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Crime in the Caribbean: Provisional Evidence

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Introduction

Within the space of a generation following the advent of commercial jet travel in the early 1960s, the Caribbean has become the most tourist-penetrated region in the world. According to the World Travel and Tourism Council (2004), tourism accounts for 15 percent of total regional GDP and employment and about 20 percent of exports and investment. This transformation has not occurred without cost. Landscapes from Bahamas to Aruba have been visibly marked by hotel and condominium clusters, coastlines altered by mass transit infrastructure (air and seaports) and roadways, and the quiet pace of island life quickened and commercialized (McElroy & de Albuquerque, 1998). Such socio-environmental changes have prompted questions about whether island tourism is sustainable.

However, in an industry where safety is paramount, a rising crime wave also threatens tourisms long-term viability. Evidence is mounting that crime is increasing across the region and that visitation is being negatively affected. In the first case, Harriott (2002, p. 4) states that since 1970 there have been significant increases in the rate of violent crimes in every Caribbean country for which data is available. In addition, the most dramatic increases have been in property crime (burglary, larceny, robbery), and have tended to be concentrated in highly developed tourist destinations: Bahamas, Dominican Republic, Jamaica, Puerto Rico and the U.S. Virgin Islands (USVI). Not surprisingly, the presence of visitors also seems to be implicated in rising island crime. A case study of Barbados revealed that visitors were three times more vulnerable to robbery and larceny than residents (de Albuquerque & McElroy, 1999a) but less susceptible to violent crime (murder, rape, major assault).

In the second case, rising crime is damaging the regions reputation. In a survey of major U.S. tour operators, (King, 2003) found the two most important factors deflecting visitors from the Caribbean were fear of crime and harassment. There is substance to these fears since Harpers found visitors are more likely than residents to be victims of property crime and are disproportionately targeted in those hot spot places they are most likely to frequent. Research has also uncovered the negative impact crime has on visitation. For example, Levantis and Gani (2000) found that a one percent increase in crime was associated with a half percent decline in visitors to the Caribbean. Alleyne and Boxills (2003) study of Jamaica found a weak between crime and U.S. visitors but a stronger relationship with Europeans who stay longer and spend more than Americans. Finally, the incidence of harassment, drug peddling and petty theft perpetrated against cruise passengers has become so disruptive in some islands that cruise lines have periodically dropped destinations (Jamaica, St. Croix, USVI) off their itinerary.

Theories

The vast literature on crime in LDCs suggests one major conclusion: development is positively associated with property crime, especially theft (Leggett, 2000). In the Caribbean, the earliest explanations featured Durkheims modernization thesis based on anomie. Industrialization

produces new forms of wealth, and rural-urban migration fosters the breakdown of traditional social controls (extended family, community ties, religious beliefs)(de Albuquerque & McElroy, 1999b). However, because of weak empirical support, recent research has emphasized the economic or opportunity cost model associated with the University of Chicago (Becker, 1968). It argues that development alters the traditional benefit-cost calculus of traditionally illicit activity. The combination of new wealth and the anonymity afforded by migration produce rising benefits for crime and falling costs. This model seems especially appropriate for the tourism-dependent Caribbean since visitors present easy and lucrative targets because they carry much portable wealth, lack caution and are in unfamiliar surroundings. The risk of detection and punishment, the costs of criminality, is perceived to be lower because tourists are less likely than residents to report if victimized, to identify their assailants, or return for trial. This model has received some empirical backing (Harper, 2001; de Albuquerque & McElroy, 1999a).

Two other related theories of Caribbean crime involve absolute deprivation and the subculture of violence. The former argues that increasing poverty, as measured usually by rising unemployment, provides the rationale for crime as a subsistence or survival strategy. Yet attempts to test this model have failed (Forst & Bennett, 1998). The latter focuses on the growth of a class of disenfranchised urban youth who lack access to legitimate opportunity, develop their own street rules and resort to criminality as a way of life. Harriott (2003) uses this gang subculture to explain the embeddedness of violence in Jamaica.

Finally, many authors implicate the growth of drug (cocaine mainly) running through the island chain from Colombian producers to North American consumers. Since trafficking was deflected by the tightening of the Mexican border by U.S. authorities, the archipelago has become a major cocaine (and heroin) corridor. Evidence of this expanding narcoeconomy is indirect and fragmentary but mounting. According to Griffith (2003, p. 4), the most dramatic increases in crime have involved robbery, theft, homicide and serious assault or precisely those crimes associated with drugs. Other indications include increases in the use of firearms, in the role of hard-core youthful offenders, in the number of perpetrators who are addicts, in the incidence of gang warfare and multiple murders and the killing of innocent bystanders (Harriott, 2003). However, because of the clandestine and unmeasured nature of this contraband trade, it has been difficult to empirically validate the narco hypothesis. In fact, it has been difficult to clearly establish any of these various crime theories for at three reasons: (1) the limited quality and quantity of the data; (2) the distortions introduced into the data by the spread of the narcoeconomy; and (3) the highly complex nature of the crime phenomenon itself.

Method

This study provides a very provisional cross-national test of the major determinants of crime in the Caribbean. It constructs a model that assumes crime is the result of a myriad of complex forces, and that the most important of these influences can be captured by the various theories discussed above: opportunity cost, absolute deprivation, subculture of violence, and spread of the narcoeconomy. This multivariate model further assume that no one theory exhausts the causes of crime but that in reality all are at play interacting together. Because previous research has been hampered by comparability shortcomings of data across a range of countriesnational differences in crime reporting, recording, and classificationinternationally standardized Interpol crime rates

were used (per 100,000 population) for the dependent variables: murder and theft to represent violent and property crime respectively, and the number of drug offenses to capture indirectly the influence of the narcoeconomy.

The independent variables were selected to correspond to major determinants identified in the four crime theories. First, to test the opportunity cost influence, the average daily visitor density (per 1,000 population) was employed to represent the presence of visitors or lucrative targets (benefits), and overall population density was selected to represent degree of anonymity or probability of detection (costs). Second, because of its common usage, the unemployment rate was selected to test the absolute deprivation or poverty hypothesis. Third, the percent of the population 0-14 years was used loosely as a surrogate measure for the presence of juvenile offenders, and more indirectly the presence of a hard-core subculture of disenfranchised youth. The variable was chosen over 15-64 years for two reasons: (1) ready availability, and (2) its narrowly defined and less inclusive character.

Finally, political status was used as a dichotomous proxy indicator for crime enforcement capacity. It was assumed that independent countries (scored as 1.0), which tend to be larger, would have more resources and stronger capabilities while dependent islands (scored as 0.0), which tend to be smaller, would have less. In terms of the narco thesis, it was further assumed that traffickers would avoid high-enforcement islands in favor of the weaker, low-enforcement territories. Likewise it was argued that traffickers would have a natural preference for transiting drugs through dependencies because of their preferential access to metropolitan markets in North America and Europe. Consequently, political status was hypothesized to be negatively related to crime while all other independent influences were assumed to be positively related.

The independent variables were tested against the three crime rates using OLS multivariate regression analysis. To avoid possible distortions introduced by the 2001 terrorist attackssince U.S. visitors dominate island tourism and tourism dominates the island economyyears chosen ranged from 1995-2000 based on data available for each individual country (see Appendix). Only 16 countries had complete information. They included: Antigua/Barbuda, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, Dominican Republic, Grenada, Guyana, Jamaica, Montserrat, Puerto Rico, St. Kitts/Nevis, St. Vincent/Grenadines, Trinidad/Tobago, and Turks/ Caicos. Eleven were politically independent and five were dependent.

Results

Table 1 records results of the provisional cross-national analysis. According to Equation 1, across the sixteen-country sample none of the independent influences affected levels of violent crime as measured by the murder rate. This is not unexpected since most previous research has largely been unable to scientifically predict violent crime or has uncovered only weak relationships. On the other hand, Equation 2 shows that over a third of the variation in property crime, as measured by theft, could be explained by the multivariate model. However, only unemployment and visitor density were statistically significant predictors of theft. The other influencespopulation density measuring anonymity, political status measuring enforcement capacity, and percent of the population 0-14 years measuring the potential pool of youthful offendershad no impact.

Further experiments omitting these insignificant variables revealed Equation 3 as the best-fit model to explain property crime. It indicates that 35 percent of theft is associated with changes in

unemployment and visitor density in the same direction. Higher levels of visitation and higher rates of unemployment are conducive to higher levels of theft. These results tend to partially confirm the opportunity-cost and absolute deprivation theories, i.e. that the presence of visitors provides jobless residents with relatively low-cost chances to steal from persons unfamiliar with their surroundings, and/or their hotel rooms or rental cars. Of the two influences, visitor density is the more important, accounting for 85 percent of the theft variation explained by the model and 30 percent of total theft variation. For the sixteen-country sample, the results clearly demonstrate the link the between visitor presence and property crime often noted in the literature.

(Table 1 about here)

As an indirect test of the presence of the narcoeconomy, the independent variables were tested again the rate of drug offenses. According to Equation 4, the most important influence on drug offenses is visitor density, which is highly statistically significant (see Table 1). The close linking of these two variables tends to corroborate the observed evidence of rising visitor harassment and drug peddling among street vendors around shopping areas, beaches and nightclubs (WTTC, 2004, p. 58). Further experiments with various combinations of factors yielded the best-fit model in Equation 5. Accordingly over 70 percent of the variation in drug offenses is explained by the combined interaction of visitor presence and population density. This suggests a fairly strong confirmation of the opportunity cost theory. Popular tourist destinations provide not only abundant opportunities for criminally related drug activity in terms of lucrative targets (visitor density), but also they product the kind of crowding and anonymity (population density) that obstruct detection. On the other hand, in this sample of countries drug enforcement capacity, poverty and the share of the youthful population had no impact on the rate of drug offenses.

Implications

At least three conclusions flow from this analysis. First, in this limited sample of countries during the late 1990s, Caribbean crime is closely association with the presence of visitors. In the relatively sluggish countries with high unemployment, the influx of large numbers of affluent carefree visitors explains over a third of recorded theft. In relatively crowded islands, the same tourist flows explain over two thirds of drug offenses. Thus, crime seems to be a negative externality of island tourism development. Second, the best explanation for island crime in this small sample is the opportunity cost model linking rising benefits (targeted visitors) with falling costs (crowded surroundings). Third, the studys strongest result involved predicting drug offenses. Een though it did not purport to directly measure drug trafficking and its associated evils (money laundering, gun smuggling, corruption, etc.) this outcome does suggest the active presence of the narcoeconomy alluded to by many writers. It seems particularly plausible given the common practice whereby traffickers are often paid in drugs and thus must sell (or push) their payments in kind to realize their incomes.

The sheer size of drug trafficking across the islands has become a major concern. Its value approaches $5 billion (McElroy, 2005). This figure exceeds the value of all merchandise exports (petroleum, aluminum ore, rum etc.) of all the islands combined. It also dwarfs the GDP levels of three fourths of the islands taken separately, as well as the total tourism economic impact of all but the three largest: Cuba, Dominican Republic and Puerto Rico. In addition, it generates an estimated $60 billion every year in organized crime money laundering through the islands

offshore finance sector. Finally, according to Harriott (2002, p. 12) illegal payoffs to public officials and cooperating functionaries to look away provide Caribbean civil servants with some $320 million in income annually. The footprint of the narcoeconomy is widespread and deep.

Conclusion

Serious criminality is increasing across the Caribbean. Its determinants are deep-rooted and complex, but in a limited cross-sectional analysis of 16 countries, some form of the opportunity cost theory was able to explain roughly a third of property crime as measured by theft, and two thirds of drug-related offenses. Just as important, the analysis provided evidence of the growing presence of the narcoeconomynow the largest merchandise export sector in the regionthat lurks underneath the Caribbeans crime and social reality. Given its alarming economic size and its vast reach across the archipelago, narco trafficking has negative long-run implications for visitor safety and resort investment, and associated money laundering is tarnishing the legitimacy of offshore finance.

These two pillars of contemporary Caribbean economy are under threat during an era of intensifying tourism competition from growing markets in Eastern Europe and Asia as well as during a period of macroeconomic instability as the Caribbean grapples with falling terms of trade and export preferences for traditional staples (sugar, bananas) and diplomatic, the loss of manufacturing jobs to Mexico through NAFTA, and the loss of aid with diplomatic downgrading since the fall of Communism. For these reasons, more comprehensive and systematic research is warranted on the determinants of Caribbean crime in general and the patterns of drug activity in particular.

References

Alleyne, D & I. Boxill (2003) The impact of crime on tourist arrivals in Jamaica. In A. Harriott (Ed.), Understanding crime in Jamaica: New challenges for public policy (pp. 133-156). Kingston, JA: U. of West Indies Press.

Becker, G. (1968) Crime and punishment: An economic approach. Journal of Political Economy, 76, 169-217.

Central Intelligence Agency. (2002) The World Factbook. Washington, DC: USGPO. http://www/cia/gov/cia/publications/factbook/index.html

de Albuquerque, K. & J.L. McElroy (1999a) Tourism and crime in the Caribbean. Annals of Tourism Research, 26, 968-984.

de Albuquerque, K. & J.L. McElroy (1999b) A longitudinal study of serious crime In the Caribbean. Caribbean Journal of Criminology and Social Psychology, 4, 32-70.

Forst, B. & R.R. Bennett (1998) Unemployment and crime: Implications for the Caribbean. Caribbean Journal of Criminology and Social Psychology, 3, 1-29.

Griffith, I.L. (2003) Caribbean security in an age of terror: Challenges of intrusion and Governance. In D. Benn & K.O. Hall (Eds.), Governance in an age of globalization: Caribbean perspectives (pp. 383-415). Kingston, JA: Ian Randle.

Harper, D.W. (2001) Comparing tourists crime victimization. Annals of Tourism Research, 28, 1053-1056.

Harriott, A. (Ed.) (2003) Understanding crime in Jamaica: New challenges for public Policy. Kingston, JA: U. of West Indies Press.

Harriott, A. (2002) Crime trends in the Caribbean and response. Kingston, JA: U. of West Indies Press/UN Office of Drugs and Crime.

Interpol (2004) International crime statistics. Lyon, FR: General Secretariat. http://www.interpol.com/public/statistics/ICS/Default.asp

King, J.W. (2003) Perceptions of crime and safety among tourists visiting the Caribbean. In A. Harriott (ed.), Understanding crime in Jamaica: New challenges for public policy (pp. 157-175). Kingston, JA: U. of West Indies Press.

Leggett, T. (2000) Crime as a development issue. In M. Shaw (Ed.), Conference on Crime in transitional societies (pp. 141-150). Johannesburg, SA: U. of Witwatersrand (September).

Levantis, T. & A. Gani (2000) Tourism demand and the nuisance of crime. International Journal of Social Economics, 27, 959-967.

McElroy, J.L. (2005) The growth of the Caribbean narcoeconomy: Implications for Tourism. In Y. Mansfield & A. Pizam (Eds.), Tourism & security: A case Approach. London: Butterworth Heinemann (forthcoming).

McElroy, J.L. & K. de Albuquerque (1998) Tourism penetration index in small Caribbean islands. Annals of Tourism Research, 26, 145-168.

Padilla, A. & J.L. McElroy (2004) The tourism penetration index: Case of the Dominican Republic. Journal of Sustainable Tourism (forthcoming).

World Travel and Tourism Council (2004) The Caribbean: The impact of travel and Tourism on jobs and the economy. London: WTTC. http://www.wttc.org/measure/PDF/CaribbeanFULLTSA.pdf

Table 1. Determinants of Crime: Regression Results

Equation	Depend. Var.	Independ. Var.	Reg. Coeff.	t-value	R2	F-value
1	Murder	Unemployment	-0.194	-0.32	0%	0.62
		Population Dens.	-0.002	-0.20		
		Visitor Density	-0.035	-0.69		
		Political Status	7.726	1.00		
		Pop. 0-14 years	-0.014	-0.02		
2	Theft	Unemployment	164.99	2.91**	39.2%	2.94

Population Dens. 1.206 1.24
Visitor Density 12.231 2.53*
Political Status -712.3 -0.97
Pop. 0-14 years 2.12 0.03

3. Theft Unemployment 132.47 2.50* 35.0% 5.03
Visitor Density 13.44 2.93**

4 Drugs Unemployment 13.030 0.76 71.3% 8.45
Population Dens. 0.431 1.40
Visitor Density 7.040 4.81***
Political Status 28.700 0.13
Pop. 0-14 years -32.32 -1.53

5 Drugs Population Dens. 0.625 2.42* 72.4% 20.7
Visitor Density 6.775 5.91***

Sources: For crime rates, Interpol (2004); for independent variables, World Factbook (CIA, 2002); for visitor density, Padilla & McElroy (2004).

Notes: 1. The critical t-values at the 0.05 level of statistical significance for 10 and 13 degrees of freedom are 1.81 and 1.77 respectively.

2. Asterisks represent levels of statistical significance: (*) = 0.025, (**) = 0.01 and (***) = 0.005.