having the ability to "be prepared" through heightened awareness of their surroundings was an important determinant of their feeling of safety. Brownlow (2005) argues that the fears men feel are more abstract, that "violence and victimization can come in many forms and from any direction" (p. 589), particularly since the incidence of male victimization by strangers in the US is considerably high. According to the U.S. Department of Justice report by Erika Harrell (2012) "males experienced violent victimization by strangers at nearly twice the rate of females" (p. 2). Moore & Breeze's (2012) study about men's and women's perceptions of danger in utilizing public toilets, found that, "for men, public toilets are potentially dangerous spaces" and men are fearful of being both watched and "preyed upon" (p. 1180).

Another significant source of concern for young men is the fear of confrontation (Brownlow, 2005; Day et al., 2005; Mehta and Bondi, 1999). Having to prove oneself, or participate in verbal or physical confrontations, particularly involving strangers, is often recognized as a principal threat to the safety of men in public spaces. Johansson & Haandrikman (2021) found that for men, "a sense of belonging" (p. 16) made men feel less fearful. Where women are often called upon to engage in avoidance measures for their "own safety", men also make use of avoidance strategies. Avoiding places, or situations, that suggest a high probability for confrontation, minimizing or not engaging in any activity that might provoke confrontations with others, and staying in groups in public spaces, are three of the avoidance measures that men often employ to feel safe. Like studies regarding women, the Day et al (2003) study found that men frequently

restricted their activities to spaces where they felt safe and avoided spaces which they felt would lead to "loss of control or to confrontation" (p. 320).

As noted by Pain (2000), in his (1993) study, I.M. Hay suggests that men's fear leads to the use of avoidance measures when discussing behavior and use of space. For men, according to Pain, the fear of crime causes them to compromise not only their independence, but also their self-confidence. Pain (2000), citing Gilchrist et al. (1998), argues that past studies are uncovering higher rates of male fear than was expected, and that the emphasis on females being the most fearful gender could be in question. Bolger and Bolger (2019) stated "as expected, females were more fearful of crime" (p. 345) where 46% of the respondents were male. As previously stated, it has been noted that there is a scarcity of research regarding males and their fear of crime (Stanko, 1995), and Pain (2000) suggests that men's low reporting, or reluctance to give answers to survey questions on fear, may be hiding their vulnerabilities which they feel may challenge their male identity (Crawford et al, 1990).

Dobbs, Waid and Shelley (2009) noted that other scholars (Smith & Torstensson, 1997; Sutton & Farrall, 2005) have suggested that men's self-reported responses to fear (lower levels) may be influenced by social desirability. For self-preservation reasons, men report the lowest levels of fear, that is, men may be adhering to ideas about hegemonic masculinity and the "oft-theorized social pressure on men not to disclose their fears (Hale 1996; Goodey 1997)" (p. 219). According to Connell and Messerschmidt (2005), significant research has been conducted to understand the concept of "hegemonic masculinity" as "the pattern of practice" (i.e., things done, not just a set of role expectations or an identity) that allowed men's dominance over women to continue (P.

853). These authors state that the formation of the concept of hegemonic masculinity "embodied the currently most honored way of being a man," that it "required all other men to position themselves in relation to it", and that those who meet the hegemonic standards (exemplars or architypes of masculinity) possess their agency of power (p. 832). Moore and Breeze (2012) cite Stanko's (1990) argument regarding gender hierarchy which states that socialization for males, "involves sorting out the hierarchies and the power relations amongst "real" men" (p. 114). Michael Kimmel (2017) claims that many males feel marginalized, feel they are at a disadvantage today, and are angry (and afraid?) because their power has escaped them. May, Rader, and Goodrum (2010) note that few studies have concentrated the focus on men's fear of crime, and Cops and Pleysier cite Murray Lee's assertion in his 2007 book Inventing Fear of Crime, "relatively low level of fear reported by men has, in other words, not been the topic of research and remained unproblematic" (p. 60).

Fear and Race

"Those who feel at risk may experience particular spaces as particularly threatening" and the response to the threat of these spaces may be self-restrictions, segregation, and isolation (Pain 2000, p. 373). This process plays an important role by creating a situation of social exclusion of the stereotypical others. Stating stereotypes as "false and misleading associations between a group and an attribute," Blum (2004), argues that that they (stereotypes) "are held by their subjects in a rigid manner, resistant to counterevidence" (p. 288). Sibley (1995) notes that exclusion of social space in urban life takes place routinely "without most people noticing" (p. XIV) and attempts to define

attitudes towards “others which inform exclusionary practices”, and then “show how the processes of control are manifested in the exclusion of those people who are judged to be deviant, imperfect or marginal” (p XV). Pain argues that these social “others” may be both feared and fearful. According to the Commission for Racial Equality (1987), and Mayhew (1989) as noted by Pain (2000), ethnic minority groups have experienced significantly higher rates of victimization, which is consistent with the findings by Box et al (1988). Another study by Sloan, Fisher, & Wilkins (1996/2000) found that “African Americans, as compared to other races, had a higher probability of perceiving themselves at risk for victimization” (p. 87). Boateng and Adjekum-Boateng (2017) found that Non-White students have greater levels of fear of crime on campus than their White counterparts” (p. 138). The 2020 FBI Crime Explorer report indicates that while African Americans are approximately 13% of the population, they are 38% of the victims for all violent crimes. In discussing race and fear of crime, criminology textbook author Sue Titus Reid makes a point of recommending further studies in “the relationship between race and the fear of crime” (Reid, 2012, p. 231). Reid references statistics from the Bureau of Justice Survey, which indicate that African Americans are three times more likely as whites to express fear of crime in their neighborhoods. Reid also notes that African Americans are seen as “symbolic assailants”;…that their presence in large numbers evokes fear of crime, even when the crime level is not high. This supports Pain’s assertion about “others” being both fearful and feared.

Being both fearful and feared creates a society in which Blacks, the stereotypical “others”, are “only a partial view that is molded to fit what we already imagine them to be” (Bonam, Bergsieker, & Eberhardt, 2016, p. 1). According to Devine & Elliott (1995),

there is a “consistent, contemporary stereotype of Blacks and that this stereotype is highly negative in nature”, and that “stereotypical images of Blacks persist in the dominant media” (p. 1146). “The image of the feared Black male body also reappears across entertainment, advertisement, and news”, Patricia Hill Collins (2002, 2004, p. 153).

Radar, Cossman, & Porter (2012) found that one’s physical vulnerabilities (i.e., age, gender, health, and social vulnerability (i.e., race, education, income…) play a role in fear of crime. Black respondents reported higher levels of concern than White respondents, even when controlling for perceptions of neighborhood conditions (Scarborough et al., 2010). However, Hibdon et al., (2016) found that White students who resided on campus “were significantly more likely to engage in avoidance behaviors” (p. 82). Chiricos et al. (1997), researching in a city that was the state capital and home to two state universities, found that racial composition of the neighborhood mattered, but only to White residents who perceived themselves to be in the racial minority of the neighborhood. As noted earlier, Smith, Allen, & Danley (2007) state that Black males are stereotyped and placed under increased surveillance by community and local policing tactics both on and off campus, subjecting them to “psychological stress responses symptomatic of racial battle fatigue (e.g., frustration, shock, anger, disappointment, resentment, anxiety, helplessness, hopelessness, and fear)” (p. 551). These findings are in line with the statement from Pain (2000) that “others” are both feared and fearful. Smith, Allen & Danley (2007) quoted Wilson (1990, p. 36), “To be a Black male is to have your integrity chronically under question, to always have to somehow verbally or nonverbally, communicate convincing reasons for being where you are if you are not in your “place” (p. 572). Campbell and Valera (2020) found that

"college students of color are not immune from fearing the police, and their reactions mirror the general population of Black people" (p. 664). This study indicated that their findings are like the study by M. Alexander (2012) that there is " a clear relationship between race and being stopped by police, and these trends are consistent even among college students" (p. 664) and that even if they have not had any encounters with the police, they were still fearful for their safety because they identified with social media accounts of victims of police brutality. In a recent study by Pickett, Graham, and Cullen (2022) with a nationwide sample of N=1,150, found that "most Black respondents lived in fear of the police killing them and hurting their family members."

Fear and the physical environment

Incivilities and physical cues

In a previously discussed article, written by Wilson & Kelling (1982), the authors contend that small details regarding the physical surroundings, displays of disorderliness, (e.g., broken windows, litter), play a crucial role in the overall perception of safety in any given environment. Austin and Sanders (2007) cite research from Skogan (1990) that further supports the suggestion that a relationship exists between crime and environmental incivilities, by arguing that situations, such as burned buildings, gang graffiti, and abandoned cars, can be indicators of danger to individuals. Research on an individual's fear of crime has also focused on the physical environment. One of the factors driving an individual's fear of crime could be the physical environment in which the individual finds themselves or is about to enter. Physical conditions impact an individual's fear, their interpretations of the degree of seriousness of crime, and their

level of perceived risk, as noted by Austin, Furr, & Spine (2002) referencing research by (Boorah and Carcach 1997; LaGrange, Ferraro, and Supancic 1992; Rountree and Land 1996; Skogan and Maxfield 1981).

However, other researchers argue that a spurious relationship, and not a causal linkage, exists between public social disorder and crime (Sampson and Raudenbush,1999), or that other additional research has not found support for this relationship (Harcourt, 2001; Taylor 2001, Harcourt and Ludwig 2006). Robinson, Lawton, Taylor, and Perkins (2003) suggest that as fear increases for the individual(s), these displays of social disorder (e.g., boarded-up buildings, broken windows, vandalism) may begin to be viewed in a more frightening light. Bryan Wyant (2008) found that "incivilities were predictive of fear at the individual level" (p. 55). According to Nolan, Conti, and Mc Devitt, (2004), the association between the neighborhood environment and crime, and its causal relationship, has been challenged. However, evidence demonstrates that distress over incivilities and crime appear together among neighborhood residents, leading them to infer that these conditions are "signs of crime" (Kanan and Pruitt 2002, p. 541), regardless of causality or mere correlation, as noted by Austin and Sanders (2007). Wyant (2008) found that "at the neighborhood level, shared views (the neighborhood average) of incivilities, influenced fear, but did not once shared views of crime risk were added" (p. 59-60).

Considerable fear can be produced when an individual is faced with both the "novelty" (walking through an area through which you have never walked before) and "darkness," noting that nighttime can transform a situation from a comfortable one into a frightening one (Warr, 1990). Hibdon et al., (2016) found "significant affiliation between

fear at night and avoidance behaviors" (p. 82). These findings are consistent with the findings reported by Skogan and Maxfield (1981) that people, especially females, are more fearful at night than they are during the day (Taylor 1999; Valentine 1989; Fisher and Nasar 1995, 1992c; Brantingham et al. 1995; McConnell, 1997). According to Pain (2000), "people commonly report fear of personal and property crime being heightened when they are in particular environments" (p. 369).

Other researchers have focused on additional factors that impact the appearance of incivilities, such as lighting. Rijswijk and Haans (2018) found that brighter lighting may improve feelings of safety, as did Painter (1992), but also found that brighter lighting illuminates the various incivilities, which may make the disorder of the surroundings more noticeable, as did Herbert and Davidson (1995). Blöbaum and Hunecke (2005) found that, for one German college campus, when considering the physical factors of entrapment, lighting, and concealment, lighting was the single most important factor influencing the perception of personal danger. Fisher and Nasar (1995) acknowledged that Merry (1981) "argued that it is the cognitive assessment of cues that leads an individual to anticipate harm or danger in the environment" (p. 216). Painter (1996) found darkness and disorder (incivilities) as key elements that increase fear in people and that "incidents of crime and disorder were markedly reduced…after lighting improvements" (p. 197).

The will to survive is man's greatest instinct, and according to Goffman (1971), "individuals seem to recognize that in some environments, wariness is particularly important, constant monitoring and scanning must be sustained, and an untoward event calls for a quick and full reaction" (p. 242). Goffman further states that humans "have a

capacity for picking up signs for alarm" (p. 250-251). Fisher and Nasar (1992, 1995), state that it is the micro level features (prospect, refuge, and escape) that are associated with fear of victimization. The signs of alarm could be generated from cues such as darkness, due to nighttime or walls of shrubbery obfuscating one's view (Fisher and Nasar 1995; Hibdon et al., 2016; van Rijswijk & Haans, 2018). In another study by Fisher and May (2009), a random sample from a college population, (faculty, staff, and students), were asked why they were fearful on campus. Responses revealed issues such as too many bushes, bad lighting, hiding places, limited entrance and escape, dark hallways, and no escape routes.

When considering the physical environment of a particular location or space in researching fear of crime, Fisher and Nasar (1992) argued that "places that afford offenders refuge, and victims limited prospect and escape will be seen as unsafe" (p. 40), offering evidence that the exterior design features affect perceptions of safety. The term "prospect" (Appleton 1975) refers to a persons' ability to view the openness of the space they are currently occupying or are about to enter. Goffman (1971) introduced the term "lurk lines" to explain those areas where the line of sight is broken, indicating blind spots or areas where there is limited prospect. These blind spots might be building columns, alcoves, trees, shrubbery, signage, or other objects, which may block a person's view of space which they are either currently occupying or are about to enter, and they "may serve as cues to danger or risk" (Fisher and Nasar 1995, p. 216; van Rijswijk and Haans, 2018, Wyant, 2008). As noted above, these blind spots may serve a dual purpose. The first is that they may offer an individual a place to seek refuge if the individual feels threatened, and conversely, that same space may offer potential offender(s) a place to

hide or be concealed in wait for an unsuspecting victim on which to prey. A third consideration is that of escape. As noted by Fisher and Nasar (1992), "boundedness is a feature of the physical environment shown to provoke fear" (p. 220) and a person's feeling of safety is impacted by the extent of their ability to escape. Arguing that "places such as campuses, which have a pronounced fear of crime," Fisher and Nasar (1992) concluded that "fear of crime was highest in areas with refuge for potential offenders and low prospect and escape for potential victims" (p. 232). Rijswijk and Haans' (2018) study confirmed previous studies regarding the importance of being able to make appraisals about the space (e.g., prospect, refuge, and escape) and that they "robustly account for approximately 75% of the variation in people's evaluation of the safety of urban environments" (p. 905).

Fear of crime on a college campus

While many studies (Epstein, 2002; Schwartz, DeKeseredy, Tait, & Alvi, 2001; Nicoletti & Spencer-Thomas, 2010) focus on the criminal activities that may happen on a college campus, several studies have begun to pay close attention to the actual physical environments found on a college campus. Nasar, Fisher, and Grannis (1993), suggested that certain physical features may contribute to a climate of fear on campus (e.g., the open park-like nature of the campus, urban campuses that are bordered by neighborhoods that have social disorder, signs of incivilities such as trash and graffiti), and that college campuses are responsible for the physical elements found on campus that facilitate criminal activity. Medway, Parker and Roper (2016) agree with Lagrange et al.'s (1992) suggestion that the focus for police officials or community leaders should be on social

incivilities (e.g., harassment, loitering, fighting) rather than physical disorder (e.g., litter, graffiti, vandalism). Chekwa (2013) found that security officers, cameras, emergency call boxes, and lighting, were the most important deterrence of criminal activity on campuses. However, Fletcher (2007) found that many respondents reported that signage, emergency phones, and lighting, were inadequate safety features on campus. Another study, authored by Nasar & Fisher (2000) examined fear of crime for specific locations. In it, they examined how prospect (openness), refuge (hiding places for either the individual or potential offenders), or escape (opportunities for the at-risk individual to escape) impacted perceptions of safety in that location. The college campus, as noted by Nasar & Fisher, allows for potential offenders to go virtually unnoticed. A college community is made up of the student body, as well as the faculty and staff, and is generally very diverse in terms of age, race, ethnicity, SES, and other types of characteristics which could be used to describe a university population. Given the diversity of a campus population, and the fact that campuses offer unlimited access and mobility, a great many opportunities can exist for criminal perpetrators to prey upon the campus population. Couple these factors with that worrisome physical element, such as poor lighting, overgrown foliage, or obscured lines of sight that can often be found on a college campus, and you have a situation which may lead to an increase in incidents of crime and pose threats to the safety of the student body, faculty, and staff. Gover et al., (2011) found that approximately 31% of respondents, made up of faculty and staff, reported being a victim on or near campus of at least one type of crime, and 48% of these participants knew someone who had been a victim of a crime on campus.

The National Center for Education Statistics Fast Facts stated that 28,900 criminal events of personal and property crimes were reported in 2017, an increase of 2% over the 2016 reported criminal occurrences. According to the report: Indicators of School Crime and Safety; Indicator 21: Criminal Incidents at Postsecondary Institutions (July 2020), citing the 2017 statistics noted above, campus safety and security reporting is required through the Campus Safety and Security Survey, which is sponsored by the Office of Postsecondary Education of the U.S. Department of Education. Students, faculty, and staff are surveyed about criminal events and arrests (of students, faculty, staff, and members of the public), and/or referrals for disciplinary actions (those associated with the institution). The report notes that, due to underreporting of offenses, arrests, and disciplinary referrals, likely do not capture all criminal incidents that occur. This report refers to "several dozen large universities" student surveys, which indicate that the official reports of sexual assaults are only a "minority" of sexual assaults that were reported in the student surveys. Consistent with other research, April Woolnough (2009) found that women on campus were more fearful of crime, more likely to be victimized, and more likely to engage in self-protective behaviors. Corey Yung (2015) states that "sexual assault data supplied by schools [DoE-Clery Act Requirement] is likely severely undercounting the number of reported incidents on campuses", and that the actual degree of sexual assaults on campuses are at least 44% higher than the incidents reported by universities to the DoE-Clery Act (p. 7).

Each fall, university campuses across the nation ready themselves for the influx of not only the returning students, but also their portion of the current 2-million college bound high school graduates. As college administrators look to the future, their hope is

that their institution will be the college of choice for many of the 49 million students that may be college bound in the future (National Center for Educational Statistics, NCES, 2021). One of the key elements considered in choosing a college, for both the students and their parents, is campus safety. As previously stated, for the last twenty years there has been increasing awareness and concern regarding criminal activity and violence occurring on campuses. The coverage of these incidents by the mass media, and the constant retelling of the events, may be giving an exaggerated representation of the dangers that college populations encounter.

Theoretical Framework and Independent-Dependent Variables

This study used Felson and Cohen's Routine Activities Approach to analyze whether certain, specific variables have an impact on respondents' fear of victimization. Routine Activity theory suggests that "most criminal acts require convergence in space and time of likely offenders, suitable targets and the absence of capable guardians" (p. 588). As previously noted, college campuses are often located within a city's boundaries or city limits as is Belknap Campus at the University of Louisville. Belknap campus is located four miles south of the central business district of Louisville, in an area called Old Louisville which is densely populated with both residential homes and a variety of businesses and restaurants. This makes this urban campus, close to the inner city, open and available at all hours to students, faculty, and staff, as well as those would-be criminals who may be searching for "suitable targets" that are without "capable guardians" to protect the potential victim(s). This study sought to determine the likelihood that fear of victimization is heightened when individuals imagine themselves

(secondary vantagepoint) in or about to enter each of the eight specific locations on the Belknap Campus of the University of Louisville, where criminal events have occurred, and one location unknown to them, where no criminal event has occurred.

Multiple independent variables were utilized in this study. This study's aim is to discover if specific elements for each of those locations, that are plausible features typically found on many college campuses; daytime, nighttime, if the location is unoccupied or occupied, and the demographics (race, gender, police officer) of those who are occupying that space, might cause the respondent to be more fearful. Independent variables also included several demographics of the respondents including age, race, gender, course load, residency status, participation in social life, prior victimization experiences within the past twelve months, and the use of protective measures. This study sought to understand how the presence of a police officer may offer a sense of safety or conversely, may offer a sense of unease or fear because a police officer is present in that location. The dependent variable, fear of crime, was constructed from two previously used scales (Fisher and Sloan, 2003; Steinmetz and Austin, 2013)—I am afraid, and I Think I would be afraid. When looking at one of the nine photos that was presented to each respondent, they were asked if they have ever been in that location. Depending on their response (I have occasionally/often, I have never/don't remember) they were then asked about their fear of crime for that specific location that included the assigned variations for that photo in that deck (e.g., Deck 1, photo # 1—variations: location #2, daytime, two people (1 male, 1 female) race (both non-White) no police officer). Each of the photos and the appropriate question(s) served as some indicator of fear. An

explanation of the “I am afraid” and “I Think I would be afraid” scales is discussed in greater detail below in the Vignette Survey Questions section in Chapter 3 Methodology.

Goals of this Study

This research will expand the scholarship from the Steinmetz & Austin 2013 study which examined the fear of crime among college students. This research will include the top four most fear-provoking locations on the Belknap campus from that 2012 study and four additional locations on the Belknap campus, or adjacent to the Belknap campus, which had the highest rates of criminal events, based on the security crime data logs from ULPD for 2019. Other variables, such as time of day (day/night), if the location is unoccupied or occupied, what type of person(s) occupy that location (e.g., race, gender, police officer), were examined. Additionally, variables such as prior victimization, social participation on campus, and use of constrained behaviors, were assessed for their impact on the level of fear of crime among the campus student population.

CHAPTER 3: METHODOLOGY AND DATA

This dissertation examines respondents' fear of crime by utilizing photographic vignettes constructed using a combination of factorial experimental design and visual sociology methods. In this chapter, I describe the factorial design methodology used, the construction of the photographic vignettes which resulted in a few implausible scenarios, which were subsequently removed. Using visual sociology, I describe the selection of the locations for the photographs. This is followed by a description of the construction of the sets/decks that were used in this research, the process of recruiting respondents, how the use of factorial design reduced the number of respondents needed, and the survey questions asked of them. I conclude this chapter by describing the bivariate and multivariate statistical techniques used to analyze the survey data.

Factorial Experimental Design

Survey research is the most frequently used method to gather data in social science research. The questions on surveys are best if they are short or concise to avoid reading fatigue and maintain the respondents interest. Surveys give researchers opportunities to ask questions of their respondents that are either open-ended, to which respondents provide their own answers to the questions and/or closed-ended for which a

choice of responses is presented to them. This survey included both open-ended and closed-ended questions. The survey for this research was administered through the internet, with qualifying respondents being provided with a specific URL link to access the survey.

Survey research hinges on respondents' replies to the questions being asked about specific topics, and often the reactions or answers researchers receive can be a mixture of truth, partial truth, or even lies, as respondents may not want to reveal their true feelings about the topic(s). Respondents' answers may include or attempt to hide bias by giving socially desirable responses (He et al. 2014; Johnson and van de Vijver 2003; Keuter, Presser, and Tourangeau 2008)[Cited by Liebe et al 2020], and if the topic is viewed as a sensitive topic, the problem of gaining truthful answers becomes even more serious (Krumpal 2013) [Cited by Liebe et al. 2020]. To counter the issues of bias, specifically socially desirable response behavior in survey research, some researchers have turned to Factorial Survey Experiments.

Factorial survey methods were first developed by Peter H. Rossi in his 1951 dissertation to measure household social status. Rossi's approach was to develop a technique to assess "the judgement principles that underlie social norms, attitudes, and definitions" (Auspurg & Hinz, 2014, p. 1). The factorial survey method in social science research presents survey respondents with stimuli that resemble real-world evaluations and forces them to make more precise determinations of the judgement principles than is possible when using the traditional questionnaires. Rossi posited that when asking respondents to form judgements based on vignettes, in other words, hypothetical situations, objects, persons with varying attributes, the target measurements of factorial

survey will include respondents' "beliefs" about the real-world, that is, beliefs about something as it truly "is", including their feelings and thoughts. Atzmüller and Steiner (2010) state that using traditional survey and vignette techniques together is a "promising but too infrequently used research method for investigating respondents' beliefs, attitudes, or judgements" (p. 128). Jasso's 2006 scholarship expands Rossi's factorial survey method which "enables estimation of an individual observer's positive-belief and normative-judgement equation," (p. 339) and suggests that the expansions "serve to highlight the wide range of questions that may be addressed and quantities that may be estimated by Rossi's method" (p. 410).

Auspurg & Hinz (2014) further state that an ideal setting for factorial design is one where all dimensions, the object characteristics in a setting, and the setting itself, are completely independent of one another (that they are not correlated). They explain that one of the "core elements of factorial survey is a multidimensional experimental design" (p. 8). Respondents judge a stimulus, the vignette, and each vignette possesses differing levels of the characteristics (dimensions) which are systematically varied. Factorial survey experimental design also requires the randomized assignment of the vignettes to the participants of the survey.

Auspurg & Hinz (2014) suggest that respondents typically evaluate multiple vignettes, but that viewing a high number of vignettes may lead to fatigue or boredom. Additionally, the respondent(s) may discern the purpose or goal of the survey, which can cause them to develop a social desirability response bias. Auspurg and Hinz suggest that 10-20 vignettes is a common range per respondent.

The factorial survey method, a combination of survey research and experimental design, allows for the "identification of both socially shared judgement principles and subgroup principles" (p. 17). Auspurg & Hinz assert that when utilizing an "efficient" design to create stimuli, respondents' true judgements across multiple dimensions can be assessed with a high level of precision and without bias caused by spurious correlations. FS experiments have high internal validity, and hypothetical vignettes provide an "elegant method to circumvent any problem of multicollinearity" (p. 17).

According to Sage Research Methods (2018), the factorial experiment design methodology is a "form of true experiment, where multiple factors (the researcher-controlled independent variables) are manipulated or allowed to vary". This type of methodology is used not only in sociological research (Wallander, 2009; Hox et al. 1991, Jackson & Cox, 2013), but also in biochemistry research (Carmona et al. 2004), environmental engineering (Can & Yildiz, 2006), medical engineering (Hunt et al. 2014), Neurological research (Graupe et al. 2008), and psychology research (Dziak et al. 2012), to name a few.

By applying an efficient design to create the stimuli, the true influence of the dimensions on the judgements can be assessed with a high level of precision and without bias which may cause spurious correlations (Auspurg & Hinz). According to Wallander (2006) the factorial survey approach has been used in research in multiple subdisciplines of sociology, including family and social welfare, urban sociology, social theory, political sociology, ethnic relations, sex and gender, religions, sociology of sports, and crime, law, and deviance. Using factorial experimental design will enhance fear of crime research to gain a better understanding of the three elements encapsulated in "fear of victimization"

(Rader, 2017) -- fear of crime, perceived risk, and constrained or precautionary behaviors -- that college students may use on a college campus. This methodology has been successfully employed in the past by Ward, Lewis and Benson (2002) when they demonstrated spectator behavior's level of violence at high school football games, Shively (2001) which contradicted previous research that stated that men have little sexual self-control in dating scenarios, and Jasso (1988) using factorial survey design to determine the judgement members of the professional staff used regarding the visa applicants and the staffs selection or preference of the immigrants granted visas to the US.

Use of Photography in the Factorial Design

Staged photographs constitute the hypothetical "vignettes" for this factorial-design study. Vignettes take many forms, including written and spoken narratives, visual imagery, video, and sound (Lavrakas, 2008; Auspurg & Hinz, 2014p. 60). As previously noted in the literature review section, according to Appleton (1975), humans do not need to be directly in the space to make assessments. They can infer the qualities of that space or situation. These inferences are seen as "secondary vantagepoints" and are considered to be "indirect prospect." As noted by Dosen & Ostwald (2016, p. 2), citing (Berlyne 1951),

Prospect-refuge theory also has parallels with arousal theory, which suggests that an increase of pleasure is felt when a person views a space or scene that has a degree of uncertainty or novelty about it, but if uncertainty is increased beyond that point, feelings of anxiety begin to occur.

The use of staged photographs in this study will seek to provide such a "secondary vantagepoint" and make possible specific low and high arousal scenarios that would be difficult through physical presence. Staged photographs will also seek to provide a fidelity and detail that one cannot easily achieve via written word.

Auspurg and Hines note that Rossi's FS methodology addresses a desire to "gain deeper insights into judgement and decision principles than is possible using only single item questions" (p. 2) and that responses are less likely to be influenced by social desirability bias (Alexander & Becker 1978, Auspurg, Hinz & Liebig, 2014), asserting that "more detailed the description of a situation leads to a greater standardization of its stimuli and provides deeper insights into respondents' judgement principles" (Auspurg & Hinz, 2014, p. 3). Howard S. Becker (1974), cites Jon Collier, Jr. from Friends of Photography (1972, p. 49), as follows: "The camera constantly trips up the artist by loyally going on being a recorder of reality." Hughes and Huby (2004) suggest that the use of visual imagery, photographs, paintings, line drawings, etc., may be better to address some topics, citing Bendelow (1993) use of photographs and painting, and Chambers & Craig (1998) use of line drawings, in the subjective perceptions of pain. Dona Schwartz (1989) suggests photographs trigger multiple meanings because of the viewers' experiences, and that photographs are useful in obtaining data that is "unobtainable through observation or conventional interviews" (p. 143). Sociological research has used photography for many purposes, such as to gauge political consciousness among Peruvian women involved in a literacy program (Barndt, 1980); to provide a "critical reflection" of the establishment, maintenance, and reformation of disabled young males transitioning to adulthood (Gibson et al., 2013); to study how some

of London's Kurdish migrant workers, who have experienced work issues, solve or deal with the issues they have encountered (Holgate et al., 2012); and to gain more knowledge about migrant and ethnic communities through the sharing of the photographs (Gold, 2004); and to study fear of criminal victimization on a college campus (Steinmetz and Austin, 2013).

For this research, the vignettes were photographs meant to represent the prospect upon entering eight specific spaces on or adjacent to the University of Louisville Belknap campus and one location as a control, used in the 2012 study, the back yard of a private home in the East End of Louisville, a location with which none of the respondents are familiar. The nine selected locations were unoccupied or occupied by person(s) with varying attributes, such as race, gender, and occupation (police officer), thereby creating real life situations. Implementing the factorial survey design for this study required creating several vignettes or pictorials (photographs), depicting these situations, so that each respondent was shown one unique "deck" of nine photographs and then asked to evaluate each photograph in their deck. Each photograph represents a unique vignette, including a specific mixture of stimuli (time of day/night, number of people in the photo, and their sex, race, and if a police officer is present). These photographs selectively portray aspects of reality to which participants were asked to respond.

Building the Vignette Universe for the Factorial Design

Auspurg & Hinz (2014) state that the main purpose of factorial survey is to test social theories. The first step after selecting a situation that can be presented in vignette form is to determine which variable dimensions and levels are to be used, thus

operationalizing the research hypotheses and theoretical concepts that apply. The number of dimensions to include in the vignettes can range from as few as 3 (Berk & Rossi, 1977) to as many as 26 (Shlay, 1986), which requires compromise to avoid boredom or fatigue, and therefore, unreliable judgments from respondents viewing too many similar vignettes. Auspurg & Hinz assert that "methodological research suggests that when the amount of complexity is restricted to moderate level of seven (plus or minus 2) variable dimensions and 10 vignettes, even older and less-educated respondents produce a high level of response consistency, resulting in internal validity without indications of cognitive overload or fatigue effects" (p. 61). They also suggest that when working with professionals or students, more complex vignette modules may be utilized without creating "respondents' efficiency", such as respondents not noticing some dimensions due to the dimensions having "low importance" to the respondent.

In determining the vignette universe, the total number of vignettes that will be created for a research project depends on the number of dimensions (characteristics or variables) and the number of levels each dimension will have. For this study, there were 6 characteristics: location, time of day, sex, race, number of persons present, and the presence of a police officer. The number of levels for each of the six varies, as shown in Table 3.1: two levels for time of day (day/night), gender (male/female), race (White, non-White), four levels for number of persons in the photograph (0, 1, 2, or 3), and nine levels for location.

The dimension of police officer could have been included in the overall randomized distribution of the dimensions. However, there was concern that the inclusion and random distribution of too many police officer(s) in one respondent's deck might

negatively impact or bias a respondent's perception of what was being asked, or that too many police officers might bias their responses. Crowl and Battin (2017) cite Roh and Oliver's (2005) finding, "that when police-student relations are fragmented, a sense of profound distrust could emerge" (p. 198) and Boateng & Boateng (2017) cite Dowler (2002) and Frank et al., (2005) asserting that "White individuals had more favorable perceptions of the police than their Black counterparts" (p. 139). Campbell & Valera (2020) note that Tyler (2005) argued that "confidence in the police is perceived to be low" (p. 656), particularly among community members of color, and that they are particularly mistrustful and fearful of the police. As a compromise, one police officer was added into one photograph chosen randomly per deck. There were four different images used, one White male officer, one Non-White male officer, one White female officer, and one Non-White female officer. Except for a police officer present, a total factorialization of all dimensions and their levels would result in a deck universe of 648 unique photographs (2*3*3*4*9=648).

Table 3.1. Photo Dimensions and Dimension Levels

Dimension	Dimension Levels
Time of Day	Day/Night (2)
Sex/Gender	Male/Female/Mixed (3)
Race	White/Non-White/Combo (3)
Number of Persons in Photo	0, 1, 2, or 3 (4)
Locations: 9 unique locations on/near campus	
	2012 Study Findings
	3rd Street walkway tunnel
	Cardinal Stadium Parking Lot
	Papa John's Pizza Parking Lot
	The Province Apartments (AF)*
	2019 ULPD Crime Logs

	The Clubhouse Apartments (AF)* Student Activities Center (SAC) The Nine Apartments (AF)* Floyd Street Garage **Private back yard (control)**
Police Officer	1 Police officer present in 1 photograph per deck

*(AF) University affiliated property

Removing Implausible scenarios

Auspurg & Hinz citing Auspurg et al., (2009) assert that "implausible or even illogical cases (such as medical doctors without university degrees) produce problematic side effects on data validity" (p. 41). The authors argue that these "implausible" or "illogical" cases may make "the respondents doubt the seriousness of the complete survey" and that it is "advisable to avoid very implausible and illogical combinations of levels of vignette dimensions" (p. 41). The authors cite Kuhfeld's (1997) recommendation to exclude unrealistic vignettes from the candidate set (deck universe) to achieve efficient design. For this research, the random distribution of the dimensions and the dimension levels among all photographs, created "implausible" scenarios to be applied to several photographs. Four implausible situation(s) were created when the dimension "number of people in photo" was either 0 or 1.

The first "implausible situation" arose when the dimension "number of people" was zero. A complete factorization resulted in separate vignettes for each gender (male/female/mix of genders) and race (White/Non-White/combo(combination of White/Non-White persons). It is impossible for "zero" people to be either male/female/mixed or to be White, non-White, or a combo. These "implausible

scenarios" required the deletion of 144 photographs, (16 per location). The two remaining photographs per location, one day with 0 people, one night with 0 people, were re-coded with the sex and race dimensions as "null" (no one in the photograph), to avoid errors during analysis. See Table 3.2 and Table 3.3 below.

Table 3.2. Implausible Scenario (0 people)

Photo #	Location	# of People	Sex	Race	Time
1	Loc 1	0	Male	White	Day
2	Loc 1	0	Female	Non-white	Day
3	Loc 1	0	Mixed	Combo	Day
4	Loc 1	0	Male	White	Day
5	Loc 1	0	Female	Non-white	Day
6	Loc 1	0	Mixed	Combo	Day
7	Loc 1	0	Male	White	Day
8	Loc 1	0	Female	Non-white	Day
9	Loc 1	0	Mixed	Combo	Day
10	Loc 1	0	Male	White	Night
11	Loc 1	0	Female	Non-white	Night
12	Loc 1	0	Mixed	Combo	Night
13	Loc 1	0	Male	White	Night
14	Loc 1	0	Female	Non-white	Night
15	Loc 1	0	Mixed	Combo	Night
16	Loc 1	0	Male	White	Night
17	Loc 1	0	Female	Non-white	Night
18	Loc 1	0	Mixed	Combo	Night

Table 3.3. Implausible Scenario Deleted Duplicates

Photo #	Location	# of People	Sex	Race	Time
1	Loc 1	0	Null	Null	Day
2	Loc 1	0	Null	Null	Day
3	Loc 1	0	Null	Null	Day
4	Loc 1	0	Null	Null	Day
5	Loc 1	0	Null	Null	Day
6	Loc 1	0	Null	Null	Day
7	Loc 1	0	Null	Null	Day
8	Loc 1	0	Null	Null	Day
9	Loc 1	0	Null	Null	Day
10	Loc 1	0	Null	Null	Night

11	Loc 1	0	Null	Null	Night
12	Loc 1	0	Null	Null	Night
13	Loc 1	0	Null	Null	Night
14	Loc 1	0	Null	Null	Night
15	Loc 1	0	Null	Null	Night
16	Loc 1	0	Null	Null	Night
17	Loc 1	0	Null	Null	Night
18	Loc 1	0	Null	Null	Night

Two other "implausible situations" occurred when the number of people in the photo was one, and either the gender dimension was assigned mixed (male and female), or the race dimension was assigned combo (White and non-White.) In the context of this study one person cannot appear to be both male and female, nor can they appear to be both White and Non-White. The photographs that were assigned those levels from their dimensions were deleted from the universe of photos (see Table 3.4 and 3.5 below). The number of photographs that were deleted due to these implausible scenarios were 10 photographs per location (90).

Table 3.4. Implausible Scenario (1 people)

Photo #	Location	# of People	Sex	Race	Time
1	Loc 1	1	Male	Non-white	Day
2	Loc 1	1	Male	White	Night
3	Loc 1	1	Male	Combo	Day
4	Loc 1	1	Male	Non-white	Night
5	Loc 1	1	Female	White	Day
6	Loc 1	1	Female	Combo	Night
7	Loc 1	1	Female	Non-white	Day
8	Loc 1	1	Female	White	Night
9	Loc 1	1	Female	Combo	Day
10	Loc 1	1	Female	Non-white	Night
11	Loc 1	1	Female	White	Day
12	Loc 1	1	Mixed	Combo	Night
13	Loc 1	1	Mixed	Non-white	Day

14	Loc 1	1	Mixed	White	Night
15	Loc 1	1	Mixed	Combo	Day
16	Loc 1	1	Mixed	Non-white	Night
17	Loc 1	1	Mixed	White	Day
18	Loc 1	1	Mixed	Combo	Night

Table 3.5. Implausible Scenario Deleted

Photo #	Location	# of People	Sex	Race	Time
1	Loc 1	1	Male	Non-white	Day
2	Loc 1	1	Male	White	Night
3	Loc 1	1	Male	Combo	Day
4	Loc 1	1	Male	Non-white	Night
5	Loc 1	1	Female	White	Day
6	Loc 1	1	Female	Combo	Night
7	Loc 1	1	Female	Non-white	Day
8	Loc 1	1	Female	White	Night
9	Loc 1	1	Female	Combo	Day
10	Loc 1	1	Female	Non-white	Night
11	Loc 1	1	Female	White	Day
12	Loc 1	1	Mixed	Combo	Night
13	Loc 1	1	Mixed	Non-white	Day
14	Loc 1	1	Mixed	White	Night
15	Loc 1	1	Mixed	Combo	Day
16	Loc 1	1	Mixed	Non-white	Night
17	Loc 1	1	Mixed	White	Day
18	Loc 1	1	Mixed	Combo	Night

In total, 234 photographs were removed from the 648-piece universe, leaving a total 414 unique photographs in the vignette universe: (648-144-90=414). Table 17 The full permutations for the 414-photograph universe can be found in Appendix A on page 209.

Selection of Locations for the Factorial Design

For this study, the locations in the photographs were determined through a combination of sources. The first four locations are from two previous studies, both conducted on the Belknap Campus of the University of Louisville: the first by the 2001 study by L. K. Bledsoe and S. K Sars (Campus Survey Report: Safety Perception and Experiences of Violence U.S. Department of Justice "Grants to Combat Violent Crimes Against Women on Campuses), and the second is the Steinmetz & Austin (2013), both discussed previously. A Bledsoe & Sars open-ended question in their survey revealed specific locations on Belknap campus that caused members of the campus to feel unsafe while in, or entering, those locations.

The Steinmetz & Austin 2013 study included twelve photographs of specific locations on or around the Belknap Campus of the University of Louisville: the six most fear-provoking campus/campus-adjacent locations from the Bledsoe and Sar's study, as well as the six campus/campus-adjacent locations where the U of L Police Department 2011 campus-crime logs indicated most calls for crime events. In addition, the study includes a thirteenth photograph, as a control, a location to which none of the respondents had ever been, the back yard of a private home in the East End of Louisville.

This study used the four locations of the campus/campus-adjacent areas that ranked highest for provoking fear among the respondents from the Steinmetz & Austin (2013) study (L1, L2, L3, L4), as well as a private back yard as a control (L9). The remaining four campus/campus-adjacent locations are the four locations that garnered the highest number of crime events (ULPD responses) according to the 2019 ULPD published campus-crime logs. The decision to use the 2019 crime log data was based on concerns that the data from the 2020 or 2021 crime logs were for pandemic years, which

impacted campus interactions for the students, faculty, staff, residents, and businesses on and around Belknap Campus. Below is Table 3.6, a list of the specific locations used for this research indicating the source of their inclusion in this research.

Table 3.6. Specific Locations List: Belknap Campus Locations and Control

2010 Campus/Campus-Adjacent Locations Steinmetz & Austin (2013)			2019 ULPD Campus Crime Log Locations (Highest Events)		
Results	Location Name	Location #	Results	Location Name	Location #
1	3rd Street & Eastern Parkway*	L1	1	The Clubhouse Apartments (1st in Crime Events - 40)	L5
2	Cardinal Stadium Parking Lot (4th in 2019 Crime Events -22)	L2	2	Student Activity Center-SAC (2nd in Crime Events-31)	L6
3	Papa John's Pizza Parking Lot*	L3	3	The Nine Apartments (5th in Crime Events-19)	L7
4	The Province Apartments (3rd in 2019 Crime Events-30)		4	Floyd Street Parking Garage (7th in Crime Events-17)	L8
	Control /Backyard	L9			

* Police reports for these locations too vague to produce an accurate count

The top locations from the 2019 campus/campus-adjacent ULPD crime logs included Cardinal Stadium Parking Lot (L2) and The Province Apartments (L4), which were already selected from the 2013 Steinmetz and Austin study. In addition, the next location, Floyd Street, ranked (#6) by the 2019 crime log, was a street consisting of multiple blocks, making the description of the location too vague to produce an accurate account of the incidents. Therefore, the next two viable locations per the rankings, The Nine Apartments (L7) and the Floyd Street Parking Garage (L8), were included.

The 2019 ULPD crime log locations (not already represented in the 2013 Study) are, The Clubhouse Apartments (L5) (university affiliated housing), The Student Activities Center (SAC) (L6), The Nine Apartments (L7), also a university affiliated housing property, and The Floyd Street Parking Garage (L8). Again, the ninth location, the control, was a location to which none of the respondents had ever been (the back yard of a private home in the East End of Louisville). Table 3.6 also includes the 2019 ULPD crime-event log rankings and the number of events for that location. See again Table 3.1 on page 59 for a complete listing of all photo characteristics including the locations used in this study.

Description of the Locations

Location L1-3rd Street and Eastern Parkway is the eastern-side walkway for the Norfolk Southern viaduct. This walkway is used by students who either park in the Green Lot behind the Norfolk Southern Railroad Tracks located behind the J. B. Speed School of Engineering or who might live in the one of the other apartment complexes south of Eastern Parkway. L2 is the Cardinal Stadium Parking Lot which is the main parking lot for freshman and other undergraduates commuters. The stadium parking is located approximately 1 mile south of campus. Most students who park in this lot gather at the bus stands around campus where campus-only buses make a circular route around the main campus perimeter dropping off and picking up students going to and from classes or to their cars in Cardinal Stadium parking.

L3 is known as Papa John's Pizza Parking Lot. This lot is located between the Thrust Theatre and Papa John's Pizzeria. This parking lot is a combination blue and red lot for faculty and staff.

L4 is The Province Apartments, a university affiliated apartment complex. The Norfolk railway track runs between this apartment complex and the northwest edge of campus. Students may access campus by walking over an over-the-tracks walkway or by driving to campus.

L5 The Clubhouse Apartments is another university affiliated apartment complex located at the eastern corner of Eastern Parkway and Crittenden Drive. This is one of several new university affiliated apartment complexes that have been constructed around Belknap campus.

L6 the SAC or the Student Activity Center is located at the northeast corner of Belknap campus. In the SAC are multiple food stalls (e.g., Chick-fil-A, Wendy's, Papa John's Pizza), the bookstore, one of the many gyms on campus, as well as various offices and meeting rooms.

L7 The Nine Apartments is another university affiliated apartment complex located across from the SAC at Floyd Street and East Brandeis Street. This complex is one of the newest complexes open to students.

L8 is the Floyd Street Parking Garage. This parking garage is bordered on the right by the SAC, on the left by the Ralph Wright Natatorium, with the Norfolk Sussex tracks behind the garage with two entrances on Floyd Street. The entrance closest to the Natatorium requires a parking pass for access. The other entrance is next to the SAC

which offers several pay per hour parking spaces where those making quick visits to the bookstore might park.

L9 is the backyard of a private suburban residence located in the east end of Louisville. This specific backyard was previously used as the control in the Steinmetz and Austin (2013) study.

Page 222 Appendix B shows the Belknap Campus Map with each of the eight campus, campus-adjacent locations marked by their numbered label locations (e.g., L1, L2, etc.).

Constructing the photographs for the Factorial Design

Having established the nine unique campus/campus-adjacent locations, construction of the 414-photograph universe which included the six dimensions (locations, time of day, gender, race, and number of persons in each location, and the inclusion of a police officer), along with the selected levels for each of the dimensions, began. Each of these 414 photographs depicted one or more of the six dimensions and their appropriate level (e.g., time: day/night) as determined by the factorial experimental design process of randomization. See Appendix C on page 223 for the Photo Array 2: Base Photographs of UofL Belknap Campus Locations and the Control Location.

To create the unique 414 photographs, each location was photographed during daylight, and then again at night, generating eighteen base photographs (no persons in the photographs) of the nine locations. These eighteen photographs were the first eighteen photos included in the 414-photo universe and reflect the dimension of time (day/night) only, as the number of people in the photograph is zero.

The creation of the remaining 396 photographs, which depict the remaining dimensions and their levels, required the use of free stock photos that met the specific criteria of people present in the photography (gender, race, police officer). Each photograph was digitally altered to include images to meet the criteria assigned to that specific vignette. That is, there is only one photograph of a lone, non-white, female, in location # L1 at night, one photograph of a lone, non-white, female, in location # L1 in the day, one photograph of a lone white female, in location # L1 in the day, one photograph of a lone white female, in location # L1 at night, and so on. Every effort was made to have the presence of the inserted person(s) appear as natural as possible for that location. For example, except for police officers, only stock images that appear to be college students were selected.

Randomization and Deck Construction for the Factorial Design

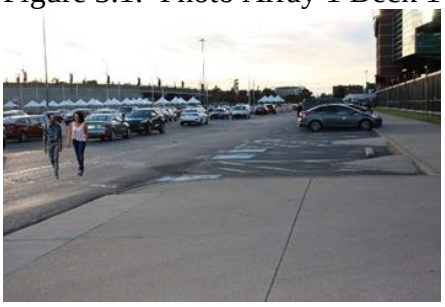
To achieve randomization for this research, the =RAND() function of Microsoft Excel was used. This function generated an evenly distributed random real number, greater than or equal to 0 and less than 1 for each of the 414 photographs. Subsequently the vignettes were sorted by location, then ranked by randomly assigned number to determine an order. The program assigned the 1st picture of each location to deck #1, then the 2nd to deck #2, and so on. Next, vignettes within each deck were sorted by random number, resulting in 46 unique decks with one randomly assigned vignette for each location, all presented in a random order.

Below is Table 3.7 which depicts Deck1 and below Table 3.7 are the Photos for the nine locations shown in Deck 1.

Table 3.7. Deck 1 of 46 Decks for 414-Photograph Universe

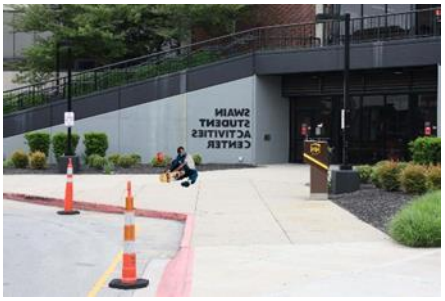
Location	Time	Gender	Race	Number of Person(s) in Photo	Tie-Break	Random Deck	Random Photo Order	Deck	New File Name	Which Location In Deck Has Police	Has Police	Police Demographic
'L2'	'Day'	'Mixed'	'NW'	2	null	0.000135	0.441808	1	Deck 1 Photo 5	3	FALSE	null
'L5'	'Night'	'F'	'NW'	1	null	0.00618	0.482788	1	Deck 1 Photo 7	3	FALSE	null
'L6'	'Day'	'M'	'NW'	1	null	0.012829	0.712662	1	Deck 1 Photo 9	3	FALSE	null
'L8'	'Night'	'M'	'NW'	1	null	0.01949	0.50575	1	Deck 1 Photo 8	3	FALSE	null
'L7'	'Day'	'F'	'W'	2	null	0.022866	0.042552	1	Deck 1 Photo 1	3	FALSE	null
'L9'	'Night'	null	null	0	null	0.032176	0.366144	1	Deck 1 Photo 4	3	FALSE	null
'L3'	'Night'	'M'	'W'	3	null	0.053325	0.303717	1	Deck 1 Photo 2	3	TRUE	WF
'L1'	'Day'	'F'	'NW'	3	null	0.091472	0.346953	1	Deck 1 Photo 3	3	FALSE	null
'L4'	'Day'	'Mixed'	'W'	3	MMF	0.092307	0.478167	1	Deck 1 Photo 6	3	FALSE	null

Figure 3.1: Photo Array 1 Deck 1 Photos

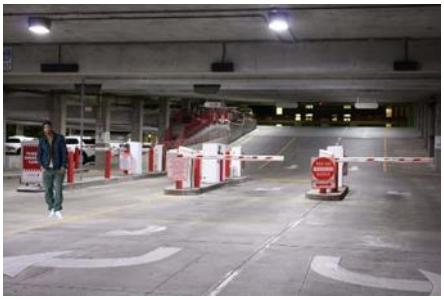


Deck 1 Photo 1—L2

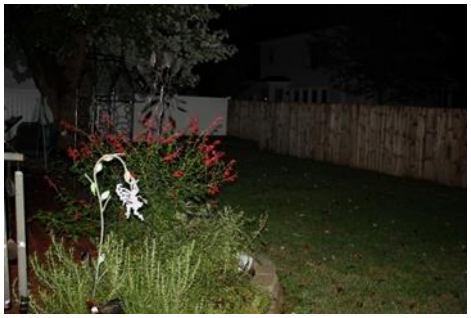
Deck 1 Photo 2—L5



Deck 1 Photo 3—L6



Deck 1 Photo 4—L8



Deck 1 Photo 5—L7

Deck 1 Photo 6—L

Deck 1 Photo 7—L3

Deck 1 Photo 8—L1

Deck 1 Photo 9—L4

Vignette Survey Questions

This study was conducted using a combination of photography and an online survey service. If the respondent answered "yes" to the first question, "Are you 18 years of age?", the survey began. If the respondent answered "No" to that question, they were then thanked for their interest and informed that, at this time, they were ineligible to participate. Those qualifying respondents were then asked about their respective demographics. After completing these questions, the photograph vignette was launched. Each of the 9 locations was photographed in 2021, so that any changes made between 2012 and 2021 are present. Appendix D on page 229 shows the logic sequencing for the survey questions and Appendix E on page 230 shows the survey questions.

As the first photo of a location appeared on the screen, respondents were asked if they have been in this location and given four options: Often, Occasionally, Never, and I

Don't know. Respondents were then redirected to survey questions based on their answers. Those answering Often or Occasionally were redirected to one of two four-question scales, previously constructed by Fisher and May (2009), used as indicators of fear.

While on campus at this location:

I am afraid of being attacked by someone with a weapon
I am afraid of having my money or possessions taken from me
I am afraid of being beaten up
I am afraid of being sexually assaulted

According to Fisher and May (2009), the first item served as an indicator of fear of aggravated assault, the second item would be fear of larceny-theft, followed by fear of simple assault, and fear of sexual assault. Using a 4-point Likert scale, respondents would either strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each statement, with regards to the photo. The photo of the location remains at the top of the page for each set of questions asked about a particular location and its' dimensions.

Table 3.8. below shows the frequencies of the fear scores for each of the dependent variables for each of the viewed photos. This table displays the dependent variables with the 4-point Likert scale scores indicated by each respondent when they assessed their fears while looking at each of their nine photos.

Table 3.8 Dependent Variable fear score frequency for viewed photos N=530

Afraid of being attacked with a weapon		
Dependent Variable Intervals	Interval Score	Frequency
Strongly Disagree	1	232

Somewhat Disagree	2	127
Somewhat Agree	3	124
Strongly Agree	4	47
Afraid of having my possessions taken from me		
Dependent Variable Intervals	Interval Score	Frequency
Strongly Disagree	1	226
Somewhat Disagree	2	122
Somewhat Agree	3	135
Strongly Agree	4	47
Afraid of being beaten up		
Dependent Variable Intervals	Interval Score	Frequency
Strongly Disagree	1	262
Somewhat Disagree	2	136
Somewhat Agree	3	94
Strongly Agree	4	38
Afraid of being sexually assaulted		
Dependent Variable Intervals	Interval Score	Frequency
Strongly Disagree	1	248
Somewhat Disagree	2	115
Somewhat Agree	3	119
Strongly Agree	4	48

Those answering “Never” or “Don’t Know” were redirected to four questions similar to the fear scale used by Fisher and May, but altered to allow respondents to answer how they think they would feel if they were in that location. For this study, those who had not been in this location and chose the response “Never” or “I don’t know”, would be utilizing Appleton’s (1975), “secondary vantage-points” concept to assess their

anticipated perceptions of their safety, in those specific locations. If respondents did not recognize the location from having been in that space before, they were asked:

If I were in this location, I think:

I would be afraid of being attacked by someone with a weapon

I would be afraid of having my money or possessions taken from me

I would be afraid of being beaten up

I would be afraid of being sexually assaulted

After each respondent answered the prompts for each location, an open-ended question appeared for each photograph: Is there anything in particular about this location that caused you to answer as you did?

Because the researcher did not know how each respondent answered this open-ended question, coding (looking for patterns) was generated from the data (Babbie,2010, p. 423). Babbie states that responses could generate several coding schemes. The "coding scheme choices should reflect the research purposes and reflect the logic that emerges from the data" (p. 424).

This process continued for all 9 photographs. The respondents were asked eight additional questions regarding their fears and past victimization. The survey was then concluded.

Students were asked about their housing status. All university dorms, properties, and university "affiliated" housing options were listed. University "affiliated" housing is a housing option that the university can offer "by partnering with outside private and

community housing developers/affiliates", according to the university housing website (http://louisville.edu/housing/housingoptions/oncampus/campus-housing.html).

Students who did not reside in any of the above options were also able to choose from non-university affiliated apartment/house within 2 blocks of the university campus, non-university affiliated apartment/house beyond 2 blocks of the university campus, and the open-ended option, "Other". Since the university is an urban university, and most students are commuter students, it was important to be able to denote those who live on campus, and those who live off campus.

Another reason for asking where participants live is that three of the locations included in this study are university owned or affiliated housing. These three housing locations rank 1st 3rd , and 5th in the number of crimes reported for all locations on and off campus for which the University Police Department is responsible, according to the 2019 University Police Crime statistical data. This data was sought in an effort to determine if participants who live in any of these three housing options are more fearful in their housing type than are those not living in these locations, or if they are less fearful due to the significant amount of time spent on campus.

The survey concluded with general questions that asked participants about their experience of victimization, and their fear of being victimized in the future. Many researchers have included questions in their scholarship regarding the use of constrained behaviors both avoidance behaviors and protective measures (Rader, 2017; De Welde, 2003; Lee & Hillinski-Rosick, 2012; Hasinoff & Krueger, 2020; Tweksbury & Mustaine, 2003, Logan & Walker, 2017). Respondents were also asked to indicate types of constrained behaviors, avoidance, and protective measures, from a list of 15 self-

protective measures listed on the survey, that they have utilized while on the Belknap Campus in the last 12 months. This list (Table 18) Appendix F on page 233 is not an exhaustive list of those types of self-protective measures, but have been used in the studies cited above.

The survey questions regarding the demographics of the respondents, their residential status, if they are currently taking classes on-campus, distance classes, or a mix of both, general questions about their social engagement on campus, past victimization, concern about being victimized, and their use of constrained behaviors, can be found on page 230 survey questions. On page 233, you can find Table 18. Self-Protection Measures usage by Gender.

Number and Nature of Respondents

How factorial design reduces the required sample size

Employing factorial experimental design offers a more efficient technique for sampling of the vignettes, which then requires fewer respondents to view vignettes to "obtain the same amount of precision" (Auspurg & Hinz, p. 17). This allows the researcher to be "better able to ensure that all parameters of interest can be identified" (Auspurg & Hinz, 2014).

Each of the 46 unique decks were to be randomly assigned to each of 46 respondents. If possible an additional 46 respondents each were to be shown one deck, thus resulting in two responses per deck. Auspurg & Hinz (2014) and Dülmer (2016) state that to ensure internal validity, experiments rely on random assignment of

participants to the experimental stimuli, in this case, a unique deck of photograph vignettes.

An issue which factorial survey design encounters is the representative sample of the target group, and the use convenience samples. Auspurg & Hinz (2014) argue that one must consider the resources needed to access respondents and ensure internal and external validity. To achieve external validity, the generalizability of the results, factorial survey design has "been conducted with very different respondent samples" (p. 60-61), and that validity does not rely on general population sample. "One of the main strengths of fs is that they can be easily administered to very heterogeneous samples or to precisely the groups the researcher wishes to generalize" (p.64). According to Hughes and Huby (2004), referencing Weisman and Brosgole (1994), it is important to match the type of vignette (campus locations) to specific participant groups (campus students). Hughes and Huby also note that "vignettes are more likely to be effective when they engage participants' interest, are relevant to people's lives, and appear real." The goals of this study could be achieved with convenience samples such as university students, the sample population for this study.

This study used six dimensions, resulting in 414 unique photo vignettes. Factorial survey design offers a more "efficient technique for sampling the vignettes, fewer respondents or numbers of vignettes per respondents are needed to obtain the same amount of precision" (Auspurg & Hinz, 2014, p. 22). According to Auspurg & Hinz, "it becomes increasingly harmless (in terms of statistical power) to reduce survey costs by collecting more vignette evaluations from fewer respondents" (p. 55). Following their guidelines, to avoid cognitive limitations (fatigue) where 10 vignettes is the upper limit

for each respondent, each of the 46 decks was to have one respondent who was supposed to view 1 deck of 9 unique vignettes/photographs for evaluation.

Recruitment of Respondents

Recruitment of students was through the University of Louisville Sociology Department courses with instructors who agreed to recruit respondents and distribute this survey. Distribution of this survey was dependent on the status of the students and their on-campus availability due to possible Covid-19 restrictions. This research required IRB (Institutional Review Board) approval, which was granted. Respondent/students who were enrolled in an on-campus or distance Sociology course, with the instructor's approval, were invited via email to participate in this survey. The email that each student received included a description of the survey and a specific URL link (QuestionPro Online Survey) to access the survey if he/she/they agreed to participate. The link opened to a more robust description of the survey, thanked them for their willingness to participate in the survey and provided the appropriate consent form. Once participants (both on campus and off campus) read the online consent form, and agreed to participate, the survey opened. No unique information was requested (student name or student ID#), ensuring that anonymity and confidentiality were maintained.

Description of the Sample Obtained

The initial goal of the study was to include 46 respondents, one for each deck, with each of the 46 unique decks randomly assigned to one of those 46 respondents. If campus use was such that procuring a pool of 92 respondents was possible, then a second

group of 46 respondents, equal to the number of decks from the photograph universe would be included. Initially, each group of 46 respondents was to be purposefully constructed by race and sex. The 46 respondents would have consisted of 23 male and 23 female. Because 23 is not an even number, a slight imbalance in respondent's race would have been introduced, 12 of one level in race and 11 in the other level for each gender. If the pool of respondents was increased to 92 it may have been possible to achieve a perfectly balanced mix for both gender and race in the respondent groups. The goal of purposeful construction by race and sex of those surveyed was to be achieved by having a survey sample pool greater than what was needed.

Unfortunately, due to circumstances beyond my control, such as technical issues with the survey company that ultimately altered the "balance" of gender and race of respondents, and time constraints, the survey pool design was not accomplished as planned. One specific technical error that was revealed when the survey went "live" was the key element of the deck distribution…randomized deck distribution without replacement, did not occur. For instance, two decks (18 and 40) were each shown to four different respondents and twelve decks (5, 9, 14, 15, 20, 22, 23, 29, 30, 37, 39, and 43) were never shown to any respondents. On page 234 Appendix G is Table 19, in the right most column, I report the number of times each deck was shown. After analysis of the decks that were shown, it was determined that the data that was collected from the 71 respondents, who each viewed nine photographs, would yield quantifiable results. Table 3.9 below shows the descriptive statistics for the respondent pool.

Table 3.9 Sample characteristics (N=71)

	% Total sample	Sex

		Males	Females
Characteristics			
Sex			
Male	27%	19	0
Female	73%	0	52
Race			
White	69%	12	37
Black	17%	5	7
Other	14%	2	8
Current Course Load			
Full-time	92%	18	47
Part-time	8%	1	5
Attend Classes			
All On-Campus	28%	7	13
All Off-campus	11%	2	6
Both	61%	10	33
Residence Type			
UL-Owned campushousing (Type 1)	18%	4	9
UL Affiliated campushousing/Unaffiliated within 2 Blocks of Campus (Type 2)	17%	3	9
Off-campus beyond 2 blocks (Type 3)	65%	11	35
Missed campus activity due to fear of victimization			
Yes	18%	1	11
No	82%	18	38
Attend party on campus last semester			
None	39%	9	17
1-2 times	7%	3	2
3-4 times	7%	3	2
5+	16%	2	9
Did not attend UL last semester	30%	2	19
Participate in campus organized activity last semester			
None	31%	7	15
1-2 times	11%	4	4
3-4 times	10%	4	3
5+	20%	3	11
Did not attend UL last semester	28%	1	18
While on campus within the last 12 months I have been a victim of **property** crime. (n=55)			

Yes	9%	2	3
No	91%	16	34
I don't remember/prefer not to answer			
While on campus within the last 12 months I have been a victim of **violent** crime.(n=52)			
Yes	6%	1	2
No	91%	16	33
Are you more afraid of becoming a victim of crime on or off campus? (n=54)			
On campus	15%	0	8
Off campus	43%	9	14
Neither	11%	3	3
Both	31%	5	12

Table 3.10 contains the descriptive statistics for all deck(s) photo characteristics. In the first column, I report the original intent for the photo/deck distribution. The second column lists the actual distribution of the photo characteristics of those photo/decks shown, and the third column lists the number and percentages of the photo characteristics of the twelve decks not shown. Table 20 showing all twelve decks not shown is located in Appendix H on page 244. Table 19 is a complete table of all decks and the number of times they were viewed (0, 1, 2, 3, 4) is on page 234.

Table 3.10 All Decks Photo Characteristics vs. Twelve Unseen Decks Photo Characteristics

Photo Characteristics	All 46 Decks Intended Count/Percentage	Decks Shown Outcome Count/Percentage	Decks Not Shown Outcome Count/Percentage
Time of Day			
Day	207 (50%)	145 (47%)	62 (57%)
Night	207 (50%)	161 (53%)	46 (43%)
Gender of Person(s) in the Photo			
Female(s) Only	144 (35%)	99 (32%)	45 (42%)
Male(s) Only	144 (35%)	108 (35%)	36 (34%)

Mixed	108 (26%)	86 (28%)	22 (21%)
Null (No One in the Photo)	18 (4%)	14 (5%)	4 (4%)
Race of Person(s) in the Photo			
White(s) Only	144 (35%)	103 (34%)	41 (37%)
Non-White(s) Only	144 (35%)	107 (35%)	37 (34%)
Combination (White and Non-White)	108 (26%)	80 (26%)	28 (25%)
Null (No One in the Photo	18 (4%)	14 (5%)	4 (4%)
Number of Person(s) in the Photo			
0 Persons in Photo (9-Day 9-Night)	18 (4%)	14 (5%)	4 (4%)
1 Person in Photo	72	54 (18%)	18 (17%)
2 Persons in Photo	162	119 (39%)	43 (40%)
3 Persons in Photo	162	119 (39%)	43 (40%)
Has Police Officer in the Photo	46 (11%)	34 (74%)	12 (26%)
Locations (9 Locations x 46 decks)	414 (100%)		
L1 3rd Street & Eastern Parkway	46	34 (74%)	12 (26%)
L2 Cardinal Stadium Parking Lot	46	34 (74%)	12 (26%)
L3 Papa John Pizza Parking Lot	46	34 (74%)	12 (26%)
L4 The Province Apartments	46	34 (74%)	12 (26%)
L5 The Clubhouse Apartments	46	34 (74%)	12 (26%)
L6 Student Activity Center (SAC)	46	34 (74%)	12 (26%)
L7 The Nine Apartments	46	34 (74%)	12 (26%)
L8 Floyd Street Parking Garage	46	34 (74%)	12 (26%)
L9 Control/Backyard	46	34 (74%)	12 (26%)

Randomization was the key element in the assignment of photo characteristics in each deck. An ideal distribution of the photo characteristics throughout the decks was determined. However, due to the multiple layers of randomization required for this project, and the technical limitation which resulted in some decks not being shown to any of the respondents, the actual distribution of photo characteristics varied slightly from the intended model. While each location was shown in every deck, not every set of photo

characteristics was shown for that location, as intended. The time of day (nighttime/daytime) of the photo was randomly assigned to the photos, as was the number of person(s) to be depicted in the photo, the race, and gender of those in the photo(s) and the inclusion of a police officer in the photo The actual distribution of the photo characteristics remained very close to the intended outcome. The fact that some decks were not shown resulted only in a change in the type of analysis that the collected data allowed. However, enough data was collected to yield valid and significant findings.

Data Analysis Methodology

Data analysis for this study includes independent-samples t-tests, one-way ANOVAs, AND Ordered Logistic Regression (OLR). The data results for the t-tests are reported using the two-sided p-value and equal variances not assumed. When equal variances are assumed, the calculation uses pooled variances; when equal variances cannot be assumed, the calculation utilizes un-pooled variances and a correction to the degrees of freedom (Kent State University Libraries, 2017, May 22). The one-way ANOVA analyses also included Dunnett's T3 post hoc testing. Dunnett's T3 was used because it is robust when group sizes are small (<15) and is robust regardless of whether group variances are equal or unequal (Shingala et.al. 2015.)

Preliminary analyses showed that certain independent variables' group size results were too small to allow regressions to run properly, (e.g., inflated the standard error or caused convergence problems). This necessitated adjustments being made to the affected independent variables to facilitate meaningful results. For example, the independent variables gender and race were collapsed and recoded. Gender was male, female, and

non-binary but was recoded into a binary male and female as the non-binary option had only one respondent which caused the ANOVA failure to produce meaningful results. Respondents' race presented five options, one of which was open ended. The six open-ended responses were, 2-Asian, 1 Asian(Indian), 1-South Asian, and 2-Black and White). The ANOVA once again failed to produce results due to small group sizes (e.g., American Indian or Alaskan Native, Asian, Asian(Indian), South Asian) requiring the merging of race types into White and Non-White.

Other independent variables required recoding responses e.g., number of times attend party as 1) None and 5) Did not attend UofL last semester were combined, 2) 1-2 times 3) 3-4 times and 4) 5 or more times remained unchanged. Class attendance (all on Belknap Campus, all distance classes, and mixture on-campus and distance) was analyzed using the one-way ANOVA test, however, error results indicated the need for collapsing all distance classes and some on-campus/some remote were recoded into one variable (partial/fully remote classes) thereby allowing a t-test and the regressions to produce meaningful results to analyze.

The respondents' residence was recoded into Residence Type and went through three iterations, the individual locations (19 housing choices) were merged into four buckets: all UL owned housing, all UL affiliated housing, non-UL housing within 2 block campus, and non-UL beyond 2 blocks campus (4 housing choices). A one-way ANOVA was attempted but was not successful which then required additional merging into the final three housing type variable; UL owned campus housing, UL Affiliated/Unaffiliated Within 2 Blocks of Campus, and Beyond 2 blocks of campus

housing. The recoding to the housing type variable now produced meaningful results for both the one-way ANOVA and the regressions.

Two other variables, have been a victim of property and have been a victim of violent crime had four responses (Yes, No, I don't remember, and I prefer Not to Answer) which were recoded to a binary response, Yes and then No, and the responses I don't remember, and I prefer Not to Answer were collapsed into one response, No. The last respondent-variable are you more afraid of becoming a victim of crime on-campus, off-campus, both, or neither, was re-coded for the regressions into two variables: more afraid on-campus vs off-campus and not afraid of victimization vs. afraid of victimization (on-campus, off-campus and both).

A variable in the photo section was added to capture the inclusion of "a" police officer in a photo (Has police in the photograph). As previously stated in the methods section, photos of police officers were included in the photos to see if the presence of the police influenced the respondents' fear(s). Concern that having more than one police officer included in more than one photo in a deck of nine photos may have a negative impact or bias a respondent's perception so only one police officer was randomly included in each of the decks. Since the police officer was added to the photo(s) separately from the "Number of Person(s) in the photo" this variable was created to account for a police officer having been included in a photo where no "person" was in the photo.

After concluding the t-tests and ANOVAs, I then analyzed each (ordinal) dependent fear variable using ordered logistic regression. Ordered logistic regression relies on the repeated analysis of the DV by creating a series of binary thresholds. For

this study, the fear scores (strongly disagree, somewhat disagree, somewhat agree, strongly agree), for each of the four fear variables, were transformed into three binary threshold variables (threshold 1, threshold 2, and threshold 3). Each of these binary thresholds are calculations of the odds of respondents' fear level is in one of the three thresholds. Threshold 1 reflects fear scores that indicated a range of fear from no fear to some level of fear. Threshold 2 reflects fear scores that indicate a range of fear from lower level of fear to higher level of fear and threshold 3 reflects fear scores that reached the "highest" level of fear as compared to any lower level of fear. Figures 4.1 and Figure 4.2 on page 102, depict the binary transformation of the 4-level fear variables and is an example of the OLR and Thresholds table(s), respectively. Ordered logistic regression produces a separate intercept for each of the binary thresholds, but reports a single combined (quasi-average) slope for each independent variable in the analysis. Thus, ordered logistic regression assumed "proportional odds" across the different thresholds. In order to test whether the odds were indeed proportional, I examined the binary logistic threshold models directly.

CHAPTER 4: RESULTS

In this first section, I present the results of the independent-sample t-tests (for binary independent variables) and one-way ANOVAs (for multinominal independent variables) which compare the mean level of fear of being hurt by a weapon, having their possessions taken, being beaten up and being sexually assaulted (see Tables 4.1 and 4.2 below). Results for respondent level variables are presented first (Table 4.1), followed by results for photo-level variables (Table 4.2).

ANOVAs and *t*-tests: Afraid: of being attacked with a weapon, of having my possessions taken from me, of being beaten up, and of being sexually assaulted.

Tables for each of these tests are included with commentary regarding results. Data analysis results for the t-tests and ANOVAs was divided into two distinct categories: respondent characteristics data and photo characteristics data.

Table 4.1 and 4.2 shows the complete results for both the independent-samples t-tests and one-way ANOVA, respectively, comparisons of respondents' fear levels and the photo characteristics levels of fear for the four dependent variables; Afraid: of being attacked with a weapon, having my possessions taken, being beaten up, and being sexually assaulted.

Respondent-level Variables

Females had significantly higher (p=<.001 in each instance) levels of fear, when compared to **males**, of being hurt by a weapon (M=2.08 vs. M=1.69), having their possessions taken (M=2.09 vs. M=1.79), being beaten up (M=1.93 vs. M=1.57), and being sexually assaulted (M=2.18 vs. M=1.93). These findings are consistent with previous research about females being more fearful of becoming victims of crime than are males (Fisher & May, 2009; Fox, Nobles & Piquero, 2009; Jackson, 2009; Karmen, 1991; Stanko, 1995). Overall, **Non-White** respondents were significantly less afraid for all four fear variables than were **White** respondents. Non-White respondents were significantly (p=.04) less afraid of being hurt with a weapon than were White respondents (M=1.85 vs. M=2.03), significantly (p=.03) less afraid of having their possessions taken from them (M=1.87 vs. M=2.07), significantly (p=<.001) less afraid of being beaten up (M=1.69 vs. M=1.89), and had a significantly (p=.02) lower level of fear of being sexually assaulted (M=1.79 vs. M=2.00). These results are counter to findings by Sloan, Fisher, & Wilkins (1996/2000) and Boateng and Adjekum-Boateng (2017).

Table 4.1 *t*-tests and One-Way ANOVA tests for differences between group means for respondent-level variables[1]								
	Afraid of being hurt by a weapon		*Afraid of having possessions taken*		*Afraid of being beaten up*		*Afraid of being sexually assaulted*	
	Group Mean	p-value for differences between means	Group Mean	p-value for differences between means	Group Mean	p-value for differences between means	Group Mean	p-value for differences between means
Respondent Variables								
Gender [2]		**≤.001**		**≤.001**		**≤.001**		**≤.001**
Male	1.69		1.79		1.57		1.35	
Female	2.09		2.09		1.93		2.18	
Race [2]		**0.04**		**0.03**		**0.02**		**0.02**
White	2.03		2.07		1.89		2.00	
Non-White	1.85		1.87		1.69		1.79	
Course Load [2]		0.19		0.1		**0.04**		0.06
Full-Time	1.95		1.97		1.79		1.90	
Part-Time	2.17		2.26		2.13		2.24	
Attends Classes[2]		**≤.001**		**≤.001**		**≤.001**		**≤.001**
Belknap	2.26		2.30		2.07		2.12	
Partially/Fully remote	1.84		1.87		1.72		1.85	
Residence Type[3]		0.24		0.08		0.52		0.74
UL Owned	2.04		2.10		1.92		2.01	
UL Affiliated/Unaffiliated Within blocks Campus	1.78		1.75		1.74		1.91	
Beyond 2 Blocks Campus	1.99		2.02		1.82		1.92	

Missed Activity due to Fear [2]		**≤.001**		**≤.001**		**≤.001**		**≤.001**
Yes	2.40		2.44		2.21		2.53	
No	1.86		1.90		1.73		1.79	
Attend Party on Campus [3]		0.95		0.77		0.89		0.16
None/Did not attend UofL Last Semester	1.98		2.00		1.82		1.99	
1-2	1.91		2.11		1.80		1.64	
3-4	1.94		2.06		1.94		1.81	
5+	1.93		1.91		1.81		1.90	
Times Attend Campus Event [3]		0.10		**0.02**		0.23		**0.03**
None/Did not attend UofL last semester	1.97		1.98		1.83		2.00	vs. 3-4 times (.01)
1-2	2.10		2.27	vs. 3-4 times (.01)	1.86		1.92	
3-4	1.70		1.71		1.60		1.57	vs. 5+ times (.04)
5+	2.06		2.07		1.92		1.97	
Victim of Property Crime [2]		0.57		0.20		0.62		0.28
Yes	2.05		2.18		1.89		1.77	
No	1.96		1.98		1.82		1.95	
Victim of Violent Crime [2]		0.70		0.82		0.92		0.09
Yes	2.04		1.96		1.81		2.31	
No	1.96		2.00		1.82		1.91	

Where More Afraid of Being a Victim of Crime [3]		**≤.001**		**≤.001**		**≤.001**		**≤.001**
On Campus	2.61	vs. Off (≤.001) vs. Neither (≤.001)	2.68	vs. Off (≤.001) vs. Neither (≤.001)	2.39	vs. Off (≤.001) vs. Neither (≤.001)	2.58	vs. Off (≤.001) vs. Neither (≤.001) vs. Both (.01)
Off Campus	1.65	vs. Both (≤.001)	1.67	vs. Neither (.05) vs. Both (≤.001)	1.51	vs. Both (≤.001)	1.66	vs. Neither (≤.001) vs. Both (≤.001)
Neither	1.28	vs. Both (≤.001)	1.33	vs. Both (≤.001)	1.24	vs. Both (≤.001)	1.20	vs. Both (≤.001)
Both	2.27		2.31		2.10		2.11	
Self-Protection Measures taken[4]		(r = .24, p ≤.001)		(r = .23, p ≤.001)		(r = .21, p ≤.001)		(r = .19, p ≤.001)

[1] N=71
[2] *t*-test
[3] One-way ANOVA test
[4] Pearson Correlation significant at the 0.01 level (2-tailed).

For course load, there was a significant (p=.04) lower level of fear of being beaten up for **full-time students** (M=1.79) when compared to **part-time students** (M=2.13). There were, however, no significant differences between full-time and part-time students in terms of fear of being hurt by a weapon, having their possessions taken, or being sexually-assaulted. Students who **attend classes partially/fully remotely** were significantly less afraid (p=<.001 in each instance), when compared to students who attend classes **in person on Belknap campus,** of being hurt with a weapon (M=1.84 vs. M=2.26), of having their possessions taken from them (M=1.87 vs. M=2.30), of being beaten up (M=1.72 vs. M=2.07), and of being sexually assaulted (M=1.85 vs. M=2.12). There were no significant differences for any of the four types of fear between students living in **UofL housing**, **off-campus housing within 2 blocks** of campus, or **off-campus housing further than 2 blocks** from campus. This is a surprising result with regards to the DV afraid of having one's possessions taken from them. I would have expected to see a significant difference between respondents living on campus or within two blocks of campus and respondents who live beyond two blocks of campus, given that their possessions are either on their person or in the residence, making them and their possessions more likely to be targeted for theft of possessions.

Students who said they had **missed a campus activity** due to fear had significantly higher (p=<.001 in each instance) levels of fear, when compared to those who have **not missed a campus activity**, of being hurt by a weapon (M=2.40 vs. M=1.86), having their possessions taken (M=2.44 vs. M=1.90), being beaten up (M=2.21 vs. M=1.73), and being sexually assaulted (M=2.53 vs. M=1.79). There were no statistically significant differences based on the number of times respondents **attended**

an on-campus party for any of the four dependent variables. Respondents who **attended on-campus organizational events** 1-2 times had a significantly (p=.02) higher level of fear of having their possessions taken as compared to respondents who attended events 3-4 times (M=2.27 vs. M=1.71). When looking at the levels of fear of being sexually assaulted, respondents who did not attend any campus organization events had a significantly (p=.01) higher level of fear than those who have attended 3-4 times (M=2.00 vs. M=1.57) and those who attend events 3-4 times had a significantly lower level of fear than those who attended 5 or more times (M=1.57 vs. M=1.97).

There were no statistically significant differences between respondents who indicated that they had been **victims of property crime** and those respondents who had not been victims of property crime on campus in the past 12 months. There were also no statistically significant differences between respondents who indicated that they had been **victims of violent crime** and those respondents who had not been victims of violent crime on campus in the past 12 months.

There were, however, statistically significant differences for all four types of fear between respondents who were **most afraid of being victimized on campus, off campus, in neither location, and in both locations**. When looking at level of fear of being attacked with a weapon, respondents who were most afraid on campus (M=2.61) had significantly ($p \leq .001$ in both cases) higher levels of fear than those who were most afraid off-campus (M=1.65) and those who were afraid neither on or off campus (M=1.28), but were not significantly different from those who were most afraid both on and off campus (M=2.27). The average levels of fear of being hurt with a weapon were also significantly different between those were most afraid both on and off campus and

both those who were most afraid off-campus and those who were afraid in neither location ($p \leq .001$ in both instances).

When looking at level of fear of having one's possessions taken, respondents who were **most afraid on campus** (M=2.68) had significantly ($p \leq .001$ in both cases) higher levels of fear than those who were most afraid off-campus (M=1.67) and those who were afraid neither on or off campus (M=1.33), but again were not significantly different from those who were most afraid both on and off campus (M=2.31). The average levels of fear of being hurt with a weapon were also significantly different between those were most afraid both on and off campus and both those who were most afraid off-campus and those who were afraid in neither location ($p \leq .001$ in both instances) and between those afraid only off-campus and those afraid in neither location ($p = .05$).

When looking at level of fear of being beaten up, respondents who were most afraid on campus (M=2.39) had significantly ($p \leq .001$ in both cases) higher levels of fear than those who were most afraid off-campus (M=1.51) and those who were afraid neither on or off campus (M=1.24), but were once more not significantly different from those who were most afraid both on and off campus (M=2.10). The average levels of fear of being hurt with a weapon were also significantly different between those were most afraid both on and off campus and both those who were most afraid off-campus and those who were afraid in neither location ($p \leq .001$ in both instances).

Finally, when looking at level of fear of having one's possessions taken, respondents who were most afraid on campus (M=2.58) had significantly ($p \leq .001$ in all three cases) higher levels of fear than those who were most afraid off-campus (M=1.66), those who were afraid neither on or off campus (M=1.20), and those who were most

afraid both on and off campus (M=2.11). The average levels of fear of being hurt with a weapon were also significantly different between those were most afraid both on and off campus and both those who were most afraid off-campus and those who were afraid in neither location and between those afraid only off-campus and those afraid in neither location ($p \leq .001$ in all instances).

Since the independent variable self-protection measures is a nominal variable (which of the 15 self-protection measures the respondent has employed) there are no means for comparison(s) of means. Therefore, a correlation was conducted, which found all four fear variables were significantly ($p = \leq .001$) associated with the total number of self-protection measures taken.

Photo Characteristics Analyses

There were no statistically significant differences for any of the four types of fear for the **time of day shown in the photos** (daytime photos, nighttime photos). There were also no statistically significant differences for all four types of fear for the **gender of model(s)** shown in the photos (male, female, or a mix of genders). There was however, one significant difference for the **race of model(s)** shown in the photo(s) for fear of being sexually assaulted. Respondents were less fearful of being sexually assaulted if a Non-White model (M=1.78) was in the photo as when only a White model(s) (M=2.05) was in the photo.

There were no significant differences for all four types of fear for the **number of model(s)** in the photo(s), nor were there any significant differences for a simpler, binary,

measure of whether there was **anyone present (yes vs. no)** in the photo(s), nor for whether there was a **police officer present** in the photo(s).

When looking at the levels of fear for the dependent variables, each variable has significantly ($p \leq .001$ in all four instances) different levels of fear for each of the **specific locations.** The differences for the dependent variables regarding specific locations are so numerous that it becomes excessive to report on each one in the text. Therefore, I will report on the most interesting ones and refer the reader to Table 4.2 to view the rest. Below are the comparisons of each dependent variable with significant difference between the following locations.

Table 4.2. *t*-tests and One-Way ANOVA tests for differences between group means for photo-level variables[1]								
	Fear of being hurt by a weapon		*Fear of having possessions taken*		*Fear of being beaten up*		*Fear of being sexually assaulted*	
	Group Mean	p-value for differences between means	Group Mean	p-value for differences between means	Group Mean	p-value for differences between means	Group Mean	p-value for differences between means
Photo Variables								
Time of Day[2]		0.62		0.80		0.95		0.63
Day	2.02		2.09		1.84		1.95	
Night	2.08		2.12		1.85		2.02	
Gender of Person(s) in Photo[3]		0.73		0.23		0.87		0.97
Male	2.02		2.11		1.87		1.93	
Female	1.95		1.96		1.82		1.95	
Mix of Genders	1.94		1.94		1.82		1.93	
Race of Person(s) in Photo[3]		0.41		0.28		0.31		**0.05**
White	2.01		2.06		1.88		2.05	
Non-White	1.87		1.91		1.75		1.78	
Combo	2.03		2.06		1.89		2.00	
Number of Person(s) in Photo[3]		0.81		0.38		0.43		0.97
No One	1.83		1.83		1.54		1.83	
1 Person	2.05		2.16		1.89		1.93	
2 Person	1.96		1.96		1.80		1.95	
3 Person	1.96		2.00		1.86		1.93	
Anyone Present[2]		0.47		0.37		0.10		0.61
Yes	1.94		2.00		1.84		1.94	
No	1.83		1.83		1.54		1.83	
Has Police in Photo[2]		0.30		0.39		0.30		0.55

Yes	1.84		1.89		1.70		1.86	
No	1.98		2.01		1.84		1.94	
Specific Locations[2]		**≤.001**		**≤.001**		**≤.001**		**≤.001**
L1-3rd Street & Eastern Parkway	2.71		2.71		2.45		2.45	
L2-Cardinal Stadium Parking Lot	2.10		2.19		1.93		2.02	
L3-Papa John Pizza Parking Lot	2.11		2.13		1.87		1.95	
L4-The Province Apts	1.98		1.97		1.88		1.97	
L5-The Clubhouse Apts	1.91		1.86		1.71		1.79	
L6-Student Activity Center (SAC)	1.30		1.39		1.23		1.35	
L7-The Nine Apts	1.83		1.90		1.75		2.00	
L8-Floyd Street Parking Garage	2.08		2.14		1.92		1.98	
L9-Control (Backyard)	1.67		1.72		1.66		1.88	

[1] N=639 (71*9)
[2] t test
[3] One-way ANOVA test

The nine specific locations are:

L1 3rd Street & Eastern Pkwy
L2 Cardinal Stadium Parking Lot
L3 Papa John Pizza Parking Lot
L4 The Province Apartments
L5 The Clubhouse Apartments
L6 SAC (Student Center)
L7 The Nine Apartments
L8 Floyd Street Parking Garage
L9 Control (Backyard)

The previous study conducted by this author, (Steinmetz and Austin, 2013), on this campus, looking at fear levels regarding specific locations on or near campus, found that the walkway tunnel located at the corner of 3rd Street and Eastern Parkway (location L1) was the most fearful location for respondents who participated in that research. The findings for this current research concurs with that finding. This location continued to have the highest mean level of fear for respondents, for all four of the dependent variables. And consistent with the finding of the 2013 Steinmetz and Austin study, the Student Activity Center, (Location L6) had the lowest mean levels for being afraid of being attacked with a weapon, having their possessions taken from them, being beaten up, or being sexually assaulted. Table 4.3 below lists the overall average level(s) of fear for each specific location. All statistically significant differences included either the L1-3rd Street location or the L6-SAC location in comparison (see again Table 4.3).

Table 4.3. Overall Mean Average for Level of Fear by **Specific Location** ranked from Lowest to Highest	
1.32	L6 SAC (Student Center)
1.73	L9 Control (Backyard)

1.82	L5 The Clubhouse
1.87	L7 The Nine
1.95	L4 The Province
2.02	L3 Papa John Pizza Parking Lot
2.03	L8 Floyd St Parking Garage
2.06	L2 Cardinal Stadium Parking Lot
2.58	L1 3rd St & Eastern Pkwy

For fear for being hurt by a weapon, the average level of fear at 3rd Street and Eastern Pkwy was significantly higher than at The Province Apts (p=.017), The Clubhouse Apts (p=.004), The SAC (p=≤.001), The Nine Apts (p=≤.001), and the Control/Backyard location (p=≤.001). The average fear of being hurt by a weapon at the SAC was significantly lower than Cardinal Stadium Parking Lot (p=≤.001), Papa John's Pizza Parking Lot (p=≤.001), The Province (p=≤.001), The Clubhouse (p=≤.001), The NINE (p=≤.001), and Floyd Street Garage (p=≤.001).

For the variable fear of having, one's possessions taken from them, the average level of fear at 3rd St and Eastern Pkwy was significantly higher than at The Province (p=.009), The Clubhouse (p=≤.001),The SAC (p=≤.001), The NINE (p=≤.002), and the Control/Backyard location (p=≤.001). The mean fear level of having, ones' possessions taken from them at the SAC (M=1.39) was significantly lower than the mean fear levels for the Cardinal Stadium Parking Lot (M=2.19, p=≤.001), Floyd Street Garage (M=2.14, p=≤.001). Papa John's Pizza Parking Lot (M=2.13, p=≤.001), The Province Apts (M=1.97, p=≤.001), and The Nine Apts.(M=1.90,p=.023).

For the fear of being beaten up the average level of fear at 3rd St and Eastern Pkwy was significantly higher than at The Clubhouse Apts (p=.02), The SAC (p=≤.001), The Nine Apts (p=≤.02), and the Control/Backyard location (p=.01). The average level of fear of being beaten up at the SAC was significantly lower than Cardinal Stadium Parking Lot (p=≤.001), Papa John's Pizza Parking Lot (p=≤.001), The Province Apts (p=≤.001), The Clubhouse Apts (p=.021), The Nine Apts (p=.002), and the Floyd Street Parking Garage (p=≤.001).

For the variable fear of being sexually assaulted, the average level of fear at 3rd Street and Eastern Pkwy was significantly higher for only one location, The SAC (p=≤.001). The average fear level of being sexually assaulted at the SAC was significantly lower than Cardinal Stadium Parking Lot (p=.01), Papa John's Pizza Parking Lot (p=.01), The Province Apts (p=.004), The Nine Apts (p=≤.001), the Floyd Street Parking Garage (p=.005), and the Control/Backyard location (p=.034).

Data Analysis: Ordered Logistic Regression with Thresholds

In this section, I present the results for the ordered logistic regression (OLR) and three threshold regressions for each of the four dependent variables (afraid of being hurt by a weapon, having possessions taken, being beaten up, and being sexually assaulted). To interpret the regressions for each of the threshold regression results depends on understanding the associations of the dependent variable for each of the thresholds' scales. The response scale for the four dependent fear variables (1-Strongly Disagree, 2-Somewhat Disagree, 3-Somewhat Agree, and 4-Strongly Agree) was transformed into a series of binary variables for the threshold regressions (See Figure 4.1 below). The odds

ratios for the OLR and the three threshold regressions are reported in four separate columns (See Figure 4.2 below). To determine goodness of fit, the most common diagnostic tool is the residuals. The residuals (Pearson's residuals) are the difference between the estimated and observed values of the dependent variable(s). "If the model assumptions are correct, the residuals should fall within an area representing a horizontal band" (Open.Ed@PSUhttps://online.stat.psu.edu/stat504/book/export/html/778). Pearson's residual graphs for the four dependent variable thresholds can be viewed in the pages 243-253.

Figure 4.1. Transformation of 4-level fear variable into series binary threshold variables

4-Strongly Agree	Some level of fear Vs. Threshold 1	Higher level of fear Vs. Threshold 2	Highest level of fear Threshold 3
3-Somewhat Agree			
2-Somewhat Disagree		Lower level of fear	Vs. Any lower level of fear
1-Strongly Disagree	No Fear at all		

Figure 4.2 Weapon

Figure 4.2 Example of OLR and Threshold Parallel Lines Analysis *Afraid of Being Hurt by a Weapon*

	Ordered Logistic[1]		Threshold 1 [2] Fear Levels (1 vs. 2-4)		Threshold 2 [2] Fear Levels (1-2vs.3-4)		Threshold 3 [2] Fear Levels (1-3 vs.4)	
Respondent Characteristics	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value
Gender								
Female (vs. Male)	1.80	0.27	1.63	0.44	1.68	0.32	0.27	**0.05**

Below I present the OLR and threshold regressions results, with one table for each of the four dependent variables. In the OLR results that follow, OR (odds ratio) or the term "odds" means the odds of being at a higher level of fear. In the threshold results that follow, the term "odds" means the odds of being above a specific threshold fear level.

Regression results: Afraid of being attacked with a weapon

In Table 4.4 below, I present the results from OLR and threshold regressions for afraid of being attacked with a weapon. I first present the results for respondent-level independent variables and then results for photo-level independent variables.

Respondent Independent Variables

Contrary to the *t*-test results reported earlier, which indicated a statistically significant difference (p=≤.001) between **females** and males, the OLR found that for **gender**, there was no difference in the odds of being afraid of being attacked by someone with a weapon for females as compared to males (p=.27). The results also showed no significant differences for thresholds 1 and 2. However, there was a significant differences between females and males for threshold 3 (OR .27, p=.05). This finding indicates that the odds for females being at the highest level of fear of being attacked with a weapon were 73% lower when compared to males.

Table 4.4 OLR and Threshold Parallel Lines Analysis *Afraid of Being Hurt by a Weapon*								
	Ordered Logistic[1]		Threshold 1 [2] Fear Levels (1 vs. 2-4)		Threshold 2 [2] Fear Levels (1-2 vs.3-4)		Threshold 3 [2] Fear Levels (1-3 vs.4)	
Respondent Characteristics N=71	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value
Gender								
Female (vs. Male)	1.80	0.27	1.63	0.44	1.68	0.32	0.27	**0.05**
Race								
Non-White (vs. White)	0.98	0.97	1.61	0.39	0.85	0.75	1.82	0.27
Course Load								
Part-Time (vs. Full-Time)	1.06	0.93	0.55	0.36	1.36	0.65	0.53	0.37
Attends Classes								
Partially/Fully remote (vs. Belknap Campus)	0.25	**0.01**	0.16	**0.000**	0.28	**0.02**	1.80	0.25
Residence Type (vs. UL Owned)								
UL Affiliated/Unaffiliated Within 2 Blocks of Campus	0.46	0.30	0.27	0.14	0.29	0.12	1.26	0.89
Beyond 2 Blocks of Campus	1.40	0.54	1.59	0.51	1.06	0.92	1.64	0.66
Missed Campus Activity (vs. No)	1.22	0.77	2.83	0.20	0.90	0.89	3.72	0.31
Frequency of having Attended Campus Org. Event	1.24	0.27	1.26	0.24	1.30	0.24	0.88	0.71
Victim of Property Crime (vs. No)	1.34	0.61	1.85	0.33	1.06	0.93	1.06	0.97
Victim of Violent Crime (vs. No)	0.39	0.11	0.24	0.98	0.46	0.28	5.65	0.11
Afraid of Victimization Off Campus (vs. On campus)	0.42	0.19	0.24	0.10	0.27	0.06	2.87	0.22
Not Afraid of Victimization (vs. Afraid on/off campus or both)	0.12	0.08	0.06	**0.03**	0.16	0.09	1.66	0.67
Self-Protection Measure	1.30	**0.01**	1.32	**0.01**	1.35	**0.02**	0.77	0.13
Photo Characteristics N=639 (71*9)								
Time of Day								

Night (vs. Day)	1.48	**0.02**	1.74	**0.00**	1.80	**0.00**	0.79	0.50
Gender of Person(s) in photograph (vs. Male)								
Female	0.95	**0.48**	0.81	**0.50**	1.17	**0.50**	0.78	0.57
Mixed	0.87	**0.35**	0.73	**0.55**	1.20	**0.55**	1.19	0.77
No one in photograph	0.40	**0.40**	0.61	**0.03**	0.20	**0.03**	5.84	0.052
Race of person(s) in photograph (vs. White)								
Non-White	1.45	**0.32**	1.33	**0.90**	1.04	**0.90**	1.70	0.31
Combo	1.48	**0.03**	1.92	**0.68**	1.13	**0.68**	0.76	0.62
No one in photograph								
Number of Person(s) in Photo (0,1,2,3)	0.82	**0.70**	0.94	**0.11**	0.73	**0.11**	1.47	0.20
Has police in photo	0.65	**0.10**	0.87	**0.68**	0.53	**0.11**	2.62	0.21
Specific Locations (vs. L9-Control (Backyard))								
L1-3rd Street & Eastern Parkway	12.26	**≤.001**	10.52	**≤.001**	9.02	**≤.001**	0.06	≤.001
L2-Cardinal Stadium Parking Lot	3.12	**0.00**	3.34	**0.01**	3.59	**0.01**	0.40	0.36
L3-Papa John Pizza Parking Lot	4.14	**≤.001**	3.99	**0.00**	6.62	**≤.001**	0.98	0.99
L4-The Province Apts	2.65	**0.00**	3.81	**≤.001**	2.74	**0.06**	0.37	0.33
L5-The Clubhouse Apts	2.45	**0.01**	3.22	**0.00**	1.99	**0.14**	0.61	0.64
L6-Student Activity Center (SAC)	0.42	**0.01**	0.44	**0.051**	0.06	**≤.001**	0.00	≤.001
L7-The Nine Apts	2.15	**0.02**	2.69	**0.02**	2.11	**0.16**	1.64	0.68
L8-Floyd Street Parking Garage	4.21	**≤.001**	4.02	**0.00**	5.28	**0.0**	0.43	0.14

[1] Multinomial distribution w/cumlogit link
[2] Binomial distribution with logit link

The *t*-test findings for **race** found statistically significant differences (p=.04) between **Non-White** and **White** respondents, which conflicts with the findings for the regressions for race. There was no significant difference between White and Non-Whites for being afraid of being attacked by someone with a weapon. The regressions also revealed that for **course load** there are no differences between respondents who are full-time and part-time student respondents. These findings are also consistent with the *t*-test results.

In evaluating fear levels for how students **attend classes,** the OLR and threshold 1 and threshold 2 regressions resulted in significant differences. For those respondents taking some or all distance classes vs. respondents taking all classes on Belknap (in-person) there was a significant difference (OR .25, p=.01). The OLR suggests that the odds for respondents' level of fear of being attacked by someone with a weapon are 75% lower for those respondents taking some or all distance classes than for those respondents taking all classes on Belknap Campus. The results from thresholds 1 and 2 are consistent with the overall OLR results (OR .16, p=.00) and (OR .72, p=.02) respectively. Threshold3 was not statistically significant.

Assessing the impact from respondent's **Residence Type**, on respondents' level of fear of being attacked with a weapon, demonstrated that there were no significant differences between those living within 2 blocks of campus (UL affiliate or unaffiliated housing), and those living beyond 2 blocks of campus, which are consistent with the one-way ANOVA.

The *t*-test for **missed campus activity (**due to fear**)** was significant (p=<.001) which is different from the OLR and thresholds findings . In these regressions I found no

statistically significant difference between those who missed an activity due to fear of being victimized and those who did not miss an activity.

In analyzing the levels of fear for the variable(s) (frequency/number) of **times attended a campus party** and (number) of **times attended a campus event**, were merged for the regressions, and recoded into one variable **times attended org event** allowing the regressions to generate results. Overall, the regressions found that there is no significant difference in the level of being afraid of being attacked by someone with a weapon between respondents based on how often they participated in campus events. The ANOVAs for (number) of times attended campus party and (number) of times attended a campus org event were not significant as well.

There were no significant differences in the regressions between those respondents who have been a **victim of property crime** and those who have not. This finding is consistent with the *t*-test. Additionally, there were no significant differences in being afraid of being attacked by someone with a weapon between those respondents who have been a **victim of violent crime** and those who have not. This finding is also consistent with the *t*-test.

The survey question: "Are you more afraid of becoming a victim of crime on or off campus" with responses (on, off, both, and neither) was recoded into three dummy variables, afraid of **victimization on campus,** afraid of **victimization off campus**, and **not afraid of victimization**. The ANOVA findings showed statistically significant differences (p=<.001). However, the OLR and thresholds found no significant difference between respondent levels of fear of being attacked by someone with a weapon for on-campus vs. off-campus.

The recoding noted above resulted in a new regression variable (not afraid of victimization) to take in account the "neither" response, that is, not afraid of victimization on nor off campus. The OLR results found no significant differences in the level of fear of being attacked with a weapon between respondents who were afraid of victimization vs. respondents who were not afraid of victimization. There was, however, a significant difference found in threshold 1. For respondents' not afraid of victimization, their level of fear was 94% lower (OR .06, p=.03) than respondents who are afraid of victimization.

The **self-protection measure** independent variable was statistically significant (p=.01) for the OLR. The odds of being at a higher level of fear of being attacked by someone with a weapon increases 30% for each additional self-protection measure taken. Threshold 1 was also significant (p=.01) as was threshold2 (p=.02). Threshold 3 was not significant.

Photo Characteristic Independent Variables

There were statistically significant differences (p=.02) for the regressions, for the photo characteristic independent variable **time of day** which conflicts with the *t*-test. The OLR odds of being at a higher level of fear were 48% higher when respondent(s) were viewing a nighttime photo when compared to viewing a daytime photo. Thresholds 1 and 2 were consistent with the OLR (OR 1.74, p=.00 and OR 1.80, p=.00) respectively, however, threshold 3 results were not significant.

The OLR for **Gender of Person(s) in the photograph w**ith the dimensions (male, female, or mix of genders) indicated no significant difference for being afraid of being attacked by someone with a weapon for **females** nor when the photo(s) viewed had

mixed genders (2 or more models), nor for **no one in the photograph(s**). However, no one in the photograph(s), had significant differences in threshold 1 (OR .61, p=03) and threshold 2. The odds for respondents' fear in threshold 1 were 39% less likely to be at the higher levels of fear (levels 1 vs. 2-4) of being attacked by someone with a weapon when no one was in the photo as compared to there being a male in the photo. For threshold 2 (p=0.03) the odds for respondents' fear indicated that they were 80% less likely to be at a higher level of fear (levels 3-4) of being attacked by someone with a weapon when the photo was void of any person compared to photos with people at a location. While threshold 3 weapon was not statistically significant (p=.052), respondents' fear of being attacked by someone with a weapon, was dramatically different from the other thresholds. Respondents' were at the highest level of fear, in which the odds indicated respondents fear to be 484% higher if no one was in the photo vs. one or more males being in the photo. The one-way ANOVA was not significant for this variable.

Examining the level of fear in the OLR and the thresholds, for **Race of Person(s) in photograph**, there were no significant differences between **White** vs **Non-White** models depicted in the viewed photos. This finding is consistent with the one-way ANOVA for the dependent variable. However, for the OLR, there was a significant difference for the model-race-**combo** (both White and Non-white models in photo). The OLR odds of being at a higher level of fear was 48% higher when looking at a photo where models consisted of both race types, that is, White and Non-white as compared to photos that had only White models. **No one in the photograph(s)** did not produce specific results as SPSS considers model-gender-null and model-race null as the same

result (no one is in the photograph) and therefore we use the above analysis on model-gender null for model-race-null. Model-race-null was not significant for the OLR, yet it was significantly different for threshold 1 (OR .61, p=03). The odds for respondents' fear, revealed that they were 39% less likely to be at the higher level (levels 2-4) of fear of being attacked by someone with a weapon when no one was in the photo as compared to when a White person was in the photo.

The **number of person(s)** in photo(s) (0, 1, 2, or 3) was not significant for the OLR nor the threshold regressions which is consistent with the one-way ANOVA. The presence of a police officer (**has police in photo**) was not significant for the OLR and thresholds, consistent with the *t*-test analysis.

The OLR and the thresholds for each of the nine **specific location(s),** for afraid of being attacked with weapon, indicated 22 significant differences for the eight locations as compared to the ninth location (L9-Control/Backyard) across all regressions for weapon. All 8 locations were statistically significant in the OLR, 7 were statistically significant in threshold 1, 5 were significant for threshold 2, and threshold 3 had 2 locations that had significant differences when compared to the L9 location-Control/Backyard. To discuss each of these findings would be excessive so only those findings that reflect meaningful or interesting assessments will be discussed.

The most interesting and most meaningful finding was the L1-3rd Street and Eastern Parkway tunnel in the OLR which revealed odds of being at a higher level of fear of being attacked by someone with a weapon, was 1126% higher than in location L9-Control/Backyard. This finding, for this location, inducing the highest level, was also the

location with the highest level of fear for all four afraid variables and is consistent with the findings from my previous study (Steinmetz and Austin, 2013).

This tunnel is a prime example of space that does not offer a clear line of sight, that is, it is a great example of a lurk line (Goffman, 1971). As the tunnel ends from either the northern or southern direction, one cannot see who or what might be "lurking" just past the end of the concrete tunnel and serves as a good example of how humans instinctively utilize the concepts of prospect, refuge, and escape (Fisher and Nasar, 1992). Those who enter the tunnel can only move forward or backward as the other side of the tunnel consist of concrete archways with wrought iron fencing to protect the pedestrian from the lane(s) of traffic next to the tunnel. When looking at the photo used for the L1-3rd street location, it is easy to see that a pedestrian entering the tunnel has no ability to determine if a would-be-offender is standing tightly against the cardinal bird decal (north end of tunnel) allowing those hiding, the opportunity of a surprise attack. The southern end of the tunnel stops in a downward sloping wall that is supported by a grass and dirt berm often littered with beer or liquor bottles and empty fast-food trash. The litter seems to indicate that people often sit on the higher-level of the berm eating and drinking, which is completely out of sight (lurk line) of the pedestrian walking south through the tunnel. This space is also indicative of the concepts of prospect, refuge, and escape (Appleton, 1975 and Fisher and Nasar, 1992). Prospect is the assessment of risk, where might danger be hiding, refuge is looking for potential hiding places to give cover, but can also give cover to potential would-be-offenders, and finally, escape. What options do I have to escape or evade any type of attack that I may encounter at this location?

What makes this location particularly interesting is that, according to the 2019 crime logs, the intersection where the tunnel is located ranks 54th with only 3 crime events reports taken. Even incorporating the possible other crime log location names that may have been used to describe this location, such as just 3rd street or just Eastern Parkway, yields only 11 and 7 reports respectively, for a total of 21 criminal events (e.g., theft, assault 4, robbery, sexual abuse, and tampering with evidence) which would make this location tied for 10th as a location for highest number of reported crime events in 2019 on UL campus. Other locations in this study had many more criminal events (crime report generated) such as L5-The Clubhouse with 43 crime events ranked 2nd, L6-SAC (Student Activities Center) with 43 crime events 3rd, 5th is L4-The Province with 31 crime events, 6th L2-Cardinal Stadium with 29 events, and10th was L8-Floyd Street Garage with 21 events and L7-The Nine which also had 21 police reports of a crime being reported. The L3-Papa John Pizza Parking Lot did not have any recorded police events according to the 2019 ULPD crime log yet was the 3rd highest level of fear score for the OLR (OR 4.14, p=<.001). The odds of being at a higher level of fear were 314 times greater for respondents at the L3 location as compared to the L9-Control/Backyard location. The L8-Floyd Street Garage location was the location that generated the 2nd highest odds ratio (OR 4.21, p=<.001) when compared to the control location. Respondents had 321% higher odds of being at the higher level of fear when compared to the control location. Clearly, fear does not just occur because a certain space is riddled with criminal activity, nor does being aware of where crimes occur in one's traveled area necessarily evoke higher or the highest levels of fear, but perceptions of space, and considering prospect, refuge and escape instinctively, may be an even greater indicator or warning alarm for

many. The location L6-SAC (Student Activities Center) is a key example of where one feels safe versus where one should feel safe.

Examining the OLR regression, The SAC odds ratio was 0.42, which was the lowest odds ratio for all 8 locations, and had the lowest odds across all thresholds, and was statistically significant for (OLR, p=0.01) (threshold 2 OR .06, p=<.001) and (threshold 3 OR .00, p=<.001). Threshold 1 (OR .44, p=.051) was not significantly but still had the lowest odds ratio in this regression. Again, the SAC had the lowest odds ratio for level(s) of fear for all 4 regressions and was significant in 3 of the 4 regressions. Yet, the SAC ranked 3rd in the UL police crime logs for 2019 with 42 criminal events recorded by the police. Those criminal events ranged from theft, burglary, assault 4, theft under $500, criminal trespassing 2, harassment, criminal mischief, forgery, theft by deception, shoplifting, and robbery. Respondents' low fear levels indicate that they feel safest at the SAC as compared to control/backyard when considering their fear of being attacked with a weapon at this location. The ANOVAs for this location for being afraid of being attacked with a weapon, had significant differences for all L6-SAC in comparisons to all the 7 other locations. Clearly, respondents felt more fearful at every other location than they did at the student activities center. The Specific Locations one-way ANOVA also revealed numerous statistically significant differences between locations for the dependent variable afraid weapon. The analysis section for *t*-tests and ANOVAs offers a statistical illustration of those differences.

Regression results: Afraid of having their possessions taken from them.

In Table 4.5 below, I present the results from OLR and threshold regressions for afraid of having their possessions taken from them. I first present the results for respondent-level independent variables and then results for photo-level independent variables.

Table 4.5 OLR and Threshold Parallel Lines Analysis *Afraid of Having my Possessions Taken*								
	Ordered Logistic[1]		Threshold 1 [2] Fear Levels (1 vs. 2-4)		Threshold 2 [2] Fear Levels (1-2 vs.3-4)		Threshold 3 [2] Fear Levels (1-3 vs.4)	
Respondent Characteristics N=71	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value
Gender								
Female (vs. Male)	1.22	0.70	1.29	0.68	0.87	0.79	0.49	0.27
Race								
Non-White (vs. White)	1.12	0.78	1.73	0.29	1.33	0.58	2.70	0.051
Course Load								
Part-Time (vs. Full-Time)	1.27	0.72	0.67	0.55	1.68	0.50	0.35	0.10
Attends Classes								
Partially/Fully remote (vs. Belknap Campus)	0.26	**0.01**	0.19	**0.00**	0.28	**0.02**	1.85	0.21
Residence Type (vs. UL Owned)								
UL Affiliated/Unaffiliated Within 2 Blocks of Campus	0.40	0.24	0.23	0.09	0.16	**0.04**	0.66	0.77
Beyond 2 Blocks of Campus	1.32	0.63	1.32	0.69	0.90	0.87	2.25	0.45
Missed Campus Activity (vs. No)	1.69	0.40	4.37	0.054	1.15	0.84	1.68	0.57
Frequency of having Attended Campus Org Event (vs. None)	1.11	0.59	1.19	0.40	1.14	0.56	1.13	0.70
Victim of Property Crime (vs. No)	1.90	0.31	2.46	0.23	1.50	0.55	0.49	0.57
Victim of Violent Crime (vs. No)	0.27	**0.02**	0.26	0.08	0.11	**0.01**	10.67	**0.02**
Afraid of Victimization Off Campus (vs. On campus)	0.34	0.06	0.21	0.052	0.18	**0.00**	3.31	0.08
Not Afraid of Victimization (vs. Afraid on/off campus or both)	0.09	**0.03**	0.06	**0.02**	0.09	**0.01**	1.95	0.56
Self-Protection Measure	1.23	**0.04**	1.23	0.06	0.78	**0.04**	1.28	0.11
Photo Characteristics N=639 (71*9)								

Time of Day								
Night (vs. Day)	1.54	**0.01**	1.82	**0.01**	1.37	0.13	0.47	**0.05**
Gender of Person(s) in Photo (vs. Male)								
Female	0.69	0.07	0.66	0.10	0.87	0.61	1.75	0.13
Mixed	0.69	0.07	0.73	0.35	0.67	0.22	1.49	0.40
No one in photograph	0.25	**0.01**	0.37	0.11	0.18	**0.02**	10.38	**0.01**
Race of Person(s) in Photo (vs. White)								
Non-White	0.93	0.75	1.01	0.97	0.99	0.96	2.37	0.10
Combo	1.58	**0.03**	1.94	**0.02**	1.25	0.44	0.98	0.97
No one in photograph	0.25	**0.01**	0.37	0.11	0.18	**0.02**	10.38	**0.01**
Number of Person(s) in photograph (0,1,2,3)	0.80	0.13	0.85	0.34	0.78	0.20	1.35	0.28
Has police in photograph	0.77	0.37	1.04	0.93	1.58	0.22	0.43	0.25
Specific Locations(Default: L9-Control-Backyard)								
L1-3rdStreet & Eastern Parkway	10.59	**≤.001**	8.25	**≤.001**	0.14	**≤.001**	10.73	**≤.001**
L2-CardinalStadium Parking Lot	3.45	**0.00**	4.71	**0.00**	0.37	**0.04**	1.79	0.53
L3-Papa John Parking Lot	3.52	**≤.001**	3.44	**0.00**	0.21	**0.00**	0.93	0.94
L4-The Province Apts	2.40	**0.00**	3.33	**≤.001**	0.40	0.06	0.59	0.63
L5-TheClubhouse Apts	1.76	0.06	2.14	**0.04**	0.59	0.22	0.47	0.44
L6-Student Activity Center(SAC)	0.45	**0.01**	0.44	**0.04**	4.32	**0.03**	0.27	0.28
L7-The Nine Apts	1.99	**0.03**	2.76	**0.01**	0.69	0.50	0.61	0.62
L8-Floyd Street Parking Garage	3.81	**≤.001**	3.79	**0.00**	0.25	**0.00**	1.84	0.33
[1] Multinomial distribution w/cumlogit link [2] Binomial distribution with logit link								

Respondent Characteristic Independent Variables

The significant *t*-test findings (p=≤.001) for **gender** conflict with the results of the OLR and threshold regressions which indicated that there was no significant difference for **females** as compared to males for being afraid of having their possessions taken from them (OR 1.22, p=.70). The OLR and threshold regressions for **race** also indicated that there were no differences found between **White and Non-white** respondents for being fearful of having their possessions taken from them which is in conflict with the *t*-test findings for race (p=.03).

There are no significant differences in the OLR and threshold regressions for the variable **course load**, between respondents who are **full-time** students and those who are **part-time** students, which is consistent with the *t*-test. However, how respondents **attended classes** found significant differences between those respondents taking some or all distance classes versus respondents taking all classes on **Belknap Campus** (in-person) for the OLR (p=0.01) and threshold 1 and threshold 2. The OLR odds of being at a higher level of fear of having their possessions taken from them are 74% lower for those respondents who are either taking some or all distance classes as compared to respondents taking all classes in-person on Belknap Campus. Threshold 1 was also significantly different (p=.001) between those taking all Belknap campus classes and respondents who take either all distance or some distance classes. The results for threshold 1 and threshold 2 are consistent with the overall OLR results. Threshold 3 was not significant. These findings are consistent with the one-way ANOVA (p=<.001).

The one-way ANOVA for respondent's **residence type** found that there were no significant differences between those living within 2 blocks of campus (UL affiliate or

unaffiliated housing), and those living beyond 2 blocks of campus, for being afraid of having their possessions taken from them. These findings are mostly consistent with the OLR and two of the three thresholds. However, a significant difference was found in threshold 2 for this variable. The odds for respondents living either in UL Affiliated housing or unaffiliated housing located within 2 blocks of campus are 84% lower to be at a higher level of fear (levels 3-4) of having their possessions taken from them than are students living in UL owned campus housing (p=.04).

The results of the *t*-test found significant difference (p=.001) for respondents who indicated they have **missed campus activity** due to fear of having their possessions taken from them. However, in these regressions I found no statistically significant differences between those who missed an activity due to fear and those who did not miss an activity.

As noted in the methods section regarding recoding of variables, the **(frequency/number) of times attended a campus party** and **(number) of times attended a campus event** was recoded into one variable **(number) of times attend campus org event**. Overall, there is no significant differences in the level of being afraid of having my possession taken from me between respondents based on how often they participated in campus events. While the one-way ANOVA for number of times attended campus party was not significant, the variable for number of times attended a campus org event had some significant differences (p=.02) as noted in the results for the one-way ANOVA respondent level-variables Table 4.1.

I found no significant differences in the regressions between those respondents who have been a **victim of property crime** and those who have not. This finding is consistent with the *t*-test. Inconsistent with the *t*-test results, which found no statistically

significant differences between respondents who had been a **victim of violent** crime and respondents who have not, were statistically significant differences in the OLR (p=.02) for being afraid having their possessions taken from them between those respondents who have been a victim of violent crime and those who have not. Respondents in the overall OLR, who had been victims of violent crime, were 73% less likely to be at a higher level of fear of having their possessions taken from them, than respondents who have not been, victims of violent crime. Threshold 2 had significant differences (OR .11, p=.01) consistent with the OLR findings. However, I found in threshold 3, the highest level of fear (levels 1-3 vs. 4), was also significant (OR 10.67, p=.02), but those respondents who have been victims of violent crime were 967 times *more* afraid of having their possessions taken from them than were respondents who have not been victims of violent crime. This result seems to indicate that there are some respondents who have been a victim of violent crime are very afraid of having their possessions taken from them.

The evaluation of the OLR and thresholds 1 and 3 results found that there were no differences in being afraid of having their possessions taken from them between those respondents who are more fearful of becoming a **victim of crime off campus** and those who are more fearful of becoming a **victim of crime on campus** for the OLR. But there was significant difference between respondents afraid of victimization off campus in threshold 3 (OR .18, p=.00) vs. respondents afraid of victimization on campus. Respondents who were not afraid of victimization off campus were 82% less likely to be at the higher level of fear (levels 1-2 vs. 3-4) of having their possessions taken from them than were respondents who were less afraid of victimization on campus. The one-way ANOVA also found statistically significant differences for this variable (see Table 4.1).

Analysis of respondents whose response were that they are more afraid of victimization compared to respondents who indicated they are **not afraid of victimization** for the OLR and thresholds 1 and 2, found that there was a statistical difference (p=.03), (p=.02) and (p=.01), respectively. The OLR results revealed that for respondents who indicated they were not afraid of victimization, were 91% less fearful of having their possessions taken from them than respondents who were afraid of being victimized. Threshold 3 was not statistically significant.

The Self-Protection Measure was statistically significant for the OLR. The odds of being at a higher level of fear of having their possessions taken from them increase 23% for each additional self-protection measure taken. The odds ratio for respondents in threshold 2 (levels 1-2 vs. 3-4) was statistically significant (p=.04) however, respondents' fears saw a reduction of 22% for each self-protection measure used which is inconsistent with the OLR results.

Photo Characteristic Independent Variables

When looking at the **time of day** (night vs. day) in the photos, the *t*-test found that there were no significant differences for being afraid of having their possessions taken, which is inconsistent with the OLR and two of the three threshold regression. I found significant differences in the OLR and thresholds 1 and 3. The OLR results showed that respondents' were 54% more likely to be at a higher level of fear when respondent(s) viewed a nighttime photo as compared to viewing a daytime photo. The finding for threshold 1 was also consistent with the OLR. There was, however, a significant difference in threshold 3 which revealed a reduction in the odds for respondents when

viewing nighttime photos vs. viewing daytime photos. Respondents in threshold 3 (levels 1-3 vs 4) level of fear, were 63% less likely to be at the highest level of fear (level 4) of having their possessions taken when viewing nighttime photos than when viewing daytime photos.

The OLR for **gender of person(s) in the photograph** indicated no difference for being afraid of having their possessions taken from them when the photo showed **females** only, nor when the photo(s) viewed had 2 or more models of **mixed** genders. For **no one in the photograph,** there was statistical difference between no one in the photo vs. having a male in the photo in the OLR. Respondents odds indicate that they were 75% less likely to be afraid of having their possessions taken from them when no one was in the photo as compared to a male being in the photo. Like the OLR for no one in the photograph, threshold 2 was also significant (OR .18, p=.02). Threshold 3 respondents, however, were 938% *more* afraid of having their possessions taken from them when viewing photos that did not have any person in them as compared to seeing photos with only a male in them. The one-way ANOVA was not significant for any of the dimensions (male, female, mix of genders) for the independent variable model-gender.

The one-way ANOVA did not determine any significant differences for any dimensions (Non-white, combo, null) for **race of person(s) in the photograph** independent variable which was consistent with the OLR regressions for the dimensions for race but not for the regressions for the no one in the photograph. I found no statistical differences in fear levels when viewing photos with White person(s) as compared to viewing photos with Non-white person(s). However, there was a significant difference for race-**combo** (both White and Non-white person(s) in photo) in the OLR and threshold

1 regression. When looking at the OLR, respondents' odds of being at a higher level of fear were 58% higher when looking at a photo where those in the photographs consisted of both race types, White and Non-white, as compared to photos that had only White models. Threshold 1 was consistent with the OLR. **Race-no one in the photograph** did not produce specific results as SPSS considers gender-no one in the photographs and race-no one in the photograph as the same result (no one is in the photograph). Therefore, we use the above gender-no one in the photo analysis for race-no one in the photo. Threshold 3 respondents were 938% more likely to be at the higher level of fear (level 1-3 vs. 4), afraid of having their possessions taken from them when viewing photos were no one was in the photo(s) as compared to seeing photos with at least one White person in the photo(s).

The **number of person(s)** in photo(s) was not statistically significant for the OLR nor the three thresholds which is consistent with the one-way ANOVA for number of person(s) in photo variable. The presence of a police officer in photo(s) (**has police in the photograph**) was also not significantly different in any of the regression which is consistent with the *t*-test analysis.

For the variable **specific locations**, as noted in the analysis of the variable afraid of being attacked with a weapon, the results for specific location are too numerous to discuss each significant finding. As was the case for the weapon variable where every statistically significant finding involved either the L1-3rd street location or the L6-SAC location, being afraid of having their possessions taken from them findings reflect similar outcomes.

For the OLR, only one location L5-Clubhouse, the 2nd highest (43) police report event location, was not statistically significant when compared to the L9-control/backyard. The L1-3rd street location had the highest odds ratio (10.59) which suggests that respondents are .959 times more fearful of having their possessions taken from them at this location when compared to the control/backyard location. The lowest odds ratio location (L6-Student Activities Center) suggests that respondents were 54% less fearful of having their possessions taken from them at the SAC as compared to the L9-Control(Backyard) location. This finding is in direct conflict with the ULPD 2019 crime report where the SAC rated the 3rd highest location of where numerous criminal events (theft, robbery, assault 4, criminal mischief, etc.,) occurred.

In threshold 1, the odds for levels of fear of having possessions taken, (levels 1 vs. 2-4), that is, having some fear vs. having no fear at all, showed all locations were statistically significant. As the levels of fear "increase" moving from threshold 1 to threshold 2 (1-2 vs. 3-4), only 5 of the 8 locations were statistically significant, L4-The Province Apts, L5-The Clubhouse Apts, and L7-The Nine Apts, were not significant. Each of these non-significant locations are UL affiliated housing options, located just outside the official campus property line as depicted in the University of Louisville-Belknap Campus Map (See Appendix). Threshold 3 reflects the highest levels of fear for the threshold regressions (1-3 vs. 4). Only 1 location, L1-3rd Street and Eastern Parkway was significantly different (p=<.001) when compared to the control/backyard. Respondents level of fear in threshold 3, at the 3rd Street location, was 973% higher when compared to the control photo, a suburban backyard, a location where none of the respondents had ever been. Perhaps the photo of that backyard is so typical of the

suburban backyards found in Louisville that none or very few of the respondents felt any or so little fear when their photo of the L9 location was presented to them in the survey. The "Specific Locations" one-way ANOVA also revealed several statistically significant differences between the locations for the dependent variable afraid of having my possessions taken from me. The analysis section for *t*-tests and ANOVAs offers a statistically detailed accounting of those differences.

Regression results: Afraid of being beaten up**.**

In Table 4.6 below, I present the results from OLR and threshold regressions for afraid of being beaten up. I first present the results for respondent-level independent variables and then results for photo-level independent variables.

Table 4.6 OLR and Threshold Parallel Lines Analysis *Afraid of Being Beaten Up*								
	Ordered Logistic [1]		Threshold 1 [2] Fear Levels (1 vs. 2-4)		Threshold 2 [2] Fear Levels (1-2 vs.3-4)		Threshold 3 [2] Fear Levels (1-3 vs.4)	
Respondent Characteristics N=71	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value
Gender								
Female (vs. Male)	1.78	0.33	1.96	0.31	1.60	0.41	0.64	0.59
Race								
Non-White (vs. White)	1.06	0.89	1.73	0.30	0.71	0.47	3.42	0.06
Course Load								
Part-Time (vs. Full-Time)	1.74	0.41	1.49	0.58	2.35	0.22	0.63	0.55
Attends Classes								
Partially/Fully remote (vs. Belknap Campus)	0.29	**0.02**	0.23	**0.01**	0.31	**0.03**	1.64	0.44
Residence Type (vs. UL Owned)								
UL Affiliated/Unaffiliated Within 2 Blocks of Campus	0.62	0.57	0.35	0.24	0.44	0.36	0.69	0.83
Beyond 2 Blocks of Campus	1.06	0.94	0.97	0.97	0.80	0.73	2.34	0.53
Missed Campus Activity (vs. No)	1.24	0.75	2.28	0.31	1.04	0.96	9.52	0.14
Frequency of having Attended Campus Org Event	1.18	0.39	1.30	0.19	1.15	0.49	0.83	0.63
Victim of Property Crime (vs. No)	1.66	0.47	2.47	0.26	0.92	0.92	2.04	0.67
Victim of Violent Crime (vs. No)	0.40	0.22	0.51	0.46	0.13	**0.01**	5.02	0.25
Afraid of Victimization Off Campus (vs. On campus)	0.42	**0.00**	0.16	**0.04**	0.41	0.18	3.91	0.18
Not Afraid of Victimization (vs. Afraid on/off campus or both)	0.18	0.15	0.08	**0.05**	0.21	0.12	2.29	0.61
Self-Protection Measure	1.25	**0.05**	1.29	**0.03**	1.18	0.15	0.67	**0.05**
Photo Characteristics N=639 (71*9)								

Time of Day (vs. Day)								
Night	1.50	**0.02**	1.66	**0.03**	1.91	**0.01**	0.82	0.59
Gender of Person(s) in Photo (vs. Male)								
Female	1.01	0.96	1.01	0.97	1.10	0.67	1.03	0.94
Mixed	0.91	0.68	0.88	0.66	1.07	0.84	1.80	0.28
No one in photograph	0.27	**0.02**	0.40	0.13	0.11	**0.00**	5.23	**0.05**
Race of Person(s) in photographs (vs. White)								
Non-White	0.88	0.53	0.92	0.77	0.76	0.34	1.40	0.63
Combo	1.27	0.26	1.33	0.31	0.87	0.64	0.49	0.22
No one in photograph	0.27	**0.02**	0.40	0.13	0.11	**0.00**	5.23	**0.05**
Number of Person(s) in photograph (0,1,2,3)	0.90	0.49	1.08	0.63	0.87	0.45	1.75	0.08
Has police in photograph	0.64	0.10	0.77	0.43	0.69	0.32	2.96	0.21
Specific Location (vs. L9 Control-Backyard)								
L1-3rd Street & Eastern Parkway	7.35	**≤.001**	4.74	**≤.001**	5.75	**≤.001**	0.08	**≤.001**
L2-Cardinal Stadium Parking Lot	2.38	**0.01**	2.59	**0.02**	2.06	0.09	0.54	0.56
L3-Papa John Parking Lot	2.64	**0.00**	3.37	**0.00**	1.99	0.16	1.08	0.95
L4-The Province Apts	2.41	**0.00**	3.48	**≤.001**	1.64	0.35	0.73	0.79
L5-The Clubhouse Apts	1.78	**0.05**	1.93	**0.05**	1.13	0.81	0.58	0.60
L6-Student Activity Center (SAC)	0.31	**≤.001**	0.28	**0.00**	0.07	**0.02**	0.00	**≤.001**
L7-The Nine Apts	1.93	**0.04**	2.79	**0.01**	1.11	0.83	1.69	0.67
L8-Floyd Street Parking Garage	3.05	**0.00**	2.94	**0.01**	3.10	**0.04**	0.56	0.44

[1] Multinomial distribution w/cumlogit link
[2] Binomial distribution with logit link

Respondent Characteristics Independent Variables

Overall, there was no difference in afraid of being beaten up between **female** and male respondents (OLR 1.78, p=.33) nor were there any differences for the regression thresholds. However, this result is contrary to the findings of the *t*-test which found that there was a significant difference (p=<.001) between female versus male for fear of being beaten up dependent variable.

Despite the *t*-test findings where there was a significant difference (p=<.001) for race, between **Whites and Non-whites,** the results for race in the OLR and threshold regressions found no significant difference between White and Non-whites for being afraid of being beaten up.

Even though the *t*-test found significant differences in the level of fear for **course load** between respondents who were full-time students as compared to part-time students, there were no significant differences in the OLR nor the thresholds when looking at the levels of fear for being afraid of being beaten up.

How respondents **attended classes** revealed significant differences (p=.02) for the OLR between those respondents taking some or all distance classes versus respondents taking all classes on Belknap Campus (in-person). The likelihood of respondents being at a higher level of fear (level 1 vs. 2-4) were 71% lower for those respondents taking either some or all classes remotely as compared to those respondents taking all classes on Belknap Campus. That is, respondents whose classes were all on campus were more fearful of being beaten up than those respondents who only spent some of their class time on campus. Thresholds 1 and 2 results were consistent with the OLR results. This finding is consistent with the one-way ANOVA.

Like the one-way ANOVA, for respondent's **residence type**, there were no significant differences for any of the regressions in respondents' level of fear of being beaten up, between those living within 2 blocks of campus (UL affiliate or unaffiliated housing), those living beyond 2 blocks of campus and respondent's living in UL owned housing.

There was no significant difference between respondents' level(s) of fear of being beaten up in the OLR nor in the thresholds for those who reported having **missed a campus activity** and those who have not, due to being afraid of becoming a victim of crime. However, the *t*-test found statistically significant differences (p=<.001) for those respondents who have missed a campus activity for fear of becoming victimized. When examining the OLR and thresholds, the recoded variable **number of times missed campus org event** (discussed in the methods section), there was no significant differences in the levels of fear of being beaten up for respondents based on how often they participated in campus events. The one-way ANOVA for number of times attended campus party was not significant, however, the independent variable for number of times attended a campus org event had some significant differences as noted in the analysis for the *t*-test and ANOVA table for this dependent variable, afraid of being beaten up.

There were no differences in the level(s) of fear of being beaten up in the OLR nor the thresholds between those respondents who have been a **victim of property crime** and those who have not. This finding is consistent with the independent samples *t*-test. There were no significant differences in the OLR in the level of fear of being beaten up between those respondents who have been a **victim of violent crime** and those who have not. There was statistical differences in threshold 2 for respondents who have been a

victim of violent crime. Respondents in threshold 2 were 87% more likely to be at the lower level of fear (level 1-2 vs. 3-4) if they had been a victim of violent crime than those who indicated they had not been a victim of violent crime. The *t*-test indicated that there was no statistical difference which is consistent with the OLR and thresholds 1 and 3.

Like the *t*-test, there was statistical differences in the OLR for being afraid of being beaten up between those respondents who indicated that they were more fearful of becoming a **victim of crime off campus** than those who responded that they were more fearful of becoming a **victim of crime on campus**. Respondents were 58% less fearful of being victimized off campus than respondents who were fearful of being victimized on campus. Threshold 1 results were also consistent with the OLR.

In the analysis of the OLR, there was no statistical difference found between respondents whose response was that they were afraid of victimization vs. respondents who indicated they were **not afraid of victimization (on/off campus or both)**. However, there was a statistically significant difference for threshold 1 results which indicated that respondents who are not afraid of victimization were 92% less likely of having some fear versus no fear of being beaten up, than were respondents afraid of victimization.

Self-Protection Measure(s) had significantly differences. The odds ratio in the OLR, of being afraid of being beaten up are 25% higher for each additional self-protection measure taken. Thresholds 1 and 3 results were consistent with the OLR results.

Photo Characteristic Independent Variables

Despite no significant differences found by the *t*-test, like the two previous dependent variables analyses (attack with weapon and having possessions taken) there was significant differences (p=.02) for the photo characteristic variable **time of day** for the OLR and two of the threshold regressions. The OLR indicated that respondents' fear increased 50% when viewing nighttime photos versus daytime photos. The odds ratios in thresholds 1 and 2 were consistent with the OLR. Threshold 3 was not significant.

The OLR for **Gender of Person(s) in photograph** indicated no difference for being afraid of being beaten up when **females** were depicted in photos nor when the photo(s) viewed had 2 or more persons that were a **mix of** genders. For gender-no one in the photo, there was a statistical difference in the OLR between no one in the photo versus photo(s) displaying a male model. Respondents were 73% less likely to be afraid of being beaten up when no one was in the photo as compared to males being in the photo. Respondents in threshold 2 was consistent with the OLR. However, threshold 3 was also significant for gender-no one in the photograph (OR 5.23, p=.05) but respondents' odds were 423 times *more* likely to be at the higher level of fear of being beaten (1-3 vs. 4) when there was no person in the photo as compared to having at least one male in the photo. Respondents being most fearful of being beaten up when no one was in the photo, at the highest level of fear, suggest that they would prefer someone, even if they are a member of the opposite gender, to be in their path or space rather than being alone. The one-way ANOVA did not determine any statistically significant differences for this dependent variable.

Consistent with the finding for gender-person(s), the OLR for **race-person(s) in the photograph,** found that there were no statistical differences between **Whites vs Non-**

whites depicted in the viewed photos as well as no significant difference for the independent variable **combo** (combination of both White and Non-white person(s) in photo. As previously noted, I will use the same result (no one is in the photograph) from gender-no one in the photographs for **race-no one in the photograph** which found that there were statistical difference between no one in the photo vs having a White person in the photo. Respondents were 73% less likely to be afraid of being beaten up when no one was in the photo as compared to a White person being in the photo and threshold 2 was consistent with the OLR. Threshold 3 however, also had significant difference (OR 5.23, p=.05) but respondents were 423 times *more* likely to be at the highest level of fear of being beaten up when there was no person in the photo as compared to having at least one White person in the photo. The one-way ANOVA did not determine any statistically significant differences for this variable.

In looking at the **number of Person(s) in photograph(s)** (0,1,2, or 3) the one-way ANOVA, was not significant nor were the OLR and threshold regressions significant. The presence of a police officer in photo(s) (**has police in the photograph**) was not statistically different making it consistent with the *t*-test analysis.

Consistent with the previous fear variables (weapon and possessions) respondents' level for fear of being beaten up at **Specific Locations** has similar findings. For the OLR, all eight locations were statistically significant when compared to L9-Backyard (the control location). The pattern of the 3rd Street and Eastern Parkway location and the SAC being the most meaningful or interesting locations continued for the afraid of being beaten up dependent variable. Both locations had p values of ($\leq$.001). The 3rd Street and Eastern Parkway location level of fear indicated that respondents' were

635% *more* fearful of being beaten up at this location than the control backyard, while respondents' fear was 69% *less* fearful at the SAC as compared to their fear of being beaten up at the control/(backyard) location. The 2nd highest level of fear of being beaten up was the L8-Floyd Street Parking Garage (OLR 3.05, p=.00) where respondents had higher levels of fear than the 2nd highest, L2-Cardinal Stadium Parking Lot (OLR 2.38, p=.01). Perhaps respondents felt the 4-level parking garage offered better refuge and privacy, where potential batterers could engage in a physical fight with little or no notice from others in the area, than the Cardinal Stadium Parking Lot offered.

> *"It isn't very well lit and is so accessible to anyone that there is so much potential for danger"—respondent comment after viewing their photograph for location L8-Floyd Street Parking Garage and rating it a 4 (highest) for fear of being beaten up."*

Threshold 1 was consistent with the OLR, where all location were significant, but thresholds 2 and 3 had far fewer locations with fear level that were significantly different as compared to the number of locations in the OLR and threshold 1. Threshold 2 had 3 locations, L1-3rd Street and Eastern Parkway, L6-SAC, and L8-Floyd Street Parking Garage that were statistically significant in fear as compared to the control location. Respondents fears of being beaten up at the Floyd Street Parking Garage in threshold 2 indicated that they were 210% more likely to be at the higher level of fear (level 1-2 vs. 3-4) at this location as compared to the control location. Threshold 3, with fear levels 1-3 vs. 4, had only 2 locations, where both locations L1-3rd Street and Eastern Parkway and

the L6-Student Activity Center , had lower fear levels indicated by the respondents. Respondents were 92% less fearful at the L1 location and 100% less fearful at the L6 location of being beaten up, they were when compared to the control location.

Regression results: Afraid of being sexually assaulted

In Table 4.7 below, I present the results from OLR and threshold regressions for afraid of being sexually assaulted. I first present the results for respondent-level independent variables and then results for photo-level independent variables.

Table 4.7 OLR and Threshold Parallel Lines Analysis *Afraid of Being Sexually Assaulted*								
	Ordered Logistic [1]		Threshold 1 [2] Fear Levels (1 vs. 2-4)		Threshold 2 [2] Fear Levels (1-2 vs.3-4)		Threshold 3 [2] Fear Levels (1-3 vs.4)	
Respondent Characteristics N=71	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value	Odds Ratios	p-value
Gender								
Female (vs. Male)	5.26	**0.01**	4.38	**0.03**	10.35	**0.00**	0.12	0.12
Race								
Non-White (vs. White)	0.98	0.97	1.55	0.47	0.73	0.51	3.46	**0.05**
Course Load								
Part-Time (vs. Full-Time)	1.68	0.38	0.97	0.97	2.48	0.13	0.14	**0.02**
Attends Classes								
Partially/Fully remote (vs. Belknap Campus)	0.39	0.09	0.37	0.13	0.25	**0.02**	0.63	0.51
Residence Type (vs. UL Owned)								
UL Affiliated/Unaffiliated Within 2 Blocks of Campus	1.58	0.58	0.62	0.62	1.57	0.55	0.20	0.28
Beyond 2 Blocks of Campus	1.55	0.43	1.55	0.45	1.03	0.95	1.87	0.65
Missed Campus Activity (vs. No)	2.38	0.19	3.03	0.17	1.85	0.32	0.48	0.34
Number of Times Attended Campus Org Event (vs. None)	1.03	0.87	1.13	0.58	1.17	0.39	1.60	0.15
Victim of Property Crime (vs. No)	1.32	0.60	0.96	0.94	1.23	0.71	0.26	0.29
Victim of Violent Crime (vs. No)	1.18	0.83	0.58	0.58	3.31	0.11	0.57	0.56
Afraid of Victimization Off Campus (vs. On campus)	0.61	0.41	0.39	0.21	0.53	0.28	2.76	0.11
Not Afraid of Victimization (vs. Afraid on/off campus or both)	0.16	0.11	0.10	**0.05**	0.14	**0.03**	7.02	0.20
Self-Protection Measure	1.07	0.54	1.12	0.37	1.08	0.49	1.14	0.53
Photo Characteristics N=639 (71*9)								

Time of Day (vs. Day)								
Night	1.60	**0.01**	1.60	**0.03**	2.05	**≤.001**	0.50	**0.05***
Gender of Person(s) in photograph (vs. Male)								
Female	0.94	0.77	0.91	0.72	1.18	0.51	1.11	0.82
Mixed	0.91	0.70	0.74	0.37	1.01	0.97	0.73	0.45
No one in photograph	0.35	**0.04**	0.46	0.22	0.47	0.19	12.85	**0.01**
Race of Person(s) in photographs (vs. White)								
Non-White	0.71	0.11	0.73	0.16	0.72	0.24	1.28	0.66
Combo	1.24	0.35	1.25	0.43	1.11	0.76	0.73	0.57
No one in photograph								
Number of Person(s) in photograph (0,1,2,3)	0.80	0.17	0.91	0.61	0.92	0.68	2.01	**0.02**
Has police in photograph	0.67	0.12	0.91	0.76	0.62	0.24	2.48	0.20
Specific Locations (vs. L9 Control-Backyard)								
L1-3rd Street & Eastern Parkway	3.45	**0.00**	1.82	0.16	4.80	**0.01**	0.09	**≤.001**
L2-Cardinal Stadium Parking Lot	1.38	0.34	0.97	0.93	1.79	0.21	0.34	0.15
L3-Papa John Parking Lot	1.38	0.33	1.44	0.33	2.01	0.19	2.48	0.46
L4-The Province Apts	1.36	0.34	1.51	0.19	1.69	0.36	0.83	0.84
L5-The Clubhouse Apts	1.06	0.85	1.04	0.91	1.19	0.73	1.46	0.68
L6-Student Activity Center (SAC)	0.24	**≤.001**	0.23	**≤.001**	0.18	**0.01****	0.00	**≤.001**
L7-The Nine Apts	1.61	0.13	1.96	0.07	1.49	0.48	0.70	0.60
L8-Floyd Street Parking Garage	1.62	0.18	1.35	0.48	2.16	0.15	0.78	0.70

[1] Multinomial distribution w/cumlogit link
[2] Binomial distribution with logit link

Respondent Characteristics Independent Variables

The survey questions regarding respondents' fear is steeped in over 50 year of research. One of the key fears emphasized in much of the research for females, is the fear of being sexually assaulted. Contrary to the three previous fear variables, attacked with a weapon, having possessions taken, and being beaten up, only the fear of sexual assault OLR and three thresholds were all statistically significant. Because of the importance of the threshold models for this specific type of fear, it may be useful to review once more Figure 3.1, which shows what each threshold represents (appearing prior to the beginning of the regression results for fear of being hurt with a weapon).

Consistent with the *t*-test, there was significant differences for the OLR for being afraid of being sexually assaulted between **females** and males (OR 5.26, p=.01). In general, female respondents were .426 times more afraid of being sexually assaulted as compared to male respondents. Similarly, females in threshold 1 were also statistically significant (OR 4.38, p=.03). The odds ratios for females to be at the higher level (1 vs. 2-4) of fear were .338 times more fearful of being sexually assaulted than were the male respondents. For threshold 2, females were 935% more likely to be at the higher level of fear (3-4) of being sexually assaulted than were males. Only in threshold 3 do we see females had 88% lower level of fear of being sexually assaulted than males. That is, males were more likely than were females to be at the highest levels of fear (level 1-3 vs. 4) of being sexually assaulted.

The OLR and threshold findings are inconsistent with the *t*-test findings for **race** (**Whites vs. Non-whites**) which was found to be significant (p=.02). The OLR revealed that there was no difference between White and Non-whites for being afraid of being

sexually assaulted. However, threshold 3 was the only threshold regression that was significantly different (OR 3.46, p=.05). Non-white respondents were 246% times more likely to be at the highest level of fear (4) for being sexually assaulted than were White respondents.

There are no significant differences for being afraid of being sexually assaulted between respondents who are **full-time and parttime** students for the OLR and thresholds 1 and 2 which is consistent with the *t*-test. Threshold3 did have significant differences between respondents that were full-time versus part-time students. Part-time respondents were 86% less likely to be at the highest level (1-3 vs. 4) of fear for being afraid of being sexually assaulted than were fulltime respondents.

Contrary to the OLR and the findings for thresholds 1 and 3, the *t*-test was significant (p=.00) for how respondents **attended classes,** that is, partially or fully remote classes versus all classes on Belknap Campus. Only threshold 2 respondents who take some or all of their classes as distance classes are 75% less likely to be at the higher 2 levels of fear (level 1-2 vs. 3-4) of being sexually assaulted than at the lower level (p=.02).

Examination of respondent's **residence type** demonstrated that there were no significant differences between those living within 2 blocks of campus (UL affiliate or unaffiliated housing), and those living beyond 2 blocks of campus for being afraid of being sexually assaulted. These findings are consistent with the one-way ANOVA conducted for this dependent variable.

The *t*-test found significant differences (p=≤.001) for those respondents who have **missed a campus activity** for fear of becoming victimized. Conversely, I found no

significant difference between respondent's who have missed a campus activity and those who have not, due to being afraid of becoming a victim of crime, for the OLR and the thresholds.

Measuring the prevalence of fear of being sexually assaulted with the OLR and thresholds, the variables **number of times attended a campus party** and **number of times attended a campus event** was recoded into one variable **frequency of having attended campus org event**. Overall, there is no significant differences in the level of being afraid of being sexually assaulted between respondents based on how often they participated in campus events. While the one-way ANOVA for number of times attended campus party was not significant, the variable for number of times attended a campus org event had some significant differences as noted in the analysis for the *t*-test and ANOVA table for the dependent variable afraid sexual assault, these differences were not detected by the regressions.

There were no differences in being afraid of being sexually assaulted between those respondents who have been a victim of property crime and those who have not. This finding is consistent with the t-test results. The OLR and the thresholds found that there were no significant differences between those respondents who have been a **victim of violent crime** and those who have not. This finding is consistent with the *t*-test. I also found no statistical differences for being afraid of being sexually assaulted between those respondents who are more fearful of becoming a **victim of crime off-campus** and those who are more fearful of becoming a **victim of crime on-campus**. Generally, there were no statistical differences between respondents who indicated they were more afraid of victimization vs. respondents who indicated they are **not afraid of victimization** for the

OLR and threshold 3. However, there was significant difference in the threshold 1 odds ratio (p=.05). Respondents who are not afraid of victimization were 90% less likely to be at the higher levels (2-4) of being fearful of being sexually assaulted than were respondents who indicated that they are fearful of being victimized. For threshold 2 (level 1-2 vs. 3-4), respondents who were not afraid of victimization were 86% less likely to be in the upper levels (3-4) of being afraid than are respondents who are afraid of being victimized. The Self-Protection Measure(s) was not statistically significant for any of the four regression models.

Photo Characteristic Independent Variables

The *t*-test found for the photo variable, **time of day**, revealed that there were no significant differences for this dependent variable which was contrary to the regressions findings. The OLR found significant differences (p=.01) for this photo characteristic variable. Respondents were 60% more fearful when viewing a nighttime photo versus when viewing a daytime photo. Threshold 1 was also significant (OR 1.60. p=.03). Respondents were 60% more likely to be in the higher level of fear (1 vs. 2-4) when viewing a nighttime photo as compared to viewing a daytime photo. Thresholds 1 and 2 were consistent with the OLR. However, threshold 3 results were also significant, (OR .50, p=.05) but respondents were 50% *less* likely to be at the highest level (1-3 vs. 4) of being afraid of being sexually assaulted when viewing a nighttime photo as compared to viewing a daytime photo.

When evaluating levels of fear for the OLR, for **Gender of Person(s) in the photograph**, no significant difference was found for being afraid of being sexually

assaulted for **females** nor for **mixed**-gender when the photo(s) viewed had 2 or more persons, a mix of genders. The OLR for **gender-no one in the photo,** had significant difference (p=.04), when no one was in the photo vs. having a male in the photo. Respondents were 65% less likely to be at the higher level (1 vs. 2-4) of being afraid of being sexually assaulted when no one was in the photo as compared to males being in the photo. Threshold 3 results indicated respondents were a massive 1185% *more* likely to be at the highest level (1-3 vs. 4) of being afraid of sexual assault when no one was in the photo than when at least one male was in the photo. The one-way ANOVA did not determine any significant differences for gender of person(s) in the photograph for this dependent variable.

Curiously the **race** (**Non-White vs. White**) of those persons in the photo, for the one-way ANOVA analysis was significantly different (p=.05) where respondents' were more fearful if a WHITE model was in the photo as compared to Non-white model. Yet, there were no statistical differences between White vs Non-white person(s) depicted in the viewed photos as well as no significant difference for the variable **combo** (both White and Non-white person(s) in photo) in the OLR and the thresholds. As in the previous ANOVAs for weapon, possessions, and beaten up, **race-no one in the photograph,** did not produce specific results as SPSS considers gender-no one in the photograph and race-no one in the photograph having the exact same result. Therefore, the OLR for race-no one in the photo, found statistical difference between no one in the photo vs having a White person in the photo. Respondents were 65% less likely to be at the higher level (1 vs. 2-4) of being afraid of being sexually assaulted when no one was in the photo as compared to when a White person was in the photo. Threshold 3 results indicated

respondents were 1185% *more* likely to be at the highest level (1-3 vs. 4) of being afraid of being sexually assaulted when no one was in the photo than when at least one White person was in the photo.

Analyzing the results for the level(s) of fear of being sexually assaulted for the **number of person(s) in photo(s)** was not significant for the OLR and thresholds 1 and 2 consistent with the one-way ANOVA. However, for threshold 3, respondents afraid of being sexually assaulted, had 101% increase in the likelihood at being at a higher level of fear for each additional person that was pictured in the photo. The presence of a **police officer in photo**(s) was not statistically different and the *t*-test analysis had similar results.

In keeping with the pattern of statistically significant differences for the specific locations variable, both the L1-3rd Street and Eastern Parkway and L6-the SAC locations were again significantly different for the dependent variable being afraid of being sexually assaulted for the one-way ANOVA. The 3rd Street location OLR, threshold 2, and threshold 3 significant differences were p=.00, p=.01, and p=<.001, respectively. Overall, the OLR results indicate that respondents were 245% more fearful at location L1-3rd Street and Eastern Parkway than the L9-Control(Backyard) location. Threshold 1 was not significant. For threshold 2 respondents, they were 380% more likely to be at the higher level of fear (level 1-2 vs. 3-4) of being sexual assaulted as compared to the suburban backyard/control. However, for threshold 3, respondents were 91% *less* fearful of being sexually assaulted at the 3rd Street location than they were of being sexually assaulted at the L9-control/backyard location.

Perhaps those respondents who might have been extremely fearful when viewing the photo of the 3rd Street location reduced their level of fear of being sexually assaulted at this location due to lack of privacy to launch a sexual assault attack. The northern end of the walkway tunnel is a very busy corner, and the entrance/exit is completely exposed to all the foot and motor traffic coming to and from Eastern Parkway as well as 3rd Street. The southern end of the walkway/tunnel, with the concrete berm wall, ends at a wall of high fencing that continues until one reaches UofL's wide-open surface parking lot, which is directly across from the Reynold's Lofts apartment building and their parking lot, could suggest a sense of safety for the pedestrian who might consider the open exposure would dissuade any would-be-sexual predator's attack.

The SAC (L6) remained the location with the lowest level of fear of being sexually assaulted for all four regressions compared to the control location. Threshold 3 results were so low, OR .00, p=<.001, that we can only assume that no one or very few, 1 maybe 2 respondents indicated any level of fear. Respondents were 100% less likely to be at the higher level of fear in threshold 3.

Brief summary of qualitative responses about the Student Activity Center (SAC) Location L6.

For those students who indicated they had been there (the SAC) often or occasionally, their responses to the prompt: Is there anything in particular about this location that caused you to answer as you did? reveals why this location produced the lowest levels of fear for all four fear variables.

"Every time I have been at this location it seems to have quite a lot of people around and inside this building".

"While this may not be something that stops a crime it makes me more comfortable in this area."

"I have also been here a few times and never felt afraid as there are usually other people around."

"There are always people out there as potential witnesses if you were to be attacked or assaulted."

"I have never felt unsafe at this location, even at night I always feel safe here. It is lit and I know there are people right inside."

"The SAC is pretty centralized on campus, and feels like one of the most safe places here. However, because of that feeling, I was more susceptible to having my laptop stolen here."

This last respondent's statement shows that, despite previous victimization on campus, at that very location, they still feel safe at this location.

Brief summary of qualitative responses about the 3rd Street and Eastern Parkway Location L1

For respondents viewing their unique L1 3rd Street and Eastern Parkway location being displayed, and were asked to indicate their fear levels, their response to the open-ended question, Is there anything in particular, about this location, that caused you to answer as you did? For those respondents who indicated that *they had been at this location often or occasionally, responses stated:*

"it's a dark tunnel."

"many occasions where people who don't look like students will stand under or around that bridge (over the railroad)"

"seems isolated."

"too much traffic"

"it's not central to the campus."

"lots of hiding places and not a lot of foot traffic"

For those respondents' who said they have not or don't remember being at this location responses included:

"I've heard stories about walking under this poorly lit bridge. Not good ones. This walk under the bridge was actually one of the main reasons I would have never considered living at the Trifecta or the Marshall."

"I chose Strongly Agree for all of them because this area seems very sketchy to me as I drive by, and I would never want to walk here alone."

"Dark and downtown"

"Dark no other people"

"This location is secluded and dark."

These responses make it clear that respondents fear is based on the physical features and "incivilities" that this location projects.

Brief summary of qualitative responses about other locations not included in this survey

At the conclusion of my survey respondents were asked: "Are there any other locations on or adjacent to the University of Louisville campus that makes you fearful? What about this location makes you fearful?" so that any future research regarding feelings of fearfulness on the University of Louisville Belknap Campus may consider the concerns that students taking classes in 2022 expressed. Here are some of their responses:

"The area around the Convenient store across from UTA is sketchy at night. There's a reason its nickname is the "Stab-N-Grab"

"There are a couple of stores and convenience shops that have a history of people being stabbed in them, some have been nicknamed stab-and-grabs"

" The area near the Ville Grill/Louisville Hall/Kurz Hall. I am a new student this semester, and I have been told that area is a place I should avoid being when alone at night."

"the tunnel between the cardinal stadium and the back parking lot are personally terrifying. The back lot is not well lit, and it is creepy when only one person is following you all the way from the bus to the back parking lot. The sidewalks are also a little scary since they are dark, and the building poles cast shadows and dark areas. As a commuter, I have had to walk to the cardinal stadium several times since the busses stopped running earlier than schedules. The one mile walk from the SAC to the stadium is hard with a full backpack and leaves you completely vulnerable for someone to assault you. When I make this walk I always call my boyfriend and turning on tracking features to my family in case something happens"

"The food places under Card Towne, and the shopping center by the food mart. I say this because there are people who aren't students and or faculty of UofL and some people seem like suspicious characters who are there for no good reason."

"I think the underpass to the bridge going towards Trifecta Apartments is DEFINITELY a place that scares me - it just feels unsafe and scary - especially at night. I feel like the area around Clubhouse in the parking lot of Bandidos restaurant is a little sketchy too."

"Literally right outside of my residence hall (Community Park) there have been attempted robberies and there have been reports of people with guns INSIDE of the building. I would say anywhere on campus when its dark can be unsafe. Also, even during the day - such as the bomb threat at the baseball stadium recently."

"The Community Park courtyard has no cameras and is so dark at night. Twisted Taco. Food Mart."

"The yellow lot parking lot makes me feel unsafe. It is very large and walking to a from is a long walk, and it is very secluded."

Almost 30% of the respondents left these types of comments regarding their fears on and around the Belknap Campus. Phrases used in these comments: not well lit, dark areas, no cameras, and very secluded spaces are issues that could be rectified by the university by adding more lighting, more cameras, maybe with large signage stating, "You are being watched" in those "very secluded spaces". Unfortunately, statements indicating fear such as "there are people who aren't students and or faculty of UofL and some people are suspicious characters" cause fear or concern for students. Due to its urban college campus setting, a wide variety of members of the city of Louisville community, who are not members of the UofL community, spend time within the campus areas, walking, eating, and shopping just like students, faculty, and staff of UofL, and can cause a higher degree of discomfort for those who live with fear of victimization. Finding

additional ways to assist the UofL community members to feel comfortable and safe on and around campus, that is, “reduce the climate of fear on campus” (Nasar, Fisher, and Grannis, 1993) is and should continue to be an ongoing goal for both the University and the city.

CHAPTER 5: DISCUSSION

Among the purposes of this study was to determine if the locations that were found to provoke fear in my 2012 master's research (Steinmetz, 2012), and the 2001 Sars and Bledsoe study, continued to provoke fear among current students, to ask students what other locations, not queried in either study, might provoke students' fears, and to further expand on some of the limitations of my prior research (Steinmetz and Austin, 2013) regarding fear of victimization on a college campus.

This study included questions about the time spent on campus by respondents, their course load, how they access their classes, and how involved they are in organizational or social campus engagement. Additionally, respondents were asked about their familiarity/frequency of being at specific locations, their feelings of fear based on the time of day at specific locations depicted in their deck of photos, if they are fearful when the location is occupied with people, if the race, gender, and/or number of those individuals occupying specific locations impacts their fear level(s), if the presence of a police officer increases or decreases their fear, and their use of self-protection measures. Respondents also answered questions about prior victimization, and where they most fear becoming a victim of crime (on campus, off campus, neither, or both).

These questions were used to assess the level of fear among college students at the University of Louisville, specifically, their level of fear of being attacked with a

weapon, of having their possessions taken from them, of being beaten up, and their level of fear of being sexually assaulted. The collective results of the regressions, one-way ANOVAs, and Independent Sample *t*-tests indicate significant fear levels with regards to several of the independent variables included in this study.

The theoretical framework that I used to conduct this research, Cohen and Felson's Routine Activities Theory (1979) , was used because their theory tries to explain how crime occurs in patterns that mirror common every day and/or every night situations that take place on a college campus. Their theory suggests that crime occurs, or people become victims of crime, when both potential victim(s) and potential offenders end up in the same space and the three main tenets of Routine Activities Theory are present. The first tenet is that there is a motivated offender, someone who is willing to victimize another person. The second tenet is that there is a suitable target within the would-be-offenders proximity, and third, is that there are no "capable guardians", police, security, others who would be willing to step in to stop the crime event. Belknap campus is an urban campus located adjacent to the central business district in Louisville. The campus is found in the Old Louisville district where streets and businesses are located throughout the campus. This makes the campus borders essentially nonexistent. Members of the campus community, as well as members of the Louisville community, regularly enter and exit the permeable borders day and night. It would be difficult to determine who may be the would-be-offender and who the target (victim) may be when noticing two or more people gathering. All of these factors, motivated offender, suitable target, absence of capable guardians, along with unlimited opportunities to enter or exit the campus, a

myriad of locations that might offer cover or privacy suggests that Routine Activities Theory offers the "how" a crime event might happen on a college campus.

My preliminary analysis found that for all four fear variables (weapon, possessions, beaten up, and being sexually assaulted), females were more fearful of becoming victims of crime than were males, which is consistent with prior research (Warr, 2000; Schafer et al, 2006; Day, 1994; Ferraro, 1996; Haynie, 1998; Rountree, 1998). The other significant difference revealed, according to the regressions, was for the DV, fear of being sexually assaulted. Females were more likely to have some fear, compared to males being not fearful at all, and females were more likely to be at a higher level of fear of being sexually assaulted than were males. This finding supports research by Warr (1984), Stanko (1995), Ferraro (1996), Weiss (2010) that argued that females are more fearful of sexual assault (i.e., rape). Only for the highest level of fear of being sexually assaulted were females' level of fear not significantly different than the level of male fear. That is, the threshold regressions for sexual assault indicated that there were no significant differences between genders' fear levels for being sexually assaulted, which is contrary to most research on female fear of victimization (e.g., Ferraro, 1996; Fisher and Sloan, 2003). The assertion by Riggs & Cook (2015) noting Dobbs et.al., 2009; Ferraro, 1996; Warr, 1984,1985, that "when controlling for fear of sexual assault, gender differences in fear of crime are reduced to insignificance or reversed" (p. 2384), yet this study indicates that gender differences were not detectable when it comes to the highest levels of fear of sexual assault. These results might suggest that, while females reported higher levels of fear of being sexually assaulted than did males on Belknap Campus, both male and female fear of being sexually assaulted are significant at the highest level, while

looking at the photos of the nine locations located on the University of Louisville Belknap Campus. This finding indicates that there were no significant differences between their fear-levels. There were no significant differences in levels of fear for females as compared to males, of having their possessions taken nor of being beaten up.

Non-White respondents were consistently less fearful than were White respondents for all four fear variables in the preliminary analyses *t*-tests. This finding conflicts with previous studies (e.g., Garofalo, 1979) and the findings of Boateng and Adjekum-Boateng (2017), who noted in their study that "non-white students were more fearful of crime on campus" (p. 150). The regressions, however, found one significant instance in the highest level of fear, in which Non-White respondents were significantly more fearful of being sexually assaulted than were White respondents. This single finding is the only finding that agrees with Boateng and Adjekum-Boateng (2017), noted above, and Hibdon et al., (2016), who state that Black respondents reported higher levels of concern (fear of crime) than did White respondents.

Respondents' race was not significant on any level for the regressions for fear of being attacked with a weapon, for fear of having their possessions taken from them, nor for fear of being beaten up. However, respondents' race was significant in the highest fear level for the dependent variable afraid of being sexually assaulted, the most violent crime in this study. Non-White respondents' fear was 246% more likely to be at the higher level of fear (1-3 vs. 4) than was White respondents' fear.

Looking at the findings for the independent variable race in the regression for fear of being sexually assaulted, and comparing those results to the results for gender in that same regression, is puzzling. This study found that there was a significant difference, at

the highest fear threshold regression, when comparing race (Non-Whites vs. Whites) than there was when comparing the levels of fear for gender (females vs. males), which was not significant at the highest fear level. Unfortunately, the breadth of this study precluded the author from having the opportunity to delve deeper into who, by gender and race, is most fearful of being sexually assaulted. These findings, however, seem to be consistent with Coulter et al., (2017) in which they state that, "racial/ethnic differences in sexual assault among college students are inconsistent" (p. 727), and who note the paucity of research examining "how gender identity, sexual identity, and race/ethnicity intersect and modify the risk for sexual assault victimization". This is further support for the call for more research into the population's being fearful of, or having been affected by, sexual assault.

Another goal of this study was to ascertain respondents' levels of fear of being victimized on or near the U of L Belknap campus. One of the key components of being fearful is the frequency of the respondent's presence on campus. To become a victim of crime on campus, one must be, at some time, present on campus. Therefore, multiple variables were included in the survey to try to determine if time spent on campus had an impact on respondents' fear levels. In other words, did more frequent instances of being present on campus make respondents more or less fearful of being victimized on the Belknap Campus? Questions were included regarding a student's enrollment status and course-load (full-time versus part-time), along with their class attendance method…all their class time was on campus, partial class time on campus, or none of their classes required them to be on campus. Respondents were asked about their housing, did they live on campus (UL owned or affiliated), off campus (UL affiliated or private), or was

their residence beyond two blocks of campus and, therefore, not a part of the campus sprawl. I also included questions about other types of on-campus engagement, such as attending parties and school organization events. The results of the variables for campus engagements were mixed.

Preliminary analysis found that part-time students' levels of fear were only significant for being afraid of being beaten up, yet this preliminary finding did not carry through into the regressions for this variable. The only dependent variable that was significant in any of the regressions was part-time students', as compared to full-time students', fear levels for being sexually assaulted, which were 86% *less* likely to be at the highest level of fear, when looking at their photos of the nine locations on the Belknap Campus.

How respondents/students attend their classes does appear to have a notable impact on their fear levels of victimization for all four fear variables. All first-round analyses indicated significant differences between those taking all classes on campus (having higher fear levels) and those who have either all classes remotely or some remote classes (having lower fear-levels) in the regressions, and also found that respondents taking some or all classes remotely were significantly less fearful of being attacked with a weapon, having their possessions taken from them, or being beaten up, than were respondents taking all of their classes on campus. The regression results for respondents' fears were not significant for the highest fear-level, that is, their fears were never so great that they reached the highest level of fear for these three dependent variables (weapon, possessions, and beaten up).

Students' fears of being sexually assaulted were only found to be significant in the 2nd threshold, with those in this threshold being divided between having a higher level of fear and having a lower level of fear. These findings suggest that students who attend partially or fully remote classes agree that they are significantly more fearful of being hurt with a weapon, having their possessions taken or being beaten up, than they are of being sexually assaulted. Only in the 2nd threshold for being afraid of being sexually assaulted did respondents indicate that their fear-levels were significant, with some respondents at a higher level of fear and some respondents at the lower level of fear for that threshold.

Expanding the literature (noted above) of research on sexual assault could help us to gain a better understanding of the fear that people experience regarding places with which they are familiar, and those that they encounter infrequently. Because of the mixed results, one could speculate that students who take all of their classes on campus feel less fearful due to their frequency and familiarity with being on campus, and that any incivilities that may be apparent to the occasional campus visitor may be disregarded by the frequent campus visitor and may not have the impact (feelings of fear) that disorderliness has been found to convey (Wilson and Kelling; 1982). Others might speculate that students who take all of their classes on campus are more fearful because they spend a great deal of time on campus, due to their class schedules making them possible targets for victimization.

Adding some weight to the discussion about familiarity and frequency of proximity to campus, is whether or not the housing residence type impacts respondents' levels of fear. All housing types, living in UL owned housing, UL affiliated housing,

private housing within two blocks of campus, or private housing beyond two blocks of campus, were considered. Only one significant difference was indicated in the level(s) of fear for all four fear variables regarding the type of residence situation for respondents. Students who lived in housing that was either UL affiliated or private housing within two blocks of campus had higher levels of fear of having their possessions taken from them than did students living in the other housing situations. Students' fears in the 2nd threshold indicate that there was some fear for all students. Some of the students' fear was at the higher level, and some of the students' fear was at the lower level, though they were all afraid of having their possessions taken from them. This is not surprising given the number of times that police events in which theft, robbery (taking property from a person or place by force or threat of force), or burglary appear in each month's crime logs. Students, faculty, and staff who have signed up for campus alerts receive notifications of robberies and attempted robberies on and around campus fairly frequently, and quite often those notices include information alerting everyone that the assailant is armed with a gun or weapon, may still be in the area, and asks everyone to stay clear of the area. Sarvenaz Aliabadi (2007) suggests that the intended outcome of campus alerts (to decrease the likelihood of being victimized) may not actually alter students' behaviors. Lee and Hilinski-Rosick (2011) suggested that college and university students' fear of crime is related to their "carefree" personality (partying activities), and that engagement in these types of activities results in less fear of aggravated assault.

Being a student who takes all of their classes remotely, so that they never come to campus (avoidance behavior), may experience a type of vicarious victimization when receiving crime alert notifications from the university. The University of Louisville sends

out these types of crime alert notifications that notify the university community of possible dangerous situations and how receivers of the notifications should respond (e.g., shelter in place). Lee and Hilinski-Rosick further stated that "unreasonable perceptions of crime risk led to increased fear of crime and could have debilitating effects" (p. 664). It is interesting that respondents were not significantly fearful of being attacked with a weapon, but were fearful of having their possessions taken. The wording "attacked with a weapon" may imbue a more sinister type of encounter. Future researchers for this type of variable should consider changing "attacked with a weapon" to "confronted with a weapon" or "have been approached by someone holding a weapon".

Another campus engagement variable, "missed an activity due to fear" showed differences in the preliminary analyses, but those differences did not carry through into the regressions, and the number of times students attended a party on campus did not yield any notable information. However, like the results from missed activities due to fear, the combination of party attendance and number of times a student attended campus organizational events produced preliminary results that also failed to become significant in the regressions. Apparently, frequent presence on campus for fun or organizational events quells fears that students may have had about becoming victims of crime while on campus (Lee and Hilinski-Rosick; 2011).

Sloan, Lanier, and Beer (2000) note that there are "differences in levels of fear across the groups comprising the campus community" (p. 7) and that prior victimization, along with age, gender, and race is "partly a function" of that fear. This study asked respondents to respond to the question, "while on campus within the last 12 months I have been a victim of property (burglary, larceny, theft, arson) and/or violent crime (rape,

date rape, attempted rape, robbery, assault, sexual assault)." Five students indicated that they had been victims of property crimes, and three students reported being victims of violent crime. None of the statistical analyses found any difference in any of the four fears between those who reported having been victims of property crimes and those who reported they had not been victims of property crimes. There were, however, significant differences in the types and levels of fear for students who had been victims of violent crime, as compared to those students who have not been violently victimized. Overall, students who were violently victimized were more fearful of having their possessions taken from them, specifically indicating levels of fear in the 2nd threshold. That is, students in this level had some fear, but some had higher levels of fear than others, and some students' fear rose to the highest fear level of having their possessions taken from them. Fear of being beaten up also yielded a significant finding in which students who had been victims of violent crimes' fear levels were split between having some fear and having a higher level of fear. Surprisingly, results for fear of being sexually assaulted were not statistically significant, even though there were students who indicated that they had at least one prior violent victimization event while on campus in the past 12 months. The Executive Summary of The First Report of the White House Task Force to Protect Students from Sexual Assault (April 2017) opens with this statement: *One in five women is sexually assaulted in college*. This statement prompts the question of consideration of multiple episodes of violent victimization, and how researching sexual assault in college as a single incident might be underdeveloped and should be expanded to include a more comprehensive approach in future research of violent victimization.

The final two respondent variables were questions that sit at the core of this research, Are you afraid of becoming a victim of crime, and, if you are, where are you most afraid of being victimized, on campus, off campus, both areas are equally frightening to me, or, neither of these areas frighten me because I am not afraid of becoming a victim? The preliminary analyses indicated that for all four fear variables, students were fearful of being victimized on campus as compared to off campus.

Respondents' fears of being attacked with a weapon and fear of being beaten up on-campus, had similar results. Both had significant differences at the lowest level of fear (no fear vs. some fear), with respondents indicating that they were not fearful at all of becoming a victim of violence. The fear of being beaten up, on the surface, might be characterized as a typical altercation that sometimes occurs in the lives of young adults. Some might imagine that fear of being beaten up is fear of being physically attacked by a stranger, while others fear may be informed by picturing being beaten or "date fighting", physical fighting, between those engaged in dating relationships (DuRant et al., 2007) by a significant or not-so-significant other. Gover, Kaukinen, & Fox (2008) cite research by Harned (2002) which estimated that "between 9% and 87% of high school and college students are involved in violent dating relationships" (p. 1668). Ganson, O'Conner & Nagata (2022) stated that "violence, particularly dating and sexual violence, is common on many campuses" (of higher education) and "administrators are recognizing that violence" (p. NP11110). Thankfully, as previously noted, research is rapidly expanding on violence, dating violence, and sexual violence, particularly about these types of violent actions occurring on college campuses.

The remaining respondent variable asked if respondents were more afraid of victimization on campus or off campus. Overall, each of the four fear variables revealed some level of respondents NOT being afraid of being victimized in either scenario (on or off campus). Respondents' reported NOT being fearful on the overall regression for fear of having their possessions taken from them. That is, they were even more adamant that they were NOT fearful of having to give up their possessions. Perhaps this is a result of social desirability influence, never admit you are afraid, or never let them see you cry, projecting a bravado by both males and females to dispel any hint of fear or weakness. Sutton and Farrall (2004) suggest that men are more prone to stifle any expression (acknowledgment) of fear, and, according to the results of this research noted above, the regressions suggest that there is no difference in fear between males and females for three of the four variables (being attacked with a weapon, having their possessions taken, and being beaten up) and that the fourth fear variable, fear of being sexually assaulted, saw no significant difference between male and female respondents' fear at the highest level of fear.

Research has consistently found that "darkness" or "nighttime" becomes a significant factor in an individual's sense of safety when going outside into the community. As previously noted, the 2000 US Bureau of Justice report found that 52% of women are fearful to walk their neighborhood at night alone because they might become a victim of crime, and yet, only 23% of men, who account for the largest percentage of victims of personal crime, reported being afraid to walk alone at night. A limitation noted in my previous study (Steinmetz and Austin, 2013), that the variable time of day (day vs. night), should be included in future studies, was included in this study. While the

preliminary analyses of this study for time of day (night vs. day) did not indicate significant differences, the more sophisticated regression analyses yielded fairly consistent results supporting prior research that nighttime induced significant feelings of fear for all four fear variables.

Overall regressions results for time of day were statistically significant for all four fear variables and revealed respondents' means that were similar. The means were also similar for all four fear variables, with some respondents having no fear and some respondents having some fear. For the three fear variables that had significant differences, in the 2nd threshold, respondents were more likely to be at the higher level of fear when shown photos that were nighttime photos. The results for the highest fear levels showed neither being fearful of being attacked with a weapon nor being afraid of being beaten up as significantly different, when looking at photos depicting nighttime. Both being afraid of having their possessions taken from them and being afraid of being sexually assaulted, when looking at nighttime photos, yielded statistically significant levels of fear for the highest fear levels. Respondents were 53% less fearful of having their possessions taken from them, which conflicts with previous research (Lee and Hilinski-Rosick, 2011; Archer, 2019; Fisher et al., 1995) that found that nighttime increased fear of sexual assault. This study indicated that respondents were 50% *less* fearful of being sexually assaulted when the photos they viewed were nighttime photos. While the fear levels in threshold 3 reflect the lower level (level 1-3 vs. 4) of fear, respondents still indicated significantly higher levels of fear of being sexually assaulted or having their possessions taken from them, when looking at nighttime photos,

Also noted in the 2012 study limitations was the concept of adding people in the locations photographed, along with enabling viewers to discern the number of people in the space, the gender of those in the space, and the race of those occupying the space. These variables were included to help determine if respondents' fear was impacted by a person or persons being in that space, and if the race, gender, or the number of persons present was germane to their fearfulness. The results were mixed, but exposed a few interesting results.

Looking at the gender of person(s) in the photo variable (male vs. female, male vs. mixed genders, and null-no one in the photo) there were no significant findings for two of these dimensions, male vs female and male vs mixed genders. There were significant findings for the *gender-no one in the photo* variable for all four fear variables. That is, when no one was in the photo, some fear levels become significant. And, as previously noted, the results for the race of person(s) *gender-no one in the photograph* is a duplication of the gender of person(s) no one in the photo results, as per SPSS statistical analysis. For these two photo characteristic variables, the regressions were significant for three of the four fear variables. The thresholds revealed mixed results over the four fear variables. Thresholds were significant for being afraid of being attacked with a weapon, however, respondents' fear levels would likely be in the lower levels rather than in the higher fear-levels. Being afraid of having one's possessions taken from them also resulted in mixed results, in which respondents in the 2nd threshold were *less* likely to be in the higher level of fear, and respondents in threshold 3 were 938% *more* likely to be at the highest level of fear. Being fearful of being beaten up fear level in the 2nd threshold indicated that respondents' fear level was 89% *less* likely to be in the higher level for fear

(level 1-2 vs. 3-4), and in threshold 3, respondents were 423% *more* likely to be at the higher fear level. Fear of being sexually assaulted also yielded mixed results for gender-no one in the photograph (as well as the race variable-no one in the photo). Respondents were 65% *less* fearful of being sexually assaulted when no one was in the photo (for gender or race), according to the OLR, and were then 1185% *more* likely to be at the highest level of fear in threshold 3 when no one was in the photo (for gender and race). A deeper analysis, which is beyond the scope of this study, might be able to determine how the race or gender of the respondent impacted fear with regards to the race of those in the photo. Additionally, as previously discussed in the regressions analyses, the no one in the photograph variable results for race of persons in photo is the same as were the results of the gender of those in the photo.

According to these results, respondents were not significantly fearful when specific dimensions of "person(s) in the photo" were present, but they were significantly fearful when the photos they viewed were void of any person(s). However, the next photo characteristic variable (number of person(s) in the photo) revealed one circumstance where respondents' fear was statistically significant, when a person is in the photo, at the highest level of fear, which is in direct conflict with the *gender/race of person(s) in the photos* variable(s) findings, in which no significance was found. Fifteen out of the sixteen regression models failed to produce any significant results for the number of person(s) in the photo, but the fourth fear variable, afraid of being sexually assaulted revealed a significant difference. Threshold 3 revealed a significant difference in the results which indicated that respondents were at the highest level of fear (level 1-3 vs. 4) of being sexually assaulted, and that their fear likely increased 101% for each additional

person(s) appearing in the photograph(s). To reiterate, respondents' fears for the variable gender/race-no one was in the photograph(s) were nearly 12 times more likely to be in the higher level of fear (threshold 3, level 1-3 vs. 4) when no one is in the photo. However, respondents' fear level for the variable number of person(s) in the photo revealed that they were more likely to be at the higher level of fear (threshold 3, level 1-3 vs. 4), and that respondents' fear increases by 101% for each additional person in the photo. I cannot explain this contradiction. The "anyone present" variable might have helped to shed some insight into which finding is more/less reliable. However, it was not significant in the preliminary analysis nor was it robust enough to be included in the regressions, so we have results that are in conflict for the fear variable, fear of being sexually assaulted. In general, these fears are likely informed by the constant cautionary warnings that women experience about being out alone at night, making them more fearful of encounters with "people" than the "abstract" fears that men experience (Brownlow, 2005), where victimization can come from any direction and any form. Beebeejaun (2017) found that women were more fearful when encountering not only men but also when encountering young people in a park. Azevedo, Nunes, and Sani, (2022) found that both males and females expressed that the reduced presence of people in an area promoted crime. Again, untangling these mixed results about who, if anyone, is in a particular space is beyond the scope of this study and requires a deeper degree of analysis and should be considered in any future research about who makes us fearful. One additional note is that of the variable "has police in photo" was included to see what impact a police officer in a photo might have on the fear levels of respondents. This variable was not significant in either the preliminary analysis or in the regressions, which

seems to indicate that respondents were neither afraid nor were their fears mitigated by a police officer being in the photo.

The most prolific results-generating variable is the specific location pictured on and around the Belknap Campus. Analyses of the preliminary and regressions tests, viewing the fear levels for all four fear variables, resulted into two major patterns. The most fear-provoking location is the 3rd Street and Eastern Parkway tunnel, which was significant for all four fear variables for both the ANOVA and for fifteen of the sixteen regressions, with only the sexual assault threshold 1 being not significant. Respondents were most fearful of becoming a victim of each of the four fear crimes at this location, as also indicated in my previous study.

The second pattern that was noticeable was that the SAC (Student Activities Center) was the location at which respondents felt the least fearful of becoming a victim for any of the four fear variables. Viewing all four variables across the OLR, for each type of victimization, considering all locations as compared to the control, students are most afraid of being attacked with a weapon at seven of the eight locations, but their fear levels were the lowest at the SAC. They are most afraid of having their possessions taken from them at seven of the eight locations, but fear levels were lowest at the SAC. However, over the 16 regressions, the pattern of the SAC being the least fearful location of having their possessions taken deviated on the 2nd threshold. Respondents fear levels were 332% higher of having their possessions taken from them at the L9-Control(Backyard) location as compared to the SAC. A review of the scores and comments regarding the L9-Control location, revealed high fear scores for those who indicated they had, “Never or I don’t remember”, being at this location. Those highest

fear scores for location L9-Control(Backyard) were accompanied by the following comments:

> *"I'm not really sure where this photo was taken but to me it looks like a backyard of maybe one of the houses in the area. I'm not really sure. However, I answered that way because if my guess is correct then the area would be more secluded and there is not good lighting in the area making a crime less noticeable to anyone else that may be around."*

> *"It looks like a backyard of someone's house, and it looks secluded, so I may be more concerned about my safety just because I am unfamiliar with the area."*

> *"I avoid areas like this. You can easily get jumped or worse. It looks like a place where a person could easily hide, and you wouldn't see them."*

> *"dark, closed off."*

> *"It is a frats backyard that is known for spiking"*

Being in an unfamiliar space is, at the very least, unsettling to most respondents, but to some, this unknown location caused their fears to increase when considering having their possessions taken from them.

Respondents were most fearful of being beaten up at seven of the eight locations, but again, were significantly less fearful at the SAC.

The fear levels for respondents' fear of being sexually assaulted, across the four fear variables, yielded seven significant p-values out of thirty-two comparisons (four regressions) for the eight locations, as compared to the ninth location-Control(Backyard). Three of the significant findings were the OLR and thresholds 2 and 3 for the L1-3rd and Eastern Parkway location where respondents felt significantly higher levels of fear of being sexually assaulted. The other four findings were across all regressions for the L6-SAC location, where students' fear levels were significantly lower of being sexually assaulted as compared to being sexually assaulted at the Control(Backyard). Perhaps the programs that colleges and universities have been instituting to reduce the rates (and fear) of sexual assault on campuses (Hollander and Gidycz, 2018) are working here at this campus. Or perhaps the increased use of self-protection measures has had a positive effect on helping students manage their fears of victimization on or near campus. For those who responded to the question regarding use of self-protection measures, males in this study utilized 14 out of 15 self-protection measures, totaling 56 measures taken. Females, however, employed all 15 measures listed for a total of 169 measures utilized. The self-protection measure of avoiding poorly lit areas or areas that had lots of shrubbery garnered the highest numbers for both genders. Avoid going out alone and going out at night were the next highest protective measure for females, and the third highest used protective measures for males. Only two students, both female, noted owning/carrying a weapon. Twenty-one female respondents limit being on/off campus at particular times, while only 5 male respondents limited their movements. Research by

Rader and Haynes (2014) found that personal concerns about crime for self and others was greater for respondents who engaged in the use of constrained behaviors, and Rader and Cossman (2011) found that individuals with higher rates of personal fear of crime also had higher rates of constrained behaviors. Table 18 on page 233 lists the protective measure and their use by gender.

CHAPTER 6: CONCLUSION, LIMITATIONS, AND FUTURE DIRECTIONS

Conclusion

Consistent with the findings of over 40 years of prior research, this study found, with one exception, that gender is still a predictor of who is more fearful of becoming a victim of crime. No significant difference was found between males and females at their highest level of fear of being sexually assaulted. Future research might help clarify this outcome by determining if females are becoming less fearful (more empowered) of sexual assault or if males are either no longer afraid to voice their fears or have recently become aware of their vulnerability of being sexually assaulted. Given the amount of violence that has been directed at Non-white persons, it was surprising to find that Non-white respondents were less fearful than were White respondents for all four fear variables, except for being afraid of being sexually assaulted (at the highest level). Non-white respondents were more fearful than were White respondents of being sexually assaulted, at the highest threshold. Respondents who took either some or all of their classes remotely were more fearful than were students who took all of their classes in person on Belknap Campus. The amount of time respondents spent on campus (living on or near campus, taking on-campus classes, engaging in activities such as parties, school, or organizational events), showed mixed results. Respondents living in UL owned campus housing had a higher group mean and were more fearful, yet not significantly so,

for all four fear dependent variables than were respondents living in non-UL owned/non - affiliated housing or those living beyond two blocks of campus. Overall, respondents who lived and partied on campus were less fearful, but other respondents who had missed activities due to fear, but did attend some activities (3-4 times), were fearful of having their possessions taken from them, and were also fearful of being sexually assaulted. Additionally, respondents who had attended 5+ events were fearful of being sexually assaulted. Living in university housing and partying on campus may serve to make those students less fearful of becoming a victim of these four fear variables. Conversely, students living off campus-beyond 2 blocks and only attending some campus activities appear to be more fearful than those spending more time engaging in campus life. Neither prior victimization of property crime nor violent crime appeared to make respondents fearful, yet respondents were most fearful for all four fear variables of becoming an on-campus victim of crime, and students were significantly more fearful of victimization for all four fear variables if they engaged in self-protection measures.

Routine Activities Theory argues that for crime events to occur there are three basic needs, the presence of a likely and motivated offender, the existence of a suitable target, and the absence of a capable guardian to prevent the crime event from occurring. For this research, students needed to be on campus to become a victim or a potential victim of crime, yet those who never or rarely come to campus still indicate that they are afraid of becoming a victim if they come to campus. The fear-levels expressed by the respondents in this research is consistent with Routine Activities Theory, in that if they are on campus for routine activities such as going to classes, meetings, or parties, they

then might become suitable targets if they happen to cross paths with a motivated offender.

The analysis of the photo characteristics' impact on respondents' fear was mixed and surprising. Respondents were significantly fearful when viewing nighttime photos, which was expected, yet the gender and race of persons in the photo(s) they viewed did not increase their fear. However, there were mixed results regarding photo(s) with no one vs. the number of people in the photo. Analysis of the race and gender of person(s) depicted in the photo indicated that students were more fearful if no one was in the photo, and yet the independent variable "number of persons" in the photo was significant for fear of being sexually assaulted. Students fear increased 101% for each additional person in the photo. It's not the gender or race of the person(s) in the photo that made them afraid of being sexually assaulted…race and gender didn't matter. What mattered was that people were in that space, and the more people in the photo, the more fearful respondents became.

All findings were significant for all four fear variables, with varying degrees of fear for each of the four fear variables, across the eight location(s) photos as compared to the control. The regressions for the dependent variable, afraid of being attacked with a weapon, had the highest number of locations where respondents were significantly fearful. Seven of the eight locations were where students were afraid of being attacked with a weapon, while the eighth location, L6-Student Activities Center, also had significant p values, where students expressed lower levels of fear. Respondents indicated their highest level of fear of being attacked with a weapon at L1-3rd Street and Eastern Parkway.

The regressions results for fear of having their possessions taken from them were similar to the findings for the weapon dependent variable. Respondents had higher levels of fear at 6 of the 8 locations from the OLR, similar to the weapons variable, the 3rd Street and Eastern Parkway indicated respondents being at their highest level of fear of having their possessions taken from them. Respondents were consistently less fearful of having their possessions taken from them at one location-- (L6-SAC). This result is surprising as the crime logs indicate that this location has one of, if not the highest rate, of property theft or missing property. Students evidently feel safe for their person as well as their possessions in a location at which they probably should be more aware.

The third fear variable, afraid of being beaten up, followed the similar pattern as seen for the weapon DV and the possessions DV. Students were most fearful at seven of the eight locations in the OLR at 3rd Street and Eastern Parkway and, again, were least fearful of being beaten up at the L6-the SAC location, as compared to the control location. In general, these three fear variables, and the locations that prompted their fears, were all fairly similar. Being afraid of being sexually assaulted at these locations, saw a dramatic drop in the number of locations where respondents' fear levels were not significant. For the two significant locations, respondents were only afraid of being sexually assaulted at the L1-3rd Street and Eastern Parkway location, and respondents had significantly lower fear levels of being sexually assaulted at the L6-Student Activities Center location. This finding is surprising given that the building, the SAC, is really two separate buildings, split by a railroad track running through its center. It was unforeseen that this location was where students felt the most secure, given that there are gyms, several offices and meeting rooms, hallways, elevators, closets, etc., all of which offer

multiple refuge spots in which would-be-offenders could hide. And, when looking at what most would argue is the most feared crime, fear of being sexually assaulted, this location was not noted as being one at which respondents were fearful.

In general, the respondents of this research are fearful of becoming victims of these four crimes on the UL Belknap Campus. However, their levels of fear vary depending on their gender, when they are on campus (night/day), the time that they spend on campus, the locations that they inhabit, and who, if anyone, is in the space or location that they are about to enter.

Limitations

Although every effort was made to ensure the rigor of this study, the findings should be considered in light of the limitations that were encountered. First, the survey structure was significantly hampered by confirmed, but not delivered, assurances from the survey company that the requirements of the survey structure, survey logic, and survey questionnaire were within the company's capabilities. Despite their specific guarantee, the survey company failed to properly execute the key element required for the design of the research, randomization of the distribution of the decks "without replacement". As discussed earlier, using the factorial design methodology allowed for requiring fewer respondents (46) to gain generalizable results. Due to the failure of the company to properly randomize the vignettes, not every deck was viewed. Secondly, since only thirty-four of the forty-six decks/vignettes were viewed, despite repeated assertions that adding more respondents would "correct" this issue, the list of the types of statistical analysis available to me was altered. Rather than having the ability to make

comparisons for every respondent-level and photo-level variable, giving me the ability to see what independent variables were impactful or most impactful on respondents' fear, I had to adjust my plan for analyzing the data. This alteration of analysis methodology, regressions, resulted in substantially more time spent preparing the data for analysis, which shortened the time available to gain a deeper understanding of which independent variables affected respondents' fear(s).

With regard to the types of analyses that were utilized for this data, one might question why the dependent variables were not just dichotomized instead of doing ordered logistic regressions. An alternative to ordered logistic regression would have been a binary logistic regression after dichotomizing the dependent variable, but the three threshold models effectively are the same thing. The thresholds are dichotomized dependent variables which when one reviews these thresholds they will see dichotomized results. One might also question the use of t-test and One-way ANOVAs as opposed to nonparametric tests, like the chi-square statistics, based on the crosstabs. The use of t-test and One-way ANOVAs make the assumption that the dependent variables are continuous, interval ratio variables, and normally distributed, which was not the case for the data collected in this research. It is however, well accepted in the field that when you are dealing with ordinal variables, that the calculation of the means for those ordinal variables effectively results in continuous and normal distribution. Additionally, the logistic regressions are embedded crosstab analysis. The logistic regression(s) give the p-value from a Wald chi-square test, a nonparametric statistic.

The results of this research on fear of victimization are not intended to suggest that because a student or students may not have indicated being fearful of being

victimized when responding to the questions or photographs presented to them, that they are not generally fearful, or that they do not feel unsafe in some way. There are many ways to feel generally unsafe, but not necessarily think that you are going to become a victim.

Other limitations of this research include the number and gender and race distribution of the sample. The population sample, N=71, did not achieve the desired distribution as intended for this factorial design. The sample population was approximately two-thirds female and approximately two-thirds white, which did not satisfy the goal of this research. That goal was having a minimum of one, hopefully two or even more sample pools of 46 respondents. Oversampling the base number of 46 respondents might have satisfied two goals. The first is having all 46 decks/vignettes shown, and the second was to ultimately secure equal distribution of genders, that it twenty-three males and twenty-three females, and with a second or third pool of 46 respondents, achieve equal distribution of respondents by race and gender (twenty-three White males, twenty-three Non-White males, twenty-three White females and twenty-three Non-White females). Unfortunately, many factors were outside of this researchers control.

One of the most impactful factors during the data collection period was that the campus was still adhering to the Covid-19 pandemic procedures and policies recommendations from the CDC. Students both on and off campus were encouraged to maintain physical distancing but wearing a mask became optional regardless of vaccination status. If students felt any symptoms of Covid-19 it was suggested that they stay home or in their residence hall(s). During this period quasi on-campus in-person

classes were primarily delivered through online programs such as Teams or Zoom. While this research survey was distributed through the university email system, there was no guarantee that the email invitation sent to them by their professor did not go into their email spam files. Contact between the professors who agreed to distribute the survey invitation and the students at this time was minimal and perhaps somewhat disjointed. It is possible that many potential respondents, during this period, suffered illness and isolation, leading some to experience anomie, that is, undergoing a breakdown in what was supposed to be the "normal" college experience. Students may have had difficulty staying engaged in their classes and may not have felt up to responding to the survey email invitation. The impact of the Covid-19 pandemic on students on this campus, as well as the rest of society, has had severe and for some, devastating effects. It is also likely that students were spending more time away from campus doing remote engagements (e.g., attending classes or organizational meetings) and that could have affected the results.

While trying to navigate life during Covid-19 another factor that may have had an overshadowing and long-term effect on students' engagement with anything that was not required by their professors was the social unrest that the Louisville community experienced from the killing of Breanna Taylor and subsequent protests in 2020. The university is located in the central party of metro Louisville, adjacent to the central business district where the majority of the justice protests begin. No one who lived in this city could turn a blind eye or deaf ear to the pain that this community felt for the murder of Breanna Taylor, and many of the UofL students and community members were intimately involved in supporting the protests. Some of the protest marches either started

on campus or the path of the march was through campus. No one on the UofL campus could not be impacted by the pain and suffering protestors were experiencing.

Additionally, the ULPD 2019 crime logs illustrates an issue noted in Brunton & Smith's (2011) research. The four 2019 locations with the highest recorded crime events, not already included from the four most fear-provoking location in Steinmetz 2012 study, were based on the specific location description used by the reporting officer(s). It is possible that one or more locations actually had a higher number of crime events in 2019, but due to the location description entered on the crime log (inconsistent data), I included only entries with location and criminal event descriptions that were clearly for a specific location and a specific criminal charge. To make sure that the crime log information is useful to the intended community members, the reports about what criminal event occurred and where exactly that crime took place, needs to be reported with greater accuracy and specificity than was present in the report filed.

I urge caution when using these results to generalize to the population in general, and also to college students in general, due to the sample and selection bias which may impact external validity.

Future Directions

This research supports previous research and helps to further explain who is fearful and what makes them afraid. Perhaps, for other college campuses, research should look at which specific locations or spaces on or around campus may be fear-provoking to their campus community members and what, specifically, about that noted space makes community members feel fearful. The use of photography in this study was vital in

helping to identify fear-provoking locations and should be utilized in future research, particularly when trying to assess community member's level of fear for specific locations.

This study also indicates the need for further research into the fear that Non-White respondents have of becoming victims of crime for reasons other than their race. Untangling Non-White respondents fear of victimization from being focused solely on their race as opposed to just being a suitable target, in an area void of capable guardians, in which a motivated would-be offender is present could yield a deeper understanding of their fear.

One positive outcome was the finding that there is at least one location on the Belknap Campus, the Student Activities Center (SAC), where students' feel that they can visit and utilize the facility without feeling afraid of becoming a victim of crime. However, this location, which for each of the three fear variables, weapon, possessions, and beaten up, was significant due to its low level of fear rather than for causing high levels of fear of becoming a victim of crime. This result is despite the fact that the SAC the 2nd highest location for crime events noted in the 2019 ULPD crime long with 43 crime events. This finding should be utilized by those at the university who are tasked with the safety and security of the university community to re-evaluate the scope of current security measures, particularly at the Student Activities Center (SAC). For example, are there enough cameras and signage in appropriate places alerting potential motivated offenders that they are being watched/recorded? Are there enough properly placed signs/warnings to university community members to keep watch on their possessions? Perhaps the university should have 24-hour security personnel making

sweeps throughout the various multi-level SAC building units "with a multitude of dining options, amazing event spaces, cozy lounges" (https://louisville.edu/sac), to ensure the safety of the campus community. Due to the difference in the perception of safety that respondents had about SAC, and the reality of this locations high ranking in terms of crime events, it is clear that a better flow of information regarding the occurrence of crime events is needed. While most of these crimes are property crimes, their collective impact on the campus community's risk of victimization is significant which seems to indicate a lack of awareness among the campus population.

Another recommendation, also previously noted, would be the expansion of the use of cameras and signage around the campus, and campus-adjacent areas, that would let motivated would-be offenders know that they are being watched, as well as letting campus community members know that there is a capable guardian watching over them as they move about the campus.

This study has clearly indicated that nighttime raises fear levels for some respondents. Lighting, both improved and additional, consistently remains a mitigating factor to help reduce fear of victimization. Future research into the coverage and staffing patterns of "capable campus guardians", and whether or not they are effectively coordinating with campus activity (e.g., night classes, meetings, events, etc.), may identify other opportunities to help campus community members feel safe. Campus administrators and those tasked with keeping the University of Louisville's Belknap campus community safe should pay particular attention to several of the comments at the end of the results section (p. 159) in which respondents comment about other locations that are fear-provoking for them, which were not included in this study. These comments

could be helpful in knowing where to incorporate future safety and security enhancements that may help reduce the levels of fear the University of Louisville Belknap campus community members experience.

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APPENDIX A

Table 17: Full Permutation of 414 Photo Universe

Location	Time	Gender	Race	Number	Tie-Break	Random Deck	Random Photo Order	Deck	New File Name	Has Police	Police Demographic
'L7'	'Day'	'F'	'W'	2	null	0.022866	0.042552411	1	Deck 1 Photo 1	FALSE	null
'L3'	'Night'	'M'	'W'	3	null	0.053325	0.303716747	1	Deck 1 Photo 2	TRUE	WF
'L1'	'Day'	'F'	'NW'	3	null	0.091472	0.346952566	1	Deck 1 Photo 3	FALSE	null
'L9'	'Night'	null	null	0	null	0.032176	0.366143868	1	Deck 1 Photo 4	FALSE	null
'L2'	'Day'	'Mixed'	'NW'	2	null	0.000135	0.441807656	1	Deck 1 Photo 5	FALSE	null
'L4'	'Day'	'Mixed'	'W'	3	MMF	0.092307	0.478166591	1	Deck 1 Photo 6	FALSE	null
'L5'	'Night'	'F'	'NW'	1	null	0.00618	0.482787805	1	Deck 1 Photo 7	FALSE	null
'L8'	'Night'	'M'	'NW'	1	null	0.01949	0.50574955	1	Deck 1 Photo 8	FALSE	null
'L6'	'Day'	'M'	'NW'	1	null	0.012829	0.712662147	1	Deck 1 Photo 9	FALSE	null
'L4'	'Night'	'F'	'W'	2	null	0.284383	0.039315928	10	Deck 10 Photo 1	FALSE	null
'L8'	'Day'	'Mixed'	'NW'	2	null	0.188583	0.067727582	10	Deck 10 Photo 2	FALSE	null
'L3'	'Night'	'M'	'NW'	3	null	0.236842	0.171221598	10	Deck 10 Photo 3	FALSE	null
'L7'	'Day'	'F'	'NW'	3	null	0.134734	0.212767823	10	Deck 10 Photo 4	TRUE	WM
'L2'	'Night'	'Mixed'	'NW'	3	MFF	0.165809	0.617756269	10	Deck 10 Photo 5	FALSE	null
'L1'	'Night'	'M'	'NW'	3	null	0.323516	0.742737256	10	Deck 10 Photo 6	FALSE	null
'L5'	'Night'	'Mixed'	'NW'	2	null	0.176646	0.864967405	10	Deck 10 Photo 7	FALSE	null
'L6'	'Night'	'M'	'Combo'	2	null	0.162601	0.938514872	10	Deck 10 Photo 8	FALSE	null
'L9'	'Day'	'F'	'W'	2	null	0.223639	0.94364922	10	Deck 10 Photo 9	FALSE	null
'L2'	'Night'	'F'	'NW'	1	null	0.229844	0.024799909	11	Deck 11 Photo 1	FALSE	null
'L7'	'Day'	'M'	'Combo'	2	null	0.202048	0.299940843	11	Deck 11 Photo 2	TRUE	NF
'L5'	'Night'	'M'	'W'	2	null	0.244144	0.362282255	11	Deck 11 Photo 3	FALSE	null
'L3'	'Night'	'M'	'NW'	1	null	0.257187	0.403747968	11	Deck 11 Photo 4	FALSE	null
'L9'	'Day'	'F'	'W'	1	null	0.231172	0.487706788	11	Deck 11 Photo 5	FALSE	null
'L1'	'Night'	'M'	'NW'	1	null	0.334738	0.554379417	11	Deck 11 Photo 6	FALSE	null

'L4'	'Day'	'M'	'NW'	2	null	0.296676	0.646097638	11	Deck 11 Photo 7	FALSE	null
'L6'	'Day'	'F'	'Combo'	3	NNW	0.193097	0.668740547	11	Deck 11 Photo 8	FALSE	null
'L8'	'Night'	'M'	'W'	2	null	0.2178	0.855702926	11	Deck 11 Photo 9	FALSE	null
'L8'	'Day'	'F'	'W'	1	null	0.220627	0.086760851	12	Deck 12 Photo 1	TRUE	NM
'L6'	'Night'	'M'	'NW'	2	null	0.240317	0.199769746	12	Deck 12 Photo 2	FALSE	null
'L1'	'Night'	'F'	'Combo'	2	null	0.360738	0.393730801	12	Deck 12 Photo 3	FALSE	null
'L9'	'Day'	'F'	'Combo'	3	NNW	0.241381	0.410206181	12	Deck 12 Photo 4	FALSE	null
'L7'	'Day'	'Mixed'	'Combo'	3	WF-WF-NM	0.221196	0.472627491	12	Deck 12 Photo 5	FALSE	null
'L2'	'Night'	'M'	'NW'	2	null	0.266705	0.705197796	12	Deck 12 Photo 6	FALSE	null
'L4'	'Day'	'F'	'NW'	3	null	0.322985	0.709223275	12	Deck 12 Photo 7	FALSE	null
'L3'	'Day'	null	null	0	null	0.266012	0.772270556	12	Deck 12 Photo 8	FALSE	null
'L5'	'Night'	'Mixed'	'W'	2	null	0.312639	0.964408004	12	Deck 12 Photo 9	FALSE	null
'L5'	'Day'	'Mixed'	'W'	3	MFF	0.346311	0.113375746	13	Deck 13 Photo 1	FALSE	null
'L1'	'Day'	'Mixed'	'NW'	3	MFF	0.362306	0.240506175	13	Deck 13 Photo 2	FALSE	null
'L2'	'Night'	'M'	'NW'	1	null	0.280573	0.47658029	13	Deck 13 Photo 3	TRUE	NF
'L9'	'Day'	'M'	'W'	1	null	0.261488	0.571073556	13	Deck 13 Photo 4	FALSE	null
'L6'	'Day'	'F'	'Combo'	2	null	0.2507	0.656494288	13	Deck 13 Photo 5	FALSE	null
'L4'	'Night'	'F'	'W'	1	null	0.33453	0.701131054	13	Deck 13 Photo 6	FALSE	null
'L8'	'Night'	'M'	'NW'	3	null	0.222555	0.852846476	13	Deck 13 Photo 7	FALSE	null
'L3'	'Day'	'M'	'Combo'	3	NWW	0.281383	0.950244446	13	Deck 13 Photo 8	FALSE	null
'L7'	'Day'	'Mixed'	'NW'	2	null	0.225058	0.977249978	13	Deck 13 Photo 9	FALSE	null
'L8'	'Night'	'F'	'W'	2	null	0.248171	0.015313313	14	Deck 14 Photo 1	FALSE	null
'L6'	'Night'	'M'	'W'	3	null	0.258993	0.072220659	14	Deck 14 Photo 2	FALSE	null
'L9'	'Day'	'M'	'Combo'	3	NWW	0.336655	0.29928116	14	Deck 14 Photo 3	FALSE	null
'L4'	'Night'	'F'	'W'	3	null	0.359842	0.343865938	14	Deck 14 Photo 4	FALSE	null
'L7'	'Night'	'F'	'NW'	1	null	0.282677	0.386768019	14	Deck 14 Photo 5	TRUE	NM
'L1'	'Night'	'Mixed'	'NW'	3	MMF	0.376103	0.631582455	14	Deck 14 Photo 6	FALSE	null
'L3'	'Night'	'M'	'NW'	2	null	0.287756	0.67556739	14	Deck 14 Photo 7	FALSE	null
'L5'	'Day'	'M'	'NW'	1	null	0.354239	0.719944434	14	Deck 14 Photo 8	FALSE	null
'L2'	'Day'	'Mixed'	'W'	2	null	0.315783	0.762705013	14	Deck 14 Photo 9	FALSE	null
'L5'	'Night'	'F'	'NW'	2	null	0.362986	0.006071497	15	Deck 15 Photo 1	FALSE	null
'L4'	'Day'	'M'	'NW'	1	null	0.360611	0.019156374	15	Deck 15 Photo 2	FALSE	null
'L8'	'Night'	'Mixed'	'NW'	3	MFF	0.274603	0.476435217	15	Deck 15 Photo 3	FALSE	null
'L9'	'Night'	'Mixed'	'NW'	3	MMF	0.344099	0.485465015	15	Deck 15 Photo 4	FALSE	null

'L3'	'Day'	'F'	'W'	2	null	0.289539	0.576683311	15	Deck 15 Photo 5	TRUE	WF
'L7'	'Day'	'M'	'W'	1	null	0.317918	0.841159486	15	Deck 15 Photo 6	FALSE	null
'L6'	'Day'	'M'	'NW'	3	null	0.266938	0.934891936	15	Deck 15 Photo 7	FALSE	null
'L2'	'Night'	'F'	'W'	2	null	0.33743	0.945809831	15	Deck 15 Photo 8	FALSE	null
'L1'	'Day'	'F'	'W'	3	null	0.422295	0.976109616	15	Deck 15 Photo 9	FALSE	null
'L7'	'Day'	'F'	'NW'	1	null	0.349148	0.141516215	16	Deck 16 Photo 1	FALSE	null
'L4'	'Day'	'F'	'W'	3	null	0.392507	0.150751552	16	Deck 16 Photo 2	FALSE	null
'L9'	'Day'	'F'	'NW'	2	null	0.363921	0.242577761	16	Deck 16 Photo 3	FALSE	null
'L8'	'Day'	'M'	'Combo'	2	null	0.330542	0.245809907	16	Deck 16 Photo 4	FALSE	null
'L6'	'Night'	'F'	'W'	3	null	0.27778	0.322422205	16	Deck 16 Photo 5	FALSE	null
'L2'	'Night'	'F'	'W'	3	null	0.351773	0.516041225	16	Deck 16 Photo 6	FALSE	null
'L1'	'Day'	'F'	'NW'	2	null	0.467547	0.691971865	16	Deck 16 Photo 7	TRUE	NF
'L3'	'Night'	'Mixed'	'W'	3	MMF	0.293683	0.71077632	16	Deck 16 Photo 8	FALSE	null
'L5'	'Day'	'M'	'W'	2	null	0.381907	0.921421054	16	Deck 16 Photo 9	FALSE	null
'L4'	'Night'	'F'	'NW'	1	null	0.397313	0.051553869	17	Deck 17 Photo 1	FALSE	null
'L8'	'Day'	'M'	'W'	1	null	0.336643	0.18789737	17	Deck 17 Photo 2	FALSE	null
'L5'	'Night'	'F'	'Combo'	3	NNW	0.388704	0.254819662	17	Deck 17 Photo 3	FALSE	null
'L1'	'Day'	'M'	'NW'	3	null	0.484299	0.358191046	17	Deck 17 Photo 4	FALSE	null
'L2'	'Day'	'M'	'NW'	3	null	0.378544	0.547473782	17	Deck 17 Photo 5	FALSE	null
'L6'	'Day'	null	null	0	null	0.293612	0.550913483	17	Deck 17 Photo 6	FALSE	null
'L9'	'Night'	'F'	'Combo'	2	null	0.36454	0.647484135	17	Deck 17 Photo 7	FALSE	null
'L7'	'Night'	'F'	'NW'	3	null	0.359956	0.711832023	17	Deck 17 Photo 8	FALSE	null
'L3'	'Night'	'F'	'W'	2	null	0.319606	0.882164666	17	Deck 17 Photo 9	TRUE	WF
'L3'	'Day'	'F'	'Combo'	3	NWW	0.358959	0.189003184	18	Deck 18 Photo 1	FALSE	null
'L5'	'Day'	'M'	'NW'	2	null	0.390343	0.226952145	18	Deck 18 Photo 2	TRUE	WM
'L7'	'Day'	'Mixed'	'NW'	3	MFF	0.489626	0.237139183	18	Deck 18 Photo 3	FALSE	null
'L2'	'Day'	'Mixed'	'Combo'	3	NF-NF-WM	0.390237	0.346377024	18	Deck 18 Photo 4	FALSE	null
'L8'	'Night'	'F'	'NW'	1	null	0.337183	0.419985273	18	Deck 18 Photo 5	FALSE	null
'L4'	'Day'	'Mixed'	'Combo'	3	NM-NF-WM	0.398905	0.446934743	18	Deck 18 Photo 6	FALSE	null
'L9'	'Night'	'Mixed'	'NW'	2	null	0.368215	0.539302666	18	Deck 18 Photo 7	FALSE	null
'L1'	'Day'	'Mixed'	'NW'	2	null	0.489104	0.568417256	18	Deck 18 Photo 8	FALSE	null
'L6'	'Night'	'F'	'Combo'	3	NNW	0.313327	0.617625893	18	Deck 18 Photo 9	FALSE	null
'L3'	'Night'	'M'	'Combo'	3	NWW	0.380693	0.069324602	19	Deck 19 Photo 1	FALSE	null
'L8'	'Night'	'F'	'W'	1	null	0.391476	0.141356929	19	Deck 19 Photo 2	FALSE	null

'L7'	'Night'	'M'	'Combo'	3	NWW	0.49836	0.219784215	19	Deck 19 Photo 3	FALSE	null
'L1'	'Day'	'F'	'NW'	1	null	0.528702	0.319435881	19	Deck 19 Photo 4	FALSE	null
'L6'	'Night'	'Mixed'	'Combo'	3	NF-NF-WM	0.323799	0.341078761	19	Deck 19 Photo 5	FALSE	null
'L4'	'Night'	'M'	'NW'	2	null	0.459224	0.389903877	19	Deck 19 Photo 6	FALSE	null
'L2'	'Day'	'M'	'W'	1	null	0.4369	0.502962346	19	Deck 19 Photo 7	FALSE	null
'L5'	'Day'	'Mixed'	'NW'	3	MFF	0.39883	0.577019244	19	Deck 19 Photo 8	FALSE	null
'L9'	'Day'	'M'	'NW'	3	null	0.37108	0.602710367	19	Deck 19 Photo 9	TRUE	WM
'L8'	'Night'	'F'	'NW'	2	null	0.032543	0.058631777	2	Deck 2 Photo 1	FALSE	null
'L6'	'Day'	'Mixed'	'Combo'	2	NM-WF	0.047154	0.139024589	2	Deck 2 Photo 2	FALSE	null
'L1'	'Day'	'M'	'Combo'	3	NWW	0.108984	0.234690684	2	Deck 2 Photo 3	FALSE	null
'L9'	'Day'	'Mixed'	'Combo'	2	NM-WF	0.089855	0.249018296	2	Deck 2 Photo 4	FALSE	null
'L3'	'Day'	'F'	'NW'	3	null	0.059278	0.37184328	2	Deck 2 Photo 5	TRUE	WF
'L2'	'Day'	'Mixed'	'W'	3	MFF	0.004304	0.482569184	2	Deck 2 Photo 6	FALSE	null
'L7'	'Night'	'M'	'NW'	3	null	0.025738	0.549924059	2	Deck 2 Photo 7	FALSE	null
'L4'	'Day'	'Mixed'	'W'	2	null	0.102655	0.859984659	2	Deck 2 Photo 8	FALSE	null
'L5'	'Night'	'Mixed'	'Combo'	3	WF-WF-NM	0.010461	0.870838981	2	Deck 2 Photo 9	FALSE	null
'L1'	'Night'	'F'	'W'	3	null	0.559699	0.22340625	20	Deck 20 Photo 1	FALSE	null
'L5'	'Night'	'F'	'W'	1	null	0.420851	0.227996067	20	Deck 20 Photo 2	FALSE	null
'L7'	'Day'	'F'	'NW'	2	null	0.504529	0.269734847	20	Deck 20 Photo 3	FALSE	null
'L3'	'Day'	'F'	'W'	3	null	0.412454	0.316185721	20	Deck 20 Photo 4	TRUE	WF
'L9'	'Day'	'F'	'W'	3	null	0.371908	0.350077929	20	Deck 20 Photo 5	FALSE	null
'L8'	'Day'	'Mixed'	'NW'	3	MMF	0.399159	0.366398077	20	Deck 20 Photo 6	FALSE	null
'L4'	'Day'	'F'	'NW'	1	null	0.494463	0.427474794	20	Deck 20 Photo 7	FALSE	null
'L6'	'Day'	'Mixed'	'NW'	3	MFF	0.349463	0.865004412	20	Deck 20 Photo 8	FALSE	null
'L2'	'Night'	'M'	'W'	3	null	0.453319	0.919612651	20	Deck 20 Photo 9	FALSE	null
'L7'	'Night'	'M'	'W'	2	null	0.544422	0.051098688	21	Deck 21 Photo 1	FALSE	null
'L5'	'Day'	'F'	'NW'	1	null	0.443702	0.060563025	21	Deck 21 Photo 2	TRUE	NF
'L6'	'Night'	null	null	0	null	0.382713	0.384356771	21	Deck 21 Photo 3	FALSE	null
'L4'	'Night'	'Mixed'	'W'	2	null	0.506912	0.532419667	21	Deck 21 Photo 4	FALSE	null
'L1'	'Night'	'Mixed'	'W'	2	null	0.562672	0.548808164	21	Deck 21 Photo 5	FALSE	null
'L3'	'Night'	'F'	'NW'	3	null	0.428195	0.70923358	21	Deck 21 Photo 6	FALSE	null
'L2'	'Day'	'F'	'W'	3	null	0.453681	0.814768803	21	Deck 21 Photo 7	FALSE	null
'L9'	'Day'	'M'	'W'	3	null	0.406985	0.977440345	21	Deck 21 Photo 8	FALSE	null
'L8'	'Day'	'M'	'W'	2	null	0.403253	0.982353385	21	Deck 21 Photo 9	FALSE	null

'L8'	'Night'	'M'	'Combo'	2	null	0.43442	0.016150978	22	Deck 22 Photo 1	FALSE	null
'L2'	'Day'	null	null	0	null	0.457713	0.09359831	22	Deck 22 Photo 2	FALSE	null
'L5'	'Night'	'M'	'Combo'	2	null	0.450902	0.258402117	22	Deck 22 Photo 3	FALSE	null
'L1'	'Night'	'Mixed'	'NW'	2	null	0.614676	0.287775461	22	Deck 22 Photo 4	FALSE	null
'L4'	'Night'	'F'	'NW'	3	null	0.564729	0.290757196	22	Deck 22 Photo 5	FALSE	null
'L9'	'Day'	'Mixed'	'W'	2	null	0.410288	0.582598638	22	Deck 22 Photo 6	TRUE	WM
'L3'	'Day'	'Mixed'	'W'	2	null	0.436689	0.678199746	22	Deck 22 Photo 7	FALSE	null
'L7'	'Night'	'F'	'Combo'	2	null	0.54501	0.863166413	22	Deck 22 Photo 8	FALSE	null
'L6'	'Day'	'F'	'W'	3	null	0.414297	0.95690528	22	Deck 22 Photo 9	FALSE	null
'L5'	'Day'	'F'	'NW'	3	null	0.469161	0.147406179	23	Deck 23 Photo 1	FALSE	null
'L6'	'Night'	'M'	'NW'	3	null	0.420316	0.242350672	23	Deck 23 Photo 2	TRUE	WM
'L4'	'Night'	'M'	'W'	1	null	0.612028	0.310628513	23	Deck 23 Photo 3	FALSE	null
'L3'	'Night'	'M'	'Combo'	2	null	0.468267	0.398931903	23	Deck 23 Photo 4	FALSE	null
'L9'	'Night'	'M'	'NW'	1	null	0.417105	0.4023309	23	Deck 23 Photo 5	FALSE	null
'L8'	'Day'	'F'	'Combo'	2	null	0.437256	0.434910645	23	Deck 23 Photo 6	FALSE	null
'L1'	'Night'	'F'	'NW'	1	null	0.625731	0.482287701	23	Deck 23 Photo 7	FALSE	null
'L2'	'Day'	'F'	'W'	2	null	0.476835	0.535677263	23	Deck 23 Photo 8	FALSE	null
'L7'	'Night'	'F'	'W'	1	null	0.567439	0.693779832	23	Deck 23 Photo 9	FALSE	null
'L4'	'Night'	null	null	0	null	0.62986	0.090088073	24	Deck 24 Photo 1	FALSE	null
'L8'	'Day'	'M'	'W'	3	null	0.484958	0.278813092	24	Deck 24 Photo 2	FALSE	null
'L6'	'Day'	'Mixed'	'Combo'	3	NF-NF-WM	0.425334	0.491591024	24	Deck 24 Photo 3	TRUE	WF
'L2'	'Day'	'M'	'W'	3	null	0.498757	0.58176788	24	Deck 24 Photo 4	FALSE	null
'L5'	'Night'	'Mixed'	'W'	3	MFF	0.577745	0.638627679	24	Deck 24 Photo 5	FALSE	null
'L7'	'Day'	'F'	'Combo'	3	NWW	0.579639	0.84057229	24	Deck 24 Photo 6	FALSE	null
'L9'	'Night'	'Mixed'	'Combo'	3	WM-WF-NM	0.436156	0.853892528	24	Deck 24 Photo 7	FALSE	null
'L3'	'Day'	'M'	'NW'	1	null	0.47095	0.85801602	24	Deck 24 Photo 8	FALSE	null
'L1'	'Night'	'M'	'W'	3	null	0.638982	0.985790658	24	Deck 24 Photo 9	FALSE	null
'L3'	'Day'	'Mixed'	'NW'	3	MMF	0.490334	0.085349741	25	Deck 25 Photo 1	FALSE	null
'L8'	'Day'	'M'	'Combo'	3	NNW	0.513599	0.19946797	25	Deck 25 Photo 2	FALSE	null
'L7'	'Day'	'Mixed'	'W'	2	null	0.595674	0.245682775	25	Deck 25 Photo 3	FALSE	null
'L4'	'Day'	'F'	'NW'	2	null	0.644493	0.636820689	25	Deck 25 Photo 4	FALSE	null
'L1'	'Day'	'M'	'NW'	1	null	0.646013	0.703248947	25	Deck 25 Photo 5	TRUE	NM
'L9'	'Night'	'M'	'NW'	2	null	0.464457	0.75573573	25	Deck 25 Photo 6	FALSE	null
'L5'	'Day'	'M'	'Combo'	2	null	0.580529	0.761790291	25	Deck 25 Photo 7	FALSE	null

'L2'	'Day'	'F'	'NW'	2	null	0.517776	0.79411346	25	Deck 25 Photo 8	FALSE	null
'L6'	'Night'	'M'	'W'	2	null	0.427619	0.989109449	25	Deck 25 Photo 9	FALSE	null
'L5'	'Night'	'F'	'Combo'	2	null	0.635785	0.124302544	26	Deck 26 Photo 1	FALSE	null
'L1'	'Day'	'F'	'W'	2	null	0.653122	0.258639494	26	Deck 26 Photo 2	FALSE	null
'L6'	'Night'	'F'	'W'	2	null	0.459889	0.271728198	26	Deck 26 Photo 3	FALSE	null
'L2'	'Night'	'F'	'NW'	2	null	0.521613	0.426092951	26	Deck 26 Photo 4	FALSE	null
'L4'	'Night'	'F'	'NW'	2	null	0.650616	0.468642763	26	Deck 26 Photo 5	FALSE	null
'L8'	'Day'	null	null	0	null	0.519008	0.578692136	26	Deck 26 Photo 6	TRUE	NM
'L9'	'Night'	'F'	'W'	3	null	0.468976	0.734016743	26	Deck 26 Photo 7	FALSE	null
'L7'	'Day'	'M'	'NW'	3	null	0.634562	0.812934855	26	Deck 26 Photo 8	FALSE	null
'L3'	'Day'	'M'	'W'	3	null	0.498465	0.904040362	26	Deck 26 Photo 9	FALSE	null
'L8'	'Day'	'Mixed'	'W'	2	null	0.544658	0.010023872	27	Deck 27 Photo 1	FALSE	null
'L1'	'Night'	'Mixed'	'Combo'	2	WM-NF	0.655625	0.094063204	27	Deck 27 Photo 2	FALSE	null
'L9'	'Night'	'F'	'Combo'	3	NWW	0.515154	0.195151086	27	Deck 27 Photo 3	FALSE	null
'L4'	'Night'	'M'	'NW'	3	null	0.665112	0.454190399	27	Deck 27 Photo 4	FALSE	null
'L6'	'Day'	'M'	'Combo'	3	NNW	0.524104	0.498768047	27	Deck 27 Photo 5	FALSE	null
'L7'	'Night'	'F'	'NW'	2	null	0.638096	0.716744552	27	Deck 27 Photo 6	FALSE	null
'L2'	'Night'	'F'	'Combo'	3	NWW	0.521882	0.787591185	27	Deck 27 Photo 7	TRUE	WM
'L5'	'Night'	'F'	'NW'	3	null	0.652501	0.845368454	27	Deck 27 Photo 8	FALSE	null
'L3'	'Night'	'Mixed'	'Combo'	2	WM-NF	0.500879	0.976784047	27	Deck 27 Photo 9	FALSE	null
'L4'	'Day'	'M'	'W'	2	null	0.669441	0.122957519	28	Deck 28 Photo 1	FALSE	null
'L1'	'Day'	'M'	'W'	1	null	0.680621	0.144434617	28	Deck 28 Photo 2	FALSE	null
'L3'	'Day'	'F'	'Combo'	2	null	0.512012	0.222134949	28	Deck 28 Photo 3	FALSE	null
'L5'	'Night'	'M'	'NW'	2	null	0.658381	0.322930853	28	Deck 28 Photo 4	FALSE	null
'L2'	'Day'	'Mixed'	'Combo'	2	NM-WF	0.530087	0.386272659	28	Deck 28 Photo 5	FALSE	null
'L7'	'Day'	'M'	'NW'	2	null	0.643043	0.517039891	28	Deck 28 Photo 6	FALSE	null
'L6'	'Night'	'Mixed'	'NW'	3	MMF	0.549403	0.525391539	28	Deck 28 Photo 7	FALSE	null
'L9'	'Day'	'Mixed'	'Combo'	3	NM-NM-WF	0.602485	0.721888205	28	Deck 28 Photo 8	TRUE	WM
'L8'	'Night'	'F'	'NW'	3	null	0.547306	0.800731492	28	Deck 28 Photo 9	FALSE	null
'L5'	'Day'	'F'	'NW'	2	null	0.682628	0.00918908	29	Deck 29 Photo 1	FALSE	null
'L8'	'Night'	'Mixed'	'NW'	2	null	0.561001	0.165982539	29	Deck 29 Photo 2	FALSE	null
'L1'	'Day'	'M'	'NW'	2	null	0.709306	0.200931832	29	Deck 29 Photo 3	FALSE	null
'L6'	'Night'	'Mixed'	'W'	3	MFF	0.552627	0.293625688	29	Deck 29 Photo 4	FALSE	null
'L9'	'Night'	'M'	'W'	2	null	0.631869	0.410157028	29	Deck 29 Photo 5	TRUE	NM

'L2'	'Day'	'F'	'NW'	3	null	0.560193	0.733572513	29	Deck 29 Photo 6	FALSE	null
'L7'	'Night'	'Mixed'	'NW'	3	MFF	0.659245	0.786444532	29	Deck 29 Photo 7	FALSE	null
'L3'	'Day'	'Mixed'	'Combo'	2	WM-NF	0.552724	0.818586764	29	Deck 29 Photo 8	FALSE	null
'L4'	'Night'	'F'	'Combo'	2	null	0.729184	0.932278706	29	Deck 29 Photo 9	FALSE	null
'L4'	'Night'	'M'	'Combo'	3	NWW	0.106426	0.047315893	3	Deck 3 Photo 1	FALSE	null
'L7'	'Day'	null	null	0	WM-NF	0.053982	0.188755403	3	Deck 3 Photo 2	TRUE	NF
'L3'	'Night'	'Mixed'	'NW'	2	null	0.062291	0.2332282	3	Deck 3 Photo 3	FALSE	null
'L2'	'Night'	'F'	'NW'	3	null	0.046066	0.326756617	3	Deck 3 Photo 4	FALSE	null
'L9'	'Day'	'M'	'W'	2	null	0.123501	0.376942966	3	Deck 3 Photo 5	FALSE	null
'L1'	'Night'	'F'	'W'	2	null	0.126405	0.394861418	3	Deck 3 Photo 6	FALSE	null
'L6'	'Day'	'M'	'Combo'	2	null	0.05765	0.725295888	3	Deck 3 Photo 7	FALSE	null
'L8'	'Day'	'Mixed'	'Combo'	2	NM-WF	0.046836	0.875653052	3	Deck 3 Photo 8	FALSE	null
'L5'	'Night'	'M'	'NW'	3	null	0.012049	0.92448058	3	Deck 3 Photo 9	FALSE	null
'L2'	'Day'	'F'	'Combo'	2	null	0.563361	0.06570434	30	Deck 30 Photo 1	FALSE	null
'L6'	'Day'	'M'	'W'	2	null	0.568402	0.080780852	30	Deck 30 Photo 2	TRUE	NF
'L4'	'Day'	'M'	'Combo'	3	NNW	0.74325	0.109579142	30	Deck 30 Photo 3	FALSE	null
'L8'	'Day'	'F'	'W'	3	null	0.567668	0.122260417	30	Deck 30 Photo 4	FALSE	null
'L1'	'Night'	'M'	'NW'	2	null	0.715253	0.133027922	30	Deck 30 Photo 5	FALSE	null
'L3'	'Night'	'F'	'NW'	2	null	0.591093	0.190534554	30	Deck 30 Photo 6	FALSE	null
'L7'	'Night'	'F'	'W'	2	null	0.66078	0.415807114	30	Deck 30 Photo 7	FALSE	null
'L5'	'Day'	'M'	'W'	3	null	0.696424	0.72418055	30	Deck 30 Photo 8	FALSE	null
'L9'	'Day'	'Mixed'	'W'	3	MFF	0.675403	0.997544057	30	Deck 30 Photo 9	FALSE	null
'L1'	'Night'	'M'	'W'	2	null	0.725639	0.150747183	31	Deck 31 Photo 1	FALSE	null
'L3'	'Day'	'Mixed'	'Combo'	3	NF-WM-WF	0.614616	0.236819201	31	Deck 31 Photo 2	FALSE	null
'L7'	'Night'	'M'	'NW'	1	null	0.728678	0.302358831	31	Deck 31 Photo 3	FALSE	null
'L5'	'Night'	'Mixed'	'NW'	3	MMF	0.707928	0.399981609	31	Deck 31 Photo 4	FALSE	null
'L6'	'Night'	'F'	'NW'	1	null	0.569019	0.401074215	31	Deck 31 Photo 5	FALSE	null
'L4'	'Night'	'Mixed'	'Combo'	3	NF-WM-WF	0.771265	0.428227649	31	Deck 31 Photo 6	FALSE	null
'L9'	'Day'	'M'	'NW'	2	null	0.739881	0.445598571	31	Deck 31 Photo 7	FALSE	null
'L2'	'Day'	'F'	'NW'	1	null	0.565963	0.58026059	31	Deck 31 Photo 8	FALSE	null
'L8'	'Night'	'Mixed'	'Combo'	3	WF-NM-NF	0.597016	0.83712453	31	Deck 31 Photo 9	TRUE	NM
'L8'	'Day'	'M'	'NW'	3	null	0.625995	0.082784623	32	Deck 32 Photo 1	FALSE	null
'L1'	'Day'	'M'	'W'	2	null	0.756084	0.153511376	32	Deck 32 Photo 2	FALSE	null
'L2'	'Night'	'Mixed'	'W'	3	MMF	0.604215	0.447196889	32	Deck 32 Photo 3	FALSE	null
'L4'	'Night'	'M'	'W'	2	null	0.790861	0.525629563	32	Deck 32 Photo 4	TRUE	NF
'L9'	'Day'	'Mixed'	'NW'	2	null	0.748753	0.544498303	32	Deck 32 Photo 5	FALSE	null
'L6'	'Day'	'F'	'NW'	2	null	0.589193	0.551843468	32	Deck 32 Photo 6	FALSE	null
'L7'	'Day'	'M'	'W'	3	null	0.765266	0.696746879	32	Deck 32 Photo 7	FALSE	null
'L3'	'Day'	'M'	'Combo'	2	null	0.660693	0.790401911	32	Deck 32 Photo 8	FALSE	null

'L5'	'Day'	'M'	'W'	1	null	0.739853	0.832614597	32	Deck 32 Photo 9	FALSE	null
'L6'	'Day'	'F'	'W'	2	null	0.605252	0.054577295	33	Deck 33 Photo 1	FALSE	null
'L8'	'Day'	'Mixed'	'Combo'	3	WM-WM-NF	0.638533	0.420861679	33	Deck 33 Photo 2	FALSE	null
'L7'	'Night'	'Mixed'	'Combo'	3	NM-NF-WM	0.807365	0.452677011	33	Deck 33 Photo 3	TRUE	WF
'L2'	'Night'	'Mixed'	'NW'	2	null	0.634767	0.479954775	33	Deck 33 Photo 4	FALSE	null
'L5'	'Day'	'F'	'Combo'	2	null	0.742002	0.657512664	33	Deck 33 Photo 5	FALSE	null
'L9'	'Night'	'M'	'Combo'	3	NWW	0.751423	0.736369166	33	Deck 33 Photo 6	FALSE	null
'L1'	'Day'	'Mixed'	'Combo'	2	NM-WF	0.791242	0.812549294	33	Deck 33 Photo 7	FALSE	null
'L4'	'Day'	'M'	'Combo'	2	null	0.798461	0.817565968	33	Deck 33 Photo 8	FALSE	null
'L3'	'Day'	'M'	'W'	2	null	0.692361	0.933451307	33	Deck 33 Photo 9	FALSE	null
'L9'	'Night'	'M'	'W'	1	null	0.75628	0.213929204	34	Deck 34 Photo 1	FALSE	null
'L1'	'Day'	'F'	'W'	1	null	0.885897	0.256350631	34	Deck 34 Photo 2	TRUE	WF
'L4'	'Night'	'Mixed'	'W'	3	MMF	0.807886	0.287583886	34	Deck 34 Photo 3	FALSE	null
'L3'	'Night'	'F'	'W'	1	null	0.730498	0.315808713	34	Deck 34 Photo 4	FALSE	null
'L5'	'Day'	'M'	'Combo'	3	NNW	0.744765	0.464177892	34	Deck 34 Photo 5	FALSE	null
'L8'	'Day'	'F'	'Combo'	3	NNW	0.701816	0.494826346	34	Deck 34 Photo 6	FALSE	null
'L7'	'Night'	'M'	'Combo'	2	null	0.816912	0.526420032	34	Deck 34 Photo 7	FALSE	null
'L2'	'Day'	'Mixed'	'NW'	3	MMF	0.639326	0.776326448	34	Deck 34 Photo 8	FALSE	null
'L6'	'Night'	'Mixed'	'NW'	2	null	0.615742	0.800633003	34	Deck 34 Photo 9	FALSE	null
'L2'	'Night'	'F'	'W'	1	null	0.648989	0.021929863	35	Deck 35 Photo 1	FALSE	null
'L4'	'Day'	'Mixed'	'NW'	3	MMF	0.834812	0.092104094	35	Deck 35 Photo 2	FALSE	null
'L1'	'Night'	null	null	0	null	0.886085	0.394054733	35	Deck 35 Photo 3	FALSE	null
'L8'	'Night'	'Mixed'	'Combo'	2	WM-NF	0.718251	0.499598823	35	Deck 35 Photo 4	FALSE	null
'L3'	'Day'	'M'	'W'	1	null	0.778022	0.593566873	35	Deck 35 Photo 5	FALSE	null
'L6'	'Night'	'F'	'NW'	2	null	0.685364	0.789459938	35	Deck 35 Photo 6	FALSE	null
'L9'	'Night'	'F'	'NW'	2	null	0.773949	0.801040268	35	Deck 35 Photo 7	FALSE	null
'L7'	'Day'	'F'	'Combo'	2	null	0.821283	0.84282374	35	Deck 35 Photo 8	TRUE	WF
'L5'	'Night'	'M'	'W'	3	null	0.759148	0.855371838	35	Deck 35 Photo 9	FALSE	null
'L2'	'Day'	'M'	'NW'	1	null	0.718838	0.076196703	36	Deck 36 Photo 1	FALSE	null
'L7'	'Night'	'M'	'W'	3	null	0.826664	0.089341248	36	Deck 36 Photo 2	FALSE	null
'L9'	'Night'	'M'	'W'	3	null	0.792094	0.253135017	36	Deck 36 Photo 3	FALSE	null
'L3'	'Night'	'F'	'NW'	1	null	0.782241	0.384242614	36	Deck 36 Photo 4	FALSE	null
'L6'	'Night'	'M'	'W'	1	null	0.698703	0.499350317	36	Deck 36 Photo 5	FALSE	null
'L5'	'Night'	'F'	'W'	2	null	0.773036	0.607404919	36	Deck 36 Photo 6	FALSE	null

'L1'	'Day'	'Mixed'	'W'	2	null	0.894711	0.753348123	36	Deck 36 Photo 7	TRUE	WM
'L8'	'Day'	'Mixed'	'W'	3	MMF	0.739581	0.872740596	36	Deck 36 Photo 8	FALSE	null
'L4'	'Day'	'Mixed'	'NW'	2	null	0.841718	0.946736182	36	Deck 36 Photo 9	FALSE	null
'L6'	'Day'	'Mixed'	'NW'	2	null	0.765743	0.124128209	37	Deck 37 Photo 1	FALSE	null
'L3'	'Day'	'M'	'NW'	2	null	0.782322	0.213229195	37	Deck 37 Photo 2	TRUE	WF
'L8'	'Night'	'F'	'Combo'	2	null	0.781812	0.225688091	37	Deck 37 Photo 3	FALSE	null
'L2'	'Day'	'M'	'W'	2	null	0.794597	0.232884613	37	Deck 37 Photo 4	FALSE	null
'L9'	'Day'	null	null	0	null	0.83432	0.293518552	37	Deck 37 Photo 5	FALSE	null
'L7'	'Day'	'F'	'W'	1	null	0.843191	0.433123729	37	Deck 37 Photo 6	FALSE	null
'L4'	'Day'	'M'	'W'	1	null	0.860436	0.468502367	37	Deck 37 Photo 7	FALSE	null
'L1'	'Day'	'M'	'Combo'	2	null	0.89855	0.615552704	37	Deck 37 Photo 8	FALSE	null
'L5'	'Day'	'F'	'W'	3	null	0.778006	0.682130214	37	Deck 37 Photo 9	FALSE	null
'L7'	'Night'	'Mixed'	'Combo'	2	WM-NF	0.880265	0.11736307	38	Deck 38 Photo 1	TRUE	NM
'L1'	'Day'	'F'	'Combo'	2	null	0.919312	0.273030758	38	Deck 38 Photo 2	FALSE	null
'L8'	'Night'	null	null	0	null	0.827968	0.338314043	38	Deck 38 Photo 3	FALSE	null
'L2'	'Day'	'M'	'NW'	2	null	0.820474	0.360605202	38	Deck 38 Photo 4	FALSE	null
'L6'	'Day'	'M'	'W'	1	null	0.812518	0.425991189	38	Deck 38 Photo 5	FALSE	null
'L5'	'Night'	'Mixed'	'Combo'	2	NM-WF	0.784139	0.44484214	38	Deck 38 Photo 6	FALSE	null
'L4'	'Night'	'Mixed'	'Combo'	2	WM-NF	0.88512	0.57289688	38	Deck 38 Photo 7	FALSE	null
'L9'	'Day'	'F'	'Combo'	2	null	0.835903	0.738186338	38	Deck 38 Photo 8	FALSE	null
'L3'	'Night'	'F'	'Combo'	2	null	0.788469	0.991819139	38	Deck 38 Photo 9	FALSE	null
'L8'	'Day'	'F'	'NW'	1	null	0.845813	0.035251266	39	Deck 39 Photo 1	FALSE	null
'L9'	'Night'	'Mixed'	'Combo'	2	NM-WF	0.837132	0.237381731	39	Deck 39 Photo 2	FALSE	null
'L3'	'Night'	'Mixed'	'NW'	3	MFF	0.791076	0.249160954	39	Deck 39 Photo 3	FALSE	null
'L7'	'Day'	'Mixed'	'Combo'	2	WM-NF	0.890523	0.579858068	39	Deck 39 Photo 4	FALSE	null
'L6'	'Night'	'F'	'Combo'	2	null	0.865564	0.652351103	39	Deck 39 Photo 5	FALSE	null
'L2'	'Night'	'M'	'W'	2	null	0.82479	0.653755655	39	Deck 39 Photo 6	TRUE	NM
'L1'	'Day'	'F'	'Combo'	3	NNW	0.937525	0.690013352	39	Deck 39 Photo 7	FALSE	null
'L4'	'Day'	null	null	0	null	0.903609	0.818725943	39	Deck 39 Photo 8	FALSE	null
'L5'	'Day'	'F'	'W'	2	null	0.801603	0.954844766	39	Deck 39 Photo 9	FALSE	null
'L4'	'Night'	'M'	'Combo'	2	null	0.154929	0.041184989	4	Deck 4 Photo 1	FALSE	null
'L7'	'Day'	'M'	'W'	2	null	0.060261	0.173063652	4	Deck 4 Photo 2	FALSE	null
'L2'	'Night'	'M'	'Combo'	2	null	0.072418	0.211477593	4	Deck 4 Photo 3	FALSE	null
'L1'	'Day'	null	null	0	null	0.136743	0.264473743	4	Deck 4 Photo 4	FALSE	null

'L8'	'Night'	'Mixed'	'W'	3	MFF	0.084406	0.365563707	4	Deck 4 Photo 5	TRUE	WM
'L6'	'Night'	'F'	'W'	1	null	0.093321	0.376937155	4	Deck 4 Photo 6	FALSE	null
'L5'	'Night'	'M'	'NW'	1	null	0.058102	0.444698845	4	Deck 4 Photo 7	FALSE	null
'L9'	'Day'	'M'	'NW'	1	null	0.139157	0.556008474	4	Deck 4 Photo 8	FALSE	null
'L3'	'Night'	'Mixed'	'W'	2	null	0.06847	0.987691538	4	Deck 4 Photo 9	FALSE	null
'L5'	'Night'	'M'	'Combo'	3	NWW	0.811904	0.074686761	40	Deck 40 Photo 1	FALSE	null
'L6'	'Day'	'Mixed'	'W'	3	MFF	0.923768	0.099569279	40	Deck 40 Photo 2	FALSE	null
'L9'	'Day'	'Mixed'	'NW'	3	MFF	0.843941	0.150372056	40	Deck 40 Photo 3	FALSE	null
'L8'	'Night'	'F'	'W'	3	null	0.865313	0.459608618	40	Deck 40 Photo 4	FALSE	null
'L1'	'Night'	'M'	'W'	1	null	0.950273	0.590770566	40	Deck 40 Photo 5	FALSE	null
'L4'	'Night'	'M'	'W'	3	null	0.91264	0.846111223	40	Deck 40 Photo 6	FALSE	null
'L2'	'Night'	null	null	0	null	0.835031	0.87034505	40	Deck 40 Photo 7	FALSE	null
'L7'	'Night'	'F'	'Combo'	3	NNW	0.90038	0.889415368	40	Deck 40 Photo 8	TRUE	NF
'L3'	'Night'	'F'	'W'	3	null	0.833225	0.926175021	40	Deck 40 Photo 9	FALSE	null
'L9'	'Night'	'F'	'W'	2	null	0.849116	0.451612601	41	Deck 41 Photo 1	TRUE	WF
'L2'	'Day'	'F'	'W'	1	null	0.849393	0.486487228	41	Deck 41 Photo 2	FALSE	null
'L8'	'Night'	'M'	'W'	3	null	0.896794	0.493703275	41	Deck 41 Photo 3	FALSE	null
'L5'	'Day'	'Mixed'	'W'	2	null	0.853827	0.555648723	41	Deck 41 Photo 4	FALSE	null
'L1'	'Day'	'Mixed'	'W'	3	MMF	0.966835	0.7091129	41	Deck 41 Photo 5	FALSE	null
'L4'	'Day'	'F'	'Combo'	3	NWW	0.921695	0.792993804	41	Deck 41 Photo 6	FALSE	null
'L6'	'Day'	'M'	'W'	3	null	0.93124	0.799462049	41	Deck 41 Photo 7	FALSE	null
'L3'	'Night'	'M'	'W'	1	null	0.833977	0.884081559	41	Deck 41 Photo 8	FALSE	null
'L7'	'Night'	'Mixed'	'W'	3	MMF	0.93587	0.917771359	41	Deck 41 Photo 9	FALSE	null
'L9'	'Night'	'F'	'NW'	3	null	0.867127	0.037126701	42	Deck 42 Photo 1	FALSE	null
'L7'	'Night'	'Mixed'	'NW'	2	null	0.945579	0.11048664	42	Deck 42 Photo 2	FALSE	null
'L2'	'Night'	'M'	'W'	1	null	0.862665	0.117427307	42	Deck 42 Photo 3	FALSE	null
'L4'	'Night'	'M'	'NW'	1	null	0.93499	0.375875013	42	Deck 42 Photo 4	TRUE	NM
'L5'	'Day'	'Mixed'	'Combo'	2	WM-NF	0.888081	0.49110659	42	Deck 42 Photo 5	FALSE	null
'L6'	'Day'	'Mixed'	'W'	2	null	0.93358	0.55548194	42	Deck 42 Photo 6	FALSE	null
'L3'	'Day'	'M'	'NW'	3	null	0.848888	0.579771925	42	Deck 42 Photo 7	FALSE	null
'L8'	'Night'	'F'	'Combo'	3	NNW	0.923685	0.760880963	42	Deck 42 Photo 8	FALSE	null
'L1'	'Night'	'Mixed'	'W'	3	MMF	0.973311	0.774386166	42	Deck 42 Photo 9	FALSE	null
'L1'	'Day'	'Mixed'	'Combo'	3	WM-WF-NM	0.977428	0.079987925	43	Deck 43 Photo 1	FALSE	null
'L8'	'Day'	'F'	'W'	2	null	0.926334	0.150915419	43	Deck 43 Photo 2	FALSE	null

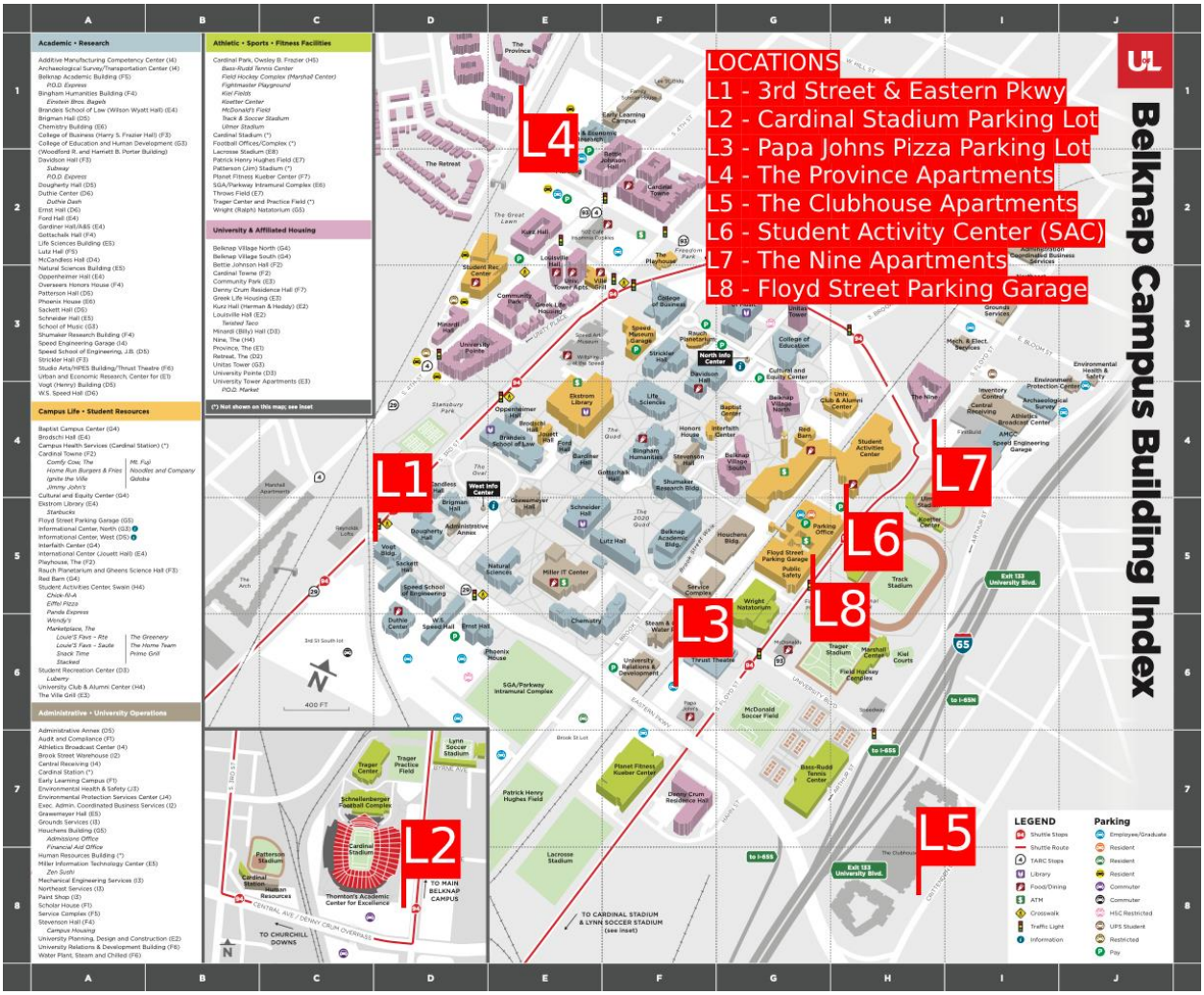
'L7'	'Day'	'M'	'Combo'	3	NNW	0.951932	0.300878638	43	Deck 43 Photo 3	FALSE	null
'L2'	'Night'	'M'	'Combo'	3	NWW	0.905693	0.334436213	43	Deck 43 Photo 4	TRUE	WM
'L9'	'Day'	'F'	'NW'	1	null	0.869312	0.433518239	43	Deck 43 Photo 5	FALSE	null
'L3'	'Day'	'F'	'NW'	2	null	0.852141	0.556555039	43	Deck 43 Photo 6	FALSE	null
'L5'	'Day'	null	null	0	null	0.894809	0.601724518	43	Deck 43 Photo 7	FALSE	null
'L4'	'Day'	'M'	'NW'	3	null	0.971038	0.896709687	43	Deck 43 Photo 8	FALSE	null
'L6'	'Day'	'F'	'NW'	3	null	0.967108	0.973266849	43	Deck 43 Photo 9	FALSE	null
'L9'	'Night'	'Mixed'	'W'	3	MFF	0.925988	0.053996128	44	Deck 44 Photo 1	FALSE	null
'L2'	'Night'	'Mixed'	'Combo'	2	WM-NF	0.923857	0.146990217	44	Deck 44 Photo 2	FALSE	null
'L6'	'Day'	'F'	'NW'	1	null	0.990401	0.361493238	44	Deck 44 Photo 3	TRUE	NM
'L5'	'Day'	'F'	'W'	1	null	0.97498	0.375981489	44	Deck 44 Photo 4	FALSE	null
'L8'	'Day'	'F'	'NW'	2	null	0.948908	0.387865658	44	Deck 44 Photo 5	FALSE	null
'L4'	'Day'	'F'	'W'	2	null	0.974377	0.673086096	44	Deck 44 Photo 6	FALSE	null
'L1'	'Night'	'F'	'NW'	2	null	0.982869	0.765574491	44	Deck 44 Photo 7	FALSE	null
'L3'	'Night'	'Mixed'	'Combo'	3	WF-WF-NM	0.906956	0.804574362	44	Deck 44 Photo 8	FALSE	null
'L7'	'Night'	'M'	'W'	1	null	0.970856	0.8540471	44	Deck 44 Photo 9	FALSE	null
'L9'	'Night'	'F'	'W'	1	null	0.934667	0.165317862	45	Deck 45 Photo 1	TRUE	WM
'L4'	'Night'	'F'	'Combo'	3	NNW	0.976089	0.234612208	45	Deck 45 Photo 2	FALSE	null
'L1'	'Night'	'Mixed'	'Combo'	3	NM-NM-WF	0.994781	0.289535593	45	Deck 45 Photo 3	FALSE	null
'L5'	'Day'	'M'	'NW'	3	null	0.975064	0.463790065	45	Deck 45 Photo 4	FALSE	null
'L3'	'Night'	'F'	'Combo'	3	NWW	0.927731	0.486338532	45	Deck 45 Photo 5	FALSE	null
'L2'	'Day'	'F'	'Combo'	3	NWW	0.955032	0.529938025	45	Deck 45 Photo 6	FALSE	null
'L6'	'Night'	'M'	'NW'	1	null	0.993538	0.535060765	45	Deck 45 Photo 7	FALSE	null
'L7'	'Night'	'Mixed'	'W'	2	null	0.983525	0.584171472	45	Deck 45 Photo 8	FALSE	null
'L8'	'Day'	'F'	'NW'	3	null	0.955635	0.720236336	45	Deck 45 Photo 9	FALSE	null
'L2'	'Night'	'Mixed'	'W'	2	null	0.998342	0.056019225	46	Deck 46 Photo 1	FALSE	null
'L6'	'Night'	'F'	'NW'	3	null	0.994906	0.062150735	46	Deck 46 Photo 2	FALSE	null
'L8'	'Night'	'Mixed'	'W'	2	null	0.962596	0.351426517	46	Deck 46 Photo 3	FALSE	null
'L5'	'Night'	'F'	'W'	3	null	0.976437	0.403983148	46	Deck 46 Photo 4	FALSE	null
'L7'	'Day'	'M'	'NW'	1	null	0.999015	0.713496832	46	Deck 46 Photo 5	TRUE	WM
'L4'	'Night'	'Mixed'	'NW'	2	null	0.985322	0.727635786	46	Deck 46 Photo 6	FALSE	null
'L9'	'Night'	'F'	'NW'	1	null	0.986782	0.733208366	46	Deck 46 Photo 7	FALSE	null
'L1'	'Night'	'F'	'W'	1	null	0.999058	0.872265125	46	Deck 46 Photo 8	FALSE	null
'L3'	'Day'	'Mixed'	'W'	3	MFF	0.968353	0.97334987	46	Deck 46 Photo 9	FALSE	null

'L5'	'Night'	'M'	'W'	1	null	0.102717	0.160326582	5	Deck 5 Photo 1	TRUE	NF
'L8'	'Night'	'M'	'Combo'	3	NNW	0.121277	0.29419299	5	Deck 5 Photo 2	FALSE	null
'L4'	'Day'	'F'	'W'	1	null	0.168118	0.422931285	5	Deck 5 Photo 3	FALSE	null
'L2'	'Night'	'Mixed'	'Combo'	3	WF-NM-NF	0.072853	0.669847869	5	Deck 5 Photo 4	FALSE	null
'L6'	'Night'	'M'	'Combo'	3	NNW	0.111584	0.782806448	5	Deck 5 Photo 5	FALSE	null
'L9'	'Day'	'M'	'Combo'	2	null	0.146158	0.810607191	5	Deck 5 Photo 6	FALSE	null
'L7'	'Day'	'Mixed'	'W'	3	MMF	0.060518	0.825879656	5	Deck 5 Photo 7	FALSE	null
'L3'	'Day'	'F'	'W'	1	null	0.077588	0.840008262	5	Deck 5 Photo 8	FALSE	null
'L1'	'Night'	'F'	'Combo'	3	NWW	0.214625	0.850724989	5	Deck 5 Photo 9	FALSE	null
'L6'	'Night'	'Mixed'	'Combo'	2	NM-WF	0.12935	0.482139137	6	Deck 6 Photo 1	FALSE	null
'L4'	'Day'	'Mixed'	'Combo'	2	NM-WF	0.19061	0.590981414	6	Deck 6 Photo 2	FALSE	null
'L1'	'Night'	'M'	'Combo'	2	null	0.218219	0.651834901	6	Deck 6 Photo 3	TRUE	NF
'L3'	'Day'	'F'	'NW'	1	null	0.079223	0.720366845	6	Deck 6 Photo 4	FALSE	null
'L9'	'Night'	'M'	'Combo'	2	null	0.185197	0.766561871	6	Deck 6 Photo 5	FALSE	null
'L7'	'Night'	'F'	'W'	3	null	0.096802	0.820511738	6	Deck 6 Photo 6	FALSE	null
'L5'	'Night'	null	null	0	null	0.106843	0.922456816	6	Deck 6 Photo 7	FALSE	null
'L8'	'Night'	'M'	'W'	1	null	0.130113	0.980319524	6	Deck 6 Photo 8	FALSE	null
'L2'	'Day'	'M'	'Combo'	3	NNW	0.136452	0.992987513	6	Deck 6 Photo 9	FALSE	null
'L8'	'Day'	'M'	'NW'	1	null	0.149698	0.448274173	7	Deck 7 Photo 1	FALSE	null
'L4'	'Night'	'Mixed'	'NW'	3	MMF	0.242887	0.53101164	7	Deck 7 Photo 2	FALSE	null
'L5'	'Day'	'F'	'Combo'	3	NWW	0.115688	0.685675654	7	Deck 7 Photo 3	FALSE	null
'L3'	'Night'	null	null	0	null	0.139239	0.697692395	7	Deck 7 Photo 4	FALSE	null
'L7'	'Night'	null	null	0	null	0.115669	0.720384352	7	Deck 7 Photo 5	FALSE	null
'L6'	'Day'	'M'	'NW'	2	null	0.130408	0.798275641	7	Deck 7 Photo 6	FALSE	null
'L2'	'Night'	'M'	'NW'	3	null	0.136555	0.834324173	7	Deck 7 Photo 7	FALSE	null
'L9'	'Night'	'Mixed'	'W'	2	null	0.186382	0.863323329	7	Deck 7 Photo 8	FALSE	null
'L1'	'Day'	'M'	'W'	3	null	0.236942	0.917131287	7	Deck 7 Photo 9	TRUE	NM
'L5'	'Day'	'Mixed'	'NW'	2	null	0.122171	0.064262174	8	Deck 8 Photo 1	FALSE	null
'L8'	'Day'	'M'	'NW'	2	null	0.183992	0.089700443	8	Deck 8 Photo 2	FALSE	null
'L7'	'Night'	'M'	'NW'	2	null	0.118567	0.48437025	8	Deck 8 Photo 3	TRUE	NF
'L1'	'Night'	'M'	'Combo'	3	NNW	0.28603	0.501380156	8	Deck 8 Photo 4	FALSE	null
'L2'	'Night'	'F'	'Combo'	2	null	0.145731	0.616777697	8	Deck 8 Photo 5	FALSE	null
'L6'	'Night'	'Mixed'	'W'	2	null	0.134058	0.716676249	8	Deck 8 Photo 6	FALSE	null
'L9'	'Night'	'M'	'NW'	3	null	0.186952	0.780759029	8	Deck 8 Photo 7	FALSE	null

'L4'	'Day'	'F'	'Combo'	2	null	0.252513	0.840236974	8	Deck 8 Photo 8	FALSE	null
'L3'	'Day'	'Mixed'	'NW'	2	null	0.143105	0.927329572	8	Deck 8 Photo 9	FALSE	null
'L2'	'Day'	'M'	'Combo'	2	null	0.154527	0.195929954	9	Deck 9 Photo 1	FALSE	null
'L6'	'Day'	'F'	'W'	1	null	0.153895	0.244345306	9	Deck 9 Photo 2	FALSE	null
'L7'	'Day'	'F'	'W'	3	null	0.122563	0.342371851	9	Deck 9 Photo 3	FALSE	null
'L1'	'Night'	'F'	'NW'	3	null	0.299824	0.46519012	9	Deck 9 Photo 4	FALSE	null
'L4'	'Day'	'M'	'W'	3	null	0.273746	0.628606116	9	Deck 9 Photo 5	TRUE	NF
'L9'	'Day'	'F'	'NW'	3	null	0.199319	0.635969958	9	Deck 9 Photo 6	FALSE	null
'L5'	'Day'	'Mixed'	'Combo'	3	WM-WM-NF	0.129958	0.66604297	9	Deck 9 Photo 7	FALSE	null
'L8'	'Night'	'M'	'NW'	2	null	0.184961	0.807083513	9	Deck 9 Photo 8	FALSE	null
'L3'	'Night'	'M'	'W'	2	null	0.149109	0.88511804	9	Deck 9 Photo 9	FALSE	null

APPENDIX B

Illustration 3: University of Louisville Belknap Campus Locations Map



APPENDIX C

Figure 3.2: Photo Array 2 Base Photographs of UofL Belknap Campus Locations and Control

Photographs: Day


3rd Street & Eastern Pkwy (L 1) Image #2104

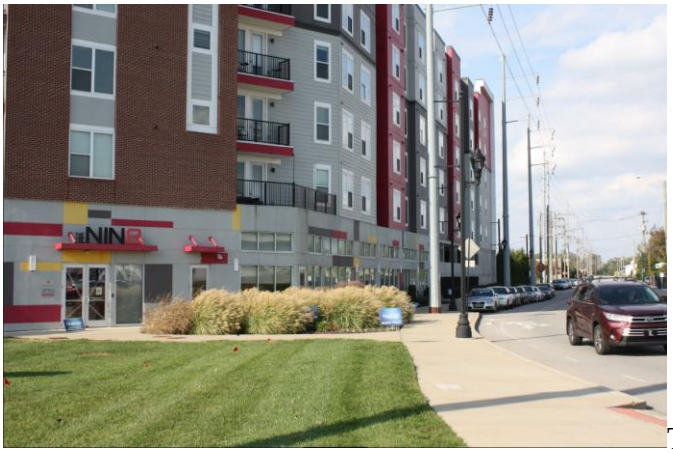

Cardinal Stadium PL (L 2) Image # 2246


Papa John's Pizza PL (L 3) Image # 2251

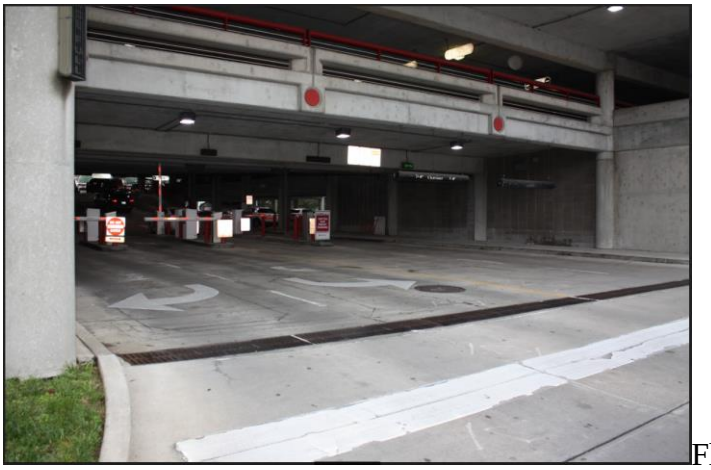
The Province (L 4) Image # 2176

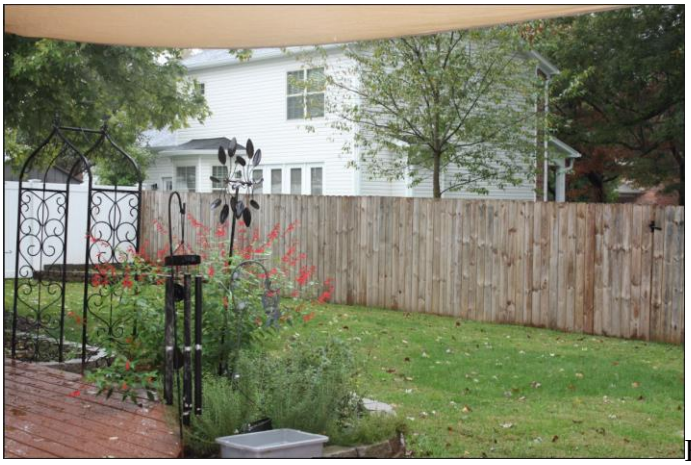
The Clubhouse (L 5) Image #2147

Student Activities Center SAC (L 6) Image # 2055



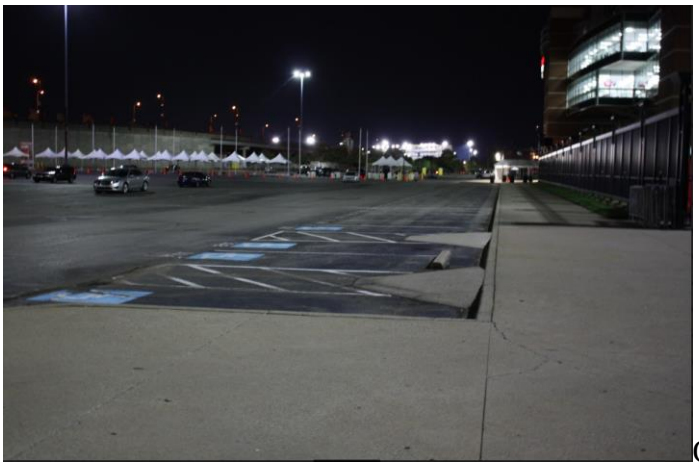
The Nine (L 7) Image # 2199


Floyd Street Garage (L 8) Image # 2314


Backyard (L 9) Image # 2295

Photographs: Night


3rd & Eastern Pkwy (L 1) Image # 2260

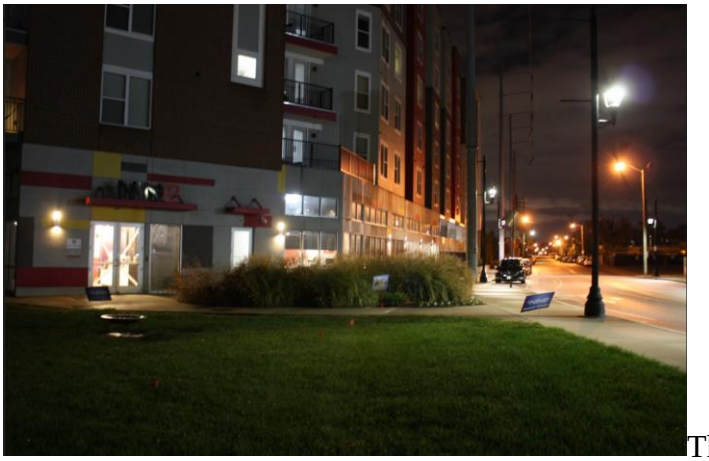

Cardinal Stadium PL (L 2) Image # 2282

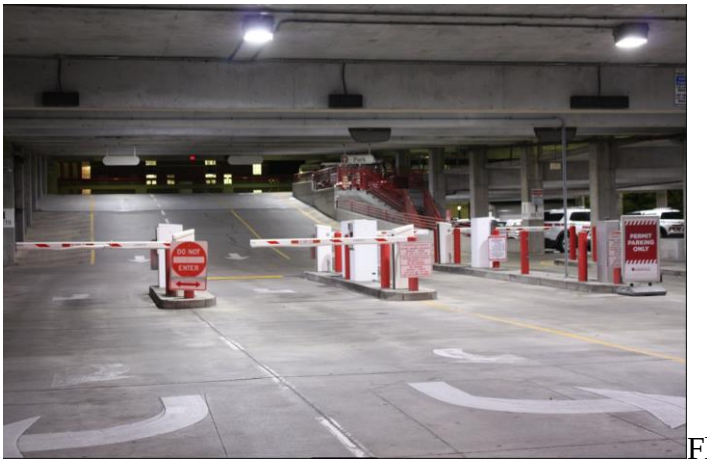

Papa John Pizza PL (L 3) Image # 2302

The Province (L 4) Image # 2267

The Clubhouse (L 5) Image # 2257

Student Activities Center SAC (L 6) Image # 2294


The Nine Apts (L 7) Image # 2303



Floyd Street Garage (L 8) Image # 2274


Author’s Backyard (L 9) Image # 2311

APPENDIX D

Chart 6: Survey Logic Sequence

APPENDIX E

Figure 7: Survey Questions

Demographic Questions (Before photographs)

What is your age? (drop down numbers)

What is your gender? Male Female Non-binary

What is your race?

__White __Black or African American __American Indian or Alaska Native
__Hispanic, Latino, or Spanish origin Other_____

What is your current course load?

Full time (12+ hrs. under grad, 9+ hours grad-student)

Part time (less than 12 hours under grad, less than 9 hours grad)

How do you attend your classes?

All on Belknap campus
All distance classes
Mixture of on-campus and distance

Select your residence (Select One):

Traditionals	**Suites**	**Apartments**	**Affiliated Properties**
Miller Hall	Louisville Hall	University Tower	The Province
Unitas Tower	Community Park	Apartments (UTA)	The Quad
Belknap Hall	Kurz Hall	Bettie Johnson Hall	The Nine
New Residence Hall 2022 (has not been named yet)		University Pointe	The Retreat
		Cardinal Towne	The Clubhouse
		Denny Crum Hall	

Additional Options

Non-University residence within 2 blocks of campus
Non-University residence beyond 2 blocks of campus
Other

Social Activity Questions (Before Photographs)

Have you ever missed an activity on campus (class, social or sporting event, etc.) due to being afraid of becoming a victim of crime?[1]

Yes No Don't remember Prefer not to answer

How often did you attend a party on U of L campus last semester?

None
1-2 times
3-4 times
5 times or more
I did not attend U of L last semester

How often did you participate in a campus organization meeting or gathering (i.e., student organization, fraternities/sororities, etc.) on the University of Louisville campus last semester?

None
1-2 times
3-4 times
5 times or more
I did not attend U of L last semester

Preamble (Before photographs)

You will be shown nine photographs of specific locations and will be asked questions about how fearful you felt or think you would feel at those locations.

Photograph Survey Questions (During photographs)

See Figure 2 below

[1] Constrained behavior question(s) (Fisher and Sloan 2003; Steinmetz and Austin 2013; Rader, 2017; De Welde, 2003; Lee & Hillinski-Rosick, 2012; Hasinoff & Krueger, 2020; Tweksbury & Mustaine, 2003, Logan & Walker, 2017)

Final Questions (After photographs)

While on campus within the last 12 months I have been a victim of property crime (burglary, larceny, theft, arson).[2] [3]

Yes No I don't know I prefer not to answer

While on campus within the last 12 months I have been a victim of violent crime (rape, date rape, attempted rape, robbery, assault, sexual assault).[2] [3]

Yes No I don't know I prefer not to answer

Are you more afraid of becoming a victim of crime on campus or off campus? [2] [3]

On Campus Off Campus Neither Both

In the last 12 months, while on the Belknap Campus or areas around the campus, I have used the following self-protection measures (Select all that apply).[1]

Avoid going out alone	Utilize campus safety programs
Avoid going out at night	Own/carry a weapon
Avoid certain places	Carry mace
Avoid poorly lite areas, lots of shrubbery	Keys held in defensive manner
Avoid certain areas of campus	Own a watchdog
Limit being on campus/off campus at particular times	Install extra locks
Not enroll in classes based on location	Install extra bars on windows
Not enroll in classes based on time (night)	Install security system
Have taken self-defense classes	As someone to watch property when leaving them unattended

Are there any other locations on or adjacent to the University of Louisville campus that makes you fearful? What about this location makes you fearful?

[2] Victimization questions (Fisher & May 2009; Fisher & Sloan 2003; Steinmetz and Austin 2013)

[3] Direct, Indirect, and perceived risk questions (Fisher and Sloan 2003; Steinmetz and Austin 2013)

APPENDIX F

Table18: Self-Protection Measures Utilized by Respondents

Protective Measures taken	Male	Female
Avoid going out alone	7	23
Avoid going out at night	7	22
Avoid certain places	6	17
Avoid poorly lite areas, lots of shrubbery	10	25
Avoid certain areas of campus	3	16
Limit being on campus/off campus at particular times	5	21
Not enroll in classes based on location	1	1
Not enroll in classes based on time (night)	1	15
Have taken self-defense classes	2	1
Utilize campus safety programs	1	4
Own/carry a weapon		2
Install extra locks	1	2
Install extra bars on windows	0	1
Install security system	3	2
As someone to watch property when leaving them unattended	9	17
Total Utilized	56	169

APPENDIX G

Table 19: All Decks Noted Anomalies (0,1,2,3,4 Times Viewed)

Legend
Deck Never Shown
Deck Shown 1 Time
Deck Shown 2 Times
Deck Shown 3 Times
Deck Shown 4 Times

Location	Time	Gender	Race	Number	Tie-Break	Random Deck	Random Photo Order	Deck	New Photo	New File Name	Has Police	Police Demographic	Viewed
'L2'	Day	Mixed	'NW'	2	null	0.000135	0.441807656	1	5	Deck 1 Photo 5	FALSE	null	Shown 1 time
'L5'	Night	'F'	'NW'	1	null	0.00618	0.482787805	1	7	Deck 1 Photo 7	FALSE	null	
'L6'	Day	'M'	'NW'	1	null	0.012829	0.712662147	1	9	Deck 1 Photo 9	FALSE	null	
'L8'	Night	'M'	'NW'	1	null	0.01949	0.50574955	1	8	Deck 1 Photo 8	FALSE	null	
'L7'	Day	'F'	'W'	2	null	0.022866	0.042552411	1	1	Deck 1 Photo 1	FALSE	null	
'L9'	Night	null	null	0	null	0.032176	0.366143868	1	4	Deck 1 Photo 4	FALSE	null	
'L3'	Night	'M'	'W'	3	null	0.053325	0.303716747	1	2	Deck 1 Photo 2	TRUE	WF	
'L1'	Day	'F'	'NW'	3	null	0.091472	0.346952566	1	3	Deck 1 Photo 3	FALSE	null	
'L4'	Day	Mixed	'W'	3	MMF	0.092307	0.478166591	1	6	Deck 1 Photo 6	FALSE	null	
'L2'	Day	Mixed	'W'	3	MFF	0.004304	0.482569184	2	6	Deck 2 Photo 6	FALSE	null	Shown 2 Times
'L5'	Night	Mixed	Combo	3	WF-WF-NM	0.010461	0.870838981	2	9	Deck 2 Photo 9	FALSE	null	
'L7'	Night	'M'	'NW'	3	null	0.025738	0.549924059	2	7	Deck 2 Photo 7	FALSE	null	
'L8'	Night	'F'	'NW'	2	null	0.032543	0.058631777	2	1	Deck 2 Photo 1	FALSE	null	
'L6'	Day	Mixed	Combo	2	NM-WF	0.047154	0.139024589	2	2	Deck 2 Photo 2	FALSE	null	
'L3'	Day	'F'	'NW'	3	null	0.059278	0.37184328	2	5	Deck 2 Photo 5	TRUE	WF	
'L9'	Day	Mixed	Combo	2	NM-WF	0.089855	0.249018296	2	4	Deck 2 Photo 4	FALSE	null	
'L4'	Day	Mixed	'W'	2	null	0.102655	0.859984659	2	8	Deck 2 Photo 8	FALSE	null	
'L1'	Day	'M'	Combo	3	NWW	0.108984	0.234690684	2	3	Deck 2 Photo 3	FALSE	null	
'L5'	Night	'M'	'NW'	3	null	0.012049	0.92448058	3	9	Deck 3 Photo 9	FALSE	null	Shown 1 time
'L2'	Night	'F'	'NW'	3	null	0.046066	0.326756617	3	4	Deck 3 Photo 4	FALSE	null	
'L8'	Day	Mixed	Combo	2	NM-WF	0.046836	0.875653052	3	8	Deck 3 Photo 8	FALSE	null	
'L7'	Day	null	null	0	WM-NF	0.053982	0.188755403	3	2	Deck 3 Photo 2	TRUE	NF	
'L6'	Day	'M'	Combo	2	null	0.05765	0.725295888	3	7	Deck 3 Photo 7	FALSE	null	
'L3'	Night	Mixed	'NW'	2	null	0.062291	0.2332282	3	3	Deck 3 Photo 3	FALSE	null	
'L4'	Night	'M'	Combo	3	NWW	0.106426	0.047315893	3	1	Deck 3 Photo 1	FALSE	null	
'L9'	Day	'M'	'W'	2	null	0.123501	0.376942966	3	5	Deck 3 Photo 5	FALSE	null	
'L1'	Night	'F'	'W'	2	null	0.126405	0.394861418	3	6	Deck 3 Photo 6	FALSE	null	
'L5'	Night	'M'	'NW'	1	null	0.058102	0.444698845	4	7	Deck 4 Photo 7	FALSE	null	Shown 1
'L7'	Day	'M'	'W'	2	null	0.060261	0.173063652	4	2	Deck 4 Photo 2	FALSE	null	
'L3'	Night	Mixed	'W'	2	null	0.06847	0.987691538	4	9	Deck 4 Photo 9	FALSE	null	

'L2'	Night	'M'	Combo	2	null	0.072418	0.211477593	4	3	Deck 4 Photo 3	FALSE	null		
'L8'	Night	Mixed	'W'	3	MFF	0.084406	0.365563707	4	5	Deck 4 Photo 5	TRUE	WM		
'L6'	Night	'F'	'W'	1	null	0.093321	0.376937155	4	6	Deck 4 Photo 6	FALSE	null		
'L1'	Day	null	null	0	null	0.136743	0.264473743	4	4	Deck 4 Photo 4	FALSE	null		
'L9'	Day	'M'	'NW'	1	null	0.139157	0.556008474	4	8	Deck 4 Photo 8	FALSE	null		
'L4'	Night	'M'	Combo	2	null	0.154929	0.041184989	4	1	Deck 4 Photo 1	FALSE	null		
'L7'	Day	Mixed	'W'	3	MMF	0.060518	0.825879656	5	7	Deck 5 Photo 7	FALSE	null	Not shown	
'L2'	Night	Mixed	Combo	3	WF-NM-NF	0.072853	0.669847869	5	4	Deck 5 Photo 4	FALSE	null		
'L3'	Day	'F'	'W'	1	null	0.077588	0.840008262	5	8	Deck 5 Photo 8	FALSE	null		
'L5'	Night	'M'	'W'	1	null	0.102717	0.160326582	5	1	Deck 5 Photo 1	TRUE	NF		
'L6'	Night	'M'	Combo	3	NNW	0.111584	0.782806448	5	5	Deck 5 Photo 5	FALSE	null		
'L8'	Night	'M'	Combo	3	NNW	0.121277	0.29419299	5	2	Deck 5 Photo 2	FALSE	null		
'L9'	Day	'M'	Combo	2	null	0.146158	0.810607191	5	6	Deck 5 Photo 6	FALSE	null		
'L4'	Day	'F'	'W'	1	null	0.168118	0.422931285	5	3	Deck 5 Photo 3	FALSE	null		
'L1'	Night	'F'	Combo	3	NWW	0.214625	0.850724989	5	9	Deck 5 Photo 9	FALSE	null		
'L3'	Day	'F'	'NW'	1	null	0.079223	0.720366845	6	4	Deck 6 Photo 4	FALSE	null	Shown 1 time	
'L7'	Night	'F'	'W'	3	null	0.096802	0.820511738	6	6	Deck 6 Photo 6	FALSE	null		
'L5'	Night	null	null	0	null	0.106843	0.922456816	6	7	Deck 6 Photo 7	FALSE	null		
'L6'	Night	Mixed	Combo	2	NM-WF	0.12935	0.482139137	6	1	Deck 6 Photo 1	FALSE	null		
'L8'	Night	'M'	'W'	1	null	0.130113	0.980319524	6	8	Deck 6 Photo 8	FALSE	null		
'L2'	Day	'M'	Combo	3	NNW	0.136452	0.992987513	6	9	Deck 6 Photo 9	FALSE	null		
'L9'	Night	'M'	Combo	2	null	0.185197	0.766561871	6	5	Deck 6 Photo 5	FALSE	null		
'L4'	Day	Mixed	Combo	2	NM-WF	0.19061	0.590981414	6	2	Deck 6 Photo 2	FALSE	null		
'L1'	Night	'M'	Combo	2	null	0.218219	0.651834901	6	3	Deck 6 Photo 3	TRUE	NF		
'L7'	Night	null	null	0	null	0.115669	0.720384352	7	5	Deck 7 Photo 5	FALSE	null	Shown 2 Times	
'L5'	Day	'F'	Combo	3	NWW	0.115688	0.685675654	7	3	Deck 7 Photo 3	FALSE	null		
'L6'	Day	'M'	'NW'	2	null	0.130408	0.798275641	7	6	Deck 7 Photo 6	FALSE	null		
'L2'	Night	'M'	'NW'	3	null	0.136555	0.834324173	7	7	Deck 7 Photo 7	FALSE	null		
'L3'	Night	null	null	0	null	0.139239	0.697692395	7	4	Deck 7 Photo 4	FALSE	null		
'L8'	Day	'M'	'NW'	1	null	0.149698	0.448274173	7	1	Deck 7 Photo 1	FALSE	null		
'L9'	Night	Mixed	'W'	2	null	0.186382	0.863323329	7	8	Deck 7 Photo 8	FALSE	null		
'L1'	Day	'M'	'W'	3	null	0.236942	0.917131287	7	9	Deck 7 Photo 9	TRUE	NM		
'L4'	Night	Mixed	'NW'	3	MMF	0.242887	0.53101164	7	2	Deck 7 Photo 2	FALSE	null		
'L7'	Night	'M'	'NW'	2	null	0.118567	0.48437025	8	3	Deck 8 Photo 3	TRUE	NF	Shown 1 time	
'L5'	Day	Mixed	'NW'	2	null	0.122171	0.064262174	8	1	Deck 8 Photo 1	FALSE	null		
'L6'	Night	Mixed	'W'	2	null	0.134058	0.716676249	8	6	Deck 8 Photo 6	FALSE	null		
'L3'	Day	Mixed	'NW'	2	null	0.143105	0.927329572	8	9	Deck 8 Photo 9	FALSE	null		
'L2'	Night	'F'	Combo	2	null	0.145731	0.616777697	8	5	Deck 8 Photo 5	FALSE	null		
'L8'	Day	'M'	'NW'	2	null	0.183992	0.089700443	8	2	Deck 8 Photo 2	FALSE	null		
'L9'	Night	'M'	'NW'	3	null	0.186952	0.780759029	8	7	Deck 8 Photo 7	FALSE	null		
'L4'	Day	'F'	Combo	2	null	0.252513	0.840236974	8	8	Deck 8 Photo 8	FALSE	null		
'L1'	Night	'M'	Combo	3	NNW	0.28603	0.501380156	8	4	Deck 8 Photo 4	FALSE	null		
'L7'	Day	'F'	'W'	3	null	0.122563	0.342371851	9	3	Deck 9 Photo 3	FALSE	null	Not Shown	
'L5'	Day	Mixed	Combo	3	WM-WM-NF	0.129958	0.66604297	9	7	Deck 9 Photo 7	FALSE	null		
'L3'	Night	'M'	'W'	2	null	0.149109	0.88511804	9	9	Deck 9 Photo 9	FALSE	null		
'L6'	Day	'F'	'W'	1	null	0.153895	0.244345306	9	2	Deck 9 Photo 2	FALSE	null		
'L2'	Day	'M'	Combo	2	null	0.154527	0.195929954	9	1	Deck 9 Photo 1	FALSE	null		

'L8'	Night	'M'	'NW'	2	null	0.184961	0.807083513	9	8	Deck 9 Photo 8	FALSE	null	
'L9'	Day	'F'	'NW'	3	null	0.199319	0.635969958	9	6	Deck 9 Photo 6	FALSE	null	
'L4'	Day	'M'	'W'	3	null	0.273746	0.628606116	9	5	Deck 9 Photo 5	TRUE	NF	
'L1'	Night	'F'	'NW'	3	null	0.299824	0.46519012	9	4	Deck 9 Photo 4	FALSE	null	
'L7'	Day	'F'	'NW'	3	null	0.134734	0.212767823	10	4	Deck 10 Photo 4	TRUE	WM	Shown 3 Times
'L6'	Night	'M'	Combo	2	null	0.162601	0.938514872	10	8	Deck 10 Photo 8	FALSE	null	Shown 3 Times
'L2'	Night	Mixed	'NW'	3	MFF	0.165809	0.617756269	10	5	Deck 10 Photo 5	FALSE	null	Shown 3 Times
'L5'	Night	Mixed	'NW'	2	null	0.176646	0.864967405	10	7	Deck 10 Photo 7	FALSE	null	Shown 3 Times
'L8'	Day	Mixed	'NW'	2	null	0.188583	0.067727582	10	2	Deck 10 Photo 2	FALSE	null	Shown 3 Times
'L9'	Day	'F'	'W'	2	null	0.223639	0.94364922	10	9	Deck 10 Photo 9	FALSE	null	Shown 3 Times
'L3'	Night	'M'	'NW'	3	null	0.236842	0.171221598	10	3	Deck 10 Photo 3	FALSE	null	Shown 3 Times
'L4'	Night	'F'	'W'	2	null	0.284383	0.039315928	10	1	Deck 10 Photo 1	FALSE	null	Shown 3 Times
'L1'	Night	'M'	'NW'	3	null	0.323516	0.742737256	10	6	Deck 10 Photo 6	FALSE	null	Shown 3 Times
'L6'	Day	'F'	Combo	3	NNW	0.193097	0.668740547	11	8	Deck 11 Photo 8	FALSE	null	Shown 1 time
'L7'	Day	'M'	Combo	2	null	0.202048	0.299940843	11	2	Deck 11 Photo 2	TRUE	NF	Shown 1 time
'L8'	Night	'M'	'W'	2	null	0.2178	0.855702926	11	9	Deck 11 Photo 9	FALSE	null	Shown 1 time
'L2'	Night	'F'	'NW'	1	null	0.229844	0.024799909	11	1	Deck 11 Photo 1	FALSE	null	Shown 1 time
'L9'	Day	'F'	'W'	1	null	0.231172	0.487706788	11	5	Deck 11 Photo 5	FALSE	null	Shown 1 time
'L5'	Night	'M'	'W'	2	null	0.244144	0.362282255	11	3	Deck 11 Photo 3	FALSE	null	Shown 1 time
'L3'	Night	'M'	'NW'	1	null	0.257187	0.403747968	11	4	Deck 11 Photo 4	FALSE	null	Shown 1 time
'L4'	Day	'M'	'NW'	2	null	0.296676	0.646097638	11	7	Deck 11 Photo 7	FALSE	null	Shown 1 time
'L1'	Night	'M'	'NW'	1	null	0.334738	0.554379417	11	6	Deck 11 Photo 6	FALSE	null	Shown 1 time
'L8'	Day	'F'	'W'	1	null	0.220627	0.086760851	12	1	Deck 12 Photo 1	TRUE	NM	Shown 3 Times
'L7'	Day	Mixed	Combo	3	WF-WF-NM	0.221196	0.472627491	12	5	Deck 12 Photo 5	FALSE	null	Shown 3 Times
'L6'	Night	'M'	'NW'	2	null	0.240317	0.199769746	12	2	Deck 12 Photo 2	FALSE	null	Shown 3 Times
'L9'	Day	'F'	Combo	3	NNW	0.241381	0.410206181	12	4	Deck 12 Photo 4	FALSE	null	Shown 3 Times
'L3'	Day	null	null	0	null	0.266012	0.772270556	12	8	Deck 12 Photo 8	FALSE	null	Shown 3 Times
'L2'	Night	'M'	'NW'	2	null	0.266705	0.705197796	12	6	Deck 12 Photo 6	FALSE	null	Shown 3 Times
'L5'	Night	Mixed	'W'	2	null	0.312639	0.964408004	12	9	Deck 12 Photo 9	FALSE	null	Shown 3 Times
'L4'	Day	'F'	'NW'	3	null	0.322985	0.709223275	12	7	Deck 12 Photo 7	FALSE	null	Shown 3 Times
'L1'	Night	'F'	Combo	2	null	0.360738	0.393730801	12	3	Deck 12 Photo 3	FALSE	null	Shown 3 Times
'L8'	Night	'M'	'NW'	3	null	0.222555	0.852846476	13	7	Deck 13 Photo 7	FALSE	null	Shown 1 time
'L7'	Day	Mixed	'NW'	2	null	0.225058	0.977249978	13	9	Deck 13 Photo 9	FALSE	null	Shown 1 time
'L6'	Day	'F'	Combo	2	null	0.2507	0.656494288	13	5	Deck 13 Photo 5	FALSE	null	Shown 1 time
'L9'	Day	'M'	'W'	1	null	0.261488	0.571073556	13	4	Deck 13 Photo 4	FALSE	null	Shown 1 time
'L2'	Night	'M'	'NW'	1	null	0.280573	0.47658029	13	3	Deck 13 Photo 3	TRUE	NF	Shown 1 time
'L3'	Day	'M'	Combo	3	NWW	0.281383	0.950244446	13	8	Deck 13 Photo 8	FALSE	null	Shown 1 time
'L4'	Night	'F'	'W'	1	null	0.33453	0.701131054	13	6	Deck 13 Photo 6	FALSE	null	Shown 1 time
'L5'	Day	Mixed	'W'	3	MFF	0.346311	0.113375746	13	1	Deck 13 Photo 1	FALSE	null	Shown 1 time
'L1'	Day	Mixed	'NW'	3	MFF	0.362306	0.240506175	13	2	Deck 13 Photo 2	FALSE	null	Shown 1 time
'L8'	Night	'F'	'W'	2	null	0.248171	0.015313313	14	1	Deck 14 Photo 1	FALSE	null	Not Shown
'L6'	Night	'M'	'W'	3	null	0.258993	0.072220659	14	2	Deck 14 Photo 2	FALSE	null	Not Shown
'L7'	Night	'F'	'NW'	1	null	0.282677	0.386768019	14	5	Deck 14 Photo 5	TRUE	NM	Not Shown
'L3'	Night	'M'	'NW'	2	null	0.287756	0.67556739	14	7	Deck 14 Photo 7	FALSE	null	Not Shown
'L2'	Day	Mixed	'W'	2	null	0.315783	0.762705013	14	9	Deck 14 Photo 9	FALSE	null	Not Shown
'L9'	Day	'M'	Combo	3	NWW	0.336655	0.29928116	14	3	Deck 14 Photo 3	FALSE	null	Not Shown
'L5'	Day	'M'	'NW'	1	null	0.354239	0.719944434	14	8	Deck 14 Photo 8	FALSE	null	Not Shown

'L4'	Night	'F'	'W'	3	null	0.359842	0.343865938	14	4	Deck 14 Photo 4	FALSE	null	
'L1'	Night	Mixed	'NW'	3	MMF	0.376103	0.631582455	14	6	Deck 14 Photo 6	FALSE	null	
'L6'	Day	'M'	'NW'	3	null	0.266938	0.934891936	15	7	Deck 15 Photo 7	FALSE	null	Not Shown
'L8'	Night	Mixed	'NW'	3	MFF	0.274603	0.476435217	15	3	Deck 15 Photo 3	FALSE	null	
'L3'	Day	'F'	'W'	2	null	0.289539	0.576683311	15	5	Deck 15 Photo 5	TRUE	WF	
'L7'	Day	'M'	'W'	1	null	0.317918	0.841159486	15	6	Deck 15 Photo 6	FALSE	null	
'L2'	Night	'F'	'W'	2	null	0.33743	0.945809831	15	8	Deck 15 Photo 8	FALSE	null	
'L9'	Night	Mixed	'NW'	3	MMF	0.344099	0.485465015	15	4	Deck 15 Photo 4	FALSE	null	
'L4'	Day	'M'	'NW'	1	null	0.360611	0.019156374	15	2	Deck 15 Photo 2	FALSE	null	
'L5'	Night	'F'	'NW'	2	null	0.362986	0.006071497	15	1	Deck 15 Photo 1	FALSE	null	
'L1'	Day	'F'	'W'	3	null	0.422295	0.976109616	15	9	Deck 15 Photo 9	FALSE	null	
'L6'	Night	'F'	'W'	3	null	0.27778	0.322422205	16	5	Deck 16 Photo 5	FALSE	null	Shown 2 Times
'L3'	Night	Mixed	'W'	3	MMF	0.293683	0.71077632	16	8	Deck 16 Photo 8	FALSE	null	
'L8'	Day	'M'	Combo	2	null	0.330542	0.245809907	16	4	Deck 16 Photo 4	FALSE	null	
'L7'	Day	'F'	'NW'	1	null	0.349148	0.141516215	16	1	Deck 16 Photo 1	FALSE	null	
'L2'	Night	'F'	'W'	3	null	0.351773	0.516041225	16	6	Deck 16 Photo 6	FALSE	null	
'L9'	Day	'F'	'NW'	2	null	0.363921	0.242577761	16	3	Deck 16 Photo 3	FALSE	null	
'L5'	Day	'M'	'W'	2	null	0.381907	0.921421054	16	9	Deck 16 Photo 9	FALSE	null	
'L4'	Day	'F'	'W'	3	null	0.392507	0.150751552	16	2	Deck 16 Photo 2	FALSE	null	
'L1'	Day	'F'	'NW'	2	null	0.467547	0.691971865	16	7	Deck 16 Photo 7	TRUE	NF	
'L6'	Day	null	null	0	null	0.293612	0.550913483	17	6	Deck 17 Photo 6	FALSE	null	Shown 3 Times
'L3'	Night	'F'	'W'	2	null	0.319606	0.882164666	17	9	Deck 17 Photo 9	TRUE	WF	
'L8'	Day	'M'	'W'	1	null	0.336643	0.18789737	17	2	Deck 17 Photo 2	FALSE	null	
'L7'	Night	'F'	'NW'	3	null	0.359956	0.711832023	17	8	Deck 17 Photo 8	FALSE	null	
'L9'	Night	'F'	Combo	2	null	0.36454	0.647484135	17	7	Deck 17 Photo 7	FALSE	null	
'L2'	Day	'M'	'NW'	3	null	0.378544	0.547473782	17	5	Deck 17 Photo 5	FALSE	null	
'L5'	Night	'F'	Combo	3	NNW	0.388704	0.254819662	17	3	Deck 17 Photo 3	FALSE	null	
'L4'	Night	'F'	'NW'	1	null	0.397313	0.051553869	17	1	Deck 17 Photo 1	FALSE	null	
'L1'	Day	'M'	'NW'	3	null	0.484299	0.358191046	17	4	Deck 17 Photo 4	FALSE	null	
'L6'	Night	'F'	Combo	3	NNW	0.313327	0.617625893	18	9	Deck 18 Photo 9	FALSE	null	Shown 4 Times
'L8'	Night	'F'	'NW'	1	null	0.337183	0.419985273	18	5	Deck 18 Photo 5	FALSE	null	
'L3'	Day	'F'	Combo	3	NWW	0.358959	0.189003184	18	1	Deck 18 Photo 1	FALSE	null	
'L9'	Night	Mixed	'NW'	2	null	0.368215	0.539302666	18	7	Deck 18 Photo 7	FALSE	null	
'L2'	Day	Mixed	Combo	3	NF-NF-WM	0.390237	0.346377024	18	4	Deck 18 Photo 4	FALSE	null	
'L5'	Day	'M'	'NW'	2	null	0.390343	0.226952145	18	2	Deck 18 Photo 2	TRUE	WM	
'L4'	Day	Mixed	Combo	3	NM-NF-WM	0.398905	0.446934743	18	6	Deck 18 Photo 6	FALSE	null	
'L1'	Day	Mixed	'NW'	2	null	0.489104	0.568417256	18	8	Deck 18 Photo 8	FALSE	null	
'L7'	Day	Mixed	'NW'	3	MFF	0.489626	0.237139183	18	3	Deck 18 Photo 3	FALSE	null	
'L6'	Night	Mixed	Combo	3	NF-NF-WM	0.323799	0.341078761	19	5	Deck 19 Photo 5	FALSE	null	Shown 2 Times
'L9'	Day	'M'	'NW'	3	null	0.37108	0.602710367	19	9	Deck 19 Photo 9	TRUE	WM	
'L3'	Night	'M'	Combo	3	NWW	0.380693	0.069324602	19	1	Deck 19 Photo 1	FALSE	null	
'L8'	Night	'F'	'W'	1	null	0.391476	0.141356929	19	2	Deck 19 Photo 2	FALSE	null	
'L5'	Day	Mixed	'NW'	3	MFF	0.39883	0.577019244	19	8	Deck 19 Photo 8	FALSE	null	
'L2'	Day	'M'	'W'	1	null	0.4369	0.502962346	19	7	Deck 19 Photo 7	FALSE	null	
'L4'	Night	'M'	'NW'	2	null	0.459224	0.389903877	19	6	Deck 19 Photo 6	FALSE	null	
'L7'	Night	'M'	Combo	3	NWW	0.49836	0.219784215	19	3	Deck 19 Photo 3	FALSE	null	
'L1'	Day	'F'	'NW'	1	null	0.528702	0.319435881	19	4	Deck 19 Photo 4	FALSE	null	

'L6'	Day	Mixed	'NW'	3	MFF	0.349463	0.865004412	20	8	Deck 20 Photo 8	FALSE	null	Not Shown
'L9'	Day	'F'	'W'	3	null	0.371908	0.350077929	20	5	Deck 20 Photo 5	FALSE	null	
'L8'	Day	Mixed	'NW'	3	MMF	0.399159	0.366398077	20	6	Deck 20 Photo 6	FALSE	null	
'L3'	Day	'F'	'W'	3	null	0.412454	0.316185721	20	4	Deck 20 Photo 4	TRUE	WF	
'L5'	Night	'F'	'W'	1	null	0.420851	0.227996067	20	2	Deck 20 Photo 2	FALSE	null	
'L2'	Night	'M'	'W'	3	null	0.453319	0.919612651	20	9	Deck 20 Photo 9	FALSE	null	
'L4'	Day	'F'	'NW'	1	null	0.494463	0.427474794	20	7	Deck 20 Photo 7	FALSE	null	
'L7'	Day	'F'	'NW'	2	null	0.504529	0.269734847	20	3	Deck 20 Photo 3	FALSE	null	
'L1'	Night	'F'	'W'	3	null	0.559699	0.22340625	20	1	Deck 20 Photo 1	FALSE	null	
'L6'	Night	null	null	0	null	0.382713	0.384356771	21	3	Deck 21 Photo 3	FALSE	null	Shown 1 time
'L8'	Day	'M'	'W'	2	null	0.403253	0.982353385	21	9	Deck 21 Photo 9	FALSE	null	
'L9'	Day	'M'	'W'	3	null	0.406985	0.977440345	21	8	Deck 21 Photo 8	FALSE	null	
'L3'	Night	'F'	'NW'	3	null	0.428195	0.70923358	21	6	Deck 21 Photo 6	FALSE	null	
'L5'	Day	'F'	'NW'	1	null	0.443702	0.060563025	21	2	Deck 21 Photo 2	TRUE	NF	
'L2'	Day	'F'	'W'	3	null	0.453681	0.814768803	21	7	Deck 21 Photo 7	FALSE	null	
'L4'	Night	Mixed	'W'	2	null	0.506912	0.532419667	21	4	Deck 21 Photo 4	FALSE	null	
'L7'	Night	'M'	'W'	2	null	0.544422	0.051098688	21	1	Deck 21 Photo 1	FALSE	null	
'L1'	Night	Mixed	'W'	2	null	0.562672	0.548808164	21	5	Deck 21 Photo 5	FALSE	null	
'L9'	Day	Mixed	'W'	2	null	0.410288	0.582598638	22	6	Deck 22 Photo 6	TRUE	WM	Not Shown
'L6'	Day	'F'	'W'	3	null	0.414297	0.95690528	22	9	Deck 22 Photo 9	FALSE	null	
'L8'	Night	'M'	Combo	2	null	0.43442	0.016150978	22	1	Deck 22 Photo 1	FALSE	null	
'L3'	Day	Mixed	'W'	2	null	0.436689	0.678199746	22	7	Deck 22 Photo 7	FALSE	null	
'L5'	Night	'M'	Combo	2	null	0.450902	0.258402117	22	3	Deck 22 Photo 3	FALSE	null	
'L2'	Day	null	null	0	null	0.457713	0.09359831	22	2	Deck 22 Photo 2	FALSE	null	
'L7'	Night	'F'	Combo	2	null	0.54501	0.863166413	22	8	Deck 22 Photo 8	FALSE	null	
'L4'	Night	'F'	'NW'	3	null	0.564729	0.290757196	22	5	Deck 22 Photo 5	FALSE	null	
'L1'	Night	Mixed	'NW'	2	null	0.614676	0.287775461	22	4	Deck 22 Photo 4	FALSE	null	
'L9'	Night	'M'	'NW'	1	null	0.417105	0.4023309	23	5	Deck 23 Photo 5	FALSE	null	Not Shown
'L6'	Night	'M'	'NW'	3	null	0.420316	0.242350672	23	2	Deck 23 Photo 2	TRUE	WM	
'L8'	Day	'F'	Combo	2	null	0.437256	0.434910645	23	6	Deck 23 Photo 6	FALSE	null	
'L3'	Night	'M'	Combo	2	null	0.468267	0.398931903	23	4	Deck 23 Photo 4	FALSE	null	
'L5'	Day	'F'	'NW'	3	null	0.469161	0.147406179	23	1	Deck 23 Photo 1	FALSE	null	
'L2'	Day	'F'	'W'	2	null	0.476835	0.535677263	23	8	Deck 23 Photo 8	FALSE	null	
'L7'	Night	'F'	'W'	1	null	0.567439	0.693779832	23	9	Deck 23 Photo 9	FALSE	null	
'L4'	Night	'M'	'W'	1	null	0.612028	0.310628513	23	3	Deck 23 Photo 3	FALSE	null	
'L1'	Night	'F'	'NW'	1	null	0.625731	0.482287701	23	7	Deck 23 Photo 7	FALSE	null	
'L6'	Day	Mixed	Combo	3	NF-NF-WM	0.425334	0.491591024	24	3	Deck 24 Photo 3	TRUE	WF	Shown 2 Times
'L9'	Night	Mixed	Combo	3	WM-WF-NM	0.436156	0.853892528	24	7	Deck 24 Photo 7	FALSE	null	
'L3'	Day	'M'	'NW'	1	null	0.47095	0.85801602	24	8	Deck 24 Photo 8	FALSE	null	
'L8'	Day	'M'	'W'	3	null	0.484958	0.278813092	24	2	Deck 24 Photo 2	FALSE	null	
'L2'	Day	'M'	'W'	3	null	0.498757	0.58176788	24	4	Deck 24 Photo 4	FALSE	null	
'L5'	Night	Mixed	'W'	3	MFF	0.577745	0.638627679	24	5	Deck 24 Photo 5	FALSE	null	
'L7'	Day	'F'	Combo	3	NWW	0.579639	0.84057229	24	6	Deck 24 Photo 6	FALSE	null	
'L4'	Night	null	null	0	null	0.62986	0.090088073	24	1	Deck 24 Photo 1	FALSE	null	
'L1'	Night	'M'	'W'	3	null	0.638982	0.985790658	24	9	Deck 24 Photo 9	FALSE	null	
'L6'	Night	'M'	'W'	2	null	0.427619	0.989109449	25	9	Deck 25 Photo 9	FALSE	null	Show
'L9'	Night	'M'	'NW'	2	null	0.464457	0.75573573	25	6	Deck 25 Photo 6	FALSE	null	

'L3'	Day	Mixed	'NW'	3	MMF	0.490334	0.085349741	25	1	Deck 25 Photo 1	FALSE	null	
'L8'	Day	'M'	Combo	3	NNW	0.513599	0.19946797	25	2	Deck 25 Photo 2	FALSE	null	
'L2'	Day	'F'	'NW'	2	null	0.517776	0.79411346	25	8	Deck 25 Photo 8	FALSE	null	
'L5'	Day	'M'	Combo	2	null	0.580529	0.761790291	25	7	Deck 25 Photo 7	FALSE	null	
'L7'	Day	Mixed	'W'	2	null	0.595674	0.245682775	25	3	Deck 25 Photo 3	FALSE	null	
'L4'	Day	'F'	'NW'	2	null	0.644493	0.636820689	25	4	Deck 25 Photo 4	FALSE	null	
'L1'	Day	'M'	'NW'	1	null	0.646013	0.703248947	25	5	Deck 25 Photo 5	TRUE	NM	
'L6'	Night	'F'	'W'	2	null	0.459889	0.271728198	26	3	Deck 26 Photo 3	FALSE	null	Shown 3 Times
'L9'	Night	'F'	'W'	3	null	0.468976	0.734016743	26	7	Deck 26 Photo 7	FALSE	null	
'L3'	Day	'M'	'W'	3	null	0.498465	0.904040362	26	9	Deck 26 Photo 9	FALSE	null	
'L8'	Day	null	null	0	null	0.519008	0.578692136	26	6	Deck 26 Photo 6	TRUE	NM	
'L2'	Night	'F'	'NW'	2	null	0.521613	0.426092951	26	4	Deck 26 Photo 4	FALSE	null	
'L7'	Day	'M'	'NW'	3	null	0.634562	0.812934855	26	8	Deck 26 Photo 8	FALSE	null	
'L5'	Night	'F'	Combo	2	null	0.635785	0.124302544	26	1	Deck 26 Photo 1	FALSE	null	
'L4'	Night	'F'	'NW'	2	null	0.650616	0.468642763	26	5	Deck 26 Photo 5	FALSE	null	
'L1'	Day	'F'	'W'	2	null	0.653122	0.258639494	26	2	Deck 26 Photo 2	FALSE	null	
'L3'	Night	Mixed	Combo	2	WM-NF	0.500879	0.976784047	27	9	Deck 27 Photo 9	FALSE	null	Shown 3 Times
'L9'	Night	'F'	Combo	3	NWW	0.515154	0.195151086	27	3	Deck 27 Photo 3	FALSE	null	
'L2'	Night	'F'	Combo	3	NWW	0.521882	0.787591185	27	7	Deck 27 Photo 7	TRUE	WM	
'L6'	Day	'M'	Combo	3	NNW	0.524104	0.498768047	27	5	Deck 27 Photo 5	FALSE	null	
'L8'	Day	Mixed	'W'	2	null	0.544658	0.010023872	27	1	Deck 27 Photo 1	FALSE	null	
'L7'	Night	'F'	'NW'	2	null	0.638096	0.716744552	27	6	Deck 27 Photo 6	FALSE	null	
'L5'	Night	'F'	'NW'	3	null	0.652501	0.845368454	27	8	Deck 27 Photo 8	FALSE	null	
'L1'	Night	Mixed	Combo	2	WM-NF	0.655625	0.094063204	27	2	Deck 27 Photo 2	FALSE	null	
'L4'	Night	'M'	'NW'	3	null	0.665112	0.454190399	27	4	Deck 27 Photo 4	FALSE	null	
'L3'	Day	'F'	Combo	2	null	0.512012	0.222134949	28	3	Deck 28 Photo 3	FALSE	null	Shown 2 Times
'L2'	Day	Mixed	Combo	2	NM-WF	0.530087	0.386272659	28	5	Deck 28 Photo 5	FALSE	null	
'L8'	Night	'F'	'NW'	3	null	0.547306	0.800731492	28	9	Deck 28 Photo 9	FALSE	null	
'L6'	Night	Mixed	'NW'	3	MMF	0.549403	0.525391539	28	7	Deck 28 Photo 7	FALSE	null	
'L9'	Day	Mixed	Combo	3	NM-NM-WF	0.602485	0.721888205	28	8	Deck 28 Photo 8	TRUE	WM	
'L7'	Day	'M'	'NW'	2	null	0.643043	0.517039891	28	6	Deck 28 Photo 6	FALSE	null	
'L5'	Night	'M'	'NW'	2	null	0.658381	0.322930853	28	4	Deck 28 Photo 4	FALSE	null	
'L4'	Day	'M'	'W'	2	null	0.669441	0.122957519	28	1	Deck 28 Photo 1	FALSE	null	
'L1'	Day	'M'	'W'	1	null	0.680621	0.144434617	28	2	Deck 28 Photo 2	FALSE	null	
'L6'	Night	Mixed	'W'	3	MFF	0.552627	0.293625688	29	4	Deck 29 Photo 4	FALSE	null	Not Shown
'L3'	Day	Mixed	Combo	2	WM-NF	0.552724	0.818586764	29	8	Deck 29 Photo 8	FALSE	null	
'L2'	Day	'F'	'NW'	3	null	0.560193	0.733572513	29	6	Deck 29 Photo 6	FALSE	null	
'L8'	Night	Mixed	'NW'	2	null	0.561001	0.165982539	29	2	Deck 29 Photo 2	FALSE	null	
'L9'	Night	'M'	'W'	2	null	0.631869	0.410157028	29	5	Deck 29 Photo 5	TRUE	NM	
'L7'	Night	Mixed	'NW'	3	MFF	0.659245	0.786444532	29	7	Deck 29 Photo 7	FALSE	null	
'L5'	Day	'F'	'NW'	2	null	0.682628	0.00918908	29	1	Deck 29 Photo 1	FALSE	null	
'L1'	Day	'M'	'NW'	2	null	0.709306	0.200931832	29	3	Deck 29 Photo 3	FALSE	null	
'L4'	Night	'F'	Combo	2	null	0.729184	0.932278706	29	9	Deck 29 Photo 9	FALSE	null	
'L2'	Day	'F'	Combo	2	null	0.563361	0.06570434	30	1	Deck 30 Photo 1	FALSE	null	Not Shown
'L8'	Day	'F'	'W'	3	null	0.567668	0.122260417	30	4	Deck 30 Photo 4	FALSE	null	
'L6'	Day	'M'	'W'	2	null	0.568402	0.080780852	30	2	Deck 30 Photo 2	TRUE	NF	
'L3'	Night	'F'	'NW'	2	null	0.591093	0.190534554	30	6	Deck 30 Photo 6	FALSE	null	

'L7'	Night	'F'	'W'	2	null	0.66078	0.415807114	30	7	Deck 30 Photo 7	FALSE	null		
'L9'	Day	Mixed	'W'	3	MFF	0.675403	0.997544057	30	9	Deck 30 Photo 9	FALSE	null		
'L5'	Day	'M'	'W'	3	null	0.696424	0.72418055	30	8	Deck 30 Photo 8	FALSE	null		
'L1'	Night	'M'	'NW'	2	null	0.715253	0.133027922	30	5	Deck 30 Photo 5	FALSE	null		
'L4'	Day	'M'	Combo	3	NNW	0.74325	0.109579142	30	3	Deck 30 Photo 3	FALSE	null		
'L2'	Day	'F'	'NW'	1	null	0.565963	0.58026059	31	8	Deck 31 Photo 8	FALSE	null	Shown 1 time	
'L6'	Night	'F'	'NW'	1	null	0.569019	0.401074215	31	5	Deck 31 Photo 5	FALSE	null		
'L8'	Night	Mixed	Combo	3	WF-NM-NF	0.597016	0.83712453	31	9	Deck 31 Photo 9	TRUE	NM		
'L3'	Day	Mixed	Combo	3	NF-WM-WF	0.614616	0.236819201	31	2	Deck 31 Photo 2	FALSE	null		
'L5'	Night	Mixed	'NW'	3	MMF	0.707928	0.399981609	31	4	Deck 31 Photo 4	FALSE	null		
'L1'	Night	'M'	'W'	2	null	0.725639	0.150747183	31	1	Deck 31 Photo 1	FALSE	null		
'L7'	Night	'M'	'NW'	1	null	0.728678	0.302358831	31	3	Deck 31 Photo 3	FALSE	null		
'L9'	Day	'M'	'NW'	2	null	0.739881	0.445598571	31	7	Deck 31 Photo 7	FALSE	null		
'L4'	Night	Mixed	Combo	3	NF-WM-WF	0.771265	0.428227649	31	6	Deck 31 Photo 6	FALSE	null		
'L6'	Day	'F'	'NW'	2	null	0.589193	0.551843468	32	6	Deck 32 Photo 6	FALSE	null	Shown 2 Times	
'L2'	Night	Mixed	'W'	3	MMF	0.604215	0.447196889	32	3	Deck 32 Photo 3	FALSE	null		
'L8'	Day	'M'	'NW'	3	null	0.625995	0.082784623	32	1	Deck 32 Photo 1	FALSE	null		
'L3'	Day	'M'	Combo	2	null	0.660693	0.790401911	32	8	Deck 32 Photo 8	FALSE	null		
'L5'	Day	'M'	'W'	1	null	0.739853	0.832614597	32	9	Deck 32 Photo 9	FALSE	null		
'L9'	Day	Mixed	'NW'	2	null	0.748753	0.544498303	32	5	Deck 32 Photo 5	FALSE	null		
'L1'	Day	'M'	'W'	2	null	0.756084	0.153511376	32	2	Deck 32 Photo 2	FALSE	null		
'L7'	Day	'M'	'W'	3	null	0.765266	0.696746879	32	7	Deck 32 Photo 7	FALSE	null		
'L4'	Night	'M'	'W'	2	null	0.790861	0.525629563	32	4	Deck 32 Photo 4	TRUE	NF		
'L6'	Day	'F'	'W'	2	null	0.605252	0.054577295	33	1	Deck 33 Photo 1	FALSE	null	Shown 1 time	
'L2'	Night	Mixed	'NW'	2	null	0.634767	0.479954775	33	4	Deck 33 Photo 4	FALSE	null		
'L8'	Day	Mixed	Combo	3	WM-WM-NF	0.638533	0.420861679	33	2	Deck 33 Photo 2	FALSE	null		
'L3'	Day	'M'	'W'	2	null	0.692361	0.933451307	33	9	Deck 33 Photo 9	FALSE	null		
'L5'	Day	'F'	Combo	2	null	0.742002	0.657512664	33	5	Deck 33 Photo 5	FALSE	null		
'L9'	Night	'M'	Combo	3	NWW	0.751423	0.736369166	33	6	Deck 33 Photo 6	FALSE	null		
'L1'	Day	Mixed	Combo	2	NM-WF	0.791242	0.812549294	33	7	Deck 33 Photo 7	FALSE	null		
'L4'	Day	'M'	Combo	2	null	0.798461	0.817565968	33	8	Deck 33 Photo 8	FALSE	null		
'L7'	Night	Mixed	Combo	3	NM-NF-WM	0.807365	0.452677011	33	3	Deck 33 Photo 3	TRUE	WF		
'L6'	Night	Mixed	'NW'	2	null	0.615742	0.800633003	34	9	Deck 34 Photo 9	FALSE	null	Shown 3 Times	
'L2'	Day	Mixed	'NW'	3	MMF	0.639326	0.776326448	34	8	Deck 34 Photo 8	FALSE	null		
'L8'	Day	'F'	Combo	3	NNW	0.701816	0.494826346	34	6	Deck 34 Photo 6	FALSE	null		
'L3'	Night	'F'	'W'	1	null	0.730498	0.315808713	34	4	Deck 34 Photo 4	FALSE	null		
'L5'	Day	'M'	Combo	3	NNW	0.744765	0.464177892	34	5	Deck 34 Photo 5	FALSE	null		
'L9'	Night	'M'	'W'	1	null	0.75628	0.213929204	34	1	Deck 34 Photo 1	FALSE	null		
'L4'	Night	Mixed	'W'	3	MMF	0.807886	0.287583886	34	3	Deck 34 Photo 3	FALSE	null		
'L7'	Night	'M'	Combo	2	null	0.816912	0.526420032	34	7	Deck 34 Photo 7	FALSE	null		
'L1'	Day	'F'	'W'	1	null	0.885897	0.256350631	34	2	Deck 34 Photo 2	TRUE	WF		
'L2'	Night	'F'	'W'	1	null	0.648989	0.021929863	35	1	Deck 35 Photo 1	FALSE	null	Shown 3 Times	
'L6'	Night	'F'	'NW'	2	null	0.685364	0.789459938	35	6	Deck 35 Photo 6	FALSE	null		
'L8'	Night	Mixed	Combo	2	WM-NF	0.718251	0.499598823	35	4	Deck 35 Photo 4	FALSE	null		
'L5'	Night	'M'	'W'	3	null	0.759148	0.855371838	35	9	Deck 35 Photo 9	FALSE	null		
'L9'	Night	'F'	'NW'	2	null	0.773949	0.801040268	35	7	Deck 35 Photo 7	FALSE	null		
'L3'	Day	'M'	'W'	1	null	0.778022	0.593566873	35	5	Deck 35 Photo 5	FALSE	null		

'L7'	Day	'F'	Combo	2	null	0.821283	0.84282374	35	8	Deck 35 Photo 8	TRUE	WF		
'L4'	Day	Mixed	'NW'	3	MMF	0.834812	0.092104094	35	2	Deck 35 Photo 2	FALSE	null		
'L1'	Night	null	null	0	null	0.886085	0.394054733	35	3	Deck 35 Photo 3	FALSE	null		
'L6'	Night	'M'	'W'	1	null	0.698703	0.499350317	36	5	Deck 36 Photo 5	FALSE	null	Shown 1 time	
'L2'	Day	'M'	'NW'	1	null	0.718838	0.076196703	36	1	Deck 36 Photo 1	FALSE	null		
'L8'	Day	Mixed	'W'	3	MMF	0.739581	0.872740596	36	8	Deck 36 Photo 8	FALSE	null		
'L5'	Night	'F'	'W'	2	null	0.773036	0.607404919	36	6	Deck 36 Photo 6	FALSE	null		
'L3'	Night	'F'	'NW'	1	null	0.782241	0.384242614	36	4	Deck 36 Photo 4	FALSE	null		
'L9'	Night	'M'	'W'	3	null	0.792094	0.253135017	36	3	Deck 36 Photo 3	FALSE	null		
'L7'	Night	'M'	'W'	3	null	0.826664	0.089341248	36	2	Deck 36 Photo 2	FALSE	null		
'L4'	Day	Mixed	'NW'	2	null	0.841718	0.946736182	36	9	Deck 36 Photo 9	FALSE	null		
'L1'	Day	Mixed	'W'	2	null	0.894711	0.753348123	36	7	Deck 36 Photo 7	TRUE	WM		
'L6'	Day	Mixed	'NW'	2	null	0.765743	0.124128209	37	1	Deck 37 Photo 1	FALSE	null	Not Shown	
'L5'	Day	'F'	'W'	3	null	0.778006	0.682130214	37	9	Deck 37 Photo 9	FALSE	null		
'L8'	Night	'F'	Combo	2	null	0.781812	0.225688091	37	3	Deck 37 Photo 3	FALSE	null		
'L3'	Day	'M'	'NW'	2	null	0.782322	0.213229195	37	2	Deck 37 Photo 2	TRUE	WF		
'L2'	Day	'M'	'W'	2	null	0.794597	0.232884613	37	4	Deck 37 Photo 4	FALSE	null		
'L9'	Day	null	null	0	null	0.83432	0.293518552	37	5	Deck 37 Photo 5	FALSE	null		
'L7'	Day	'F'	'W'	1	null	0.843191	0.433123729	37	6	Deck 37 Photo 6	FALSE	null		
'L4'	Day	'M'	'W'	1	null	0.860436	0.468502367	37	7	Deck 37 Photo 7	FALSE	null		
'L1'	Day	'M'	Combo	2	null	0.89855	0.615552704	37	8	Deck 37 Photo 8	FALSE	null		
'L5'	Night	Mixed	Combo	2	NM-WF	0.784139	0.44484214	38	6	Deck 38 Photo 6	FALSE	null	Shown 3 Times	
'L3'	Night	'F'	Combo	2	null	0.788469	0.991819139	38	9	Deck 38 Photo 9	FALSE	null		
'L6'	Day	'M'	'W'	1	null	0.812518	0.425991189	38	5	Deck 38 Photo 5	FALSE	null		
'L2'	Day	'M'	'NW'	2	null	0.820474	0.360605202	38	4	Deck 38 Photo 4	FALSE	null		
'L8'	Night	null	null	0	null	0.827968	0.338314043	38	3	Deck 38 Photo 3	FALSE	null		
'L9'	Day	'F'	Combo	2	null	0.835903	0.738186338	38	8	Deck 38 Photo 8	FALSE	null		
'L7'	Night	Mixed	Combo	2	WM-NF	0.880265	0.11736307	38	1	Deck 38 Photo 1	TRUE	NM		
'L4'	Night	Mixed	Combo	2	WM-NF	0.88512	0.57289688	38	7	Deck 38 Photo 7	FALSE	null		
'L1'	Day	'F'	Combo	2	null	0.919312	0.273030758	38	2	Deck 38 Photo 2	FALSE	null		
'L3'	Night	Mixed	'NW'	3	MFF	0.791076	0.249160954	39	3	Deck 39 Photo 3	FALSE	null	Not Shown	
'L5'	Day	'F'	'W'	2	null	0.801603	0.954844766	39	9	Deck 39 Photo 9	FALSE	null		
'L2'	Night	'M'	'W'	2	null	0.82479	0.653755655	39	6	Deck 39 Photo 6	TRUE	NM		
'L9'	Night	Mixed	Combo	2	NM-WF	0.837132	0.237381731	39	2	Deck 39 Photo 2	FALSE	null		
'L8'	Day	'F'	'NW'	1	null	0.845813	0.035251266	39	1	Deck 39 Photo 1	FALSE	null		
'L6'	Night	'F'	Combo	2	null	0.865564	0.652351103	39	5	Deck 39 Photo 5	FALSE	null		
'L7'	Day	Mixed	Combo	2	WM-NF	0.890523	0.579858068	39	4	Deck 39 Photo 4	FALSE	null		
'L4'	Day	null	null	0	null	0.903609	0.818725943	39	8	Deck 39 Photo 8	FALSE	null		
'L1'	Day	'F'	Combo	3	NNW	0.937525	0.690013352	39	7	Deck 39 Photo 7	FALSE	null		
'L5'	Night	'M'	Combo	3	NWW	0.811904	0.074686761	40	1	Deck 40 Photo 1	FALSE	null	Shown 4 Times	
'L3'	Night	'F'	'W'	3	null	0.833225	0.926175021	40	9	Deck 40 Photo 9	FALSE	null		
'L2'	Night	null	null	0	null	0.835031	0.87034505	40	7	Deck 40 Photo 7	FALSE	null		
'L9'	Day	Mixed	'NW'	3	MFF	0.843941	0.150372056	40	3	Deck 40 Photo 3	FALSE	null		
'L8'	Night	'F'	'W'	3	null	0.865313	0.459608618	40	4	Deck 40 Photo 4	FALSE	null		
'L7'	Night	'F'	Combo	3	NNW	0.90038	0.889415368	40	8	Deck 40 Photo 8	TRUE	NF		
'L4'	Night	'M'	'W'	3	null	0.91264	0.846111223	40	6	Deck 40 Photo 6	FALSE	null		
'L6'	Day	Mixed	'W'	3	MFF	0.923768	0.099569279	40	2	Deck 40 Photo 2	FALSE	null		

'L1'	Night	'M'	'W'	1	null	0.950273	0.590770566	40	5	Deck 40 Photo 5	FALSE	null		
'L3'	Night	'M'	'W'	1	null	0.833977	0.884081559	41	8	Deck 41 Photo 8	FALSE	null	Shown 1 time	
'L9'	Night	'F'	'W'	2	null	0.849116	0.451612601	41	1	Deck 41 Photo 1	TRUE	WF		
'L2'	Day	'F'	'W'	1	null	0.849393	0.486487228	41	2	Deck 41 Photo 2	FALSE	null		
'L5'	Day	Mixed	'W'	2	null	0.853827	0.555648723	41	4	Deck 41 Photo 4	FALSE	null		
'L8'	Night	'M'	'W'	3	null	0.896794	0.493703275	41	3	Deck 41 Photo 3	FALSE	null		
'L4'	Day	'F'	Combo	3	NWW	0.921695	0.792993804	41	6	Deck 41 Photo 6	FALSE	null		
'L6'	Day	'M'	'W'	3	null	0.93124	0.799462049	41	7	Deck 41 Photo 7	FALSE	null		
'L7'	Night	Mixed	'W'	3	MMF	0.93587	0.917771359	41	9	Deck 41 Photo 9	FALSE	null		
'L1'	Day	Mixed	'W'	3	MMF	0.966835	0.7091129	41	5	Deck 41 Photo 5	FALSE	null		
'L3'	Day	'M'	'NW'	3	null	0.848888	0.579771925	42	7	Deck 42 Photo 7	FALSE	null	Shown 2 Times	
'L2'	Night	'M'	'W'	1	null	0.862665	0.117427307	42	3	Deck 42 Photo 3	FALSE	null		
'L9'	Night	'F'	'NW'	3	null	0.867127	0.037126701	42	1	Deck 42 Photo 1	FALSE	null		
'L5'	Day	Mixed	Combo	2	WM-NF	0.888081	0.49110659	42	5	Deck 42 Photo 5	FALSE	null		
'L8'	Night	'F'	Combo	3	NNW	0.923685	0.760880963	42	8	Deck 42 Photo 8	FALSE	null		
'L6'	Day	Mixed	'W'	2	null	0.93358	0.55548194	42	6	Deck 42 Photo 6	FALSE	null		
'L4'	Night	'M'	'NW'	1	null	0.93499	0.375875013	42	4	Deck 42 Photo 4	TRUE	NM		
'L7'	Night	Mixed	'NW'	2	null	0.945579	0.11048664	42	2	Deck 42 Photo 2	FALSE	null		
'L1'	Night	Mixed	'W'	3	MMF	0.973311	0.774386166	42	9	Deck 42 Photo 9	FALSE	null		
'L3'	Day	'F'	'NW'	2	null	0.852141	0.556555039	43	6	Deck 43 Photo 6	FALSE	null	Not Shown	
'L9'	Day	'F'	'NW'	1	null	0.869312	0.433518239	43	5	Deck 43 Photo 5	FALSE	null		
'L5'	Day	null	null	0	null	0.894809	0.601724518	43	7	Deck 43 Photo 7	FALSE	null		
'L2'	Night	'M'	Combo	3	NWW	0.905693	0.334436213	43	4	Deck 43 Photo 4	TRUE	WM		
'L8'	Day	'F'	'W'	2	null	0.926334	0.150915419	43	2	Deck 43 Photo 2	FALSE	null		
'L7'	Day	'M'	Combo	3	NNW	0.951932	0.300878638	43	3	Deck 43 Photo 3	FALSE	null		
'L6'	Day	'F'	'NW'	3	null	0.967108	0.973266849	43	9	Deck 43 Photo 9	FALSE	null		
'L4'	Day	'M'	'NW'	3	null	0.971038	0.896709687	43	8	Deck 43 Photo 8	FALSE	null		
'L1'	Day	Mixed	Combo	3	WM-WF-NM	0.977428	0.079987925	43	1	Deck 43 Photo 1	FALSE	null		
'L3'	Night	Mixed	Combo	3	WF-WF-NM	0.906956	0.804574362	44	8	Deck 44 Photo 8	FALSE	null	Shown 2 Times	
'L2'	Night	Mixed	Combo	2	WM-NF	0.923857	0.146990217	44	2	Deck 44 Photo 2	FALSE	null		
'L9'	Night	Mixed	'W'	3	MFF	0.925988	0.053996128	44	1	Deck 44 Photo 1	FALSE	null		
'L8'	Day	'F'	'NW'	2	null	0.948908	0.387865658	44	5	Deck 44 Photo 5	FALSE	null		
'L7'	Night	'M'	'W'	1	null	0.970856	0.8540471	44	9	Deck 44 Photo 9	FALSE	null		
'L4'	Day	'F'	'W'	2	null	0.974377	0.673086096	44	6	Deck 44 Photo 6	FALSE	null		
'L5'	Day	'F'	'W'	1	null	0.97498	0.375981489	44	4	Deck 44 Photo 4	FALSE	null		
'L1'	Night	'F'	'NW'	2	null	0.982869	0.765574491	44	7	Deck 44 Photo 7	FALSE	null		
'L6'	Day	'F'	'NW'	1	null	0.990401	0.361493238	44	3	Deck 44 Photo 3	TRUE	NM		
'L3'	Night	'F'	Combo	3	NWW	0.927731	0.486338532	45	5	Deck 45 Photo 5	FALSE	null	Shown 3 Times	
'L9'	Night	'F'	'W'	1	null	0.934667	0.165317862	45	1	Deck 45 Photo 1	TRUE	WM		
'L2'	Day	'F'	Combo	3	NWW	0.955032	0.529938025	45	6	Deck 45 Photo 6	FALSE	null		
'L8'	Day	'F'	'NW'	3	null	0.955635	0.720236336	45	9	Deck 45 Photo 9	FALSE	null		
'L5'	Day	'M'	'NW'	3	null	0.975064	0.463790065	45	4	Deck 45 Photo 4	FALSE	null		
'L4'	Night	'F'	Combo	3	NNW	0.976089	0.234612208	45	2	Deck 45 Photo 2	FALSE	null		
'L7'	Night	Mixed	'W'	2	null	0.983525	0.584171472	45	8	Deck 45 Photo 8	FALSE	null		
'L6'	Night	'M'	'NW'	1	null	0.993538	0.535060765	45	7	Deck 45 Photo 7	FALSE	null		
'L1'	Night	Mixed	Combo	3	NM-NM-WF	0.994781	0.289535593	45	3	Deck 45 Photo 3	FALSE	null		
'L8'	Night	Mixed	'W'	2	null	0.962596	0.351426517	46	3	Deck 46 Photo 3	FALSE	null	Sh	

'L3'	Day	Mixed	'W'	3	MFF	0.968353	0.97334987	46	9	Deck 46 Photo 9	FALSE	null	
'L5'	Night	'F'	'W'	3	null	0.976437	0.403983148	46	4	Deck 46 Photo 4	FALSE	null	
'L4'	Night	Mixed	'NW'	2	null	0.985322	0.727635786	46	6	Deck 46 Photo 6	FALSE	null	
'L9'	Night	'F'	'NW'	1	null	0.986782	0.733208366	46	7	Deck 46 Photo 7	FALSE	null	
'L6'	Night	'F'	'NW'	3	null	0.994906	0.062150735	46	2	Deck 46 Photo 2	FALSE	null	
'L2'	Night	Mixed	'W'	2	null	0.998342	0.056019225	46	1	Deck 46 Photo 1	FALSE	null	
'L7'	Day	'M'	'NW'	1	null	0.999015	0.713496832	46	5	Deck 46 Photo 5	TRUE	WM	
'L1'	Night	'F'	'W'	1	null	0.999058	0.872265125	46	8	Deck 46 Photo 8	FALSE	null	

APPENDIX H

Table 20: Twelve Unviewed Decks with Dimensions

Location	Time	Gender	Race	Number	Tie-Break	Random Deck	Random Photo Order	Deck	New File Name	Police G/R
'L7'	'Day'	'Mixed'	'W'	3	MMF	0.060518	0.825879656	5	Deck 5 Photo 7	null
'L2'	'Night'	'Mixed'	'Combo'	3	WF-NM-NF	0.072853	0.669847869	5	Deck 5 Photo 4	null
'L3'	'Day'	'F'	'W'	1	null	0.077588	0.840008262	5	Deck 5 Photo 8	null
'L5'	'Night'	'M'	'W'	1	null	0.102717	0.160326582	5	Deck 5 Photo 1	NF
'L6'	'Night'	'M'	'Combo'	3	NNW	0.111584	0.782806448	5	Deck 5 Photo 5	null
'L8'	'Night'	'M'	'Combo'	3	NNW	0.121277	0.29419299	5	Deck 5 Photo 2	null
'L9'	'Day'	'M'	'Combo'	2	null	0.146158	0.810607191	5	Deck 5 Photo 6	null
'L4'	'Day'	'F'	'W'	1	null	0.168118	0.422931285	5	Deck 5 Photo 3	null
'L1'	'Night'	'F'	'Combo'	3	NWW	0.214625	0.850724989	5	Deck 5 Photo 9	null
'L7'	'Day'	'F'	'W'	3	null	0.122563	0.342371851	9	Deck 9 Photo 3	null
'L5'	'Day'	'Mixed'	'Combo'	3	WM-WM-NF	0.129958	0.66604297	9	Deck 9 Photo 7	null
'L3'	'Night'	'M'	'W'	2	null	0.149109	0.88511804	9	Deck 9 Photo 9	null
'L6'	'Day'	'F'	'W'	1	null	0.153895	0.244345306	9	Deck 9 Photo 2	null
'L2'	'Day'	'M'	'Combo'	2	null	0.154527	0.195929954	9	Deck 9 Photo 1	null
'L8'	'Night'	'M'	'NW'	2	null	0.184961	0.807083513	9	Deck 9 Photo 8	null
'L9'	'Day'	'F'	'NW'	3	null	0.199319	0.635969958	9	Deck 9 Photo 6	null
'L4'	'Day'	'M'	'W'	3	null	0.273746	0.628606116	9	Deck 9 Photo 5	NF
'L1'	'Night'	'F'	'NW'	3	null	0.299824	0.46519012	9	Deck 9 Photo 4	null
'L8'	'Night'	'F'	'W'	2	null	0.248171	0.015313313	14	Deck 14 Photo 1	null
'L6'	'Night'	'M'	'W'	3	null	0.258993	0.072220659	14	Deck 14 Photo 2	null
'L7'	'Night'	'F'	'NW'	1	null	0.282677	0.386768019	14	Deck 14 Photo 5	NM
'L3'	'Night'	'M'	'NW'	2	null	0.287756	0.67556739	14	Deck 14 Photo 7	null
'L2'	'Day'	'Mixed'	'W'	2	null	0.315783	0.762705013	14	Deck 14 Photo 9	null
'L9'	'Day'	'M'	'Combo'	3	NWW	0.336655	0.29928116	14	Deck 14 Photo 3	null
'L5'	'Day'	'M'	'NW'	1	null	0.354239	0.719944434	14	Deck 14 Photo 8	null
'L4'	'Night'	'F'	'W'	3	null	0.359842	0.343865938	14	Deck 14 Photo 4	null
'L1'	'Night'	'Mixed'	'NW'	3	MMF	0.376103	0.631582455	14	Deck 14 Photo 6	null
'L6'	'Day'	'M'	'NW'	3	null	0.266938	0.934891936	15	Deck 15 Photo 7	null
'L8'	'Night'	'Mixed'	'NW'	3	MFF	0.274603	0.476435217	15	Deck 15 Photo 3	null
'L3'	'Day'	'F'	'W'	2	null	0.289539	0.576683311	15	Deck 15 Photo 5	WF
'L7'	'Day'	'M'	'W'	1	null	0.317918	0.841159486	15	Deck 15 Photo 6	null
'L2'	'Night'	'F'	'W'	2	null	0.33743	0.945809831	15	Deck 15 Photo 8	null

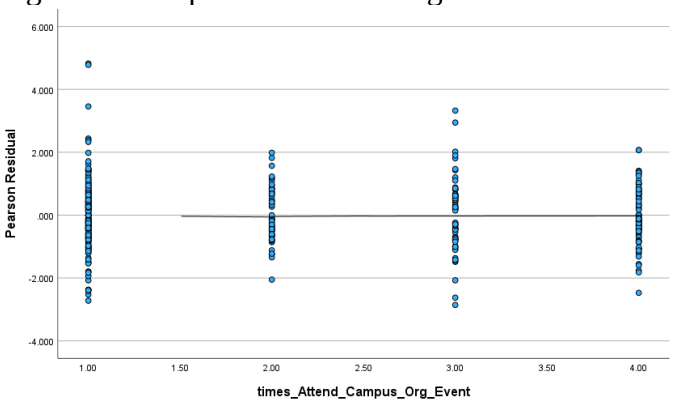
'L9'	'Night'	'Mixed'	'NW'	3	MMF	0.344099	0.485465015	15	Deck 15 Photo 4	null
'L4'	'Day'	'M'	'NW'	1	null	0.360611	0.019156374	15	Deck 15 Photo 2	null
'L5'	'Night'	'F'	'NW'	2	null	0.362986	0.006071497	15	Deck 15 Photo 1	null
'L1'	'Day'	'F'	'W'	3	null	0.422295	0.976109616	15	Deck 15 Photo 9	null
'L6'	'Day'	'Mixed'	'NW'	3	MFF	0.349463	0.865004412	20	Deck 20 Photo 8	null
'L9'	'Day'	'F'	'W'	3	null	0.371908	0.350077929	20	Deck 20 Photo 5	null
'L8'	'Day'	'Mixed'	'NW'	3	MMF	0.399159	0.366398077	20	Deck 20 Photo 6	null
'L3'	'Day'	'F'	'W'	3	null	0.412454	0.316185721	20	Deck 20 Photo 4	WF
'L5'	'Night'	'F'	'W'	1	null	0.420851	0.227996067	20	Deck 20 Photo 2	null
'L2'	'Night'	'M'	'W'	3	null	0.453319	0.919612651	20	Deck 20 Photo 9	null
'L4'	'Day'	'F'	'NW'	1	null	0.494463	0.427474794	20	Deck 20 Photo 7	null
'L7'	'Day'	'F'	'NW'	2	null	0.504529	0.269734847	20	Deck 20 Photo 3	null
'L1'	'Night'	'F'	'W'	3	null	0.559699	0.22340625	20	Deck 20 Photo 1	null
'L9'	'Day'	'Mixed'	'W'	2	null	0.410288	0.582598638	22	Deck 22 Photo 6	WM
'L6'	'Day'	'F'	'W'	3	null	0.414297	0.95690528	22	Deck 22 Photo 9	null
'L8'	'Night'	'M'	'Combo'	2	null	0.43442	0.016150978	22	Deck 22 Photo 1	null
'L3'	'Day'	'Mixed'	'W'	2	null	0.436689	0.678199746	22	Deck 22 Photo 7	null
'L5'	'Night'	'M'	'Combo'	2	null	0.450902	0.258402117	22	Deck 22 Photo 3	null
'L2'	'Day'	null	null	0	null	0.457713	0.09359831	22	Deck 22 Photo 2	null
'L7'	'Night'	'F'	'Combo'	2	null	0.54501	0.863166413	22	Deck 22 Photo 8	null
'L4'	'Night'	'F'	'NW'	3	null	0.564729	0.290757196	22	Deck 22 Photo 5	null
'L1'	'Night'	'Mixed'	'NW'	2	null	0.614676	0.287775461	22	Deck 22 Photo 4	null
'L9'	'Night'	'M'	'NW'	1	null	0.417105	0.4023309	23	Deck 23 Photo 5	null
'L6'	'Night'	'M'	'NW'	3	null	0.420316	0.242350672	23	Deck 23 Photo 2	WM
'L8'	'Day'	'F'	'Combo'	2	null	0.437256	0.434910645	23	Deck 23 Photo 6	null
'L3'	'Night'	'M'	'Combo'	2	null	0.468267	0.398931903	23	Deck 23 Photo 4	null
'L5'	'Day'	'F'	'NW'	3	null	0.469161	0.147406179	23	Deck 23 Photo 1	null
'L2'	'Day'	'F'	'W'	2	null	0.476835	0.535677263	23	Deck 23 Photo 8	null
'L7'	'Night'	'F'	'W'	1	null	0.567439	0.693779832	23	Deck 23 Photo 9	null
'L4'	'Night'	'M'	'W'	1	null	0.612028	0.310628513	23	Deck 23 Photo 3	null
'L1'	'Night'	'F'	'NW'	1	null	0.625731	0.482287701	23	Deck 23 Photo 7	null
'L6'	'Night'	'Mixed'	'W'	3	MFF	0.552627	0.293625688	29	Deck 29 Photo 4	null
'L3'	'Day'	'Mixed'	'Combo'	2	WM-NF	0.552724	0.818586764	29	Deck 29 Photo 8	null
'L2'	'Day'	'F'	'NW'	3	null	0.560193	0.733572513	29	Deck 29 Photo 6	null
'L8'	'Night'	'Mixed'	'NW'	2	null	0.561001	0.165982539	29	Deck 29 Photo 2	null
'L9'	'Night'	'M'	'W'	2	null	0.631869	0.410157028	29	Deck 29 Photo 5	NM
'L7'	'Night'	'Mixed'	'NW'	3	MFF	0.659245	0.786444532	29	Deck 29 Photo 7	null
'L5'	'Day'	'F'	'NW'	2	null	0.682628	0.00918908	29	Deck 29 Photo 1	null
'L1'	'Day'	'M'	'NW'	2	null	0.709306	0.200931832	29	Deck 29 Photo 3	null
'L4'	'Night'	'F'	'Combo'	2	null	0.729184	0.932278706	29	Deck 29 Photo 9	null

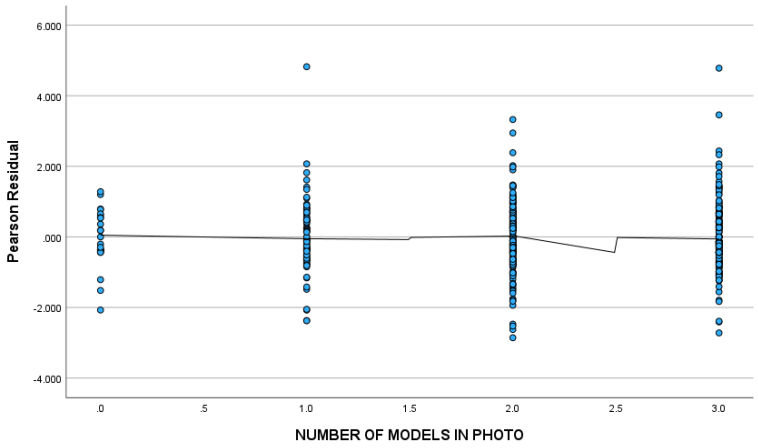
'L2'	'Day'	'F'	'Combo'	2	null	0.563361	0.06570434	30	Deck 30 Photo 1	null
'L8'	'Day'	'F'	'W'	3	null	0.567668	0.122260417	30	Deck 30 Photo 4	null
'L6'	'Day'	'M'	'W'	2	null	0.568402	0.080780852	30	Deck 30 Photo 2	NF
'L3'	'Night'	'F'	'NW'	2	null	0.591093	0.190534554	30	Deck 30 Photo 6	null
'L7'	'Night'	'F'	'W'	2	null	0.66078	0.415807114	30	Deck 30 Photo 7	null
'L9'	'Day'	'Mixed'	'W'	3	MFF	0.675403	0.997544057	30	Deck 30 Photo 9	null
'L5'	'Day'	'M'	'W'	3	null	0.696424	0.72418055	30	Deck 30 Photo 8	null
'L1'	'Night'	'M'	'NW'	2	null	0.715253	0.133027922	30	Deck 30 Photo 5	null
'L4'	'Day'	'M'	'Combo'	3	NNW	0.74325	0.109579142	30	Deck 30 Photo 3	null
'L6'	'Day'	'Mixed'	'NW'	2	null	0.765743	0.124128209	37	Deck 37 Photo 1	null
'L5'	'Day'	'F'	'W'	3	null	0.778006	0.682130214	37	Deck 37 Photo 9	null
'L8'	'Night'	'F'	'Combo'	2	null	0.781812	0.225688091	37	Deck 37 Photo 3	null
'L3'	'Day'	'M'	'NW'	2	null	0.782322	0.213229195	37	Deck 37 Photo 2	WF
'L2'	'Day'	'M'	'W'	2	null	0.794597	0.232884613	37	Deck 37 Photo 4	null
'L9'	'Day'	null	null	0	null	0.83432	0.293518552	37	Deck 37 Photo 5	null
'L7'	'Day'	'F'	'W'	1	null	0.843191	0.433123729	37	Deck 37 Photo 6	null
'L4'	'Day'	'M'	'W'	1	null	0.860436	0.468502367	37	Deck 37 Photo 7	null
'L1'	'Day'	'M'	'Combo'	2	null	0.89855	0.615552704	37	Deck 37 Photo 8	null
'L3'	'Night'	'Mixed'	'NW'	3	MFF	0.791076	0.249160954	39	Deck 39 Photo 3	null
'L5'	'Day'	'F'	'W'	2	null	0.801603	0.954844766	39	Deck 39 Photo 9	null
'L2'	'Night'	'M'	'W'	2	null	0.82479	0.653755655	39	Deck 39 Photo 6	NM
'L9'	'Night'	'Mixed'	'Combo'	2	NM-WF	0.837132	0.237381731	39	Deck 39 Photo 2	null
'L8'	'Day'	'F'	'NW'	1	null	0.845813	0.035251266	39	Deck 39 Photo 1	null
'L6'	'Night'	'F'	'Combo'	2	null	0.865564	0.652351103	39	Deck 39 Photo 5	null
'L7'	'Day'	'Mixed'	'Combo'	2	WM-NF	0.890523	0.579858068	39	Deck 39 Photo 4	null
'L4'	'Day'	null	null	0	null	0.903609	0.818725943	39	Deck 39 Photo 8	null
'L1'	'Day'	'F'	'Combo'	3	NNW	0.937525	0.690013352	39	Deck 39 Photo 7	null
'L3'	'Day'	'F'	'NW'	2	null	0.852141	0.556555039	43	Deck 43 Photo 6	null
'L9'	'Day'	'F'	'NW'	1	null	0.869312	0.433518239	43	Deck 43 Photo 5	null
'L5'	'Day'	null	null	0	null	0.894809	0.601724518	43	Deck 43 Photo 7	null
'L2'	'Night'	'M'	'Combo'	3	NWW	0.905693	0.334436213	43	Deck 43 Photo 4	WM
'L8'	'Day'	'F'	'W'	2	null	0.926334	0.150915419	43	Deck 43 Photo 2	null
'L7'	'Day'	'M'	'Combo'	3	NNW	0.951932	0.300878638	43	Deck 43 Photo 3	null
'L6'	'Day'	'F'	'NW'	3	null	0.967108	0.973266849	43	Deck 43 Photo 9	null
'L4'	'Day'	'M'	'NW'	3	null	0.971038	0.896709687	43	Deck 43 Photo 8	null
'L1'	'Day'	'Mixed'	'Combo'	3	WM-WF-NM	0.977428	0.079987925	43	Deck 43 Photo 1	null

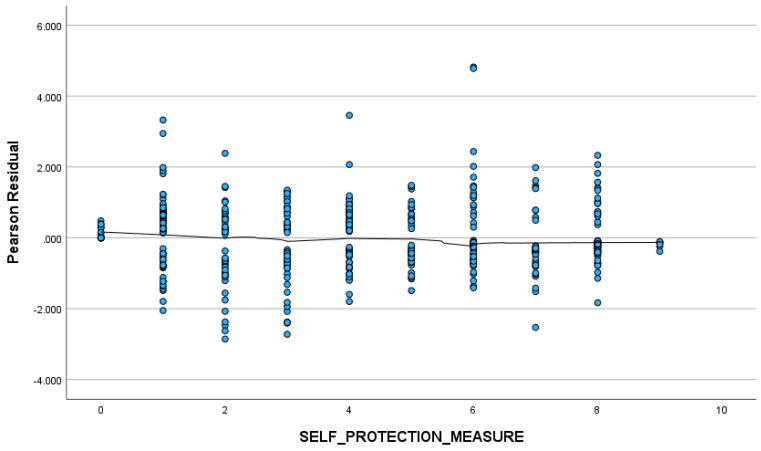
APPENDIX I

Regression Graphs (Pearson's Residuals for 4 DVs) & Thresholds

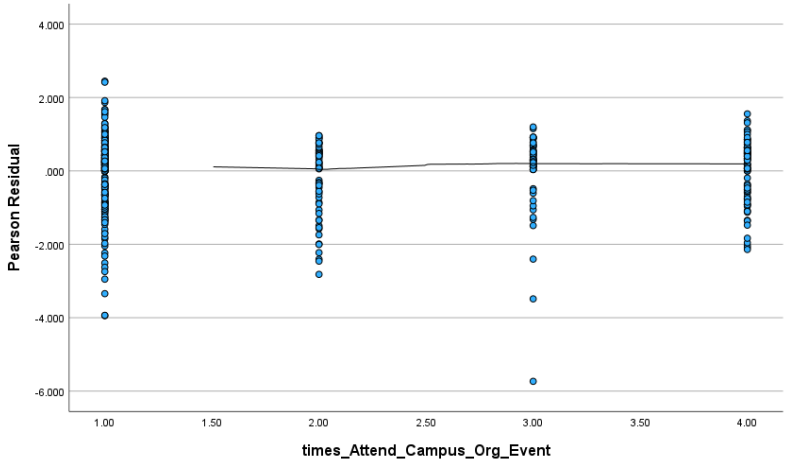
Regression Graph: Afraid of being attacked with a Weapon1

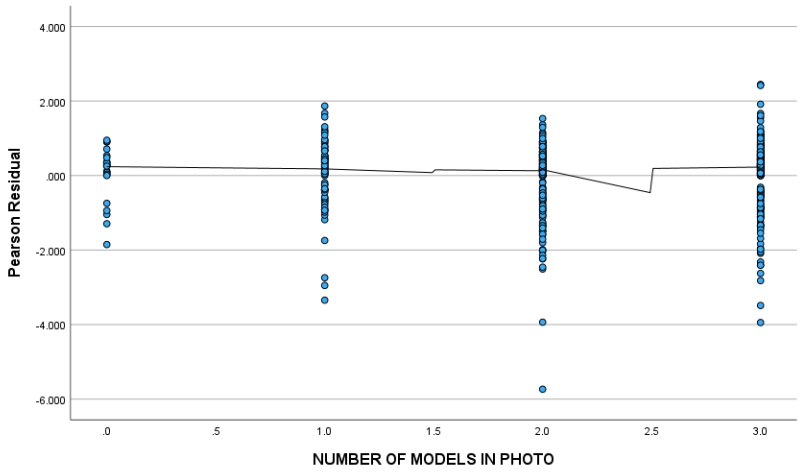


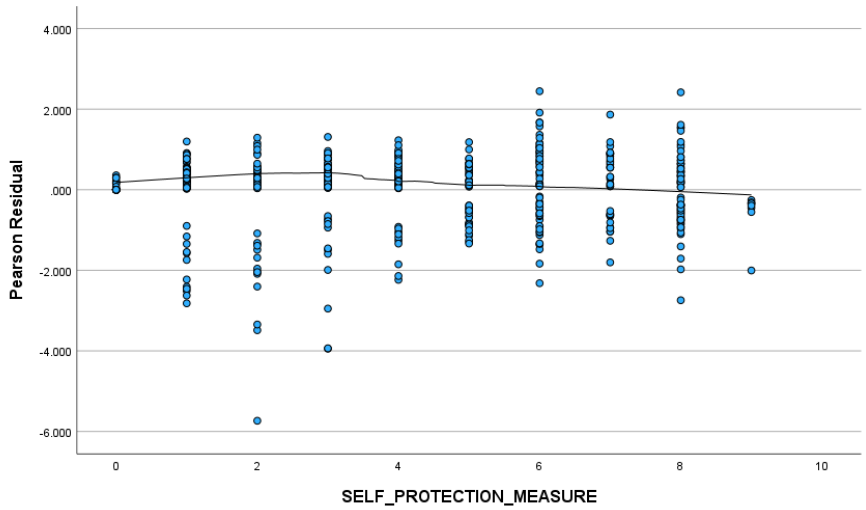




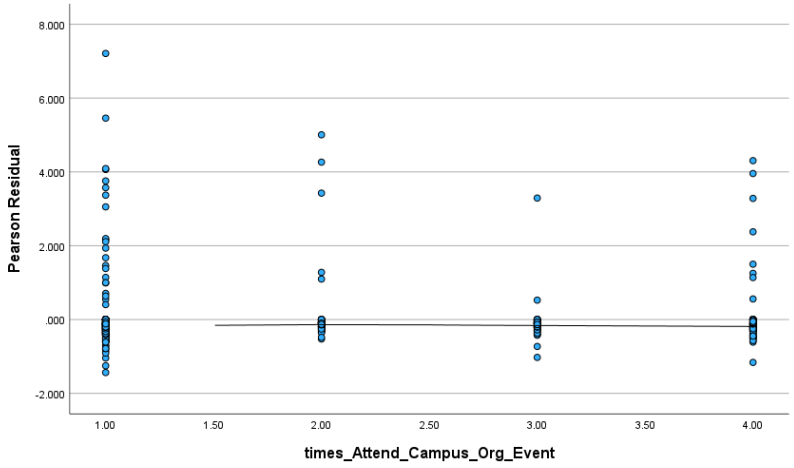
Regression Graph: Afraid of being attacked with a Weapon2

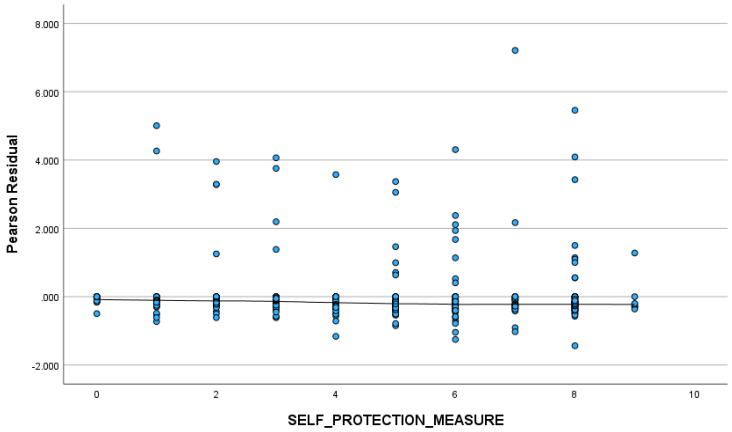


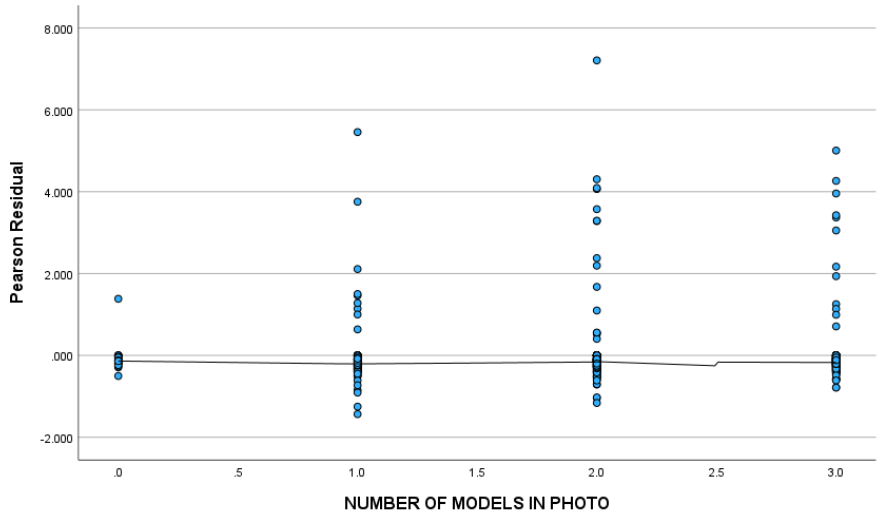




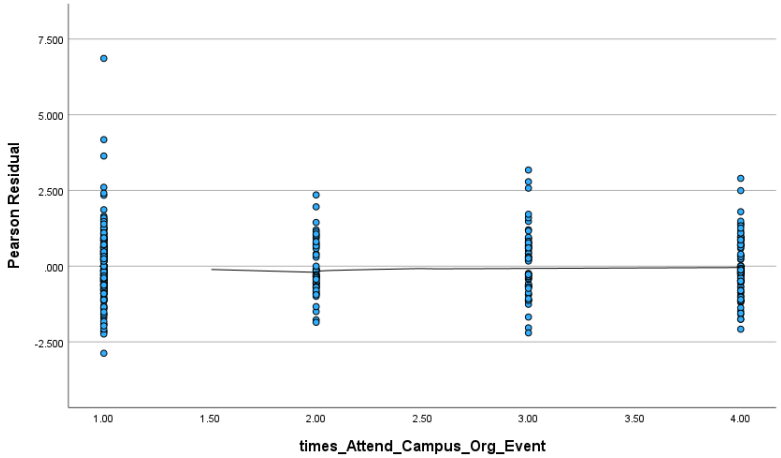
Regression Graph: Afraid of being attacked with a Weapon3

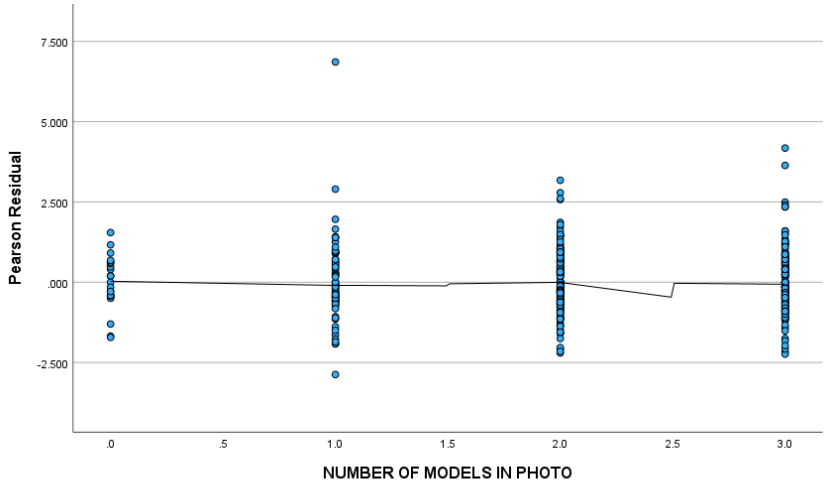


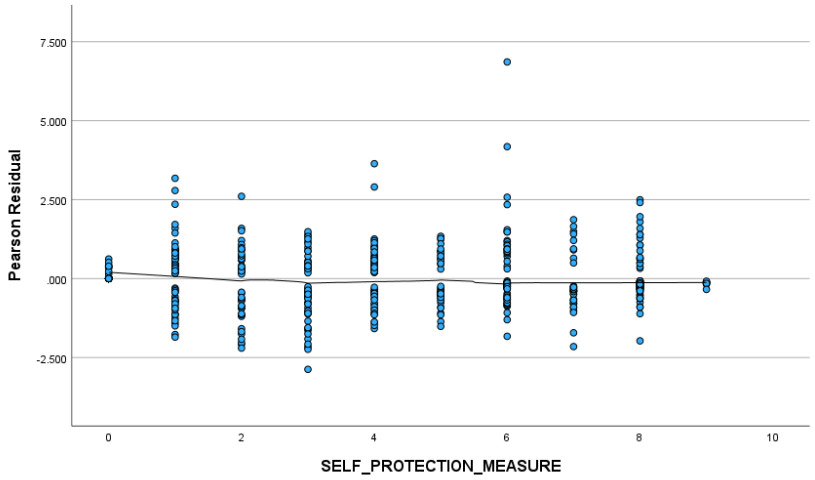




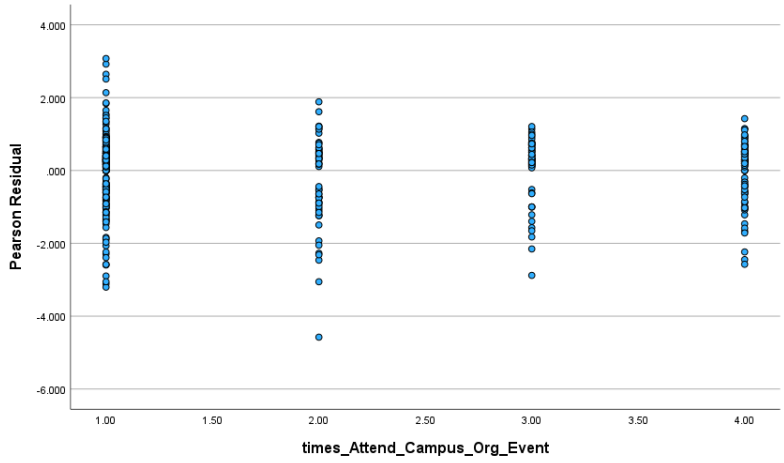
Regression Graphs: Afraid of having my Possessions taken from me1

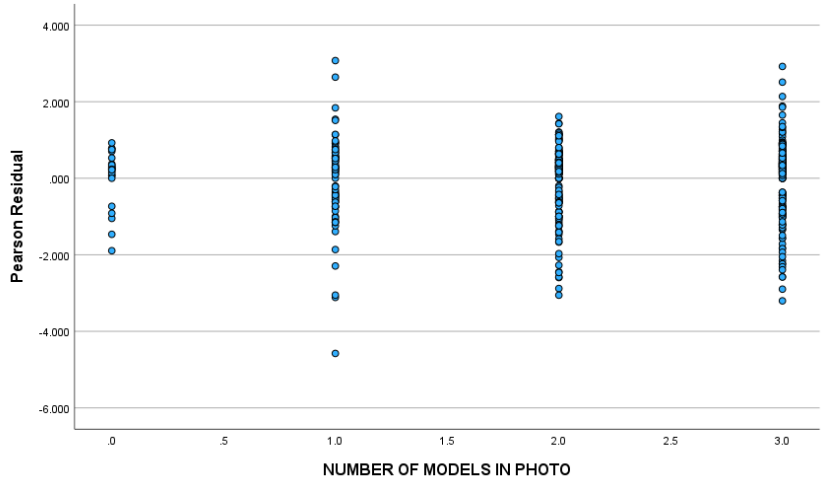


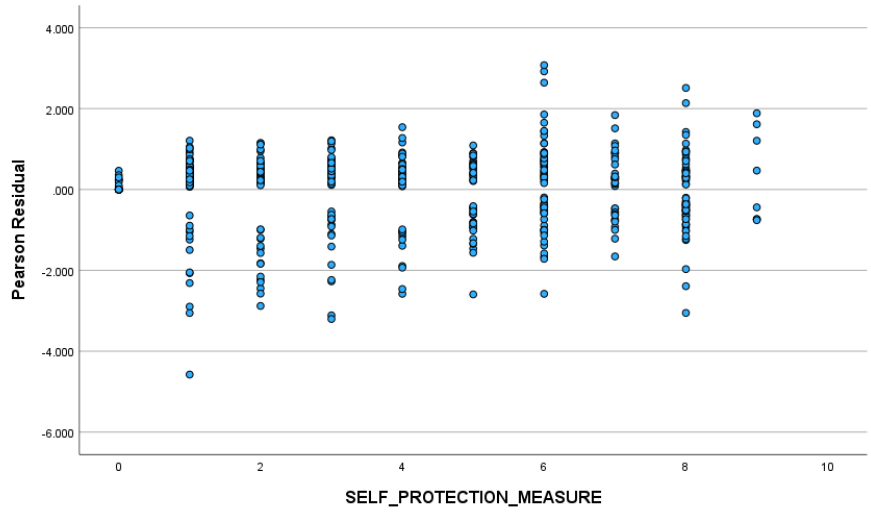




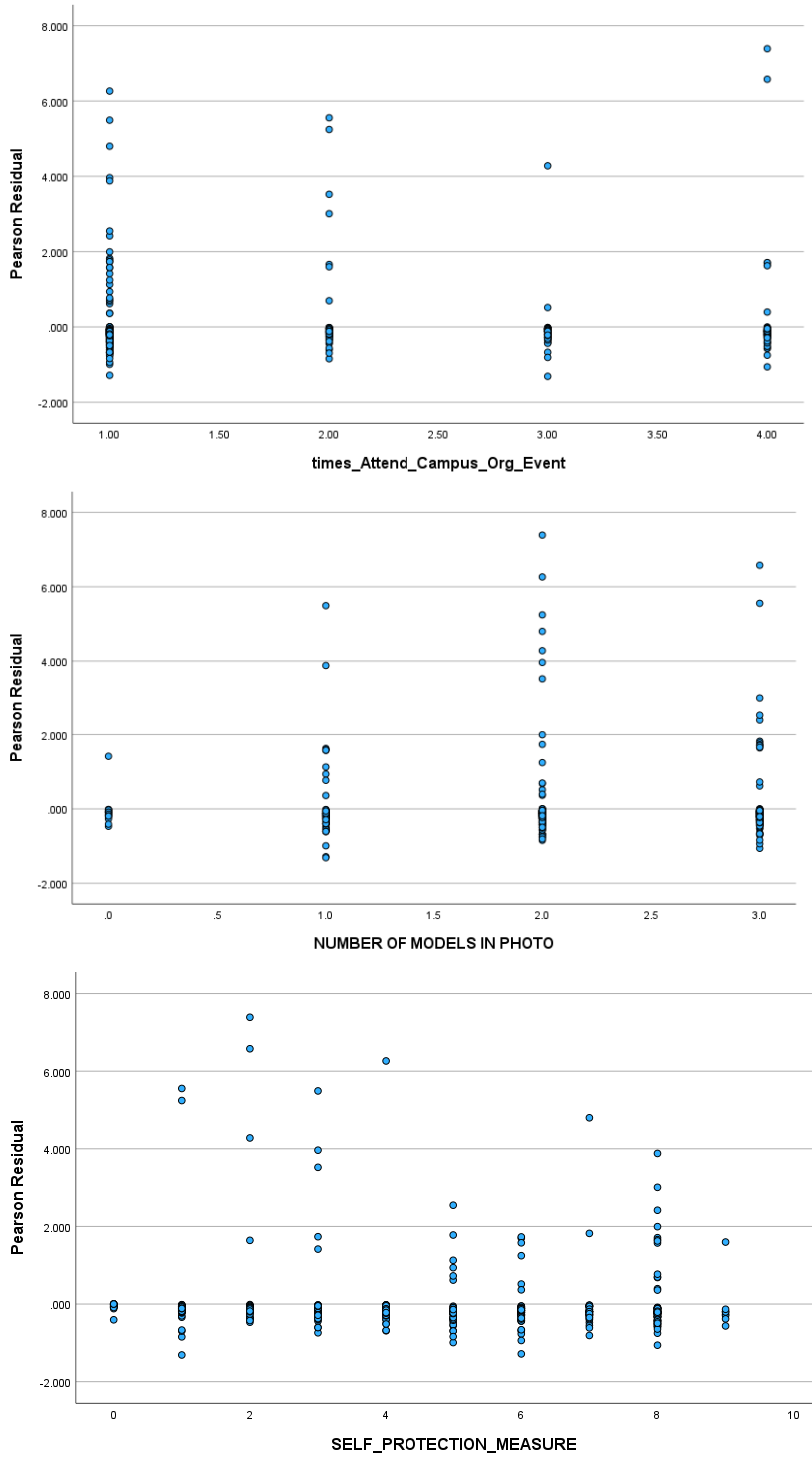
Regression Graphs: Afraid of having my Possessions taken from me2



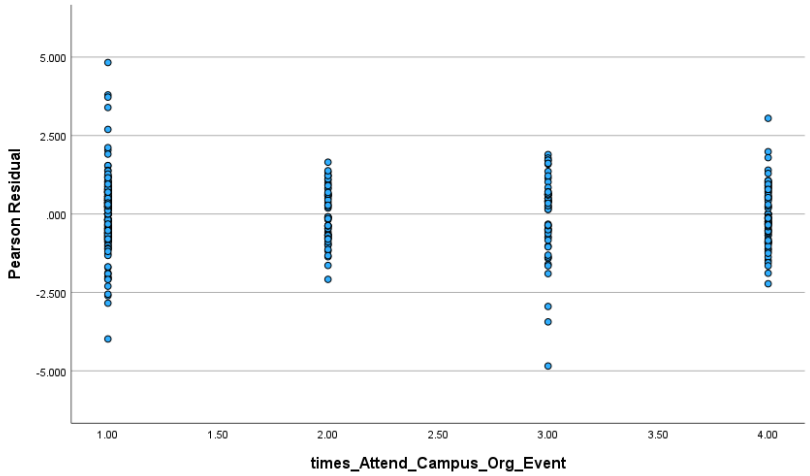


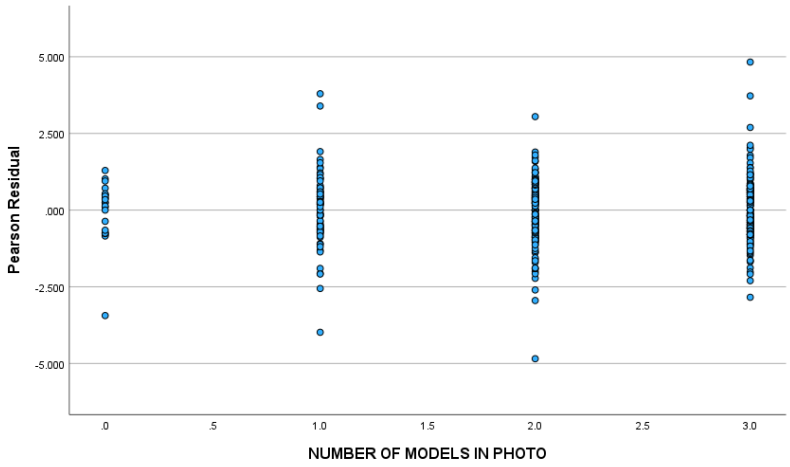


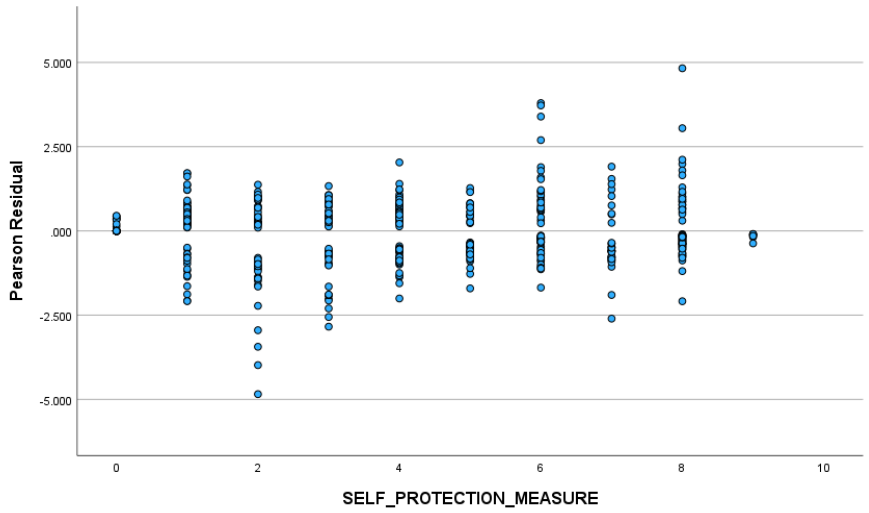
Regression Graphs: Afraid of having my Possessions taken from me3



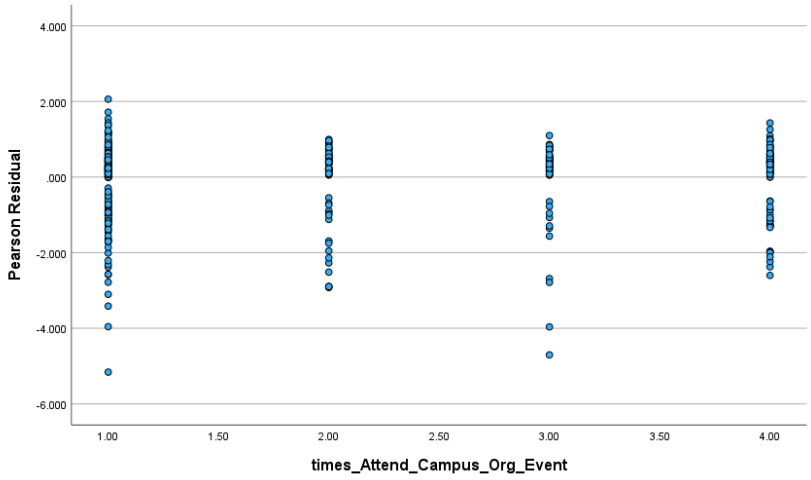
Regression Graphs: Afraid of being Beaten Up1

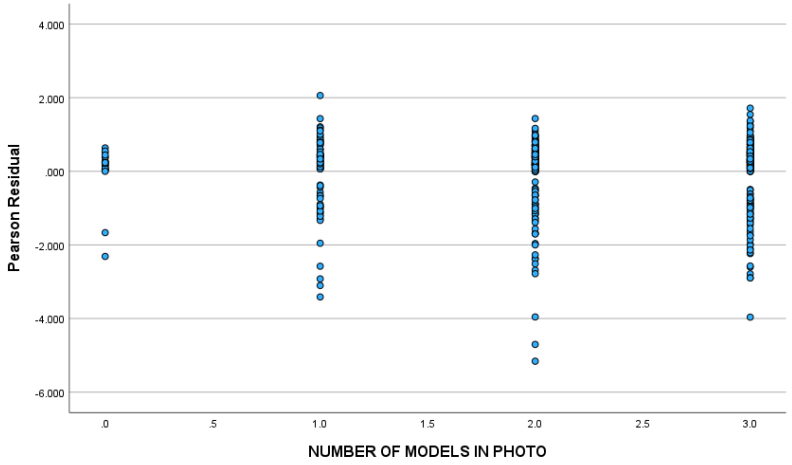

Pearson Residual
5.000
2.500
.000
-2.500
-5.000
1.00
1.50
2.00
2.50
3.00
3.50
4.00
times_Attend_Campus_Org_Event

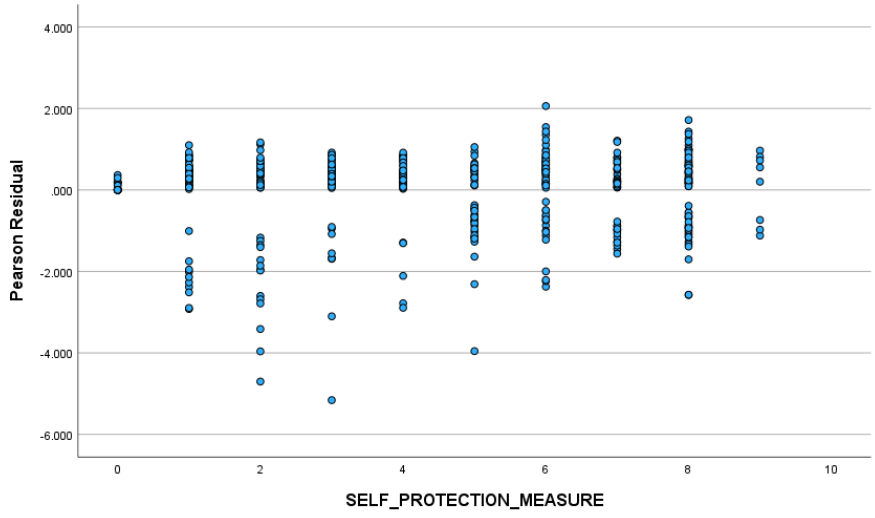

Pearson Residual
5.000
2.500
.000
-2.500
-5.000
.0
.5
1.0
1.5
2.0
2.5
3.0
NUMBER OF MODELS IN PHOTO


Pearson Residual
5.000
2.500
.000
-2.500
-5.000
0
2
4
6
8
10
SELF_PROTECTION_MEASURE

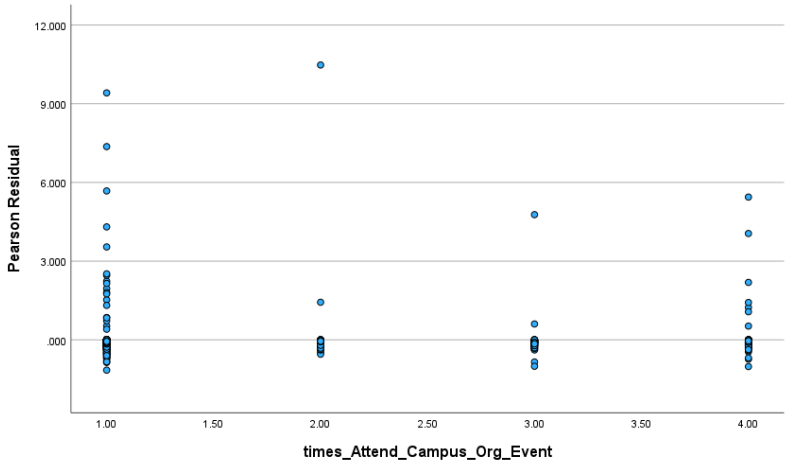
Regression Graphs: Afraid of being Beaten Up2

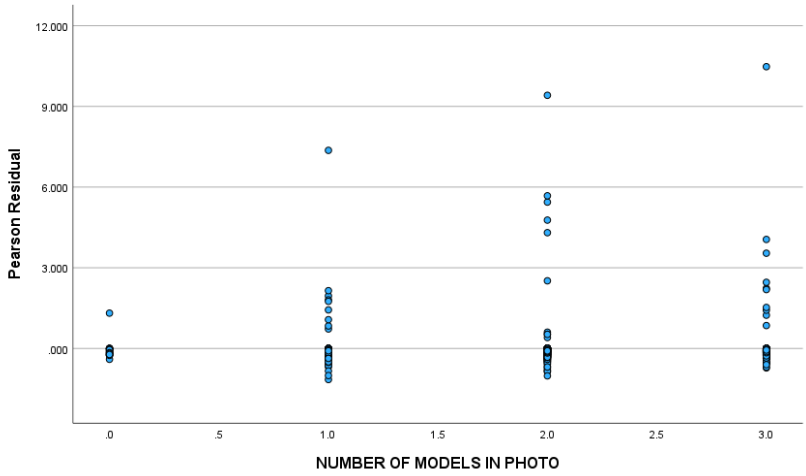


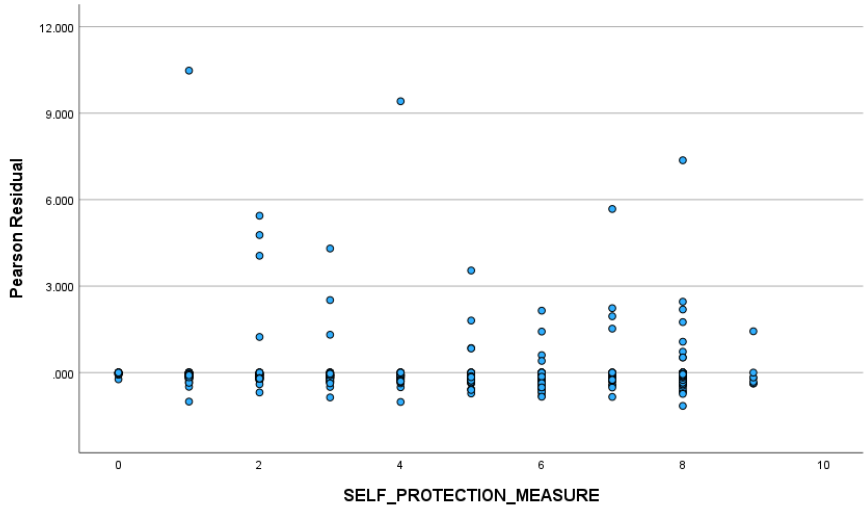




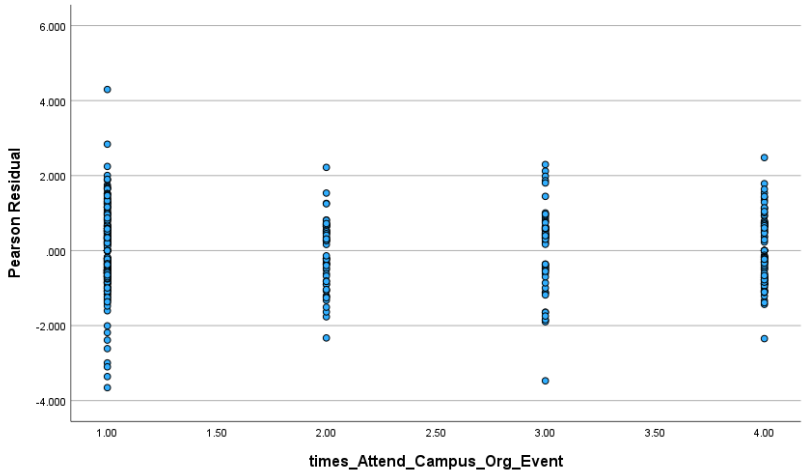
Regression Graphs: Afraid of being Beaten Up3

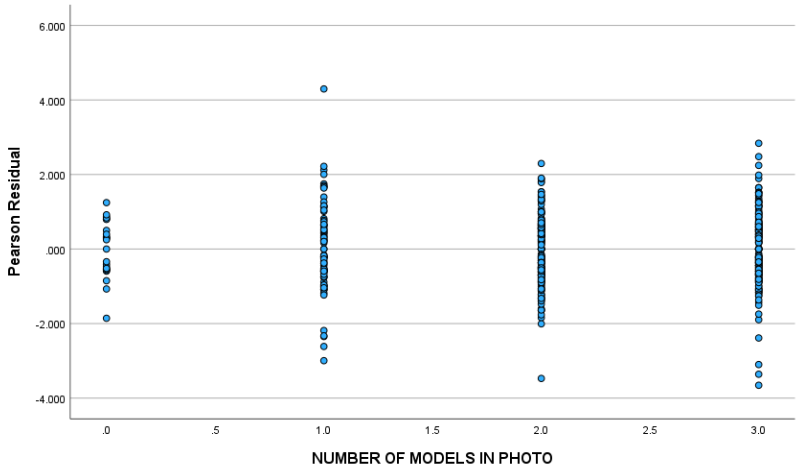


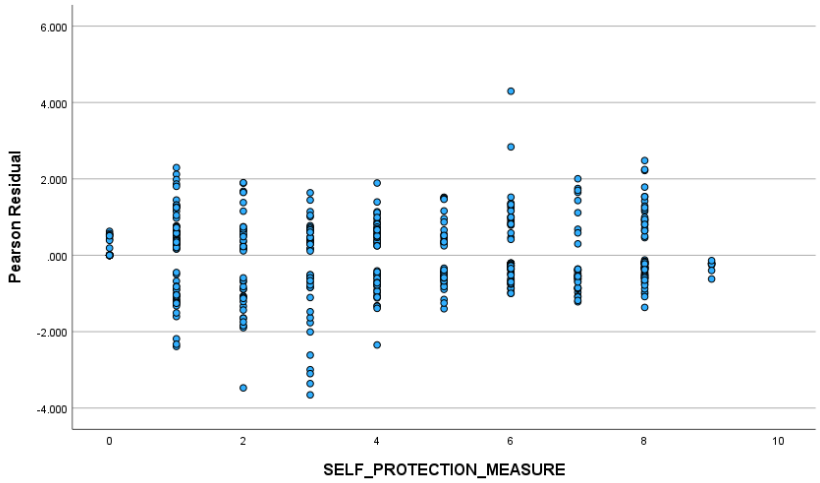




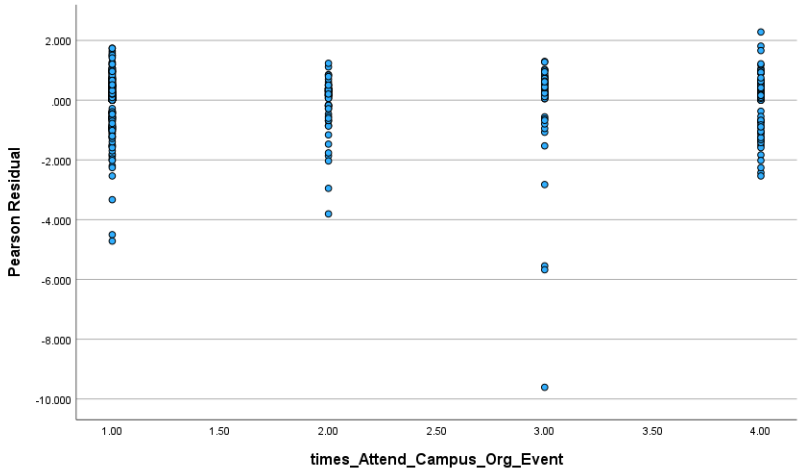
Regression Graphs: Afraid of being Sexually Assaulted1

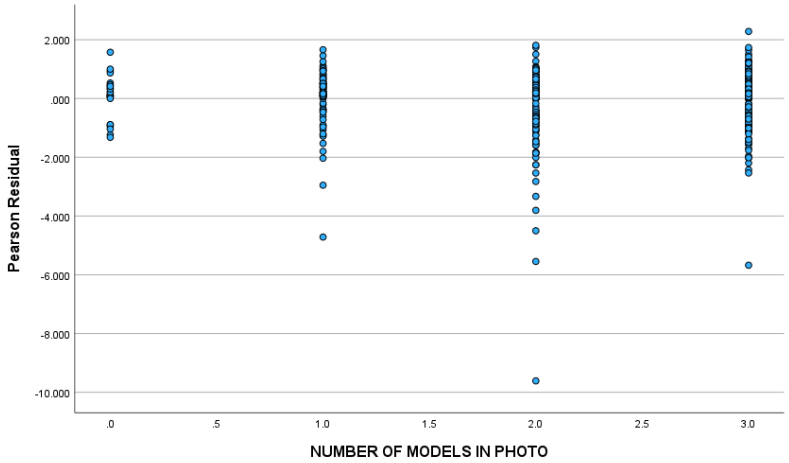


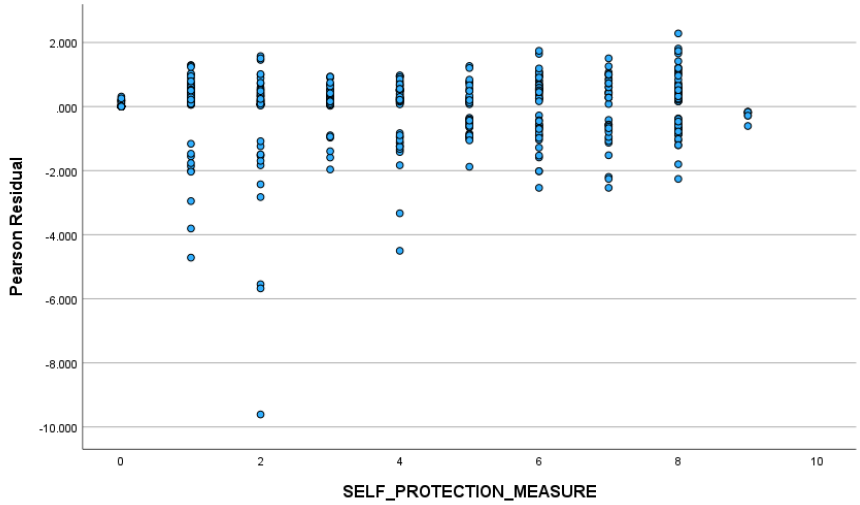




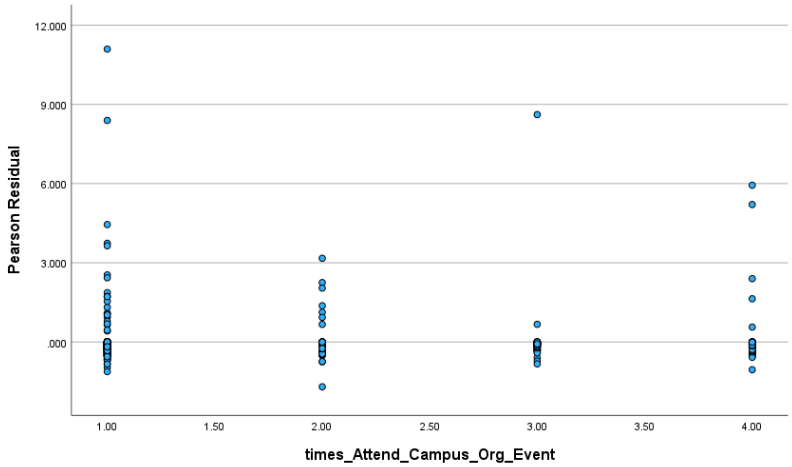
Regression Graphs: Afraid of being Sexually Assaulted 2

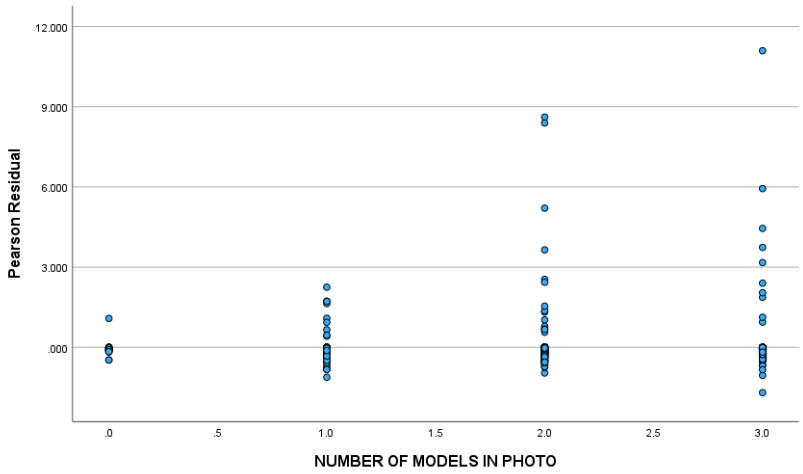


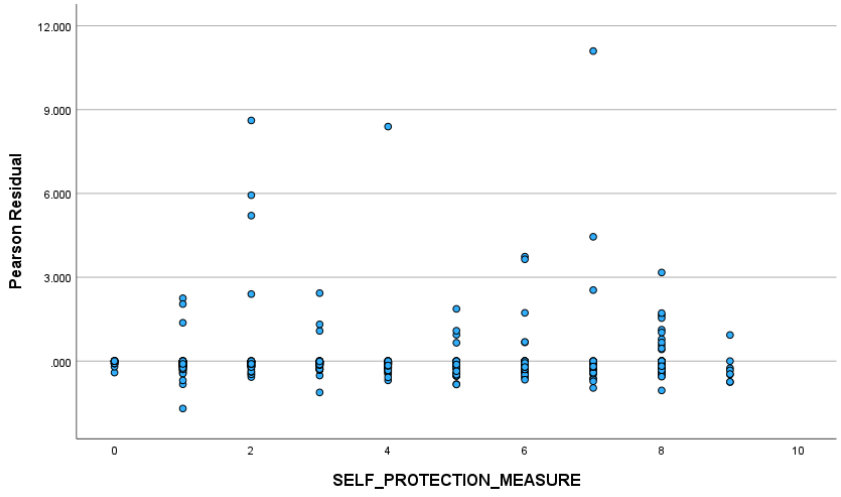




Regression Graphs: Afraid of being Sexually Assaulted 3







CURRICULUM VITA

Nancy M. Steinmetz

2904 Miles Road (502) 314-8024
Louisville, KY 40220 nancy.steinmetz@gmail.com

EDUCATION –

University of Louisville-Dissertation Research Fall 2020-current
University of Louisville-PhD coursework 2017-Summer 2020 completed
Louisville, KY
University of Louisville-M.A. Sociology 2012
Louisville, KY
University of Louisville-B.S. Sociology 2009
Louisville, KY
Morehead State University
Morehead, KY

PROFESSIONAL EDUCATION EXPERIENCE

University of Louisville
Adjunct Professor-Criminology
Summer 2021
Adjunct Professor-Criminology Spring 2021
Adjunct Professor-Soc of Deviant Behavior Fall 2020
Graduate Research Assistant
Summer 2020
Graduate Teaching Assistant-Diversity & Inequality Spring 2020
Graduate Teaching Assistant-Deviant Behavior Fall 2019
Graduate Teaching Assistant-Intro to Sociology
Summer 2019
Graduate Teaching Assistant-Diversity & Inequality Spring 2019
Graduate Teaching Assistant-Social Problems Fall 2018
Graduate Teaching Assistant-Diversity & Inequality
Summer 2018

Graduate Teaching Assistant-Social Problems Spring 2018

Graduate Teaching Assistant-Introduction to Sociology Fall 2017

Adjunct Professor-Introduction to Sociology Spring 2017

-Diversity and Inequality

Adjunct Professor-Research Methods Fall 2016

Diversity & Inequality

Adjunct Professor-Social Theory
Summer 2016

Self & Society

Adjunct Professor-Diversity & Inequality (2 sections) Spring 201

Adjunct Professor-Introduction to Sociology Fall 2015

Social Problems (2 sections

Adjunct Professor-Introduction to Sociology Spring 2015

Adjunct Professor-Introduction to Sociology Fall 2014

Social Problems Fall 2014

Adjunct Professor-Introduction to Sociology Spring 2014, Spring 2015

Adjunct Professor-Social Problems Fall 2013

Introduction to Sociology Fall 2013

Adjunct Professor-Social Problems Spring 2013

Adjunct Professor-Social Problems Fall 2012

Instructor-Introduction to Sociology Fall 2011-May 2011

Graduate Teaching Assistant Fall 2010-May 2011

Assistant to Dr. Mark Austin
Lecturer for recitation classes

Indiana University Southwest

Adjunct Professor-Social Problems/Introduction (1 section) Fall 2016

Adjunct Professor-Social Problems/Introduction (2 sections) Spring 2016

Adjunct Professor-Social Problems/Introduction (2 sections) Fall 2015
Adjunct Professor-Social Problems/Introduction (2 sections) Spring 2015
Adjunct Professor-Social Problems/Introduction (3 sections) Fall 2014
Adjunct Professor-Social Problems/Introduction (2 sections) Fall 2013

Spalding University
Adjunct Professor-Social Problems/Introduction (6-week course) 12/15-1/16

Georgetown College
Adjunct Professor-Social Problems Spring 2014
Contemporary Modern Theory Spring 2014
Development and Globalization Spring 2014
Adjunct Professor-Social Movements/Social Change Spring 2013

Publications:

Steinmetz, Nancy, and Mark D. Austin. *"Fear of Criminal Victimization on a College Campus: A Visual and Survey Analysis of Location and Demographic Factors," American Journal of Criminal Justice,* online: 2013 December 12**.**

Conference Presentations:

2019 Southern Sociological Society (Atlanta, GA). "Podcasts Versus Papers: How Different Assignments Influence Students` Mastery of a Sociological Perspective." With Dr. Karen Christopher.

Organization

Sociology Graduate Student Association
- Secretary 2010-2011

Graduate-Faculty Representative Fall 2018-2019