

Geographical Distribution Of Perpetrators Of Murder And Robbery In Salah Al-Din Governorate

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Abstract:

To understand the true causes of crime, particularly murder and robbery, a comprehensive analysis of the various factors that contribute to this criminal behavior is necessary. This requires an in-depth study of the underlying motivations, whether these motivations result from geographical conditions—such as natural and environmental factors—or human factors, such as demographics and population density, or even economic factors, such as poverty, unemployment, and unequal opportunities. Social factors are no less important, as the study showed that young age groups (18–29 years) represent the largest percentage of robbery perpetrators, while murders are concentrated among more mature age groups (30–44 years), indicating a difference in motivations and psychological pressures between the two genders. The analysis confirmed that high population density in district centers directly contributes to the growth of crime, as opportunities for contact increase and social control decrease.

Keywords: Murder, Homicide, Geographic Distribution

INTRODUCTION

To understand the true causes of crime, particularly murder and robbery, a comprehensive analysis of the various factors that contribute to such criminal behavior is necessary. This requires a thorough study of the underlying motivations, whether these motives result from geographical conditions—such as natural and environmental factors—or human factors, such as demographics and population density, or even economic factors, such as poverty, unemployment, and unequal opportunities. Social factors are no less important, as the family, level of education, and type of work all play a pivotal role in shaping human behavior. Psychological factors, which may stem from internal conflicts or mental disorders, can serve as the hidden drivers that drive an individual to commit a crime. Each of these factors operates differently, according to complex, interconnected mechanisms that impact the individual according to their specific circumstances. The influencing factors do not have a uniform impact on everyone, but rather vary depending on gender, age, and cultural and social status. This makes it necessary to study each factor separately and analyze its impact in multiple contexts.

Accordingly, each of these factors will be studied and analyzed below, with the aim of shedding light on their role in shaping the environment that fosters crime, and thus contributing to a deeper understanding of the nature of criminal motives:

First: Natural factors

Natural factors are among the most prominent environmental determinants that influence human behavior and psychological and social formation. They represent a group of phenomena and forces surrounding the individual, including climate, geographical location, and surrounding environmental conditions. These factors play a fundamental role in shaping the features of the human personality and directing its behavior, which is what Ibn Khaldun pointed out in his introduction, emphasizing that climate, with its fluctuations, varying temperatures, and diverse terrain, is directly reflected in the nature and behavior of humans.¹⁾

Climate is among the most important natural factors that exert a comprehensive influence on the lives of individuals and societies, whether in economic, social, or psychological aspects. Its elements, most notably temperature, are among the primary drivers of human behavior. Temperature is not merely a mere

¹ Arba Awni Yaqoub Touqan, The Spatial Distribution of Crime in the City of Nablus and its Camps (A Study in Social Geography), Master's Thesis (Unpublished), Faculty of Graduate Studies, An-Najah National University, Nablus, Palestine, previous source, p. 63.

atmospheric condition; it is a force that influences physical activity, psychological balance, and the degree of nervous stability of a person, and consequently, the likelihood of committing a crime..Temperature, as one of the most prominent components of climate, has a significant impact on human comfort and general health. It influences the quality of daily activities and interactions with the environment. Therefore, it can be said that the relationship between climate and humans is one of "influence and influence," as climate constitutes an environmental framework that largely controls human psychological and physical responses, making some individuals more susceptible to agitation, laziness, or even aggression, depending on the temperature and climatic changes they experience.²⁾ Numerous scientific and forensic studies have revealed a close link between rising temperatures and increased crime rates, particularly violent crimes such as murder and physical assault. Rising temperatures increase the body's secretion of adrenaline, which raises the heart rate, increases nervous tension, and weakens an individual's ability to control their emotions, making them more prone to violent behavior under pressure or provocation..In contrast, cooler temperatures are often associated with lower rates of violent crime, but they also increase nonviolent crimes such as theft, burglary, and fraud. These crimes require less direct confrontation than planning and exploitation. This is because colder weather provides a calmer environment that lowers agitation levels, but it doesn't necessarily prevent individuals from having criminal motives..³⁾Criminal statistics in a number of countries, such as the United States, show a clear variation in crime rates across the seasons. Murder, sexual assault, and assault rates rise during the warmer months, while thefts and fraud increase in the colder months. This indicates that climate has a real impact on the nature of crime, and that understanding this factor is essential to any social or criminological analysis of criminal behavior.⁴⁾ An analysis of the data in Table (5-1) and Figure (5-1) reveals a clear variation in the monthly temperature rates and the number of perpetrators of murder and robbery crimes during the months of the year, based on data from the Salah al-Din stations (Tikrit, Samarra, Baiji, Tuz) and taking their averages. The annual average temperature in the study area shows a relatively high average, as the general average reached (22.7°C), while the maximum temperature reached (29.2°C), and the minimum (16.2°C), which reflects a wide daily and monthly temperature range that directly affects the psychological and physical comfort of individuals, and consequently their behavior.Data indicate that temperatures began to rise significantly starting from April, when the average reached 21.9°C, and continued to rise until they reached their peak in July and August, recording maximums of 43.8°C and 43.6°C, respectively. They then began to gradually decline at the end of the summer, reaching their lowest levels in December (11.5°C) and January (8.5°C)..When comparing these temperature changes with the distribution of crimes, it becomes clear that there is a correlation between the rise in temperature and the increase in homicides in particular. During the summer months, specifically in July and August, homicides peaked at (5) and (3) crimes, representing (14.6%) and (12.8%) of the total annual crimes, which corresponds to the highest maximum temperatures recorded (47.2°C and 47.3°C). This increase is attributed to the biological and psychological effects associated with extreme heat, such as increased adrenaline secretion and increased rates of stress and agitation among individuals, which makes them more susceptible to violent behavior..In contrast, theft crime data shows a different pattern, with the highest rates being concentrated during the winter months, when temperatures are at their lowest, such as in December and January, where (42) and (37) theft cases were recorded, representing (21.3%) and (18.8%) of the total annual cases, respectively. This is explained by the fact that cold weather reduces the chances of violent outbursts, but it does not prevent criminal behavior that requires planning or exploitation of circumstances, as is the case with theft crimes that do not necessarily involve direct confrontations..

²- Bassem Abdul Aziz Omar Al-Othman and Hussein Aliwi Nasser Al-Ziyadi, Social Geography: Principles and Foundations, previous source, p. 127.

³- Ali Sahib Talib Al-Moussawi and Abdul Hassan Madfoun Abu Raheel, Applied Climatology, 1st ed., Dar Al-Diaa Printing House, Najaf Al-Ashraf, 2011 AD, pp. 207-208.

⁴- Bassem Abdul Aziz Omar Al-Othman, Hussein Aliwi Nasser Al-Ziyadi, Social Geography: Principles and Foundations, previous source, p. 130.

Table (5-1)
Average monthly temperatures (maximum and minimum) and the number of perpetrators of murder and theft in Salah al-Din Governorate for the year 2023

Theft		murder		Temperatures			The station
%	number	%	number	The youngest	Great	Average	The most famous
18.8	37	4.2	1	3.2	13.9	8.55	January
11.7	23	4.2	1	5.4	16.8	11.1	February
6.1	12	4.2	1	9.2	22.3	15.75	March
3.6	7	8.3	2	15.3	28.6	21.95	April
2.5	5	8.3	2	21.2	34	27.6	Mays
4.1	8	8.3	2	25.7	36.7	31.2	June
3.0	6	20.8	5	28.6	43.8	36.2	July
2.5	5	12.5	3	27.9	43.6	35.75	dad
4.1	8	8.3	2	23.3	39	31.15	September
7.6	15	8.3	2	17.9	32.5	25.2	October
14.7	29	8.3	2	10.2	22.8	16.5	November
21.3	42	4.2	1	6.9	16.2	11.55	December
100.0	197	100.0	24	16.2	29.2	22.7	AverageAnnual

Source: Researcher's work based on:

1. Republic of Iraq, Ministry of Transport and Communications, General Authority of Meteorology, Climate Department (unpublished official data) for the year 2023.

2. Republic of Iraq, Supreme Judicial Council, Salah al-Din Federal Appeal Presidency, Planning and Statistics Department, (unpublished official data) for the year 2023. It is also noted that the months of May, June, and September – which are characterized by moderate to high temperatures – witness average crime rates, which reinforces the hypothesis that high temperatures affect the type of crime more than their mere presence. While heat increases the likelihood of violent crimes, cold weather provides a suitable environment for less violent crimes. Accordingly, the nature of the relationship between the rise and fall in temperature and the commission of crime becomes clear. This is consistent with the study of the French scientist (Aguirre) on what is known as the (law of heat) in explaining crimes. He pointed to some European criminal statistics on the rise in murder rates in the summer, while financial crimes rise in the winter months.⁵). Thus, these results confirm the importance of climate factors, especially temperature, in explaining the temporal variation in crime occurrence, and highlight the need to integrate the climate dimension into crime prevention strategies and security planning, especially in areas that experience severe climate changes throughout the year..

Second: Economic factors:

The economic circumstances of individuals and families are among the most prominent factors influencing criminal behavior. The economic factor occupies a prominent position among the factors that drive individuals to adopt deviant behavior patterns. Poverty, unemployment, and a low standard of living are among the primary drivers that contribute to the emergence of criminal motives, especially in environments that lack social justice and equal opportunity. Poverty, in particular, is not simply a matter of material need or deprivation of resources. Rather, it is a complex factor that leaves a profound impact on the human psyche, extending to the disintegration of family and social ties. When an individual is unable to meet his or her basic needs or achieve a decent standard of living, feelings of frustration, inferiority, and deprivation arise. These feelings constitute a fertile environment for the growth of behavioral deviations. A number of thinkers and researchers have emphasized the centrality of poverty as a motivating factor for criminal behavior, most notably sociologist William Bonger.- W. Bonger, who, in his study of crime in Europe, pointed out that economic decline and deep class inequalities within society are essential factors in explaining criminal behavior. He believed that deteriorating economic conditions

⁵Hussein Aliwi Nasser Al-Ziyadi, The Geography of Crime: Principles, Foundations, and Applications, previous source, p. 150.

not only affect an individual's livelihood, but also extend to their psychological and mental state, driving them to commit crimes as a means of escaping powerlessness and feelings of injustice. In this context, poverty produces what can be described as "continuous psychological pressure," as the individual feels a lack of social justice, marginalization of his existence, and the absence of economic security, which pushes him to search for illegal alternatives to meet his needs, most notably the crime of theft, which is often committed out of economic necessity ⁽⁶⁾. The seriousness of poverty is not limited to its material effects. It also includes weak family supervision, poor educational standards, and a lack of job opportunities, all of which pave the way for deviant behavior. Thus, poverty becomes not just a circumstantial background for crime, but rather an integrated psychological and social environment that creates opportunities and objective preliminaries for criminal activity. Therefore, understanding crime is incomplete without a careful analysis of economic factors, especially in societies suffering from structural imbalances in wealth distribution and a lack of policies that support the poor. Recent studies show that crime rates rise in direct proportion to declining economic and social indicators, which necessitates integrating economic treatment into crime prevention plans and community reform programs. ⁽⁷⁾ It is noted from Table (5-2) and Figure (5-2) that there is a clear difference in the factors influencing the commission of the crimes of murder and theft, as the data reveals that each type of crime has its own motives, which differ in their nature and severity according to the economic, social, psychological, political and religious circumstances surrounding the individual. Regarding homicide, the results show that social factors represent the highest proportion of causes, accounting for 40% of all cases. This reflects the nature of this crime, which is often linked to personal disputes, family conflicts, revenge, and social conflicts. Social factors, with their associated pressures—such as family disintegration, poor upbringing, and a lack of proper social communication—contribute to the creation of an explosive environment, especially when coupled with intense emotions or underlying aggressive behavior. Economic factors accounted for a significant 30% of homicides, indicating that extreme financial pressures may drive some individuals to murder for theft, financial conflict, or even revenge for a desperate economic situation. This percentage reveals that the economy is not limited to creating property crimes; in some cases, its impact extends to violent crimes. As for the other factors influencing murder, they came in lower proportions, as religious factors represented 10% of these cases are likely linked to misinterpretations, the use of religion to justify aggressive acts, or the result of religious conflicts. While psychological factors did not exceed 5%, which may seem low, this does not diminish the seriousness of the case, as murders associated with psychological disorders are usually unexpected and violent, and may be committed without awareness or full understanding of the consequences. Political, environmental, and "other" factors each had the same percentage (5%), suggesting the multiplicity of contexts that may drive an individual to commit such a crime, whether as a result of political unrest, specific environmental circumstances, or personal motives that are difficult to classify within traditional categories. As for the crime of theft, the analysis clearly reveals that the economic factor is the first and main motive, reaching (75%), which is a very large percentage indicating the existence of a direct relationship between poverty and unemployment on the one hand, and the commission of theft crimes on the other. This is consistent with what is confirmed by the literature in criminology, which views poverty as a fertile environment for the growth of crime, especially in light of the absence of social justice and equal opportunities. When an individual is unable to meet his basic needs, this pushes him to search for alternative means, which may be illegal, to secure the necessities of life. Despite the dominance of the economic factor, other factors appeared, but at much lower rates. Social factors accounted for 8.3% of the causes, a percentage that indicates that some cases of theft may be motivated by the influence of bad company, the result of a troubled social upbringing, or the absence of family supervision, especially during adolescence. Psychological factors appeared in 5.8% of cases, indicating the possibility of theft cases with hidden psychological motives, such as the desire for challenge, as a form of psychological compensation, or within the framework of what is known as

⁶ Ahmad Al-Rabai'a, The Impact of Social Factors on the Motive to Commit Crime (A Survey Study from a Social Perspective on a Sample of Prisoners in Jordanian Society), research submitted to the University of Jordan / 2011 AD, pp. 6-7.

⁷ Raad Yassin Muhammad Al-Hassan, The Motives for the Crime of Theft - An Analytical Study, Journal of the Iraqi Geographical Society, Issue (44), 2000 AD, p. 367.

"compulsive theft." Religious factors represented a low percentage of 3.3%, perhaps indicating a lack of religious restraint or weak religious guidance among perpetrators of this type of crime. Environmental factors, meanwhile, accounted for 5%, indicating that some spatial environments, such as markets, slums, or unprotected areas, may facilitate or encourage theft. It is noteworthy that political factors played no role in the crime of theft within this sample, confirming that this crime is more of an individual, material nature than an ideological one. Finally, we find that "other factors" represented only 2.5%, reflecting the presence of scattered motives that do not fall within the usual classifications. Based on this analysis, it becomes clear that theft is often committed for direct economic reasons, while murder has diverse causes and is predominantly social in nature. In both cases, this requires a deep understanding of the context in which the individual operates and multi-level intervention to address the underlying causes of criminal behavior.

Table (5-2)
The numerical and relative distribution of factors influencing the commission of murder and robbery crimes by defendants in Salah al-Din Governorate in 2023.

Theft		murder		Crime factors
%	number	%	number	
75	90	30	6	Economic
8.3	10	40	8	Social
3.3	4	10	2	religious
5.8	7	5	1	Psychological
0	0	5	1	Political
5	6	5	1	Environmental
2.5	3	5	1	Other factors
100	120	100	20	the total

Source: Researcher's work based on field study, questionnaire.

Table (5-3) shows that the crime of theft among juveniles does not arise from a vacuum, but rather is a reflection of a group of structural and subjective factors that interact to form a criminal motive among this sensitive age group. Quantitative analysis shows that economic factors rank first among the causes of theft among juveniles, with a percentage of 46.7% of the total sample studied, a high percentage indicating that difficult economic conditions—poverty, deprivation, and the inability to meet basic needs—play a decisive role in pushing juveniles toward committing theft. Due to their fragile economic situation and total dependence on their families, juveniles are more vulnerable to delinquency when families fail to provide adequate financial support. This result is also consistent with the economic theory of crime, which links the lack of material resources to a higher likelihood of committing crimes, particularly property crimes such as theft. As for the social factors, they came in second place with a percentage of 33.3%, reflecting the profound impact of social relationships—particularly family, school, and peers—on the development of criminal behavior. Family disintegration, lack of parental supervision, abuse, and educational neglect, along with a failing or unruly school environment, create an educational and social vacuum that is often filled by deviant behavior. This percentage indicates that one-third of juvenile thefts are due to unstable social contexts that lack guidance and containment, which pushes the juvenile to seek alternatives that enable self-affirmation or the fulfillment of desires through illicit means. The data also shows that a significant proportion of the cases are due to psychological factors, which amounted to (13.3%), indicating that some juveniles may commit theft based on internal motivations linked to psychological disorders, such as feelings of inferiority, impulsivity, stress and anxiety, or even as a reaction to feelings of rejection and social stigma. This percentage is evidence of the importance of mental health in preventing delinquency, as many juveniles lack the tools to control their emotions, especially if they grew up in environments characterized by violence, cruelty, or emotional neglect. The last category is "Other factors" accounted for 6.7% of the reasons. This category likely includes multiple motives not directly categorized within the previous categories, such as the desire for adventure, imitation, momentary pressure, or even ignorance of the consequences of an act. Although its proportion is lower than that of other factors, its presence confirms that criminal behavior does not always follow a clear pattern, but may be influenced by circumstantial and individual factors that are difficult to quantify. Through this analysis,

we conclude that the crime of theft among juveniles arises from a complex interaction between poverty as a material stressor, the social environment as an influential environment, and psychological disorders as an internal, subjective factor. This necessitates viewing this crime as a product of dysfunction within the family and economic systems, rather than an innate tendency toward criminal behavior. Therefore, any strategy to address this phenomenon must be comprehensive, addressing economic, social, and psychological aspects in an integrated manner, with a focus on rebuilding the value system within the family and school, improving the living environment for children, and providing adequate psychological and educational support..

Table (5-3)

The numerical and relative distribution of factors influencing the commission of the crime of theft among juveniles in Salah al-Din Governorate in 2023

Juvenile theft		Crime factors
%	number	
46.7	14	Economic
33.3	10	Social
13.3	4	Psychological
6.7	2	Other factors
100%	30	the total

Source: Researcher's work based on field study, questionnaire.

The material need that the individual and his family suffer from as a result of the economic conditions that the Iraqi society went through, from the economic blockade and the war conditions, naturally led to a decline in the standard of living for many families, causing negative and psychological effects on the individual arising from material need, such as despair, anxiety and dissatisfaction, and these are factors that motivate criminal behavior, especially if this person is the breadwinner of the family. In many cases, the father loses the respect of his wife and children because he is unable to provide and meet his needs and living requirements, which leads to the incitement and outbreak of family problems between spouses and between children and weakens the father's supervisory role. This is what was observed in field visits to the personal status courts affiliated with the administrative units of the study area, from conflicts and the increase in divorce cases and the occurrence of quarrels between the spouses' families, which created a state of hostility between the two parties. Many of these types of family problems end in quarrels that quickly develop into cases of murder. Table (5-4) and Figure (5-4) on monthly income levels and their relationship to homicide and robbery crimes show a clear correlation between low-income levels and increased crime rates. This is a practical confirmation that the economic situation represents one of the primary drivers of criminal behavior, especially in environments suffering from class disparities and deteriorating living conditions. The data revealed that the majority of robbery perpetrators belong to the low-income category, reaching 71.7%. This high percentage clearly reflects the impact of poverty as a stressor that drives individuals, particularly those with limited means, to commit criminal acts in order to meet their basic needs or to reduce the deprivation gap they experience compared to the rest of society. As for homicides, the largest percentage of perpetrators, at 60%, also belong to the low-income group. This indicates that poverty not only leads to materially motivated crimes such as theft, but may also be a factor in violent behavior resulting from the accumulation of feelings of frustration, despair, and aggression resulting from social exclusion and economic injustice. This is consistent with theoretical propositions that emphasize that relative deprivation and feelings of powerlessness generate psychological and emotional tension that may find its outlet in violent or vengeful behavior, especially when individuals lose confidence in the effectiveness of legitimate means to improve their situation. Crime rates among middle-income groups indicate that, although this group is in a relatively better economic position, it is not immune to social and economic pressures that may push its members toward deviant behavior. They accounted for 20% of homicides and 28.3% of thefts. This is attributed to structural changes in lifestyles and rising aspirations without real opportunities to achieve them, which generates a sense of

disappointment that may lead to deviance. As for the good- and very-good-income groups, they recorded very low crime rates, with no thefts recorded among these groups. Their homicide rates, however, reached 15% and 5%, respectively. This indicates that the link between higher incomes and lower crime rates remains, despite the exceptional cases where crime is motivated by non-economic factors, such as family disputes or psychological disorders. Through this analysis, it becomes clear that monthly income is not merely an economic indicator; rather, it is a social and criminal determinant that greatly influences understanding crime and explaining its patterns. This highlights the need for a preventative approach based on improving living conditions and expanding the scope of economic and social justice as two of the most important tools for reducing crime. Addressing the causes of economic crime is no less important than strengthening security and legal tools to combat it. Therefore, income redistribution, equal opportunities, and ensuring the right to decent work are among the most effective long-term policies for building a more stable society less prone to criminal behavior.

Table (5-4)

The numerical and relative distribution of the monthly family income level before committing the crime for the accused in Salah al-Din Governorate in 2023.

Theft		murder		Monthly income level
%	number	%	number	
71.7	86	60	12	low
28.3	34	20	4	middle
0.0	0	15	3	good
0.0	0	5	1	very good
100.0	120	100	20	the total

Source: Researcher's work based on field study, questionnaire.

CONCLUSIONS

1. Study data showed that 75% of robbery perpetrators belong to low-income groups, and that economic factors were the primary motivation for this type of crime, particularly among juveniles who lack family support. This reinforces the hypothesis that economic decline creates a fertile environment for crime and pushes individuals to resort to illegal means to meet their basic needs, necessitating the integration of economic policies into crime-fighting strategies.

2. The study showed that the loss of a parent—especially the mother—is closely linked to increased crime rates, particularly theft among juveniles. The emotional loss resulting from the absence of the mother, and the lack of educational authority resulting from the loss of the father, creates an educational and psychological vacuum that paves the way for delinquency. This underscores the importance of building a cohesive and supportive family environment as part of the crime prevention system.

3. Statistics show that 60% of murderers never pray, 30% pray intermittently, while the percentage of those who pray does not exceed 20%. In the crime of theft, the percentage of non-prayer individuals was 58.3%, compared to 25% who pray occasionally, and only 16.7% who pray. These percentages indicate a clear inverse relationship between adherence to religious rituals and criminal behavior, highlighting the importance of religious restraint as an internal protective mechanism that prevents deviance and enhances self-control.

RECOMMENDATIONS

1. Supporting local field research on crime by creating accurate spatial criminal databases that contribute to monitoring temporal and spatial shifts in crime patterns and feeding security and social policies with realistic figures..
2. Launching educational campaigns in schools and youth centers about the effects of crime on individuals and society, with a focus on the dangers of engaging in bad company, vengeful thoughts, and rebellious behaviors observed in juvenile environments..
3. The necessity of integrating security, social, and educational efforts to address crime, through the formation of multi-disciplinary local committees in the districts with the highest crime rates, working to coordinate between security agencies, educational and religious institutions, and civil society organizations.

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