



Structural Breaks and Crime Dynamics in Guyana: A Longitudinal Analysis of Serious Crimes, 1990-2025

Bibi Sherriza Ali¹, Jason Phillips², Michael Hackett³

¹Department of Mathematics, Physics & Statistics, Berbice Campus, University of Guyana, Guyana

²Department of Computer Science, Berbice Campus, University of Guyana, Guyana

³Department of Mathematics, Physics & Statistics, Berbice Campus, University of Guyana, Guyana

ABSTRACT: Crime and violence remain persistent structural challenges in Guyana, with important implications for governance, public safety, and socioeconomic development. This study examines long-term serious crime dynamics in Guyana from 1990 to 2025 using a quantitative longitudinal design. The analysis integrates descriptive statistics, trend regression, structural break analysis (Bai–Perron), and category-level decomposition to assess overall crime trends, differences across offence types, and the relative contribution of each crime category to aggregate crime patterns. Data were obtained from the Guyana Bureau of Statistics and include major offence categories such as murder, manslaughter, rape, wounding, burglary, larceny, arson, and other offences. The results indicate that total serious crime does not follow a statistically significant linear trend over time, but instead exhibits pronounced temporal fluctuations and distinct structural shifts around 1994, 2012, and 2017. Property-related offences dominate the crime structure, accounting for 86.92% of total recorded crime, compared with 11.66% for violent crime and 1.41% for other offences. Burglary and larceny emerge as the primary drivers of aggregate crime variation, while violent offences such as murder and manslaughter remain comparatively stable over time. Structural break analysis further reveals that different crime categories experience shifts at different points in time, reflecting heterogeneous underlying dynamics. Overall, the findings show that changes in total crime are largely driven by property-related offences rather than uniform changes across all crime types, highlighting the importance of category-specific analysis in understanding long-term crime patterns in Guyana.

KEYWORDS: Serious crime, violent crime, structural breaks, longitudinal analysis, Guyana, crime dynamics.

INTRODUCTION

Violence and crime continue to be pervasive in the Caribbean and have significant implications for governance, human security and socioeconomic development. Within the region, crime patterns have been influenced by the region's history, institutional limitations, and changing patterns of urbanization and inequality. Griffith (2022) suggest that expressing the concept of security in the Caribbean requires an analytical approach that is long-term in scope and frame [1]. This view is especially salient in the context of the development of serious crime in small developing countries like Guyana.

Empirical research also reveals the spatial and temporal distribution of crime in the Caribbean is not random but can be identified. Violent crime also shows high spatial clustering in Guyana, with the city of Georgetown, for example, not only being a concentration but also a source of spillover into adjacent areas [2]. The notion of a high concentration of serious crime incidents has also been supported by more recent evidence, with the concentration occurring at a micro-level, or at a location [3]. The results indicate that crime is to a certain degree predictable and patterned, further emphasising the need of longitudinal and category analysis.

More amply comparative data suggest that, on a regional and global scale, structural factors like inequality, institutional power and urban density have a significant effect on crime patterns. Van Dijk et al. (2022) show that these structural drivers are still found to be fairly stable across nations and consistently predict the magnitude of crime in 166 countries [4]. Small State vulnerabilities, weak or non-existent enforcement capacity, and transnational criminal networks are also a challenge in the Caribbean [5]. Moreover, crime-related costs in Latin America and the Caribbean are high, on both the productive and public investment fronts, and these costs extend to future development opportunities [6].

For Guyana, a deeper historical and institutional understanding of crime trends is also needed. Anderson et al. (2022) point to the legacy of colonization that influences the organization and operation of the criminal justice system in ways that perpetuate inequities and mistrust within the system [7]. Similar patterns are evident in the juvenile justice system where systemic factors and silences



impact the treatment and outcomes of youth in the system [8]. Crime in such situations underscores the need to look at the crime as both a statistical phenomenon and an institutional and historical process.

The study of the spatial study of the trends of crime and predictive modelling has gained momentum in recent times due to methodological developments. Over time, risk terrain modelling and machine learning approaches have enhanced the ability to identify high-risk areas and crime patterns, to inform targeted and effective policy responses [9]. The developments are especially significant for resource limited environments like Guyana where there is a need to base effective policing and planning on evidence. Although there is increasing evidence of research on crime in the Caribbean and Guyana, there are still some areas for improvement. First, few studies attempt to address the issue of spatial distribution or short-term crime fluctuations but place little emphasis on long-term trends of crime across national boundaries over several decades. Second, it's a lack of comparable analysis of the big categories of serious crime, murder, rape, robbery, burglary, larceny, etc., in one longitudinal framework. Third, while the discussion of policy tends to focus on security reform, there are fewer studies that explicitly link long-term empirical crime trends to outcomes of national security planning and socioeconomic development. The gaps restrict the ability to use evidence to directly drive strategic policy making in Guyana.

To address these limitations, this study is guided by the following objectives:

1. To analyse long-term trends in serious crime in Guyana from 1990 to 2025, with particular attention to fluctuations and potential structural changes over time.
2. To examine differences in the behaviour of key categories of serious crime, including murder, rape, robbery, burglary, and larceny, across the study period.
3. To assess the contribution of major crime categories to overall crime dynamics in Guyana and identify the primary drivers of aggregate crime variation.

By integrating long-term trend analysis, category-level comparison, and policy implications within a single framework, this study contributes to a more comprehensive understanding of serious crime dynamics in Guyana. It strengthens the empirical foundation for evidence-based security planning.

METHODOLOGY

The research design is quantitative and longitudinal, to analyze the trends of serious crimes in Guyana between 1990 and 2025. The design is suitable for examining trends in crime data over time, including structural change, differences in crime categories over time, and temporal patterns in crime. In the field of criminology, quantitative longitudinal studies are commonly used to analyze trends in crime over time and to evaluate the impact of macro-structural and institutional conditions on the patterns observed [4].

The study uses secondary data from Guyana Bureau of Statistics pertaining to records of serious crimes from 1990 to 2025. The data set comprises of data for murder, manslaughter, rape, robbery, burglary, break-in offences, larceny and arson, and other serious offences. These official statistics form a consistent and nationally representative data source for the analysis of long term trends of crime in Guyana.

The dataset was cleaned to guarantee reliability, completeness and analytical consistency. Standard data transformation methods were used to handle missing data and non-numeric data such as replacing invalid characters and converting invalid symbols to numeric data. The annual time series were completed by linear interpolation in the areas of gap. This method can be applied in order to minimize any distortion when examining trends in annual longitudinal data [10]. Any missing and extreme values were checked and deleted as needed for the subsequent analysis.

The study was done in three related phases: descriptive analysis, regression modelling, and assessment of structural change. This framework allowed for a detailed analysis of long term trends in Guyana's crime activity, over a period from 1990 to 2025, encompassing the overall trends, the differences between categories and the changes in structure over time, but without the need for predictive forecasting skills.

DATA ANALYSIS

The distribution and variation of serious crime from one year to another was summarised using descriptive statistics. These measures gave a general idea of the long-term fluctuations and showed differences in magnitude and dispersion between offence types. Crime was divided into three categories: violent crime (murder, manslaughter, wounding with intent, rape), property crime (burglary and



break-in offences, larceny) and other crimes (arson and other miscellaneous offences). This classification was used to systematically compare differences in the structure of crime across different types of crime and is consistent with other criminological classifications found in studies conducted in the Caribbean and Guyana [2] [3].

Long term trends of total serious crime were analysed using Ordinary Least Squares (OLS) regression, using year as the main explanatory variable. This model evaluated if there was a statistically significant linear trend over the study period. Furthermore, individual crime trend models (1990–2025) were estimated for each offence category to investigate the temporal behaviour of each offence category. The models evaluated the trend for each type of crime (increase, decrease, or no change) and the amount of variation accounted for in each type by time. This enabled direct comparisons of the dynamics of offences over time, thereby revealing the heterogeneity of the dynamics of crime during the study period.

The Bai–Perron multiple breakpoint test was employed to evaluate structural change of the crime series by detecting any unknown changes over time. This technique was used to detect several regime changes, not just one, as would be assumed by a single structural shift. Breakpoints were examined for both categories of crime (total crime and individual offence categories) to see if there were breaks at the same time or at different times across each crime category.

To further examine the composition of crime dynamics, a multiple regression model was estimated to determine the relative contribution of each crime category to overall crime variation. This model is interpreted as a decomposition of aggregate crime structure, recognising that total crime is constructed from its component offences rather than treated as an independent outcome variable.

RESULTS

Table 1 - Summary of Descriptive Statistics for Serious Crime Categories in Guyana (1990–2025)

Crime Category	Mean	Median	SD	Minimum	Maximum
Murder	128.06	130.5	29.4	74	206
Manslaughter	11.97	10	7.45	1	31
Wounding	189.37	154	168.86	0	879
Burglary and Break-In Offences	2154.56	1999	1197.72	265	5787
Larceny	1674.5	630.5	2285.15	183	12639
Arson	10.09	10	7.32	1	29
Rape	173.33	161.5	73.42	58	334
Other	51.94	47.5	38.75	5	200
Total	4390.42	3667	2296.35	2289	14855

The descriptive statistics reveal a markedly uneven distribution of serious crime across offence categories in Guyana over the period 1990–2025. Property-related offences dominate the crime structure, particularly burglary and break-in offences ($M = 2154.56$, $SD = 1197.72$) and larceny ($M = 1674.50$, $SD = 2285.15$), which record substantially higher mean values than all other categories. These offences also exhibit the greatest dispersion, with larceny showing an exceptionally large standard deviation and a maximum value of 12,639, indicating pronounced temporal volatility and episodic surges rather than a stable pattern over time. In contrast, violent offences such as murder ($M = 128.06$, $SD = 29.40$) and manslaughter ($M = 11.97$, $SD = 7.45$) display comparatively low variability and narrower ranges, reflecting more stable long-term occurrence patterns. Murder, while maintaining a moderate mean level, demonstrates limited fluctuation across the study period, suggesting relative consistency in annual counts. Wounding ($M = 189.37$, $SD = 168.86$) presents greater variability than most other violent offences, indicating sensitivity to short-term shifts in underlying social and environmental conditions. Rape ($M = 173.33$, $SD = 73.42$) similarly shows moderate dispersion alongside sustained occurrence levels, reflecting steady prevalence with intermittent variation over time. Other offences ($M = 51.94$, $SD = 38.75$) and arson ($M = 10.09$, $SD = 7.32$) contribute comparatively little to the overall magnitude of recorded crime. The variability observed within the “other offences” category suggests heterogeneity in the types of incidents aggregated within this grouping.

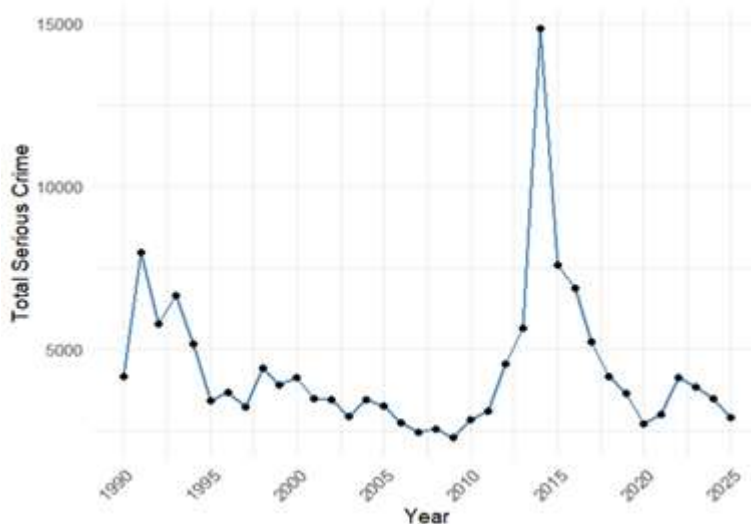


Figure 1 - Serious Crime Trends in Guyana (1990 – 2025)

Figure 1 illustrates the trend in total serious crime in Guyana from 1990 to 2025. The series exhibits considerable variation over the study period, with relatively high crime levels during the early 1990s, followed by a general decline through the mid-1990s. Between the late 1990s and early 2010s, total serious crime remained comparatively stable, fluctuating within a narrower range. A sharp increase is evident after 2012, culminating in a pronounced peak in 2014, after which crime levels declined substantially. Although some year-to-year fluctuations are observed in the later years, the series generally returned to levels well below the mid-2010s peak. Overall, the trend line indicates substantial temporal variability rather than a smooth and consistent pattern of change across the period.

Table 2 - Ordinary Least Squares Regression Analysis of the Linear Time Trend in Total Serious Crime in Guyana (1990–2025).

Predictor	Coefficient (β)	Std. Error	t-value	p-value
Intercept	25,738.90	74,951.53	0.343	0.733
Year	-10.63	37.34	-0.285	0.777

Model Summary Residual Standard Error = 2,327 (df = 34) $R^2 = 0.002$ Adjusted $R^2 = -0.027$ $F(1, 34) = 0.081$ $p = 0.777$
 The OLS regression results provide further evidence regarding the long-term trend in total serious crime. The coefficient for Year is negative ($\beta = -10.63$), suggesting an average annual decrease of approximately 10.6 incidents over the study period. However, this relationship is not statistically significant ($t = -0.285$, $p = 0.777$), indicating that the estimated decline is not distinguishable from zero at conventional levels of significance. The relatively large standard error (SE = 37.34) further reflects the uncertainty surrounding the estimated effect. Similarly, the intercept term is not statistically significant ($\beta = 25,738.90$, $p = 0.733$). These results indicate that, despite fluctuations in crime levels over time, there is no evidence of a statistically significant linear trend in total serious crime between 1990 and 2025.

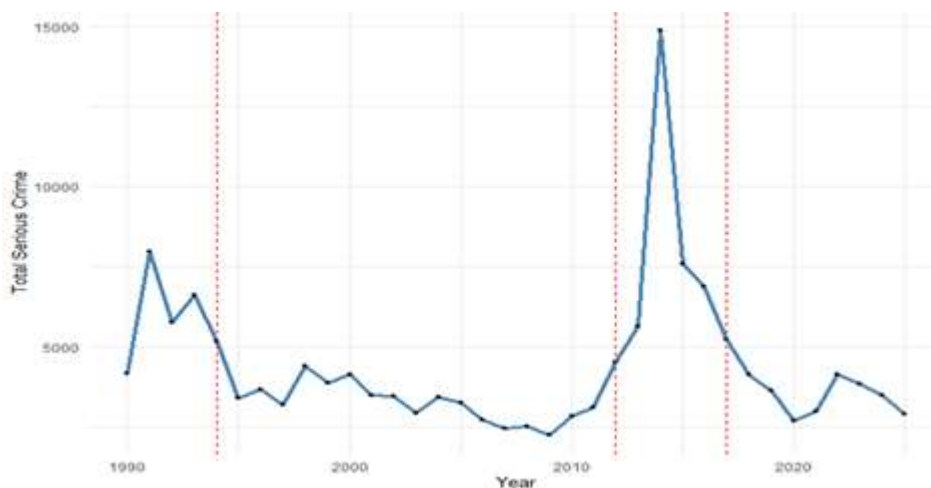


Figure 2 - Bai–Perron Structural Break Analysis of Serious Crime in Guyana (1990–2025)

The Bai–Perron structural break analysis identified significant shifts in the aggregate serious crime series in Guyana around 1994, 2012, and 2017 (Figure 2). The first breakpoint in 1994 corresponds to the transition from the relatively high crime levels observed in the early 1990s to a more stable period characterized by moderate fluctuations. This stability persisted until approximately 2012, when a second structural break marked the beginning of a sharp increase in serious crime. Following this breakpoint, total recorded crime rose rapidly and reached its highest level around 2014 before declining. The third breakpoint in 2017 signifies another change in the trajectory of serious crime, after which a sustained downward trend became evident. These breakpoints indicate that the overall crime series experienced distinct periods of change rather than following a uniform long-term trend.

Table 3 - Structural Break Years by Crime Category

Crime	Break_Years
Murder	2001
Manslaughter	1995, 2003, 2019
Wounding	2012
Burglary	1994, 2005, 2017
Larceny	2012, 2017
Arson	1996, 2007
Rape	2010
Other	1997

Table 3 shows that the timing and frequency of structural breaks varied across crime categories. Manslaughter and burglary exhibited the greatest number of breakpoints, with three significant shifts each, suggesting multiple changes in their underlying trends over time. In contrast, murder, wounding, rape, and the residual “Other” category each recorded a single structural break, while larceny and arson experienced two breakpoints. Several offence types shared common break years, particularly 2012 and 2017, which coincide with major shifts observed in the aggregate crime series. Wounding and larceny both recorded a breakpoint in 2012, while burglary and larceny exhibited breakpoints in 2017, indicating that changes in these offences contributed to broader changes in serious crime patterns. The variation in breakpoint timing across offences suggests that different crime categories were influenced by distinct factors and evolved through separate phases during the study period.

Crime Category Distribution and Correlation Analysis

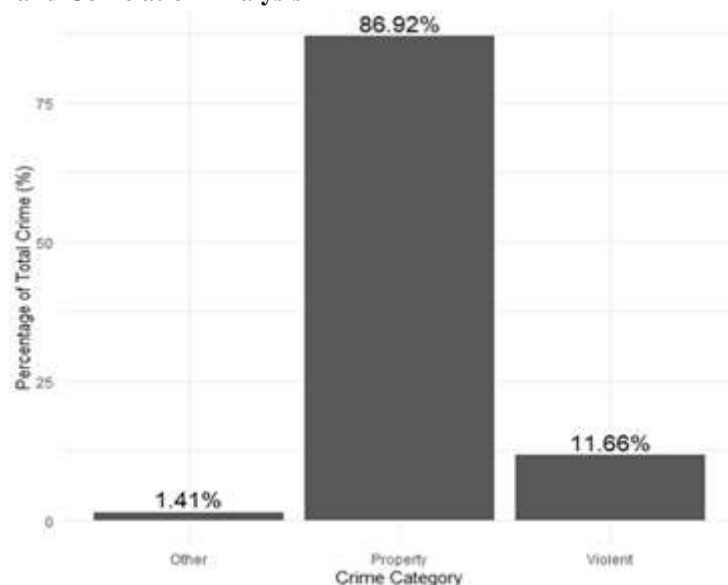


Figure 3 - Percentage Contribution of Serious Crime Categories in Guyana (1990–2025)

The time-series trends from 1990 to 2025 show distinct movements across the three crime categories in Guyana. Property crime consistently recorded the highest levels and the greatest variability over the period. After relatively elevated levels in the early 1990s, it declined and remained comparatively stable until the early 2010s, when a sharp increase occurred, peaking around 2014. A sustained decline followed this, although property crime remained the dominant category throughout. Violent crime followed a similar but less pronounced pattern, with moderate fluctuations over time, a noticeable rise during the early 2010s, and a subsequent decline after its peak. In contrast, other crimes remained consistently low and stable across the entire period, showing only minor year-to-year variation. The graphical presentation of the crime structure further shows the proportional composition of total recorded offences over the study period. Property crime accounts for 86.92% of all offences, compared with 11.66% for violent crime and just 1.41% for other crimes. This highly skewed distribution indicates that overall fluctuations in total crime are overwhelmingly driven by property-related offences, with violent crime contributing a smaller secondary influence and other crimes having minimal impact. As a result, changes in the aggregate crime trend closely mirror movements in property crime over time.

Table 4 - Multiple Regression Analysis of the Relative Contribution of Major Crime Categories to Total Serious Crime in Guyana

Predictor	Coefficient (β)	Std. Error	t-value	p-value	Significance
Intercept	22.975	113.645	0.202	0.841	—
Murder	0.832	0.663	1.255	0.221	n.s.
Manslaughter	1.6	2.865	0.558	0.581	n.s.
Wounding with Intent	0.764	0.113	6.735	<0.001	***
Burglary and Break-In Offences	1.014	0.02	50.386	<0.001	***
Larceny	1.003	0.01	95.755	<0.001	***
Arson	0.145	2.757	0.053	0.958	n.s.
Rape	0.957	0.354	2.703	0.012	*
Other Offences	1.047	0.579	1.808	0.082	.



Model Summary:

$R^2 = 0.9985$, Adjusted $R^2 = 0.9980$

$F(8, 26) = 2094$, $p < 0.001$

Residual Standard Error = 104.2 *Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$, n.s. = not significant.*

A multiple regression analysis was conducted to estimate the relative contributions of major crime categories to variations in total serious crime in Guyana. The overall model was statistically significant, $F(8, 26) = 2094$, $p < .001$, and explained a very high proportion of the variance in total crime (Adjusted $R^2 = .998$). Given that total crime is an aggregate measure constructed from the included offence categories, the model is interpreted as an assessment of the relative contribution of each category to overall variation rather than as an independent predictive model.

At the individual level, burglary and break-in offences ($\beta = 1.014$, $p < .001$) and larceny ($\beta = 1.003$, $p < .001$) emerged as the most statistically significant contributors to total crime variation. Both coefficients were large and highly significant, indicating strong associations with fluctuations in aggregate crime. Wounding with intent also showed a statistically significant positive relationship with total crime ($\beta = 0.764$, $p < .001$). Rape was similarly significant, though with a comparatively smaller effect ($\beta = 0.957$, $p = .012$).

In contrast, murder ($\beta = 0.832$, $p = .221$), manslaughter ($\beta = 1.600$, $p = .581$), and arson ($\beta = 0.145$, $p = .958$) were not statistically significant within the multivariate model. The coefficient for “other offences” ($\beta = 1.047$, $p = .082$) was marginally significant at the 10% level, indicating a weak association under conventional thresholds.

The intercept was not statistically significant ($\beta = 22.975$, $p = .841$), indicating no meaningful baseline shift when all predictors are held constant.

Table 5 - Individual Crime Trend Models (1990–2025)

Crime	Coefficient (β)	p-value	R ²
Burglary	-100.94	< 0.001	0.788
Rape	4.84	< 0.001	0.483
Other	-2.11	0.00026	0.329
Manslaughter	-0.31	0.00827	0.188
Larceny	93.75	0.00847	0.187
Wounding	-6.11	0.0315	0.129
Murder	0.85	0.07	0.093
Arson	0.18	0.1215	0.069

The regression results in Table 5 indicate substantial variation in both the direction and strength of temporal relationships across crime categories in Guyana over the period 1990–2025. Burglary shows a strong negative and statistically significant relationship ($\beta = -100.94$, $p < 0.001$), alongside the highest explanatory power ($R^2 = 0.788$), indicating that time accounts for a large proportion of its observed variation. Manslaughter ($\beta = -0.31$, $p = 0.00827$) and wounding ($\beta = -6.11$, $p = 0.0315$) also display statistically significant negative associations, although with relatively low R^2 values (0.188 and 0.129, respectively), suggesting that while declines are present, a substantial share of variation is driven by factors outside the model. The “other” crime category similarly shows a statistically significant negative coefficient ($\beta = -2.11$, $p = 0.00026$) with moderate explanatory power ($R^2 = 0.329$), indicating a gradual decline over time.

In contrast, larceny demonstrates a statistically significant positive relationship ($\beta = 93.75$, $p = 0.00847$), with moderate explanatory power ($R^2 = 0.187$), indicating an upward trend with considerable unexplained fluctuation. Rape also shows a positive and statistically significant coefficient ($\beta = 4.84$, $p < 0.001$), with relatively higher explanatory strength ($R^2 = 0.483$), suggesting a more stable upward pattern compared to larceny. Murder ($\beta = 0.85$, $p = 0.07$) does not reach conventional statistical significance, and with a low R^2 value (0.093), the temporal model explains little of its variation. Arson ($\beta = 0.18$, $p = 0.1215$) is likewise statistically



non-significant and demonstrates minimal explanatory power ($R^2 = 0.069$), indicating weak evidence of a systematic time-related pattern.

DISCUSSION

The findings provide a comprehensive understanding of serious crime dynamics in Guyana between 1990 and 2025 by integrating long-term trend analysis, structural change detection, and category-level decomposition. Total serious crime does not exhibit a statistically significant linear trend over time ($\beta = -10.63$, $p = 0.777$), despite pronounced fluctuations across the period. Instead, the series is characterised by distinct phases, including elevated levels in the early 1990s, relative stability through the late 1990s and 2000s, a sharp increase around 2012–2014, and a subsequent decline. The Bai–Perron structural break results further reinforce this non-linearity, identifying major shifts around 1994, 2012, and 2017, indicating that changes in crime levels are better understood as episodic transitions rather than gradual linear movement.

Clear differences are evident in the behaviour of individual crime categories over time. Property-related offences account for the vast majority of recorded crime (86.92%), followed by violent offences (11.66%) and other offences (1.41%). Within this structure, property crime, particularly burglary and larceny, dominates both in magnitude and variability, while violent offences such as murder and manslaughter remain comparatively stable with lower dispersion. Structural break patterns also vary across categories, with burglary and manslaughter exhibiting multiple breakpoints, while murder, rape, and other offences show fewer and more isolated structural shifts. This variation suggests that different offence types are influenced by distinct underlying mechanisms and do not respond uniformly to broader temporal conditions.

The decomposition of crime contributions further indicates that property-related offences are the primary drivers of aggregate crime dynamics. Burglary, larceny, and wounding with intent emerge as statistically significant contributors to total crime variation, while serious violent offences such as murder and manslaughter do not show statistically significant effects within the multivariate framework. The very high explanatory power of the aggregate model (Adjusted $R^2 = 0.998$) reflects the extent to which overall crime fluctuations are shaped by a small subset of high-volume offences. Individual trend models reinforce this pattern, showing a significant decline in burglary, increases in larceny and rape, and weaker or non-significant trends in murder and arson. Collectively, these patterns indicate that movements in total crime are primarily driven by changes within property-related offences rather than uniform shifts across all categories.

CONCLUSION

The study examined long-term patterns, structural changes, and category-level contributions of serious crime in Guyana from 1990 to 2025. The findings show that total serious crime does not follow a consistent linear trend over time, but instead fluctuates across distinct periods marked by structural shifts around 1994, 2012, and 2017. These changes reflect shifts in the overall crime environment rather than gradual long-term movement. The analysis also shows that crime patterns differ significantly across offence types, with property-related offences dominating the crime landscape, accounting for 86.92% of all recorded crimes, compared with 11.66% for violent crime and 1.41% for other offences. Across categories, property crimes, particularly burglary and larceny, emerge as the main drivers of variation in total crime, while violent offences such as murder and manslaughter remain relatively stable over time. Some offences show clear directional trends, including a decline in burglary and increases in larceny and rape, while others show weak or non-significant changes. Structural break analysis further confirms that different crime types evolved at different times and were influenced by distinct underlying factors. Overall, the results indicate that serious crime dynamics in Guyana are primarily shaped by property-related offences, with changes in total crime largely reflecting shifts within this category rather than uniform changes across all crime types.

REFERENCES

1. I. L. Griffith, "Caribbean security: retrospect and prospect," *Latin American Research Review*, vol. 57, no. 4, pp. 889-897, 2022.
2. A. R. Cummings, N. Markandey, H. Das, C. Arredondo, A. Wehenkel, B. L. Tiemann and G. Lee, "The spill over of crime from urban centers: An account of the changing spatial distribution of violent crime in Guyana," *ISPRS International Journal of Geo-Information*, vol. 8, no. 11, p. 481, 2019.



3. A. R. Cummings, C. Arredondo, A. R. Piquero, A. Wehenkel, N. Markandey, H. Das, B. L. Tiemann and K. G. Lee, "Testing the law of crime concentration in Georgetown, Guyana," *Crime & Delinquency*, vol. 70, no. 11, pp. 3127-3152, 2024.
4. J. Van Dijk, P. Nieuwebeerta and J. Joudo Larsen, "Global crime patterns: An analysis of survey data from 166 countries around the world, 2006-2019," *Journal of Quantitative Criminology*, vol. 38, no. 4, pp. 793-827, 2022.
5. H. Sutton, L. Jaitman and J. Khadan, "Violence in the Caribbean: Cost and impact," *Unleashing growth and strengthening resilience in the Caribbean*, pp. 329-345, 2017.
6. L. Jaitman, D. Capriolo, R. G. Ochoa, P. Keefer, T. Leggett, J. A. Lewis and I. Torre, "The Costs of Crime and Violence: new evidence and insights in Latin America and the Caribbean (Executive Summary)," *Inter-American Development Bank*, 2017.
7. C. Anderson, K. Moss and S. J. Jackson, "Coloniality and the criminal justice system: Empire and its legacies in Guyana," *Slavery & Abolition*, vol. 43, no. 4, pp. 682-704, 2022.
8. C. Anderson, T. Ayres, K. Warren, D. Kerrigan, Q. Cameron and K. Moss, "Confronting Silences Haunting Guyana's Juvenile Justice System," *Caribbean Journal of Criminology*, pp. 10-39, 2021.
9. A. P. Wheeler and W. Steenbeek, "Mapping the risk terrain for crime using machine learning," *Journal of Quantitative Criminology*, vol. 37, no. 2, pp. 445-480, 2021.
10. K. DeAlbuquerque and J. L. McElroy, "A longitudinal study of serious crime in the Caribbean," *Caribbean Journal of Criminology and Social Psychology*, vol. 4, no. 1-2, pp. 32-70, 1999.

Cite this Article: Ali.B.S., Phillips, J., Hackett, M. (2026). Structural Breaks and Crime Dynamics in Guyana: A Longitudinal Analysis of Serious Crimes, 1990-2025. International Journal of Current Science Research and Review, 9(6), pp. 3338-3346. DOI: <https://doi.org/10.47191/ijcsrr/V9-i6-40>