"HOT TIMES" OF CRIME AND RECOMMENDATIONS FOR THE POLICE AGENCY

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Abstract: Crimes often have different operating rules in terms of time associated with specific causes and conditions. During certain short periods of a day, week, month, or year, the number and frequency of crime are often much higher than others. The study of crime "hot time" is essential to adjust social management and crime prevention policies. In this article, the author will analyze the nature, controversial issues and propose core solutions to improve the effectiveness of crime prevention in "hot times".

Keywords: Hot times, crime, police.

1. Introduction

"Hot times" are often understood as certain periods of "hot" and "complicated" periods on one or several specific issues. "Hot time" can be classified differently which can be one hour or two hours in a day, one or several days of a month, one or several months of a year. These periods often arise more work and problems than other periods. "Hot times" of crime can be perceived as certain periods when the number and frequency of crimes are much higher than other times in the same area. It can be a few hours during the day, weekends, national holidays, or festivals. 40% of the respondents reported feeling afraid walking alone at night within 1 mile of their home². Rate of murder is generally higher in the summer, except for December, which is often the highest month and almost always 5 to 20 percent above the yearly average³. Murder, according to the same studies, reaches a maximum in the hottest months⁴. Assault is most frequent between 10 p.m and 12 p.m, and occurs the least between 6 and 8 a.m⁵. Robbery occurs mainly between 10 and 12 p.m reaching a low point between 10 and 12 a.m. Burglary is most frequent between 2 and 4 in the morning and least frequent between 8 and 10 a.m. Larceny reaches a maximum around 8-10 p.m. Auto theft is high between 8 and 10 p.m also, while the lowest auto

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² Jack L. Nasar and Bonnie Fisher, "Hot spots" of fear and crime: A multi-method investigation, Journal of Environmental Psychology, 1993, 13, p187-206, Cited from National Opinion Research Center, 1987.

³ Carolyn Rebecca Block Statistical Analysis Center. Is Crime Seasonal?. Illinois. 1984. p1.

⁴ Gerhard J. Falk, *The Influence of the Seasons on the Crime Rate*. Journal of Criminal Law & Criminology, Volume 43, Issue 2. 1953. p199.

⁵ Gerhard J. Falk, *The Influence of the Seasons on the Crime Rate*. Journal of Criminal Law & Criminology, Volume 43, Issue 2. 1953. p211.

theft rate occurs between 4 and 6 in the afternoon. The highest frequency of robbery to take place between 8 and 12 in the evening, while burglary is from 12 midnight till 2 a.m. Larceny and auto theft both reach a peak between 8 p.m and 10 p.m. Research on the average number of crimes committed over 10 years shows that robbery appears to be most frequent between 6 p.m and 4 a.m, burglary between 6 p.m. and 6 a.m., and auto theft from 6 p.m to 12 p.m⁶. 45% of public nuisance incidents occurred on Fridays and Saturdays and 61% of public nuisance incidents occurred at night between the hours of 9 p.m and 5 a.m⁷. According to the analysis of the General Statistics Office of Mongolia in 2019, crimes occurring in the period from 6 a.m to 1 p.m accounted for 26.2%, from 2 to 6 p.m made up 28.1%, from 6 to 9 p.m constituted 14.7%, and from 9 p.m to 5 a.m accounted for 31.0% of total recorded crimes⁸. An analysis from the data of law enforcement agencies in 38 states and the District of Columbia of the US shared that violent crimes committed by adults increase hourly from 6 a.m, peak at 9 p.m, and hits the bottom at 6 a.m⁹. Violent crimes by juveniles occur most frequently at 3 p.m on school days and 8 p.m on nonschool days¹⁰. The peak of robbery is in December when the rate decreases until it is only 50 percent of the maximum in July¹¹. October is the high month in the case of larceny and January tops the list for auto the ft^{12} .

2. Discussion

Firstly, causes of originating "hot times" of crime

The "hot time" of crime often forms in association with the rules of the social activities. The frequency of activities in areas is unequal between time periods, in which, some periods concentrate a lot of people and property, social activities are diverse. It is estimated that over 3.6 billion passengers are travelling during the Chinese Spring Festival travel season¹³. Mecca receives over 3 million pilgrims a year during the month of Dhu al-Hijjah in Hajj, and around 2 million during the

⁶ Gerhard J. Falk, *The Influence of the Seasons on the Crime Rate*. Journal of Criminal Law & Criminology, Volume 43, Issue 2. 1953. p212.

⁷ Crime and Misconduct Commission. *Policing public order: A Review of the Public Nuisance Offence*. Australia., 2008. p62.

⁸ National Statistics Office of Mongolia. Crime statistics. Ulaanbaatar., 2019. Table 2.4.1. p43.

⁹ https://www.ojjdp.gov/ojstatbb/offenders/.

¹⁰ https://www.ojjdp.gov/ojstatbb/offenders/qa03301.asp.

¹¹ Gerhard J. Falk, *The Influence of the Seasons on the Crime Rate*. Journal of Criminal Law & Criminology, Volume 43, Issue 2. 1953. p209.

¹² Gerhard J. Falk. *The Influence of the Seasons on the Crime Rate*. Journal of Criminal Law & Criminology, Volume 43, Issue 2. 1953. p211.

¹³ Xianwen Wang, Chen Liu, Wenli Mao, Zhigang Hu & Li Gu. *Tracing the Largest Seasonal Migration on Earth.* 2014. https://www.researchgate.net/publication/267811689_Tracing_The_Largest_Seasonal_Migration_on_Earth.

month of Ramadan to perform Umrah¹⁴. Around 8 million people visit Ocean City, Maryland, US every year in the summer¹⁵. In 2018, more than 5 million tourists visited FIFA World Cup host cities in Russia¹⁶. In Vietnam, Hung Temple Festival welcomes around 7 to 8 million visitors, Ba Chua Xu Festival receives approximately 2.5 million visitors, Yen Tu Festival gets around 2 million visitors, Huong Pagoda Festival brings about 1,5 to 2 million visitors.¹⁷ The overcrowding in these locations results in the complexity of crime in a short time compared to other times of the year. These events often create a favorable environment for criminal activities and attract criminals from other areas due to the concentration of high-value assets, people's carelessness in property management, chaos of social activities, loss of control by competent authorities, or increased demand for illegal acts.

In addition, these areas are also prone to accidents that cause many deaths or injuries. For example, a stampede incident at a water festival in Phnom Penh, Cambodia on November 23, 2010, resulted in 378 people killed and 755 injured¹⁸. The horrific trample on Mecca of Saudi Arabia on September 24, 2015, left at least 717 people dead and 450 injured¹⁹. On September 10, 2019, the path of Iman Hussein Temple, Iraq - where the ceremony was taking place collapsed, causing the crowd to flee, trampling, led to 31 deaths and more than 100 injuries²⁰.

Secondly, level of crime to be considered "hot time"

Up to now, there hasn't been any research that determines the criteria and complexity of crime at periods to be considered "hot time". When researching crime "hotspots", some authors have pointed out formulas or results to identify a "hotspot" of crime. For instance, in Minneapolis, only 3% of the addresses generated about 50% of citizen calls for service to the police²¹. Research by Wilpen Gor and Yong Jei Lee shows that in large cities around 50% of crime occurs in only 5% of a city's block-long street segments²². According to the Pareto principle (80/20), about 80% of the results come from 20% of the causes. Is it reasonable to hypothesize that 95% of

¹⁴ https://en.wikipedia.org/wiki/Tourism_in_Saudi_Arabia.

¹⁵ https://vacayholics.com/list-of-most-crowded-beaches-in-world.

¹⁶ https://tass.com/sport/1012057.

¹⁷ http://superinfo.vn/detail/?id=1257&cate=12.

¹⁸ https://www.bbc.com/news/world-asia-pacific-11827313.

¹⁹ https://www.nytimes.com/2015/09/25/world/middleeast/mecca-stampede.html.

²⁰ https://www.bbc.com/news/world-middle-east-49653401.

²¹ Sherman, L., Buerger, M. and Gartin, P. *Repeat Call Address Policing: The Minneapolis RECAP Experiment.* Washington, DC: Crime Control Institute. USA., 1989.

²² Wilpen Gor and Yong Jei Lee. Chronic and Temporary Crime Hot Spots. Routledge Publisher., 2017. p41.

crimes occur in about 5% of the time, or 20% of the time witnessing 80% of crimes compared to other periods? In this regard, there has not been a specific standard was established with a much high trust level. Applying the above formulas is also feasible to a certain extent, such as pointing out the times that are considered "hot", and taking special measures to control and cool down. However, leaving a certain time frame like 2 hours in 1 day, 2 days in a week, etc. accounting for 95% or 80% of crimes will definitely lead to serious consequences for crime prevention. In the author's viewpoint, the determination of a complicated period to be a "hot time" should be based on the reality, capability of the police agency, and the requirements of crime prevention strategy in each locality. Letting police units proactively identify "hot times" of crime will ensure flexibility and match their actual capabilities.

Thirdly, classification of "hot time"

The complexity of crime in general and each specific offense often fluctuates between different times of the day, week, month, or year. Some areas only become complicated for several days in a few years. Criminals also rely on actual conditions and ways of committing crimes to conduct acts, hence, its heat is also different from other crimes. The classification of "hot time" of crime can be divided into different time periods by hours, days, weeks, months, quarters, and years associated with each specific location. To understand deeply the rules of "hot times" and how they differ from other periods, police agencies need to study for an appropriate period of time. The classification of "hot time" isn't applied similarly in all locations and years due to differences in geography, population, properties, environment, and crime situation among locations. It should be based on the goal of crime prevention, actual situation and research purpose. The goal of fighting drug-related crimes will be different from those of property-related crimes; furthermore, the level of complexity, the time rule of drug-related crime is not the same as that of property-related crime.

Fourthly, the relation between "hot times" and "hotspots" of crime

"Hotspots" of crime have been cared by many researchers through research works at different levels. Crime hotspots are areas with a much high concentration of crime than other areas. "Hotspots" are often approached from a geographical perspective. A hot spot can be determined as "a specific building", "a street address", "street segments" car parks, markets, or bus stations, etc. Meanwhile, "hot time" is

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²³ Lawrence W. Sherman, Stephen Williams, Barak Ariel, Lucinda R. Strang, Neil Wain, Molly Slothower, and Andre Norton. *An Integrated Theory Of Hot Spots Patrol Strategy: Implementing Prevention By Scaling Up And Feeding Back* //Journal of Contemporary Criminal Justice. 2014. Vol 30(2) 95–122. p98. (cited from Weisburd, Bushway, Lum, & Yang, 2004; Weisburd, Groff, & Yang, 2012).

considered in terms of time. Crime "hot times" and "hotspots" are closely related, but there are also certain boundaries between them. "Hot time" can be considered part of "hotspot" studies because crimes committed during "hot time" are often done tied to specific locations. The sudden increase of crime during these periods contributes to the formation of "hotspots". Crime "hotspots" are often associated with one or a few specific locations and addresses which are limited or unlimited by geography. In contrast, "hot times" are not limited to crime "hotspots" but can be located in other areas with lower complexity of crime.

Fifthly, the effectiveness of research on "hot times" of crime

Researching and identifying sharp differences in the complexity and frequency of crimes between time frames allows the police agency to apply priority policies in hot periods. Some outstanding policies can be implemented such as strengthening management, patrolling, supplementing human resources and equipment, and disseminating laws to the people. Thereby, improving the ability of police units to control the situation, deter persons who intend to commit crimes, actively arrest and handle suspects, as well as raise people's awareness about crime self-prevention. The effectiveness of research on crime "hot times" is therefore indisputable. However, priority policies for crime "hot times" need to be focused on high complicated areas of crime. For less complex places, the research may not be absolutely necessary unless new complicated issues arise and there is a striking variation in crime between time frames. This is an important issue in order to save budget and ensure that policies are invested in focus.

Sixthly, the combination of policies for crime "hot times" and "hotspots"

As mentioned above, "hot times" and "hotspots" of crime are closely related, therefore, crime prevention policies need to link these two factors. Simultaneous application of measures to control and solve problems arising in both "hot times" and "hotspots" of crime will bring the highest efficiency. At the "hotspots" of crime, carrying out priority activities during "hot times" is also an essential issue. However, several crime "hotspots" may form and exist without unusual "hot times", some areas where "hot times" of crime arise but not in "hotspots", therefore, applicable policies need to be different.

3. Recommendations for the police agency

First, conducting in-depth studies on "hot times" of crime

The variation in crime between time periods is a problem that has appeared and existed for a long time associated with the change of crime. Social activities are increasingly changing, leading to the complexity of crime in a short period. There have not been many in-depth studies on "hot times" of crime in general; in particular, research on this issue has not been widely carried out in localities. Therefore, authorities, police agencies, and researchers need to conduct surveys on practice, assess the crime situation at different periods to determine "hot times". The scope of researches may be limited according to the targeted purpose, and the location where the research products will be applied. The objective is to identify and classify the frequency and extent of crime occurrence between different time periods within the time limits of the study, recognize when crimes occur the most, the least and other levels according to specific criteria. Each area and type of crime often has its own rule of time, so studies need to approach definite specific area and crime group. Besides, studies must point out the causes and conditions that form crime "hot times", and propose core solutions to cool down and eliminate their existence.

Secondly, applying priority policies in "hot times" of crime

Identifying "hot times" is considered a significant way for the crime prevention strategy of each country. It is possible to consider priority solutions such as strengthening "directed patrols, proactive arrests, and problem-oriented policing²⁴", installing security surveillance cameras, applying professional measures, calling on community, organizations, and individuals for support, eliminating the causes or conditions of crimes or violations in the above areas and periods. It is noteworthy that priority policies for "hot times" of crime only need to be strengthened for a certain period, after that the policies can be terminated or adjusted back to normal. Therefore, the police and other law enforcement agencies just need to change personnel, equipment or apply temporary solutions to control well during the necessary times. Temporary police units need to be organized at the places concentrated a huge number of visitors at certain times. These temporary police units are set up on the basis of mobilizing manpower, means, and facilities from other police units in a certain period according to actual demand. Another important requirement is that before big events take place, the police agencies must evaluate deeply the situation, predict the number of participants to plan and mobilize a reasonable human resource.

Thirdly, building and improving crime mapping software associated with information about different time periods

²⁴ Eck. 1997. 2002; Braga. 2002; Weisburd and Eck. 2004.

Instead of performing manual analysis as before, analyzing crime situation through computer software is a trend that has been widely applied in many countries around the world. A properly designed crime map will display information about the frequency of crimes occurring at different time frames. The software will automatically analyze, set up comparison charts and bring out conclusions based on the updated data. The analysis includes crime data at time frames, identifies the duration with the highest frequency of crimes and compares with other ones. At the same time, software using artificial intelligence can also assess the causes of "hot times" and offer preliminary solutions to overcome the situation. In order to develop crime mapping software, police agencies need to strengthen cooperation and consult the authorities of countries that have a lot of experience in operating crime mapping software as well as based on the actual situation and national law.

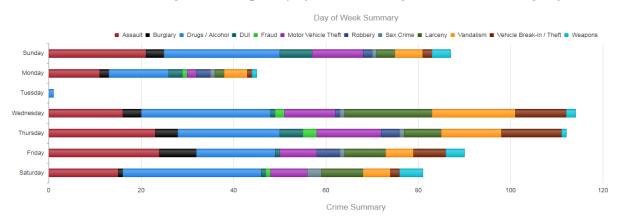


Figure 1. Frequency of crimes during a week in San Diego of the US

Resource: https://www.crimemapping.com/map

Fourthly, eliminate and minimize the causes and conditions leading to the formation and existence of crime "hot times"

As noted, "hot times" often appear and remain associated with its causes and conditions. Therefore, the police need to clarify the factors that form "hot times" after gathering statistics on crimes in different time frames. At the same time, applying solutions to eliminate the roots for their existence such as petitioning competent authorities to adjust social activities, change traffic routes, install more lights in public places, or guide people to protect themselves and their property, etc. It is extremely difficult to reduce the concentration of people and crime in places where the "hot times" maintain for a long time because of cultural and historical, and religious factors. Therefore, it is necessary to implement solutions to minimize the possibility of crime, not to let the crime situation become more complicated, but still have to ensure that social activities take place normally.