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Tourism and Crime in America: A Preliminary Assessment of the Relationship between the Number of Tourists and Crime in two Major American Tourist Cities.

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Abstract
Tourists planning to visit the United States have many exciting destinations to choose from. The number of people visiting the USA is on the rise, and their spending is growing even faster thus increasing the value of tourism to the economy. International arrivals and domestic travelers have increased over the last decade. However, for as many historical landmarks, amazing nightlife scenes, and striking landscapes there are to take in, oftentimes that also means major urban centers can have their share of crime, which can result in tourists becoming victims of crime. These paper objectives are to assess the effects of crime on health and the relationship between the number of visitors and the types and patterns of crimes, over time, in two cities engaged in mass tourism. A quantitative methodology was utilized to analyze thirteen years of crime data from the US Federal Bureau of Investigations. Based on the data, this research by itself, cannot adequately explain the variations in violent crime rates of either of the two cities. The results of the Pearson's product-moment correlation coefficient showed the tourist city of Honolulu with an inverse relationship between the number of visitors and violent crimes while Las Vegas results showed significant correlation between the number of visitors and crime. The results also showed relationships between increasing law enforcement employees and crime reduction. These results could assist these and other cities in studying more distinctively the relationship between crime and tourism as well as the localization of crimes on visitors in order to engage in measurement and prevention efforts which would serve visitors as well as residents.

Keywords: tourists, tourism development, crime theory, crime, fear, health

1. Introduction

International travel and tourism is a significant contributor to economic growth and development, with worldwide growth in international tourist arrivals outpacing national income growth one out of every two years over the past 30 years. The growth continues, one billion tourists have travelled the world in 2012, marking a new record for the international tourism sector that accounts for one in every 12 jobs and 30% of the world's services exports (World

Tourism Organization (WTO), 2013). Receipts from international tourism in destinations around the world grew by 4% in 2012 reaching US$ 1,075 billion. This growth is equal to a 4% increase in international tourist arrivals over the previous year which reached 1,035 million in 2012. An additional US$ 219 billion was recorded in receipts from international passenger transport, bringing total exports generated by international tourism in 2012 to US$ 1.3 trillion (WTO, 2013). For many developing countries, travel and tourism serves as the primary export industry. However, in terms of overall trade dollars, it is industrialized countries that are some of the largest beneficiaries of inbound international travel and the USA is no exception.

Travel and tourism is America's largest service export and a major jobs engine but few people know because it is not a tangible export, it is intangible. As international travel and tourism is forecast to grow significantly over the next five years, the USA economy stands to benefit significantly. Tourism contributes significantly to this economy as it impacts a wide range of business sectors and augments employment and payroll income. During 2003, total tourism-related direct and indirect employment was 5.4 million and 2.5 million respectively (Kuhbach and Herauf, 2005), by 2010 tourism supported 14 million jobs, including 7.4 million directly in the travel industry and 6.7 million in other industries (USTA, 2010). The tourism industry's value added grew 4.5% to US$285 billion which represented 2.6% of the gross domestic product (GDP) for the period 2001–2003 (Kuhbach and Herauf, 2005), by 2011 tourism generated $1.4 trillion in economic impact with $759 billion spent directly by domestic and international travelers that spurred an additional $1 trillion in other industries (USTA, 2011). This accounted for $32 billion in balance of travel trade surplus for the USA. Moreover, tourism provides tremendous benefits for federal, state and local governments in the form of taxes; for example, excise, sales, income and property taxes. In 2004, the industry generated an estimated US$100 billion in taxes based on US$546.4 billion of direct sales from tourism (USTA, 2005).

The major threats to the tourism industry are socio-economic problems which in most cases lead to an increase in the crime rates. Anecdotal evidence suggests that these tourists and visitors are at great risk of being victims of violent and property crimes in the cities they visit. Today, many scholars in the tourism industry advocate that being safe on vacation is an expected requirement for any visitor in a tourist destination or city. However, it has been observed that places that develop an unsafe reputation can be substituted by alternative destinations or cities that are perceived as safer for tourists. Crimes committed against tourists affect tourism by

damaging the destination or city image. Thus, Glensor and Peak (2004) found that "the most important prerequisite for a successful tourism industry is a reputation for keeping crime under control and guaranteeing tourists' safety."

Crime is a particularly interesting problem because it is in many respects the obverse (i.e., the 'flip side') of altruism, i.e. the feelings and behavior that show a desire to help other people and a lack of selfishness. This is especially true if we define crime broadly as behavior in which individuals obtain resources from others via force, fraud, or stealth. One can easily imagine going on vacation but to become a victim of crime is devastating. Such a bad experience only serves to tarnish the entire vacation experience, criminal acts do exactly that. People who commit these acts intentionally harm others for their own gain. Crime has high and diverse costs, the direct physical, material, mental, and emotional injury suffered by victims of crime is deplorable, especially for visitors to a city or destination. Perhaps even more tragic, however, is the indirect damage to society. Attempts to control crime through the criminal justice system increasingly intrude in our private lives. Personal freedoms are threatened as we repeatedly choose between public order and individual rights. Moreover, crime amplifies mistrust, feeds prejudice, and generally degrades social cohesion (Vila, 1994). People become more fearful and distrustful, all of which undermines tourism development.

2. Crime Theory

Early scholars studied crime through a variety of approaches, some of which influenced modern sociological theory. Ecological theories, in particular, have been significant. The ecological school of thought attempts to explain crime as a function of social change that occurs along with environmental change. At the root of this approach is the concept of social disorganization, which is primarily concerned with the issue of social control: the ability of a destination, city or neighborhood to regulate itself and to regulate the behavior of community and residents to realize common goals, including a crime free environment, (Martinez and Nielsen, 2003). The study of the causes of crime is important not only to sociology and criminology but also to stakeholders in the tourism industry. It is difficult to develop theories that explain human behavior, especially criminal behavior, because the behavior varies and the participants are different in characteristics, experiences, and backgrounds. Social science theory can be very

complicated, and this gives rise to much disagreement. Nevertheless, theory is important, and sociologists and criminologists have made great strides in their analyses of criminal behavior and other aspects of the criminal justice systems (Akers and Sellers, 2004).

Theories of crime can be divided into those that seek to explain the development of criminal offenders, and those that seek to explain the development of criminal events. Theories of and research on offenders have dominated the literature and contributed to the development of criminology (Clarke, 1980). Most research on crime and crime prevention has been focused on why certain types of people commit crime and what we can do about them. It is only recently that serious attention has begun to be paid to explaining crimes rather than the criminality of people involved in crime. Concern with place is very much central to this approach and highly applicable to the tourism industry because many cities or islands are tourist destinations and hotels where tourists stay are known as the tourist area, thus the concept of place. Three theoretical perspectives are relevant to our study and have influenced our understanding of the importance of place in crime prevention efforts; rational choice theory, crime pattern theory and routine activity theory.

A rational choice perspective provides the basic rationale for defining place as important, since it suggests that offenders will select targets and define means to achieve their goals in a manner that can be explained (Cornish and Clarke, 1986). The impact of environment on crime was further developed by the contributions of Newman (1972) who introduced the concept of defensible space. He believed that crime can be reduced by modifying the environment's physical features to the point that crime is more difficult to commit because the area gives the impression that the residents are in control (Newman, 1972). Crime pattern theory is particularly important in developing an understanding of crime and place because it combines rational choice and routine activity theory to help explain the distribution of crime across places. The distribution of offenders, targets, handlers, guardians, and managers over time and place will describe crime patterns. Changes in society have increased the number of potential targets while separating them from the people who can protect them (handlers, guardians, and managers). Reasonably rational offenders, while engaging in their routine activities, will note places without guardians and managers and where their handlers are unlikely to show up. Pattern theory explores the

interactions of offenders with their physical and social environments that influence offenders' choices of targets.

Routine activity is the most obvious theoretical basis for the proposition that crime rates will increase as does the number of visitors to an area. It would be too simple and convenient to suggest the population-violence nexus that as population in a jurisdiction, most notably a city, increases, the rate of violence is likely to increase. Social disorganization and ecological theories, among others, could and should be strong bases for that well-established phenomenon (Reiss and Roth, 1993). Still, increases in visitors to a city do not necessarily contribute to social disorganization and an argument can be made that the influx of income would even ameliorate some of the effects of social disorganization. The notion that visitors attract crime is better explained by the routine activities approach. Routine activities theory posits that there are three elements of direct contact predatory crime: (1) likely offenders; people who are motivated to commit crimes), (2) suitable targets; the presence of things that are valued and that can be transported fairly easily, and (3) absence of capable guardians; people to prevent the criminal activity), (Cohen and Felson, 1979). Felson (1987, 1994) as well as Roncek and Maier (1991) have clarified the applicability of routine activities to the urban environment. By focusing on land-use attractors, serving as magnets for potential offenders and potential victims, this research has laid the groundwork for suggesting that an increase of visitors, attracted to an area, could serve as potential victims, absent suitable guardians. This general proposition is supported by the research of Roncek and Maier (1991) though they studied the effect of locations of "recreational liquor establishments" i.e. taverns and lounges on crime in Cleveland. Their research results "reaffirm the value of new developments in routine activities theory that now stress the importance of facilities" (Roncek and Maier, 1991: 725).

3. Crime and Health

Violence is an epidemic in the USA with widespread consequences. In 2011 alone, there were approximately 1,203,564 violent crimes nationwide, the highest number occurring in large cities (Uniform Crime Report, 2012). It is estimated that the United States spends 15% of its GDP on containing violence. It affects the community in profound ways, decreasing property values, reducing productivity, and increasing health care costs (Center for Disease Control and

Prevention (CDC), 2012). Crime is a health issue because it affects the health of our communities and individuals within them directly and indirectly, this include the tourists who visit. The issue of crime and its relation to health has been a focus of discussion and research for some time, (Robinson *et al.*1998; McManus, 2000). Crime affects health in a number of ways, directly, indirectly and by influences on the health care system.

Crime affects health directly, e.g. through violence, injury, rape and other offences against the person. The most obvious categories of crime that have a direct effect on health are: interpersonal violence and injuries; road traffic accidents through dangerous driving and homicide. Others include drug and alcohol related problems and long-term physical or psychological disability from injuries, muggings, etc. Violence is and remains a major public health issue internationally too, (Golding (1997). The World Health Organization 2002 report stated that no country or community is untouched by violence. Images and accounts of violence pervade the media; it is on our streets, in our homes, schools, workplaces, institutions, tourist cities and destinations. Violence is a universal scourge that tears at the fabric of communities and threatens the life, health and happiness of us all. Each year, more than 1.6 million people worldwide lose their lives to violence and some are tourists. For everyone who dies as a result of violence, many more are injured and suffer from a range of physical, emotional or mental health challenges. Interpersonal violence is the third most common cause of death and the ninth most common burden of disease for males and females aged 15–44 in developed countries, accounting for about 14% of deaths among males and 7% of deaths among females.

Crime also has major effects on health through drug and alcohol use: alcohol and drug-driven crime, accidental injury, poisoning, adverse reaction to drug use and a range of long-term negative health effects. Crime affects health both indirectly, through the psychological consequences such as victimization and isolation due to fear and directly through the physical consequences of injury.These effects persist across time. There is ample evidence about the long-term physical and psychological deterioration of those who suffer stress, fear of crime and repeat victimization, (Benzeval, 1996, Gowman, 1999). These indirect costs of crime, through inflicting fear and anxiety, and leading to changes in daily routines and behavior (Hamermesh, 1999), may be far larger than the direct costs. Indeed, in a recent paper, Becker and Rubinstein (2011) argue that major criminal acts such as terrorist attacks inflict most harm by creating fear, and by

inducing changes in behavior and individual choices. Measuring the magnitude of these indirect costs of crime is crucial for assessing the optimal investment into crime prevention. While the direct costs, i.e. response costs of police and the Criminal Justice System, and costs through the impact on victims are routinely assessed, evaluations of indirect costs, including those of non-victims, are scarce, and far more difficult to ascertain.

The fear of crime is also important to discuss because it affects behavior, fear can be divided as a range of feelings, thoughts and behaviors, all directed towards the personal risk of criminal victimization. Because of the assumed impact, and because of a disconnect between 'fear' and 'crime,' fear of crime is often seen as a social problem in its own right. Some argue that public emotions about crime are fed by the sensationalism of mass media coverage of crime (Warr, 1987). Others contend that public attitudes towards crime are rooted in day-to-day concerns about social cohesion and neighborhood breakdown, leaving fear less an irrational sense of crime and more a compound of broader issues of quality-of-life and social stability (Jackson, 2004, 2006; Farrall *et al.,* 2009). Still others argue that public policy, mass media coverage and criminological research have each contributed to a culture of fear that encourages people to view the world through the lens of crime, safety and security, driving ever-more punitive policy from Government (Lee, 2007, 2001, 1999; Simon, 2007; Zedner, 2003; Furedi, 2006; Bauman, 2002). Studying the impact of the fear of crime on tourists decision making and behavior as well as local individual and community health is an important endeavor. Other studies found correlations between worry about crime and self-reported physical and psychological health from single-shot surveys (Kruger *et al.,* 2007; Chandola, 2001; Adams & Serpe, 2000). Stafford *et al.,* (2007) found a robust effect of worry about crime on reduced health. To some extent the curbing of physical and social activities (cf. Liska *et al.,* 1988; Foster & Giles-Corti, 2008; Taylor *et al.,* 2009) helped explain the link between worry about crime and health.

4. Theoretical Views of Crime and Tourism

Tourism is generally acknowledged as an industry that only thrives under peaceful conditions. Additionally, the need for safety and security is a well-recognized innate trait of human nature (Maslow, 1954). Consequently, concern about personal safety and security has

been shown dramatically to restrain travel to hostile destinations (Edgell, 1990). Tourism is currently nonexistent in Syria because of the civil war while both Israel and Palestine tourist arrivals suffered because of continued conflicts. A favorite complaint among travel destination marketers is that the media can take relatively few crime incidents against tourists and through sensationalist reporting create a hysterical overreaction out of proportion to the real level of risk (Crystal, 1993). Reliable statistics about crimes against tourists are in short supply. The official Federal Bureau of Investigation annual crime report does not differentiate between the local population and the tourists. Tourist crime victimization data, if produced at all, are closely guarded by many tourism-reliant destinations (Ambinder, 1992). Obviously, however, if we are to understand the scope of the problem collecting reliable and comparable incidence data is the logical first step. To our knowledge there have been only a few isolated attempts to report scientifically valid tourist crime statistics which could be used for comparison purposes (Jones, 1993; Demos, 1992; Chesney-Lind and Lind, 1986). The existence of crimes perpetrated against tourists is a topic that few tourism marketing professionals like to discuss. The fact remains, however, that few major tourist destinations in the world today are immune to the problem. The findings of this study will hopefully provide insights to other tourist cities, states and communities regarding more effective approaches to this dilemma.

Limited theories and research are available to aid and explain the relationship between tourism and crime, also over the last three decades few studies have been done. In fact, nearly twenty years ago Pizam (1996, pg 12) cites that "only a small number of empirical studies have explained the relationship between tourism and crime". Schiebler et al. (1996) and Crotts (1996) recognized two theories with high application to crime in tourism, routine activities theory and hot spot theory to offer potential insight into the relationship between tourism and crime. The key to minimizing crimes, according to the routine activities theory, is increasing the presence of law enforcement in tourist areas. The hot spot theory focuses on the locations which "provide convergent opportunities in which predatory crimes can occur" (Crotts, 1996). Ryan and Kinder (1996) refer to hotspots as "crimogenic" places containing bars, nightclubs, and strip-joints catering to tourists. Tourists visiting these areas are more likely to be victimized by crime (Albuquerque de& McElroy, 1999). The authors used the "Routine Activities" and "Hot Spots" theories to examine causation.

Pelfrey (1998) used the Uniformed Crime Reports (UCR) of the Federal Bureau of Investigation to evaluate the relationship between the number of tourists visiting Honolulu and Las Vegas and the types and patterns of crimes over time. The research findings failed to adequately explain the variation in violent crimes from 1982 to 1993. The study failed to reveal any significant correlation among violent crimes in Las Vegas, while Honolulu showed an inverse relationship between the number of visitors and violent crimes. The study showed that there was no major correlation between any of the four serious violent crimes (murder, rape, robbery, aggravated assault) and the number of visitors to Las Vegas. This study by Pelfrey (1998) suggests that factors other than the number of tourists may explain the variations in the relationship between crime and tourism in Honolulu and Las Vegas. It may prove useful to explore social, economic, and demographic factors present at these destinations. These studies show that when tourists visit destinations where there is a high crime rate there is likelihood that tourists will become victims; however, the probability is different based on location. Deployment of law enforcement personnel may help ease the fears of tourists; however, their presence alone does not necessarily yield a reduction in offenses against tourists. As a result, in order to reduce crime against tourists, law enforcement must find ways to arrest and remove offenders and potential offenders from the equation.

A crime committed against tourists is not a new phenomenon that comes with the development of the tourism industry. Giddens (1990), states that crimes against travelers affect many people besides the victims and their families. This fact is very true, because unpleasant experiences of tourists at a particular destination are widely covered by the media or reported by tourist themselves to friends and families by word of mouth. The destination will be subjected to bad publicity and the number of tourists visiting the area will decline. Whilst it is true that only a minority of tourists suffer criminal victimization while on vacation, it is important to explore variations in the crime experiences of different tourist types. It is observed that Crime patterns vary according to factors such as the nature of tourism, its scale, and the type of development, the season, as well as variations relating to the tourists themselves and issues associated with their behavior. In order to better understand the relationship between visitors numbers and crime, researchers have previously conducted studies that look at crime characteristics, tourism

destinations most vulnerable to crime, tourism destinations where a considerable amount of crime occurs, and the type and amount of law enforcement personnel located in these areas.

According to Prideaux (1996), a number of studies have been undertaken in an attempt to discover the effect that crime has on tourism; however, researchers have yet to succeed in identifying those elements within destinations which encourage an increase in criminal activity. To illustrate his argument, Prideaux (1996) presents what he refers to as "The Tourism Crime Cycle." The basic assertion of "The Tourism Crime Cycle" is that crime is related to the image created and the type of marketing undertaken. Prideaux used two types of destinations to support his argument. He represented these destinations as Hedonistic destinations and Family Values destinations. Hedonistic destinations were represented as adult destinations where tourist could experience "…adventure, romance, escapism and sex." examples of Hedonistic destinations include Cairns and the Gold Coast in Australia. Family Values destinations marketed family vacations that consisted of activities for all age groups. An example of this type was the Sunshine Coast in Australia. The study revealed that the destinations marketed as Hedonistic destinations experienced more crime than the destinations marketed as Family Values destinations.

In 1993, as crime committed against tourists were hyped and sensationalized by the media creating the perception that this crime against tourist was out of control, there grew a need for more reliable data about crimes committed against tourists. A study found that about 15% of Milwaukee's taverns were responsible for over half of tavern crimes in that city (Sherman et al., 1992). These examples provide only a glimpse of the growing recognition of the role of place in crime and crime control. Law suits that hinge on the ability of claimants to show that buildings and parking lots are unnecessarily dangerous abound in our civil courts (Bates and Dunnell, 1994). Schiebler et al. (1996) conducted a study that examined the prevalence of crimes against tourists in the most popular destinations in Florida in 1993. They examined serious crime incidents committed against short term visitors who did not maintain part time residences in Florida since that fit the closest definition of tourists. They concluded that the "Routine Activities" and "Hot Spots" theories explain causation.

Crimes are sometimes over reported or not reported in proportion that is consistent with the risks. Tourists contribute to these risks by participating in what Glensor and Peak (2004) refer to as "vacation behaviors." This includes participating in excesses and dangerous practices in

sport and leisure activities such as driving, gaming, and drinking. Additionally, tourists carry large sums of money, visit dangerous locations at night, leave property in view, and look like tourists (Glensor and Peak, 2004). Thus, Glensor and Peak (2004) found that "the most important prerequisite for a successful tourism industry is a reputation for keeping crime under control and guaranteeing tourists' safety." The impact of crime on general well-being is profound. Those most directly impacted are the victims of crime, some of which are tourists. By one estimate, the combination of direct monetary losses and the costs of pain and suffering among crime victims in the U.S. amounts to nearly 6 percent of the gross domestic product. Beyond these direct costs are substantial indirect costs associated with reducing the threat of crime. In 2006, federal, state, and local government criminal justice expenditures amounted to $214 billion according to the Bureau of Justice Statistics (BJS, 2011). One can only imagine the pain and suffering of tourists who become victims of crime, especially in a foreign country.

5. Methodology

In the USA, the Federal Bureau of Investigation (FBI)regularly publish or contribute to a series of statistical crime reports and publications, detailing specific offenses and outlining trends that can help us better understand crime threats both nationally and locally. This Uniformed Crime Report on crime in the USA is the most comprehensive analysis of violent crime and property crime in the nation. The annual publication compiles volume and rate of crime offenses for the nation, the states, and many cities and counties. This study seeks to build on the work of Pelfrey (1998) who analyzed similar crime data from 1982 to 1993 for Las Vegas and Honolulu. Seventy-two percent (72%) of 2012 visitors said they gambled while in Las Vegas, down significantly from 85% in 2008, 83% in 2009, 80% in 2010, and 77% in 2011 (LVCVB, 2012). Whereas Las Vegas tourists typically have gaming interests, Honolulu tourists visit for the beaches, culture and history.

The researchers for this study utilized crime data from the FBI annual crime reports for twelve years, from 2000 to 2012. These data were then converted to crime rates per 100,000 population, consistent with the current formula used by the Federal Bureau of Investigation, in order to provide comparability and to take into consideration the population growth in the two jurisdictions. As noted by other researchers (Albanese, 1985; Giacopassi and Stitt, 1994), the

population as a denominator for a city or county engaged in mass tourism or high numbers of visitors is inherently flawed but it still stands as the standard method of calculating crime rates and the only viable method of conducting comparisons with other jurisdictions. Calculations of crime rates for the United States and metropolitan areas of the United States were then performed for each of the twelve years.

The Uniform Crime Report defines Metropolitan areas as those which include a central city of at least 50,000 people or an urbanized area of at least 50,000. Each of the two cities in the analysis fits in this category and this is an arguably better comparison group for violent and property crime rate trends. The offences included in this study are willful homicide, forcible rape, robbery, burglary, aggravated assault, larceny over $50 and motor vehicle theft. The logical starting point for this analysis was then an examination of the extent to which there is a relationship between visitors and crime rates and the extent of the relationship. These were described by calculating the Pearson's product-moment correlation coefficient using Davis' (1971) convention. Magnitude of the relationship is noted by Davis (1971) as $.01 \geq r \geq .09 =$ *Negligible*, $.10 \geq r \geq .29 = Low$, $.30 \geq r \geq .49 = Moderate$, $.50 \geq r \geq .69 = Substantial$, $r \geq .70 =$ *Very Strong*. A level of significance of .05 was established *a priori*. The bivariate correlation analysis was done for research variables using Microsoft Excel version 2010.

6. Results and Implications

The analysis of the data showed surprising variation for several key crimes. The raw data shows the changes and relationships of violent crime rates for the USA. Since the drop in crime rates of the 1990s, crime rates have steadily declined, reaching the lowest levels since the early 1970s. Between 2005 and 2010, there were sharp declines in all major crime categories. During this period, violent crime rates fell by 15.8 percent, and property crime rates fell by 12.1 percent. Uniformed Crime Report data for 2011 indicate a continuation in this downward trend for the fifth consecutive year. Violent crime decreased by 4 percent in comparison with 2010 rates, while property crime decreased by 1 percent (FBI, 2012). Thus in recent decades, USA crime rates have fallen sharply. By 2008 the sexual assault rate stood at only 23 percent of its peak value in 1991, while robbery, aggravated assault, and simple assault had fallen to 37, 33, and 42 percent of their 1991 levels, respectively. Similarly, homicide rates dropped from 10.5 per 100,000 in 1991 to 6.2

per 100,000 by 2006. Between 1991 and 2008 the number of burglaries per 1,000 households declined by 59 percent, while rates of theft and motor vehicle theft dropped by 62 and 70 percent, respectively (BJS, 2011).

A bivariate analysis is difficult with only annual data for twelve years, but it may provide some insight into the interaction of visitors and crime, complementing the descriptive information above. This analysis for the city of Las Vegas is shown in Table 1. Considering the violent crime rates and the relationship to numbers of visitors, the city of Las Vegas showed the following: a positive moderate relationship between murder rates and visitors (Pearson's r = .34, p < .05); a positive moderate relationship between robbery rates and visitors (Pearson's r = .34, p < .05); an insignificant positive relationship between larceny rates and visitors (Pearson's r = .18, p < .05); an insignificant positive relationship between motor vehicle theft rates and visitors (Pearson's r = .15, p < .05); a significant positive substantial relationship between rape rates and visitors (Pearson's r = .75, p < .05); a significant positive moderate relationship between aggravated assault rates and visitors (Pearson's r = .63, p < .05) and a significant positive substantial relationship between burglary rates and visitors (Pearson's r = .75, p < .05). Las Vegas rates of violent crimes of rape and aggravated assault showed significant correlation with the numbers of visitors for the twelve year period while the non violent crime of burglary also showed significant correlation with the numbers of visitors. Table 1 shows that there is a relationship between the number of law enforcement employees and number of crimes, it can be inferred that increasing the number of law enforcement employees reduce certain crimes. These results were consistent with the Clark County 2012 report which indicated a drop in several crime rates in Las Vegas. Compared to data collected from 2010, the reported cases of robbery, auto theft and homicide dropped in 2011, along with traffic fatalities and sexual assault. The Las Vegas Metro Police point to several different factors for this drop in crime, including increased traffic patrol, better documentation of domestic violence cases and new technology.

Table 1.

Correlation Matrix of Research Variables for the City of Las Vegas 2000 to 2012

_____

	1	2	3	4	5	6	7	8	9	10

_____

1. FT Law Emp.	1.00								
2. Murder	0.25	1.00							
3. Rape	0.71	0.61	1.00						
4. Robbery	0.34	0.67	0.66	1.00					
5. A. Assault	0.86	0.41	0.89	0.61	1.00				
6. Burglary	0.58	0.63	0.84	0.64	0.82	1.00			
7. Larceny	-0.08	0.44	0.16	0.35	0.14	0.60	1.00		
8. Motor Theft	-0.29	0.75	0.12	0.36	-0.11	0.38	0.71	1.00	
9. Population	0.85	0.49	0.93	0.57	0.98	0.88	0.22	0.00	1.00
10. Visitors	0.56	0.34	0.75	0.34	0.63	0.75	0.18	0.15	0.72	1.00

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p < .05

A bivariate analysis for the city of Honolulu is shown in Table 2. Considering the violent crime rates and the relationship to numbers of visitors, the city of Honolulu showed the following: a positive moderate relationship between murder rates and visitors (Pearson's r = .46, p < .05); an inverse insignificant relationship between robbery rates and visitors (Pearson's r = -.15, p < .05); an inverse insignificant relationship between larceny rates and visitors (Pearson's r = - .08, p < .05); an inverse insignificant relationship between motor vehicle theft rates and visitors (Pearson's r = -.08, p < .05); a modest inverse relationship between rape rates and visitors (Pearson's r = -.42, p < .05); an insignificant positive relationship between aggravated assault rates and visitors (Pearson's r = .11, p < .05) and an inverse modest relationship between burglary rates and visitors (Pearson's r = -.39, p < .05).

The city of Honolulu rates of non violent and violent crime, collectively and individually, showed no significant correlation with the numbers of visitors for the twelve year period. Table 2 also shows that there is a relationship between the number of law enforcement employees and number of crimes in all categories, it can be inferred that increasing the number of law enforcement employees reduces all crimes, some significantly like rape, larceny and motor

vehicle theft. According to the Honolulu Police Department, Honolulu's violent crime rate is much lower than other large cities. The police are visible and have a strong presence throughout the city. Nearly all of their violent crimes cases have been solved, but Honolulu dangers still include car break-ins and people driving while intoxicated. Honolulu is a very safe city to visit and one should feel comfortable knowing that one does not have to fear for their safety. Honolulu was recently named America's third safest city by Forbes magazine 2012. In their analysis they surmised that violence rates are relatively low in Honolulu due to strict gun control laws.

Table 2.

Correlation Matrix of Research Variables for the City of Honolulu 2000 to 2012

	1	2	3	4	5	6	7	8	9	10
1. FT Law Emp.	1.00									
2. Murder	-0.04	1.00								
3. Rape	-0.61	-0.28	1.00							
4. Robbery	-0.32	-0.14	0.68	1.00						
5. A. Assault	0.28	-0.12	-0.63	-0.64	1.00					

6. Burglary	-0.68	0.05	0.78	0.57	-0.63	1.00			
7. Larceny	-0.71	-0.03	0.84	0.58	-0.65	0.84	1.00		
8. Motor Theft	-0.82	-0.04	0.60	0.33	-0.18	0.75	0.88	1.00	
9. Population	-0.24	-0.25	0.36	0.15	-0.14	0.39	0.56	0.55	1.00
10. Visitors	0.13	0.46	-0.42	-0.15	0.11	-0.39	-0.08	-0.08	-0.17	1.00

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$p < .05$

These data strongly suggest that there is a relationship between tourism and crime; however, this cannot be determined to a great degree of certainty. Firstly, in the crime data there is no distinction between resident victims and visitors. While increases in the numbers of tourists might lead to general increases in crime throughout the community by contributing to urbanization and other forms of social change, it is evident that the tourist industry itself is a factor in increasing crime rates. Secondly, Crime rates in tourist areas can appear higher than they actually are because if you have a lot of tourists (non-permanent residents) in the community, like Las Vegas and Honolulu, because the number of crimes (violent, property, or both) is divided by the permanent population, creating a crime rate per 1,000 residents. If you have a lot of visitors, these people can increase the number of crimes, but do not count in establishing the rate because they don't live there, thus increasing the crime rate score per 1,000 residents. Therefore it is always valuable to look at both the crime rate, and the raw data actually reported or estimated number of crime incidences in the neighborhood or community.

Certain aspects of tourism have been suggested as possible explanations for high rates of tourist victimization. Some of these involve possibly unavoidable parts of vacation behavior. On the other hand, this analysis suggests that the policies and practices of the tourist industry in both Las Vegas and Honolulu are beginning to bear fruits. Both cities have begun to focus on increasing the number of law enforcement employees and better policing strategies. The results of our study have some similarities and differences with Pelfrey (1998) findings, his research findings failed to adequately explain the variation in violent crimes from 1982 to 1993 while ours show similar results for Honolulu from 2000 to 2012, we also found some relationship between increasing law enforcement employees and crime reduction. Pelfrey (1998) study failed to reveal any significant

correlation among violent crimes in Las Vegas and our study found significant correlation. Both studies showed Honolulu with an inverse relationship between the number of visitors and violent crimes. Therefore our study showed similar results for Honolulu but different results for Las Vegas where we found significant correlation between crime and number of visitors. From our finding we affirm that "Routine Activities" and "Hot Spots" theories are highly applicable to the two tourist cities reviewed to explain causation.

7. Conclusion

In general and despite occasional variations, crime in the USA has declined measurably for decades. Between 1993 and 2010, for example, "the violent crime victimization rate declined steadily from 49.9 per 1,000 persons age 12 or older in 1993 to 14.9 per 1,000 in 2010, a decline of 70 percent. During that same interval, "the property crime victimization rate declined 50 percent from 318.9 per 1,000 households in 1993 to 159.0 per 1,000 households in 2002, and to 120.2 per 1,000 households in 2010 (BJS, 2011). In this paper, we have presented information about crime with respect to: murder, rape, robbery, aggravated assault, burglary, larceny excluding motor vehicle theft, and motor vehicle theft. Amidst limited research on crime and tourism, this exploratory effort provides several provocative findings which beg future research involving more tourist cities. While no single statistic by itself provides a full understanding of the factors contributing to tourists being criminally victimized, several interesting conclusions can be drawn from these results. First, crimes against tourists are more likely to occur in those cities that already are experiencing a disproportionately high level of conventional crime. Put another way, introducing higher rates of tourism in a low crime rate city will not automatically lead to higher rates of tourist victimization. However, increasing the numbers of tourists in an already high crime city does have a significant effect on the rates of crime committed against tourists. The results of our study showed Honolulu with an inverse relationship between the number of visitors and violent crimes while for Las Vegas we found significant correlation between crime and number of visitors.

Tourism is driven by many different "push," or demand, and "pull," or supply, forces, which in turn influence tourist level of motivation (George et al., 2010). Unfamiliar places evoke a sense of fear, unusual buildings and landscapes generate a sense of insecurity. Criminal victim

risk refers to the estimation for the chance of being a victim, the ability to resist crimes, and the sensation of crimes. If the estimation of criminal victim risk is high, the perception for the chance of being a criminal victim is high as well. The more a tourist feels unsecured, the less he visits (Chiu, 2008). Tourists also take actions to defend themselves from harm, travel involve some degree of risks which can be defined as an exposure to certain threats or dangers (Reisinger and Mavondo, 2005). Risks associated with travel are often related to health concerns, terrorism, crime, or natural disasters at tourist destinations (Robson, 2005; Floyd & Pennington-Gray, 2004; Kozak, Crotts & Law; Korstanje, 2009). Risk perceptions associated with the socialization process could explain why some visitors feel more anxiety than others during the travel experience.

The situation which poses the greatest threat to the safety and security of the tourist is the convergence of suitable visitor targets in those places where they are most likely to come in contact with local offenders who are already involved in high levels of criminality. If we can assume that predatory crimes against tourists are rational acts, our preventative energies should be invested in exploring ways in which we can make hotels, motels, restaurants, casinos, parking lots and garages safer for tourists, particularly in those communities which already have a disproportionately high level of non-tourist victimization. In addition, policy makers may wish to devise methods to minimize the exposure of tourists to the risk of being criminally victimized by physically isolating tourist zones from those economically depressed areas where we know the overall crime rate is high. For example, public transportation systems for visitors' use should be encouraged over rental cars and personal vehicles, in order to minimize the unintentional exposure of tourists to high crime neighborhoods. Furthermore, the physical characteristics of tourist accommodations will likely play a part in limiting risk in high crime areas. Older-style motel rooms that open directly onto dimly lit parking lots should be avoided in favor of hotels and resorts where room access by outsiders is limited through design of physical structures and monitored by cameras or private security officers.

According to Crime Prevention Through Environmental Design (CPTED) principles, potential criminals are likely to perceive detection chances greater and opportunities of escape more limited in those properties that are purposely designed with prevention in mind. Lastly, tourists should not be lulled into a false sense of security due to the mere presence of capable

guardians present at the facility. Without simultaneously reducing the number of motivated offenders from the area, simply adding security personnel may not yield the intended deterrent effect. Our results showed significant correlation between law enforcement employee numbers and reduced crime. Law enforcement and private security personnel are obviously important to deterring crime against visitors. Simply put, there needs to be more police on the streets especially in tourist cities. We believe that at the aggregate level there is no one magic bullet to reduce crime but a combination of factors working together can, consequently lead to more visible security including an increase in police presence which will actually lower the rate of tourist victimization in tourists cities and destinations.

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